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**THE STRATEGIC FIT BETWEEN BOARD OF DIRECTORS CHARACTERISTICS
AND THE EXTERNAL ENVIRONMENT, AND ITS EFFECT ON FIRM REPUTATION**

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ABSTRACT

This study integrates upper echelons and contingency perspectives in examining the effects of boards of directors on firm reputation. First, using upper echelons theory, I derive hypotheses about how the human and social capital, and the demographic characteristics of the board affect corporate reputation. Second, I examine how fit with an ideal profile of board characteristics -- including board expertise, board social capital, and board demographic diversity -- impacts firm reputation. Finally, using a contingency perspective, I look at how the importance of fit with the ideal profile varies across different environmental characteristics. My results indicate that board-level expertise, social capital, and gender diversity have positive effects on firm reputation. Moreover, misalignment from the ideal board profile based on these three characteristics has a negative effect on firm reputation, and this effect is stronger for firms operating in industries with high need for legitimacy. This study seeks to contribute to strategy research and practice by proposing that corporate governance research and managerial practice can benefit from a perspective that considers a more nuanced picture of the board of directors.

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INTRODUCTION

In the past decade, boards of directors have become “the center of gravity for corporate authority and oversight” (Steingraber and Kane 2010). Although board composition differs widely in terms of the individual directors’ demographic characteristics and career paths (Fich 2005; Norburn and Birley 1988; Useem and Karabel 1986), corporate governance scholars have focused their attention on the study of team-level structure variables (such as board size, proportion of outsiders, number of interlocks) on corporate strategy and performance, while neglecting the study of the individual members of these boards and the context within which they operate (Hillman, Nicholson, and Shropshire 2008; Huse 2005; Jensen and Zajac 2004; Petrovic 2008). This focus on board structure variables originates in the preponderance of agency theory and resource-dependence theory as theoretical frameworks for the study of corporate governance (Hillman and Dalziel 2003; Nicholson and Kiel 2007; Petrovic 2008; Rindova 1999). Although these theories have provided good theoretical explanations and led to corporate governance reforms, they have proved to be of limited usefulness in explaining the link between board structure and firm performance (Dalton et al. 1998; Dalton et al. 1999). Thus, in order to understand how board governance impacts important firm-level outcomes, it may be valuable to look to other strategy lenses that have helped researchers to better understand the role of directors in strategy formulation, problem-solving, and firm growth (Jensen and Zajac 2004; Lynall, Golden, and Hillman 2003; Petrovic 2008).

Upper echelons (UE) theory and contingency theory can illuminate the relationship between board composition, the firm’s external environment, and the company’s reputation. I

use these theories to discuss how the strategic fit of board characteristics with the firm's environment would impact the firm's reputation.

The aim of this paper is to integrate upper echelons and contingency perspectives in the study of the impact of the board of directors on firm reputation. First, using upper echelons theory, I derive hypotheses about how the human and social capital, and the demographic characteristics of the board affect corporate reputation. Second, I examine how fit with an ideal profile of board characteristics -- including board expertise, board social capital, and board demographic diversity -- has an impact on firm reputation. Finally, using a contingency perspective, I look at how the importance of fit with the ideal profile varies across different environmental characteristics. This study seeks to contribute to strategy research and practice by proposing that corporate governance research and managerial practice can benefit from a perspective that considers a more nuanced picture of the board of directors.

Several reasons differentiate my theoretical model from previous management research. First, although my study is rooted in upper echelons theory, I center on the board of directors. Although in the last decade a number of researchers have begun to use the UE perspective to study directors (Golden and Zajac 2001; Goodstein, Gautam, and Boeker 1994; Rindova 1999), the CEO and the executive team remain the focus of most upper echelons research. Second, I consider the issue of fit between board composition and the firm's environment as a key element of a company's strategy. I examine fit along a number of dimensions including board expertise, board social capital, and board demographic diversity. As a result, this board composition-environment fit goes beyond current governance prescriptions --which, for instance, indicate that a board with a majority of independent directors is always best-- to determine what is the optimal board composition given a company's current environment. Finally, I study the effect of the

board of directors on corporate reputation. There is very little research on the antecedents and outcomes of corporate reputation (Lange, Lee, and Dai 2011), an increasingly important asset that has received scant attention in corporate governance research (Bernasek 2010; Miller and Triana 2009). Corporate reputation impacts a variety of strategic outcomes, including organizational performance (Dawar and Parker 1994; Haynes and Hillman 2010; Roberts and Dowling 2002; Tonello 2007). Although directors' characteristics have been linked to firm performance, we still have little understanding of their effect on corporate reputation -- one of the drivers of performance. Companies can use the characteristics of the members of the boards as signal of their own characteristics. Thus, through their association with desirable directors, firms may bolster their own reputation (Certo 2003; Withers, Hillman, and Cannella 2012).

The specific research questions I seek to answer in this study are: *How do the human and social capital and the demographic characteristics of the board affect a firm's reputation? Is there an "optimal" board composition given a company's environmental conditions (dynamism, complexity, and need for legitimacy)? Does the fit between board characteristics and environment affect firm reputation?* To answer these questions, I build on insights from Hambrick and Mason's (1984) upper echelons theory of strategy, and contingency theory (Hofer 1975; Venkatraman 1989). As part of the organizational upper echelons, the current roles of the members of the board of directors increasingly go beyond monitoring and controlling the power of managerial agents. The board of directors must also participate in strategy formulation and the provision of resources, and are increasingly responsible for the organization's reputation and performance (Baysinger and Hoskisson 1990; Golden and Zajac 2001; Goodstein, Gautam, and Boeker 1994; Hillman and Dalziel 2003). However, we need to determine the conditions that affect the board's ability to successfully fulfill these roles. As Donald Hambrick aptly puts it:

“Boards matter immensely, especially under certain circumstances.” (Hambrick, Cannella, and Pettigrew 2001:39)

I seek to contribute to the strategic management field in multiple ways. First, I study the effect of boards on firm reputation, a dependent variable that has rarely been explored in corporate governance research. Although there has been some recent interest on how boards can safeguard a firm’s reputation (Tonello 2007), there has been a lack of attention on the issue of how board members by virtue of their own reputation, personal and professional capital, and social standing are building blocks of the reputation of the firms in which they serve. Directors may enhance the status and credibility of their firms (Daily and Schwenk 1996; Hambrick and D’Aveni 1992) and thus, I see the directors as both drivers and guardians of the firm’s reputation. According to a popular newsletter for corporate directors:

Directors are in a unique position. They’re not as visible as CEOs, but they are the embodiment of how well a company is governed, over and above its day-to-day operations. What will go a long way to restore public confidence in business is the perception that those who govern corporate America are doing their best and taking their responsibilities seriously, willing to take action quickly when warranted, and intensely focused on business decisions that will have an impact on shareholders, employees, or society (Dilenschneider and Ettore 2009).

Second, I aim to answer calls for research about what constitutes a good board (Muth and Donaldson 1998; Van den Berghe and Levrau 2004) by establishing the characteristics of an ‘ideal’ board. Specifically, I want to identify what is the best configuration of a board of directors in terms of its individual constituents, going beyond the insider/outsider labels. However, I contend the characteristics of these ‘ideal’ boards are contingent on the environment in which the firm operates (Zahra and Pearce 1989). Finally, I seek to understand how a board’s fit with this ‘ideal’ board profile affects firm reputation – a position also rooted in contingency theory (Venkatraman 1989).

In the sections that follow, I start by reviewing the literature on upper echelons and board of directors. I also present a brief review of the literature on firm reputation as a strategic asset. I then present my conceptual model and hypotheses. Finally, I delineate the next steps in testing my models, and offer discussion, and implications for theory and practice.

THEORETICAL BACKGROUND

Upper Echelons and Board of Directors

The characteristics of top management teams (TMTs) and their influence in strategic decisions have been at the front of strategic management research since Donald Hambrick and Phyllis Mason formulated the Upper Echelons (UE) theory in 1984 (Hambrick and Mason 1984). A widely cited theory (Carpenter, Geletkanycz, and Sanders 2004), UE emphasizes the effect of top managers in organizational outcomes, through their influence in the firm's strategic choices (Hambrick and Mason 1984). This perspective has motivated research in several specific areas, like the study of boards and directors, chief executive succession, selection and compensation, and the relationships between the composition of TMTs (e.g. functional or demographic) and different aspects of the organization (Pettigrew 1992).

Upper echelons theory focuses on the study of TMTs according to the observable characteristics of its members. Demographic characteristics are the variables of choice in studies of the managerial elites for reasons best summarized by Pfeffer (1983:352) as: "parsimony, comprehensibility, logical coherence, predictive power, and testability". These observable characteristics are thought to influence the behaviors, preferences and values of the individuals. Demographic characteristics are used as proxies, because direct cognitive and psychological measures are more difficult to operationalize and measure (Carpenter, Geletkanycz, and Sanders 2004; Hambrick and Mason 1984). In their initial formulation of UE theory, Hambrick and Mason (1984) proposed that both psychological and observable characteristics of the upper echelons determine organizational performance through their influence on strategic choices. The observable variables initially proposed by Hambrick & Mason (1984) included age, functional tracks, other

career experiences, education, socioeconomic roots, and financial position. These variables, however, were not meant to be exhaustive and demographic characteristics like race and gender have been included in recent studies of upper echelons (Carpenter, Geletkanycz, and Sanders 2004; Richard et al. 2004; Westphal and Milton 2000). Moreover, study of the TMT involves an understanding of both the central characteristics of the entire team, and the intra-team variance, or group heterogeneity (Hambrick and Mason 1984).

In addition to focusing on demographic characteristics, upper echelons theory also emphasizes the study of an entire group, the TMT (Hambrick and Mason 1984). Different definitions of this group have been used, and there is still controversy about the boundaries for inclusion of individuals as members of the top management team (Carpenter, Geletkanycz, and Sanders 2004). More traditional definitions of TMT include only a company's executives, whereas a more broad definition known as supra-TMT incorporates the board of directors as well as the executives (Finkelstein and Hambrick 1996; Jensen and Zajac 2004). Using the traditional definition of TMT as encompassing only a company's executives, studies consistently support the upper echelons propositions (Carpenter, Geletkanycz, and Sanders 2004; Hambrick 2005). For instance, the cognitive characteristics of top executives have been associated with the strategies chosen by companies, the international experience of the TMT has been related to the internationalization of a firm's strategies, and the executives' educational level has been related to innovation in a variety of industries (for a review see Hambrick 2005).

A second line of research extends the definition of the TMT to study the effects not only of the firm's executives but also the board's influence on company strategy (Rindova 1999). This research can be divided into three different streams. First, a stream of research that specifically uses an upper echelons perspective to examine the role of board of directors in a variety of strategic

choices but uses board structural variables - like board size, proportion of outsiders, and CEO duality among others – rather than the demographic variables traditionally used in upper echelons research. For instance, Chaganti, Mahajan, and Sharma (1985) studied the differences in board size, composition (outsider proportion), and number of positions held by the chairman between bankrupt and nonbankrupt firms in the retail industry, and found that non-failed firms tend to have larger boards. Mueller and Barker (1997) compared board size, board composition, and other TMT characteristics (size, CEO duality, change in composition pre-decline) between turnaround and non-turnaround declining firms and found that turnaround firms are more likely to have dual CEOs, medium-size boards, and more independent boards than non-turnaround firms. Combining institutional and upper echelons theory to study the role of board involvement in strategic decision making, Judge and Zeithaml (1992) found that both the proportion of insiders in the board of directors and board size are negatively related to board involvement in strategic decision making.

In Upper Echelons theory “primary emphasis is placed on observable managerial characteristics as indicators of the givens that a manager brings to an administrative situation.” (Hambrick and Mason 1984: 196). Following this approach a second stream of research, which also extends the definition of TMT to include the board, uses demographic variables proposed by upper echelons theory but does not use the theory itself to hypothesize relationships or explain its findings. This group of papers uses measures such as gender, functional background, or age as proxies for the cognitive and emotional frameworks of top managers, but do not refer to upper echelons theory. In this line of research, Goodstein, Gautam and Boeker (1994) found that board diversity, as measured by the heterogeneity of occupational or professional backgrounds, reduces the initiation of strategic changes; and also that when board diversity is taken into account, the proportion of outsiders on the board has no effect on strategic change. Golden and Zajac (2001) also found that a number of

demographic characteristics of the board of directors – namely board age, tenure, occupational heterogeneity, the proportion of members from business occupations – affect strategic change.

Finally a third and much smaller stream of research uses an upper echelons lens both as starting point for theorizing about the effects of the supra TMT on board strategy, and as a source for the operationalization of the variables of interest. Based on resource dependence theory (RDT) and upper echelons theory, Hillman, Cannella, and Paetzold (2000) developed a typology of the resource-dependence roles of board of directors and found significant changes in board composition, as measured by the professional and occupational background of the directors, before and after deregulation in the US airline industry. Jensen and Zajac (2004) studied the effect of the board of directors' financial background on organizational levels of diversification. These authors first studied the full board of directors and then disaggregated into executive and non-executive directors, and found that “rather than focusing on the corporate elites as an aggregate whole, one should distinguish between all the different subgroups of corporate elites that occupy similar governance position” (Jensen and Zajac 2004:521). An interesting application of the separation of TMT into executives and directors to further our understanding of strategic phenomena, is Yasemin Kor's (2006) study of R&D investment strategy in high-tech firms, in which she studies the effects of managers' tenure, shared team-specific experience, and functional background heterogeneity on R&D intensity and additionally evaluates how board independence and CEO duality moderate this relationship. This study belongs to a new line of research in entrepreneurship which has broadened the application of upper echelons theory to include the board of directors, because in entrepreneurial firms the actions of executives and directors are more intertwined. For example, Boeker and Wiltbank (2005) found that a board composition variable – proportion of outsiders – had no effect on changes in the top management team, whereas

a demographic variable – proportion of venture capitalists – was positively related to change in top management. Carpenter, Pollock & Leary (2003), studied the international strategy of high-technology IPO firms and found that the global experience of the board of directors strengthened the positive relationship between insider ownership and global risk-seeking. Also studying technology intensive firms, Kor and Misangyi (2008), found that the managerial industry experience of outsiders in the board of directors supplements the lack of experience of the executives in young entrepreneurial companies.

I position my study under this third line of inquiry: an upper echelons perspective for both theory development and empirical testing of the effects of board of directors. I posit that the extension of upper echelons theory beyond the TMT to the study of the board of directors is pertinent for several reasons: First, upper echelons theory's focus on the characteristics of top managers and their effects on firm-level outcomes can serve as basis to establishing effective procedures for director selection, education, and compensation which have become increasingly important as directors are ever more involved in strategy formulation and implementation. Second, as baby boomers move into the board room, the role of director will become increasingly professionalized and the characteristics and qualifications of directors will be more carefully scrutinized by governance activists, investors, and authorities (McLean 2006). For example in December of 2009, the U.S. Securities and Exchange Commission (SEC) amended its rules regarding proxy solicitation and information statements to enhance the information companies provide shareholders and the public regarding the background and qualifications of directors and how the board considers diversity in the nomination and selection of board members (SEC Release No.. 33-9089);. Additionally, creating the right board “is no longer about finding the perfect CPA for the audit committee, a savvy CEO from a peer industry or a sharp academic who's a tennis

whiz at the club” (Warner et al. 2010). According to Peter R. Gleason, managing director and CFO of the National Association of Corporate Directors (NACD), creating boards, replacing directors, and board succession planning require multiple approaches such as “recruiting skill sets versus recruiting names. You have to constantly look at what you need and what you have”. The evolution of the board of directors should help the company to reduce experiential overlaps and close professional gaps, according to both current and possible future challenges faced by the firm (Peter R. Gleason cited by Warner et al. 2010).

This idea of creating the right board, with the skills and experience necessary for the company to successfully face the challenges presented by the environment (Nadler 2004; Zahra and Pearce 1989), poses two questions: What is “the right board”? And what environmental factors should companies take into account when thinking about creating this “right board”? Using the concept of fit can help to answer these two questions.

The Contingent Effect of the Board of Directors

Although early strategy scholars were interested in understanding how environmental variables such as the product life cycle and organizational variables like diversification affect the relationship between different corporate strategies and firm performance, contingency theory gained prominence in strategy research when in 1975 Hofer noted that:

Unless one is willing to admit the possibility that there exists some strategy or set of strategies which are optimal for all businesses (corporations) no matter what their resources and no matter what environmental circumstances they face - an assumption that is inconsistent with all research studies on business (corporate) strategy conducted to date - any theory of business (corporate) strategy must be a contingency theory (Hofer 1975: 785-786).

According to contingency theory "the best way to organize depends on the nature of the environment to which the organization relates" (Scott 1992: 89). Thus, no strategy is considered "universally superior" (Venkatraman 1989: 424), and the effects of each strategy are dependent – or contingent – on factors like the organization's environment, size, and strategy among others (Donaldson 2001; Hofer 1975). Although some researchers have criticized contingency theory for its lack of clarity (Schoonhoven 1981), for ignoring the role of culture in organizations (Child 1981), and for problems in the conceptualization of the environment and its lack of universal prescriptions (Tosi and Slocum 1984), this perspective has been widely used in strategy research (see Donaldson 2001 for a review).

Although corporate governance scholars have rarely considered the context in which boards of directors need to operate (Carpenter 2002; Petrovic 2008; Zahra and Pearce 1989) the application of contingency theory to the study of TMTs and boards of directors is appropriate for at least two reasons. First, managers – and directors—'create the organization's relevant environment' because 'those environmental conditions that go unnoticed or are deliberately ignored have little effect on management's decisions and actions' (Miles and Snow 1978: 20). Second, managers and directors are responsible for the alignment between the organization and its environment. They can both adjust the organization to environmental demands and attempt to change the environment to fit better with what the organization does (Miles and Snow 1978). Because the organization cannot be successfully aligned with the environment unless it has adequately assessed said environment, companies need to retain managers and directors that are capable of adequately scanning the environment and identifying the elements that are crucial to achieve superior performance. As Zahra and Pearce (1989:299) aptly put it 'boards do not just exist or match environments; rather, boards are designed and developed to achieve this fit'.

Firm Reputation as a Strategic Asset

According to Fombrun and Rindova (cited by Fombrun and van Riel 1997: 10), a corporate reputation is “a collective representation of a firm's past actions and results that describes the firm's ability to deliver valued outcomes to multiple stakeholders. It gauges a firm's relative standing both internally with employees and externally with its stakeholders, in both its competitive and institutional environments”.

This definition highlights three important aspects of reputation. First, because it is an external perception companies may try to change their reputation; however, corporate reputations are largely outside the control of managers (Fombrun and Shanley 1990). Second, it results from the combined perceptions of disparate stakeholders, and thus affects a broad range of outcomes, such as purchase intentions, decisions to invest in the company, likelihood of recommending the company and/or its products, and intentions to work for the company (Fombrun and Shanley 1990; Rao 1994). Finally, a firm's reputation has meaning when compared to the reputation of its competitors. That is, the full benefits of reputation accrue to the most reputable firms *vis-à-vis* their rivals. These benefits include a variety of important organizational level-outcomes such as the quality of job applicants, access to capital markets, attractiveness to investors, and ability to charge premium prices, and long-term financial performance (Dawar and Parker 1994; Lange, Lee, and Dai 2011; Roberts and Dowling 2002; Tonello 2007).

Lange, Lee, and Dai (2011) identify three conceptualizations of corporate reputation in the business literature: ‘being known’, ‘being known for something’, and ‘generalized favorability’. ‘Being known’ refers to the firm's prominence and the stakeholder's awareness – without judgment - of the firm (Barnett, Jermier, and Lafferty 2006). Conversely, ‘being known for something’ involves the stakeholder's evaluation of specific attributes of the company, such

as quality, social responsibility, service, among others (Love and Kraatz 2009). Finally, ‘generalized favorability’ represents an overall positive assessment of the firm – rather than the evaluation of a single attribute.

I focus on the strategic view of corporate reputations. In this view, reputations derive from signals that originate in the firm and develop over time through repeated interactions between the organization and its stakeholders (Weigelt and Camerer 1988). In strategy, reputations are considered intangible assets that develop over long periods of time, are difficult for competitors to imitate and thus can be considered a barrier to entry into an industry for new firms (Caves and Porter 1977; Roberts and Dowling 2002). More importantly, a good reputation seems to create a virtuous cycle in which the market signals of good financial performance improve reputation and this in turn further improves financial performance (Roberts and Dowling 2002).

Summary of the Literature and Assumptions

My approach to the study of board of directors is rooted in upper echelons, resource dependence, and contingency theory. Hambrick and Mason (1984), Rindova (1999), and Carpenter, Geletkanycz, and Sanders (2004), represent the evolution of upper echelons theory. My extension of UE theory to the study of board of directors follows the studies of Finkelstein and Hambrick (1996), Mueller and Barker (1997), and Jensen and Zajac (2004), who have argued for the inclusion of directors on research about the effects of top management teams on organizational strategy. In the extension I propose, I use upper echelons to define the characteristics of the ideal board of directors. Additionally, I use contingency theory to test how the deviation from this ideal profile affects firm reputation. My assumptions, constructs, and

model are generally supported by existing management research. First, the role of the boards has evolved from monitoring and provision of advice and resources to strategic decision making and strategy implementation (Baysinger and Hoskisson 1990; Forbes and Milliken 1999) and therefore it is important to look closely at characteristics of the boards of directors that have not been thoroughly explored by previous research. Second, the concept of ‘fit’ has been extensively used in strategy research, yet the perspective of ‘fit as profile deviation’ has not been applied to the study of the board of directors. Third, my theoretical conceptualization and underexplored empirical determination of the “right board of directors” has support in the literature and holds potential to contribute to research about the structure of the board of directors and also to management practice by providing a framework for the selection of board members. Fourth, firm reputation – my dependent variable – has been overlooked in board research despite the positive effect of corporate reputation on several important firm-level outcomes. And fifth, the contingent nature of the effects of board of directors has usually been tested using firm performance as the relevant outcome. I propose that we also need to determine the relevant environmental conditions to understand the effect of boards of directors on organizational reputation.

HYPOTHESES DEVELOPMENT

The question of what is the “right board” can be approached using different theoretical lenses. In corporate governance research, this question has traditionally been answered using agency and resource dependence theories. For instance, using agency theory many scholars have tested the effects of the proportion of outside directors, chairman/CEO duality, and other board composition variables on CEO compensation, firm performance, the use of greenmail, and many other outcomes (e.g. Baliga, Moyer, and Rao 1996; Conyon and Peck 1998; Kosnik 1987; Van den Berghe and Levrau 2004). Yet, the results of these studies have been contradictory and in a 1998 meta-analysis of 54 studies of board composition and 31 studies of board leadership structure, Dalton *et al* (1998) found little evidence of a relationship between these variables and firm performance.

Using resource dependence theory (RDT), management researchers have tried to find out what is the right board by investigating the role of board size, and the background of directors like bankers, attorneys, former government officials, etc. on corporate strategy and performance (e.g. Agrawal and Knoeber 2001; Hillman, Cannella, and Paetzold 2000; Mizruchi and Stearns 1994; Pfeffer 1972). A meta-analysis of 131 samples found a positive relationship between board size and performance (Dalton et al. 1999), a finding consistent with RDT’s proposition that a larger board provides more linkages to the environment and enhances the firm’s access to important resources. I propose that in addition to these agency and RDT perspectives, upper echelons theory can also help to establish some of the characteristics that define “the right board”.

Demographic characteristics of the board and firm reputation

The demographic characteristics of the board of directors of the most successful companies can serve as a starting point in determining an ideal board profile. Although upper echelons research has mostly studied the characteristics of executives – mainly CEOs – other members of the board should also be considered in studies of TMTs, particularly in light of their increasing involvement in corporate strategy (Bezemer et al. 2007; Jensen and Zajac 2004; Pugliese et al. 2009).

I have developed the characteristics of the ideal board theoretically, based on numerous studies on the relationship between the demographic characteristics of executives and firm reputation. Based on upper echelons theory, I put forward that expertise, social capital, and demographic characteristics are relevant dimensions in determining the ideal board profile.

The resources provided by directors are derived from their human and social capital (Kor and Sundaramurthy 2009; Lester et al. 2008). According to Kor and Misangyi (2009: 982) human capital “refers to an individual’s set of knowledge and skills” or what Amabile (1999: 5) has called expertise, a concept that “encompasses everything that a person knows and can do in the broad domain of his or her work”. Social capital on the other hand, “refers to an individual’s ability to access resources through relationships” (Kor and Sundaramurthy 2009: 982). The human and social capital of directors are related to their ability to provide strategic advice and information, and exercise control over top managers’ decision making – the two main roles of directors (Hillman and Dalziel 2003; Mizruchi 2004). However, despite the importance of the link between directors’ expertise and social capital and their ability to contribute to strategy and monitoring, this area of research has been rarely explored (Kor and Sundaramurthy 2009). More research effort has been dedicated to a third, more observable characteristic of boards, namely their demographic diversity

(Erhardt, Werbel, and Shrader 2003; Walt and Ingley 2003). Demographic diversity refers to the representation of gender, race, and age differences on board of directors. This diversity has been posited to create a larger pool of knowledge and foster creativity, thus promoting innovation and better performance (Watson, Kumar, and Michaelsen 1993). Thus, I consider three factors that give boards the capacity to effectively influence firm reputation: their human capital, social capital, and demographic diversity of directors.

In order to be able to furnish a high level of advice and information, directors need to draw from a large pool of knowledge, experience, and skills (Forbes and Milliken 1999; Rindova 1999). What people know and can do, depends on factors like their formal education, practical experience, or interaction with other professionals (Amabile 1999). Thus, expertise is acquired through a long process in which people not only gain new knowledge and skills, but also increase their social capital, get to know the nitty-gritty of business, and also the effects of external constituencies. As a result, in the process of building their expertise, people develop better information processing and decision making skills (Rindova 1999). Directors as a group come to the board with a variety of career backgrounds, education, professional affiliations, and other sources of expertise (Rindova 1999). Individually, factors like education, previous jobs, and managerial career paths have been shown to explain access to boardroom positions (Useem and Karabel 1986). Collectively, board expertise has been positively related to differential firm performance in a variety of industries and countries (Jensen and Zajac 2004; Norburn 1986; Norburn and Birley 1988). Although some researchers have posited that outside directors are limited in their capacity to contribute to strategic decision making by their lack of information (Baysinger and Hoskisson 1990; Lorsch and MacIver 1989), empirical studies have shown that board expertise is related to improved corporate governance (DeFond, Hann, and Hu 2005), more relative power of the board in

relation to the CEO (Pearce and Zahra 1991), and the type of strategies – like acquisitions, diversification (Anderson et al. 2000; Subrahmanyam, Rangan, and Rosenstein 1997) – that companies pursue. Moreover, the managerial experience of outside directors has been shown to supplement the lack of top management experience in young entrepreneurial firms (Kor and Misangyi 2008). Even for more established firms, it is very likely that the expertise of inside directors is complemented by that of outside directors. Therefore, it can be proposed that:

Hypothesis 1a: Board expertise is positively related to firm reputation.

I need to consider not only the level of expertise, but also the different types of knowledge and skills that exist within the board of directors, what I call ‘heterogeneity of background’. The board of directors may be composed of an homogenous group of individuals with similar life experiences and career paths, or it may be formed by directors with different types of education such as engineers, lawyers, or accountants; degrees of specialization in functional areas like marketing, R&D, or finance; and/or experience in different industries or markets. Even though senior executives and directors may be concerned with general management functions, their skills, abilities, and knowledge are shaped by their career paths (Miles and Watkins 2007). In a board with different types of expertise, directors may share a basic understanding of the company and the industry, but the depth of each individual’s knowledge about a particular strategic issue would vary significantly (Jackson 1992). For instance, in a study of microprocessor companies Eisenhardt and Schoonhoven (1990) showed that the heterogeneity of industry experience of founding teams had a positive effect on sales, while Keck (1997) found that TMT functional heterogeneity leads to better financial performance in turbulent contexts. The effects of board heterogeneity of background on organizational outcomes may not always be direct. Golden and Zajac (2001) found a non-linear

effect of the board's occupational heterogeneity: firms with low and high – but not medium - levels of occupational heterogeneity among the members of the board of directors had lower levels of strategic change.

The discussion of strategic questions among people with varied levels of expertise on the topic under consideration allows a more elaborate understanding of the issue, because non-expert members “encourage the more expert members to unbundle the assumptions and rules they automatically use when dealing with issues and problems in which they are experts”(Jackson 1992: 358). Moreover, the different types of expertise facilitate the consideration of multiple perspectives, making the board better able to deal with the claims of diverse stakeholders, an important step in creating and maintaining the generalized favorability necessary to have a good reputation (Lange, Lee, and Dai 2011). Therefore, I put forward that

Hypothesis 1b: Heterogeneity of background is positively related to firm reputation.

Social – or relational - capital refers to the linkages that directors have to other stakeholders inside and outside the organization (Hillman and Dalziel 2003; Kim and Cannella Jr 2008; Kor and Sundaramurthy 2009). These linkages can be developed through multiple board appointments, previous jobs, and informal connections among corporate elites (Mizruchi 1996; Pettigrew 1992). Additionally, social capital derives from the status and reputation gained from prestigious appointments or from belonging to networks with restricted membership (D'Aveni and Kesner 1993; Nahapiet and Ghoshal 1998).

Corporate governance scholars have focused on how connections develop through multiple board appointments and interlocking directorates (Fich 2005; Mizruchi 1996). However, linkages can also result from previous jobs or the educational institutions attended (Useem 1982; Useem and Karabel 1986). According to Resource Dependence Theory, all these types of

interlocks are important insofar as they allow the firm to scan the environment, access critical resources, and identify new business opportunities (Hillman and Dalziel 2003; Pfeffer and Salancik 1978; Rindova 1999). These linkages can affect the transmission of signals about the firm reputation, because informal networks facilitate the diffusion of market, institutional, and strategy signals (Fombrun and Shanley 1990; Shrum and Wuthnow 1988). The firm's network can also enhance the visibility of the firm, and the increased exposure may influence the public's perception of the firm. For instance, Shrum and Wuthnow (1988), found that an organization's number and type of linkages with other companies in its industry are positively related to the organization's visibility and status among other actors in its field. Also, Mizruchi and Schwartz (1987) proposed that networks of interpersonal relationships and firm interlocks help to disseminate information about strategic attempts to influence stakeholders.

The second source of social capital, namely a director's reputation, has not been as widely studied as interlocks. The directors' prestige serves as a certification of the organization, particularly when this prestige comes from previous success as CEO (Fich 2005). For stakeholders – who have less information than executives about the state of the company – the status of directors serves as a screening mechanism in which the high reputation of a director is considered a proxy for trustworthiness and competence (Weigelt and Camerer 1988). A director's reputation is important not only to the individual as a precursor to more appointments, but also to all the organizations in which the director is a member of the board as reputational effects spillover across companies and affect firm performance (Yermack 2004).

Thus, the collective social capital of the board of directors improves reputation through three main mechanisms: it facilitates the diffusion of the company's market, institutional, and strategy signals (Fombrun and Shanley 1990); it increases the firm's visibility through the

linkages to other parties (Kor and Sundaramurthy 2009; Shrum and Wuthnow 1988); and it serves as a proxy for the firm's reputation and goodwill (Fich 2005; Nahapiet and Ghoshal 1998). Thus,

Hypothesis 2: Board social capital is positively related to firm reputation.

The effects of different levels of demographic diversity in TMTs have been studied in a variety of contexts, with mixed results (Carpenter, Geletkanycz, and Sanders 2004; Finkelstein and Hambrick 1996; Pettigrew 1992). Several researchers have suggested that in order to better understand the effects of diversity we need to distinguish between diversity based on readily observable traits like race, age, and gender and diversity based on less visible characteristics such as educational attainment, occupation, industry experience, etc. (Jackson, May, and Whitney 1995; Milliken and Martins 1996; Tsui, Egan, and O'Reilly 1992). However, readily observable personal characteristics can be more easily used as signals of a company's corporate social responsibility practices, compliance with equal opportunity legislation, and commitment to satisfying societal expectations about opportunities for the advancement of minorities (Miller and Triana 2009). Because these signals can serve to enhance a firm's reputation, I focus on the impact of diversity based on visible demographic traits on organizational reputation.

In line with Hambrick and Mason's (1984) theory of Upper Echelons, diversity widens the lenses through which TMTs look at the organization and its environment. Demographic diversity has direct effects on firm performance, but it also exerts its positive influence through effects in organizational processes (Smith et al. 1994). From a strategic point of view, diversity enhances the understanding of market niches, makes the decision-making process more rational (Bantel and Jackson 1989; Goll and Rasheed 2005) and facilitates the emergence of more creative and innovative ideas (Robinson and Dechant 1997). Diversity also increases board independence and

monitoring of management (Carter, Simkins, and Simpson 2003). Higher heterogeneity may lead to higher adaptability and hence higher long-term performance (Murray 1989).

Although there are diverging results regarding the effect of board diversity on firm performance, I think the link between board diversity and corporate reputation may be more straightforward. First, it serves as an indicator of the company's commitment to the advancement of minorities. Second, board diversity signals to people inside and outside the company that it is interested in having directors who are representative of the stakeholders with which the firm interacts. Finally, board diversity can be seen as an indicator of the good functioning of corporate governance practices within the firm.

Although gender diversity has been more widely studied than racial and age diversity in management research (Walt and Ingley 2003) and some researchers conceptualize and operationalize diversity by aggregating race, gender, age, and other demographic characteristics into a single measure of diversity (e.g. Carter, Simkins, and Simpson 2003; Erhardt, Werbel, and Shrader 2003) it is important to think about the differential impact that each one of these characteristics may have on corporate reputation (Miller and Triana 2009; Tsui, Egan, and O'Reilly 1992).

Gender diversity in the board of directors has been linked to firm financial and social performance (Siciliano 1996; Singh, Vinnicombe, and Johnson 2001) and the effect may be stronger in firms with governance problems because female directors seem to be tougher monitors of the CEO (Adams and Ferreira 2009; Pearce and Zahra 1991). Thus, gender diversity in the boardroom may enhance organizational-level outcomes, and also strengthen the firm's corporate governance practices by improving the board's monitoring of the CEO. Also, having female directors may serve as a signal of the organizations' compliance with equal opportunity legislation and with community

expectations For example, companies with higher percentages of women in their board of directors use more pictures of their directors in annual reports, perhaps to make investors and other constituencies aware of their commitment to diversity (Bernardi, Bean, and Weippert 2002). Billimoria (2000) has suggested that the number of women serving on the board may influence the media and public perceptions of corporate effectiveness. Thus, gender diversity affects corporate reputation not only through its effects on firm performance but also through its effects on how the firm is perceived by its stakeholders. Accordingly,

Hypothesis 3a: Board gender diversity is positively related to firm reputation.

Similarly, because racial diversity is more easily perceived than other types of diversity (Bernardi, Bean, and Weippert 2002) – companies can also use racial diversity to signal their commitment to best corporate governance practices and to the advancement of minorities. Some studies have found similar effects of gender and racial diversity on organizational-level outcomes. For example the percentage of women and minorities in board of directors was found to have a positive effect on financial indicators like Return on Assets (ROA) and Return on Investments (ROE) (Erhardt, Werbel, and Shrader 2003). Yet the effects of gender diversity are not always the same as the effects of racial diversity. Miller and Triana (2009) found that racial –but not gender– diversity had a positive effect on both firm reputation and firm performance. Furthermore, they found that firm reputation partially mediated the positive relationship between racial diversity and firm performance.

There is a growing literature supporting the positive effects of racial diversity on firm-level outcomes. A study of firms in the FTSE 100 index, indicated that companies with ethnic minorities in their boards of directors had higher market capitalization (Singh 2007). Richard (2000) used racial diversity as a proxy for cultural diversity and found that it had a positive effect

on three different measures of firm performance: productivity, return on equity, and a perceptual measure of market performance. Roberson and Park (2006) found that leadership racial diversity, measured as racial heterogeneity among the top paid officers of an organization has a curvilinear (U-shaped) relationship with financial performance; specifically, net income decreases with increases in minority representation on top management teams up to about 27%, beyond which greater balance in the racial composition of the TMT leads to increase in performance. Although Miller and Triana (2009) found a positive correlation between racial diversity and firm reputation, there are few studies examining this link. Racial diversity may enhance firm reputation because it enhances firm performance and also because it signals the company's identification with the diversity of its stakeholders. Also, similar to the effects of gender diversity, it signals to the public the company's compliance with employment legislation and good corporate governance practices. Therefore,

Hypothesis 3b: Board racial diversity is positively related to firm reputation.

Although less studied by management scholars than both gender and racial diversity, there is an increasing interest in understanding the value of age diversity in organizations (Smith 2001). Tsui, Egan, and O'Reilly (1992) suggested that the effects of age heterogeneity may be different than those of both gender and racial diversity because negative stereotypes based on both gender and race may be stronger than prejudices based on age. Age diversity is supposed to generate variation in values and perspectives, because individuals from different age cohorts have different life experiences (Ireland et al. 1987; Pfeffer 1983). Also, it has been posited that younger people are more risk-seeking and open to change than older people (Golden and Zajac 2001; Hambrick and Mason 1984). Few studies have analyzed the effects of age heterogeneity in business settings. Wiersema and Bantel (1992) and Golden and Zajac (2001) hypothesized that

age diversity had a curvilinear (inverted-U) relationship with strategic change, but neither study supported this hypothesis. Moreover, Golden and Zajac (2001) found a positive relationship between age and strategic change, which according to them indicates that older executives seem to have the confidence, experience, and ability to actually carry out strategic change. In a study of high-technology firms in the US and Ireland, Knight *et al.* (1999) found that age was not significantly related to strategic consensus and that age diversity had a negative impact on agreement-seeking (Knight *et al.* 1999). Using a simulation Kilduff, Angelmar and Mehra (2000) found that age diversity was positively related to market share. Richard and Shelor (2002) found mixed support for the effects of age heterogeneity on organizational performance: age diversity had a minimal negative effect on return on assets (ROA) but a strong positive effect on sales growth, particularly from low to moderate levels of age diversity. In a study of YMCA organizations, Siciliano (1996) found that age diversity was positively related to the level of donations the organization received. Perhaps this increased level of donations is a signal of the organizations better reputation among donors. Therefore, I submit that

Hypothesis 3c: Board age heterogeneity is positively related to firm reputation.

FIGURE 1.

The Effects of Board Human Capital, Social Capital, and Diversity on Firm Reputation

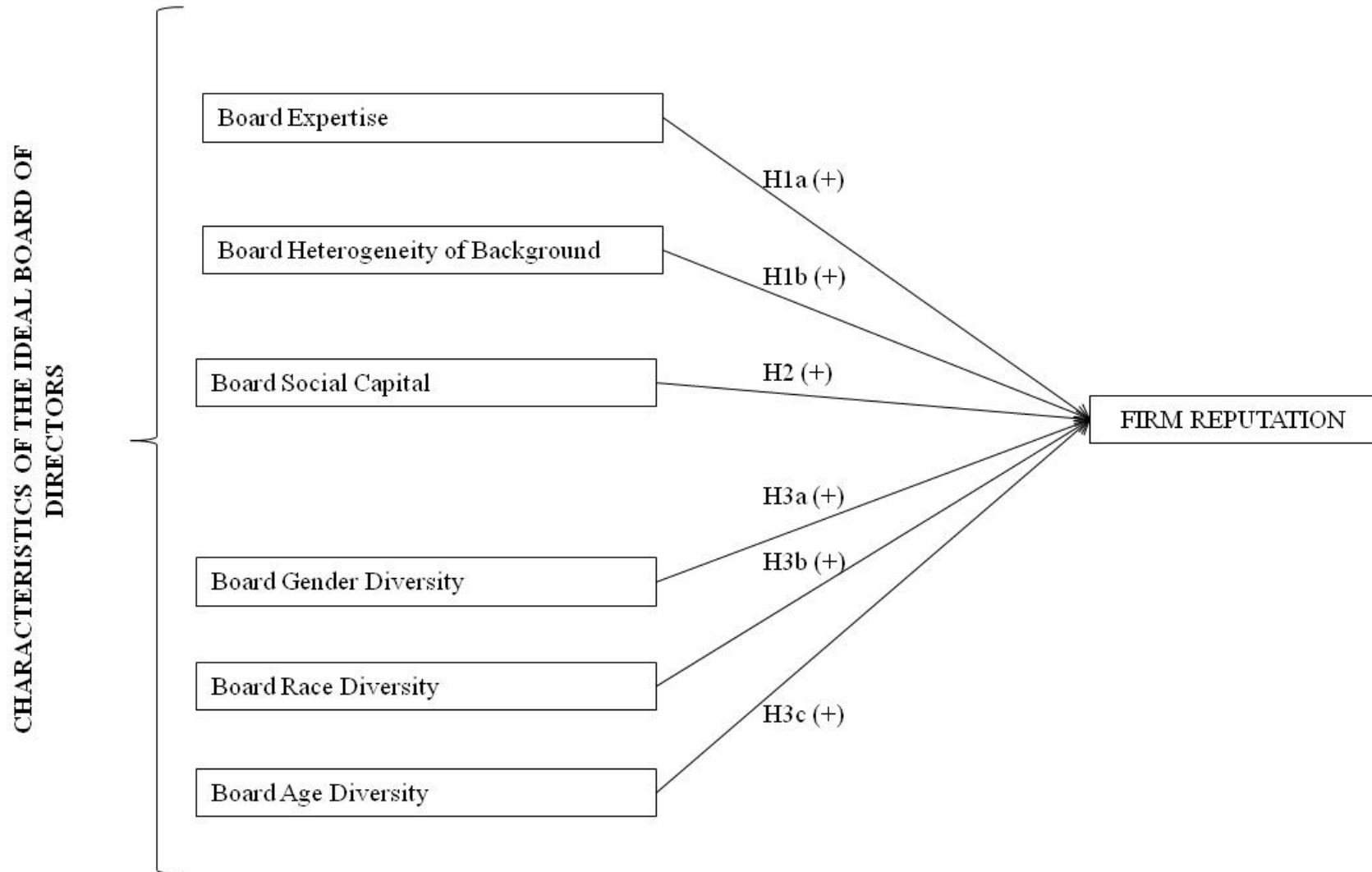


Figure 1 summarizes hypotheses 1 to 3, which are an extension from previous upper echelons research focused on executives to the board of directors. However, we also need to consider how expertise, social capital, and demographic characteristics relate to each other and may form ‘bundles’ (Kor and Sundaramurthy 2009). These ‘bundles’ can be the result of a person’s life history or of societal traditions. Pursuing an education or working on different jobs, for example, builds an individual’s expertise, but it also facilitates interaction with other people and the formation of linkages, thus increasing the person’s social capital. Moreover, from a historical perspective, educational and job opportunities have not been equally available to all demographic groups, hindering the development of expertise and social networks for minorities (Pettigrew 1992; Useem 1982). Companies sometimes argue that there are not enough qualified minorities to sit on corporate boards (Burke 1997; Floyd 2003). If this were the case, companies should identify promising individuals with minority backgrounds and help them to start and navigate their careers in boards of directors. For example, it may be possible that minority directors derive more benefits from social connections, since they can open doors that would otherwise be closed to them.

Fit as profile deviation

‘Bundles’ of human and social capital, and demographic characteristics occur not only at the individual but also at the board level. Studying the optimal configuration of a board of directors, requires understanding: (a) the levels of board human and social capital, (b) the board’s diversity, and (c) how these characteristics that reside at the individual level are assembled at the board level. Taking the perspective of fit as profile deviation, I see fit as “the degree of adherence to an externally specified profile” (Venkatraman 1989: 433). In this perspective, a multidimensional ideal

profile is specified and different weights are assigned to each dimension. Using these weights, researchers can calculate how much each observation in their sample deviates from this ideal profile. Deviations from this profile are posited to have a negative effect on the dependent variable of interest. For example, Pfeffer (1972) empirically estimated the optimal proportion of insiders and outsiders and found that deviation from this optimal proportion negatively affected firm performance.

In my study, fit is seen as the congruence between the ideal board profile and the characteristics of the focal firm's board. Rather than a binary choice – fit or no fit – fit is a continuous variable, and thus I am interested in analyzing the effects of different degrees of deviation from the ideal board profile (Venkatraman 1989; Venkatraman and Prescott 1990). Firms with boards that closely resemble the “right board” are combining their directors' human and social capital and demographic characteristics in ways that maximize the effect of these factors on firm reputation. The boards of firms that deviate from this ideal profile are less capable of providing the expertise, connections, and diversity necessary to create a superior reputation. Thus,

Hypothesis 4: Fit between ideal board profile and focal firm board profile is positively related to firm reputation.

Fit as Contingent on the Environment

Companies operate in a variety of environments, and thus characteristics that help a board excel in certain industries may not be as effective for success in other industries. Moreover, as Lynall, Golden, and Hillman (2003) have posited, the life cycle stage of the company also affects the organization's needs; therefore, a board that is effective at the time of founding may not be ideal as the company's circumstances evolve and mature.

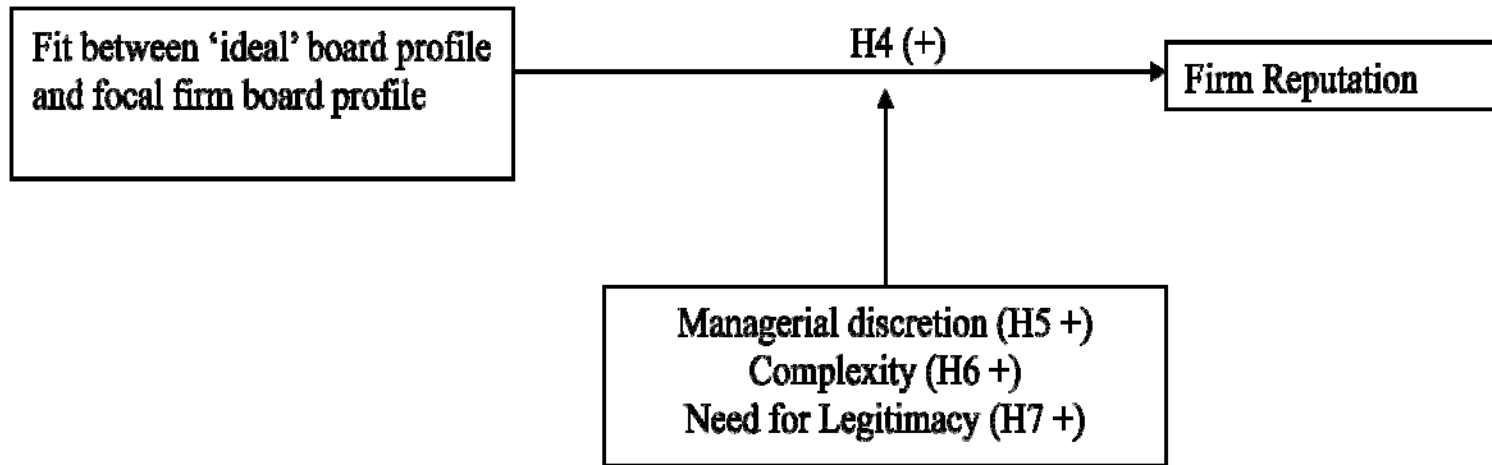
From a contingency perspective, understanding the effects of the board of directors requires defining the different conditions under which firms operate (Huse 2005; Muth and Donaldson 1998; Van den Berghe and Levrau 2004). The effects of deviation from the ideal board profile should *vary across companies operating in different environments*. Thus, beyond the identification of the optimal board profile we need to identify relevant environmental dimensions that moderate the relationship between board characteristics and firm reputation.

As figure 2 shows, we need to consider how the effects of board composition on reputation may be contingent on the fit between the board of directors and the firm's external environment (Boeker and Goodstein 1991; Hillman, Cannella, and Paetzold 2000).

The external environment currently faced by companies is one of turbulence and uncertainty. More and more organizations have to respond to the conflicting demands of different stakeholders (Donaldson and Preston 1995), increasing government regulation (Tessler 2008), more global competitors than they ever faced before (Luo 2007), and fast-changing technology (Mueller 2007). Thus, the environments faced by companies in different industries can be characterized along various dimensions such as munificence, dynamism, complexity, and need for legitimacy.

FIGURE 2.

The Contingent Effect of Board Expertise, Social Capital, and Demographic Diversity on Firm Reputation.



Of particular relevance for research on the effects of the board of directors, is understanding how the environment affects the latitude that upper echelons have in making decisions and executing strategic plans. This latitude has been conceptualized as “managerial discretion” (Goll & Rasheed, 1997; Hambrick & Finkelstein, 1987). Resource-rich environments give managers more scope to act, while constant change gives managers more chances to deploy these resources (Eisenhardt & Schoonhoven, 1990). Thus, environments that are high in both munificence and dynamism are ‘high discretion’ environments. The three characteristics that I propose as part of the ideal board profile – high and heterogeneous expertise, high board capital, and high diversity – all have important effects in high discretion environments.

First, the uncertainty created by the high levels of change in high discretion environments undermines the board’s ability to accurately assess the current state of environment and forecast changes (Milliken 1987; Simerly and Li 2000). Under these conditions, the environment needs to be analyzed more extensively and constant innovation is necessary to keep up with the rate of technological change (Miller and Friesen 1983). Drawing from a broad pool of expertise, the board of directors may be able to better respond to changing conditions, using the information processing abilities of business experts to more accurately assess the potential effects of changes in technology and competition (Kor and Sundaramurthy 2009; Rindova 1999), and to improve the innovation process by considering more ideas (Rigby and Zook 2002).

Second, the social capital of directors can also help companies to deal with environmental turbulence. Relying on their linkages with parties outside the organization, directors can more effectively scan the environment for changes, and gather information about industry developments (Kor and Sundaramurthy 2009). Also, a central tenet of resource dependence

theory is that board linkages reduce environmental uncertainty through the sharing of information and the connection with external factors like suppliers or customers (Hillman, Cannella, and Paetzold 2000; Pfeffer and Salancik 1978; Schoorman, Bazerman, and Atkin 1981). From a corporate governance perspective, the reduction in environmental uncertainty derives not only from the broader knowledge base of a board with heterogeneous business expertise, but also the variety of social linkages gained through a group of directors with diverse experiential backgrounds (Schoorman, Bazerman, and Atkin 1981). For instance, Hillman (2005) showed how the positive effect of politicians on market-based performance measures, was stronger in heavily regulated industries than in lightly regulated industries, which she attributed to the higher uncertainty of working under strong government scrutiny; and Brewster, Stearns and Mizruchi (1993) found that bank representations in the board of directors affected the financing obtained by different companies. Therefore, in high discretion environments the social capital of directors can increase the quantity and quality of information available to the organization, and the resources and facilities external parties are willing to extend to the company.

Third, demographic diversity - in this study gender, race, and age heterogeneity - leads to more thorough environmental scanning and more informed decision making (Bantel and Jackson 1989; Goll and Rasheed 2005). However, demographic diversity may induce confusion, reduce cohesion, and hinder communication (Glick, Miller, and Huber 1993). Therefore, I suggest that in high discretion environments, it is critical to have a level of diversity that closely resembles that of the ideal profile in order to balance the contradictory effects of demographic diversity on decision making.

Yet superior reputation under highly discretionary conditions is not simply a matter of having a large pool of knowledge and skills to draw from, a large number of connections, or a diverse board (Boyd 1990; Simerly and Li 2000). To succeed in these environments, organizations need boards with the right types of industry experience, education, occupational backgrounds, social linkages, etc. – that is, the fit between the type (and not just the quantity of) the focal board’s and the ideal board’s expertise, social capital, and diversity matters. According to Mason and Fredrickson (2001: 536):

“Upper echelons predictions are contingent upon the view that top management teams generally operate under highly uncertain conditions, conditions characterized by ambiguity, complexity, and information overload. As a result, embedded in the upper echelons perspective is the proposition that the more uncertain the decision- making situation, the more likely TMT demographic characteristics will be manifest in organizational outcomes”.

Accordingly, I posit that:

Hypothesis 5: Fit between ideal board profile and focal firm board profile is more strongly associated with firm reputation in environments with high managerial discretion than in other types of environment.

Apart from managerial discretion, an organization’s task environment can also be characterized by its complexity. Complexity refers to the number of external factors facing the organization (Bourgeois 1980), and originates in the growing size and scope of the firm and the increasing number of competitors as the industry matures (Daily and Dalton 1993; Jovanovic and MacDonald 1994). Because of the large number of factors that define complex environments, organizations operating in this context need to gather and process large amounts of information (Borch and Huse 1993).

Expertise becomes critical in complex environments because the larger and more diverse the set of skills, knowledge, and experiences in the TMT, the more numerous are the alternatives

for developing new combinations of ideas when making decisions in these contexts. Expertise ensures that directors bring to bear not only tangible information sources, but also more tacit and experiential sources to gain a more thorough understand of the decision situation. In industries with high levels of complexity, companies need to draw from a broad pool of knowledge in order to notice the many different stimuli in the environment and steer clear of competitive ‘blind spots’ (Rindova 1999; Zajac and Bazerman 1991). For instance, Carpenter (2002) found that the positive effect of TMT educational heterogeneity on firm performance was stronger in more complex environments. Moreover, experts can not only notice more stimuli, but are better able to assess the complexity of the environment (Bantel 1993). Thus, a board of directors with varied types and levels of expertise is better equipped to deal with the numerous issues and actors that need to be considered in a complex situation.

Complexity also hinders coordination as multiple elements need to be considered simultaneously, diminishing the ability of TMTs to cope with the increased demands posed by company growth and development (Lynall, Golden, and Hillman 2003; Park and Ungson 2001). The social capital of the board of directors can ease the coordination problems posed by complex environments:

Some portion of the value a manager adds to a firm is his or her ability to coordinate other people: identifying opportunities to add value within an organization and getting the right people together to develop the opportunities. Knowing who, when, and how to coordinate is a function of the manager's network of contacts within and beyond the firm (Burt 1997: 339).

In complex environments, companies need to consider both a large number of factors that can affect their reputation and a large number of stakeholders whose perceptions of the firm need to be shaped constantly. The board of directors’ social capital becomes more valuable in these contexts because through the directors’ social network the company can learn what its

competitors are doing to enhance their reputation, gather information about the concerns of different stakeholders, and communicate the actions the firm is taking to address those concerns.

Further, Lawrence and Lorsch (1967) argued that the match between an organization's internal and external complexity is a source of competitive advantage. For example, an organization that operates in a highly diverse – and thus complex by definition - market may need to increase its internal diversity at all levels. As Milliken and Martins (1996: 416) argued: “Diversity in organizational decision-making groups may lead to higher quality decisions being made because the group thinks in more realistic and complex ways about its context”. For these reasons, we have,

Hypothesis 6: Complexity strengthens the positive effect of fit between ideal board profile and focal firm board profile on firm reputation.

Although the effects of environmental munificence, dynamism, and complexity in a variety of strategic phenomena have been extensively studied (Bourgeois 1980), the growing interest in considering multiple stakeholders highlights the importance of understanding the effects of an organization's – or an industry's – need for legitimacy (Donaldson and Preston 1995; Hillman, Keim, and Luce 2001). According to Suchman (1995: 574) legitimacy is “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions”. To the organization, legitimacy is important because it facilitates the attraction of resources and ensures the continued support of stakeholders. Although legitimacy and reputation share similar antecedents and consequences, they are two distinct constructs (Deephouse and Carter 2005). Whereas the central element of legitimacy is adherence to the expectations, norms, values, and rules, of a social system; the central element of reputation is status comparison – that is, the

organization's relative standing among its counterparts (Deephouse and Carter 2005; Scott 1992; Suchman 1995).

Although all companies need to be perceived as legitimate by their stakeholders, some firms have a stronger need for legitimacy due to their own history or to the industry in which they operate. For instance, industries with high need for legitimacy include sectors with ambiguous output standards (like education); operating in areas considered immoral by some members of society or in controversial product markets (such as gambling, or alcohol); in areas that pose considerable risk (like nuclear power); or that are the subject of national and regional public policy debates (aerospace and defense) (Ashforth and Gibbs 1990; Fombrun and Shanley 1990). However, even companies outside these type of industries may have a high need for legitimacy – for instance when they have been recently founded and have yet to develop a reputation as a going concern, or when they have been recently involved in a public scandal (Huse 2005).

While organizations operating in industries with low need for legitimacy 'need only make sense', firms in high need for legitimacy industries must proactively pursue strategies that generate backing for the organization among its constituents (Suchman 1995). Suchman (1995) lamented that many management scholars do not separate these two situations, despite the differences it may generate among companies operating in these two distinct environments. While the managers of companies operating in a low need for legitimacy industry need to do little – or nothing – to gain the public's trust and respect, companies operating in industries with a high need for legitimacy environments must try to control the legitimation process (Scott 1992; Suchman 1995). For managers, this is ideally done through the manipulation of symbols, whereas stakeholders prefer more substantive responses (Ashforth and Gibbs 1990). In the

strategic view organizations need to recruit managers that can deal with the “purposive, calculated, and frequently oppositional” (Suchman 1995) nature of legitimation. I argue that not only the managers but also the board of directors’ expertise, social capital, and demographic diversity can help firms to establish a good reputation, particularly when the organizations operate in high need for legitimacy contexts.

In order to establish a positive reputation in an industry that has a high need for legitimacy organizations can pursue several strategies: intervene in the environment to alter the expectations, change to less controversial product markets, create a record of technical success, pursue professionalization, avoid events that may increase public scrutiny, or meet some of its stakeholders’ demands (Ashforth and Gibbs 1990; Hitt et al. 2001; Suchman 1995). The directors’ expertise – education, previous experience, etc- can help the firm to strategically manage all these alternatives. The board of directors’ expertise can enhance the organization’s ability to predict and interpret public reaction and foresee challenges to its reputation (Suchman 1995). The organization can also trade on the strong reputation its directors have gained through accomplishments in previous jobs or other endeavors (Suchman 1995) or from credentials such as education from top institutions (Hitt et al. 2001) or professional certification.

Job experience and education are two of the main elements of board expertise, and also influence the board’s social capital. The social capital of the board of directors may be particularly valuable when the firm has a high need for legitimacy. A board’s social capital develops from both the network of contacts and the reputation of its directors (Nahapiet and Ghoshal 1998). The contacts of the board of directors may connect the firm with various stakeholders. Through these connections, the demands of these stakeholders can be better comprehended and perhaps even served (Hillman, Keim, and Luce 2001; Hillman, Nicholson,

and Shropshire 2008). Also, stakeholders may be assuaged in their concerns about the company's activities by the appointment of directors to which they are connected and thus that, may represent the interest of these stakeholders in board discussions. For example, a director may work for a supplier or customer of the company, and thus may more readily identify herself with the organization that she works for than with the organization in which she serves as a director (Hillman, Nicholson, and Shropshire 2008). Additionally, the social capital derived from the directors' reputation can help the organization to gain legitimacy – for instance, for young ventures the appointment of a prestigious director can be seen as a vote of confidence in the nascent enterprise (Kor and Sundaramurthy 2009; Suchman 1995).

The board's demographic diversity may also be of particular importance for companies operating in industries with a high need for legitimacy. Demographic diversity serves a signal to the public about the values the organization espouses (Miller and Triana 2009). Moreover, many societies expect firms to actively recruit minorities, and diversity has become mandatory in many countries. Thus, to be considered legitimate, organizations need to comply with diversity expectations. Organizations in high need for legitimacy industries can avoid additional scrutiny by actively engaging in activities that promote the recruitment and advancement of minorities. Moreover, minority directors are often influential in their communities, and have a stronger interest in corporate philanthropy and corporate social responsibility than non-minority directors (Wang and Coffey 1992). Thus, through their background working with the community and through their interest in CSR, minority directors can help to send the signal that a company with a high need for legitimacy is listening to the concerns of its constituents (Miller and Triana 2009). Therefore, we can propose that,

Hypothesis 7: Need for legitimacy strengthens the positive effect of fit between ideal board profile and focal firm board profile on firm reputation.

In summary, I adopt Venkatraman's (1989) perspective of fit as moderation and posit that the positive effect of fit between the ideal board profile and the focal firm profile on firm reputation is strengthened by three environmental characteristics: dynamism, complexity, and need for legitimacy.

METHODS

Sample

My sample includes all public U.S firms in Fortune's 2009 Most Admired Companies. This list is compiled annually by Fortune magazine and has been used in several studies on firm reputation (Arthaud-Day et al. 2006; Fombrun and Rindova 1996; Fombrun and Shanley 1990; Miller and Triana 2009; Roberts and Dowling 2002). The 2009 list has 460 companies, and it includes not only the companies with the highest reputation in their industry, but also the companies with poor reputations. After removing private companies, I collected data on 432 companies.

Measures

Table 1 presents a summary of the variables, their operationalizations, and sources. Because measures were collected from different archival sources, the sources of data are detailed for each variable together with the explanation for the variable.

TABLE 1.

Summary of Variables and Operationalizations

TYPE	VARIABLE	DESCRIPTION	OPERATIONALIZATION	SOURCE
Independent variables	<i>Board expertise</i>	Educational attainment and prestige, and Experience.	Composite score of two Bartlett scores derived from PCA (Table 2): <u>Experience (factor 1)</u> - Job prestige - Number of years of work experience - Number of years as director <u>Education: (factor 2):</u> - Level of education - Prestige of institution that granted last degree	BoardEx Grouman Report
	<i>Heterogeneity of background</i>	Heterogeneity of educational and functional background	Average of: - <u>Heterogeneity of education</u> : Blau's (1977) index using Wieserma and Bantel's (1992) categories. - <u>Heterogeneity of work experience</u> : Blau's (1977) index using Keck's (1997) functional categories.	BoardEx
	<i>Board social capital</i>	Linkages and personal prestige accrued through other appointments.	Bartlett score of factor 3 derived from PCA (see Table 2) - Number of directorships - Proportion of CEOs	BoardEx
	<i>Board demographic diversity</i>	Gender, race, and age	- <u>Gender Heterogeneity</u> : Blau's (1977) index - <u>Race Heterogeneity</u> : Blau's (1977) index using IRRC racial categories. - <u>Age heterogeneity</u> : coefficient of variation (standard deviation /mean).	BoardEx IRRC
	<i>MISALIGN</i>	Misalignment between focal firm board profile and ideal board profile	Square root of the weighted Euclidean distance from the ideal board profile along the board characteristics considered significant.	
Dependent Variable	<i>Firm reputation</i>	A collective representation of a firm's past actions and results that describes the firm's ability to deliver valued outcomes to multiple stakeholders.	Halo-removed overall reputation, correcting for the effect of financial reputation on overall reputation.	Fortune Compustat

TABLE 1.

Summary of Variables and Operationalizations (Continued).

TYPE	VARIABLE	DESCRIPTION	OPERATIONALIZATION	SOURCE
Moderators	<i>Environmental Munificence</i>	Availability of environmental resources and capacity to support growth	Regressing time against the natural log of industry sales between 2004 and 2008. The antilog of the regression slope coefficient is the measure of industry growth	CompuStat
	<i>Environmental Dynamism</i>	Degree and instability of change exhibited in external factors	Regressing time against the natural log of industry sales for the five years between 2004 and 2008. The antilogs of the standard error of each regression slope coefficient are the measure of environmental dynamism	CompuStat
	<i>Environmental Complexity</i>	The technical or scientific sophistication required in an industry	Percentage of scientists, engineers, and technical occupation to total employees at the 4-digit NAICS level	U.S. Bureau of Labor Statistics
	<i>Industry Need for Legitimacy</i>	A generalized perception or assumption that the actions of an industry are not desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions	Number of concerns at the firm level, then averaged at the industry level.	KLD STATS
Controls	<i>Board age</i>		Average age of board members	BoardEx
	<i>Board independence</i>		Percentage of insiders	BoardEx
	<i>Board size</i>		Number of directors	BoardEx
	<i>Organizational age</i>		Square Root years since incorporation	Companies' websites
	<i>Organizational size</i>		LN average total number of employees 2002-2008	CompuStat
	<i>Liquidity</i>	Proportion of cash or cash equivalents in a firm's assets.	Square root of mean current ratio 2004-2008 $\sqrt{(\text{Current assets}/ \text{Current liabilities})}$	CompuStat
	<i>Industry reputation</i>		Average reputation by three-digit SIC code	CompuStat
	<i>CEO power</i>		CEO duality	BoardEx
	<i>Blockholders</i>	Percentage of shares owned by inside and outside shareholders	Inside Blockholders: Percentage of shares owned by managers, independent directors, affiliated shareholders, and ESOP. Outside Blockholders: All other blockholdings.	Compustat

Independent Variables

The data necessary to create the independent variables were collected for each director using BoardEx. I created board-level variables by calculating the mean of each indicator using all the directors of each board. The composite scores were calculated by factor-analyzing the board-level data using Principal Component Analysis (PCA) with Oblimin rotation. Because the data is in different scales, and because non-normalized data can affect the structure of the PCA (Abdi and Valentin 2007), all variables were standardized unless otherwise stated. The results of the PCA suggested the presence of three factors which explain 58.88% of the variance, and correspond to the following independent variables: education, experience, and social capital (Table 2).

TABLE 2.
Principal Component Factor Analysis of the Experience, Education, and Social Capital Indicators.

Board-level variables	Factors		
	Experience	Education	Social Capital
Years of work experience	.74	.30	.25
Years as director	.61	.02	.48
Job prestige	.60	.11	-.32
Level of education	.21	.80	.01
Educational Prestige	-.12	.79	.21
Number of directorships	.10	.21	.72
Percentage of CEOs	.01	.04	.72
Eigenvalue	1.80	1.19	1.13
% of variance explained	25.72	17.00	16.16

KMO = 0.55

Bartlett test: $X^2/df = (218.49/21, p \leq .0001)$

The scores for each board on each one of the three factors were calculated using Bartlett scores, which produce unbiased estimates, and factors that are not correlated with other factors (DiStefano, Zhu, and Míndrilă 2009).

Board expertise: To test hypothesis 1, I created a composite measure of board expertise designed to capture educational background and experience for each board. This score is the sum of the two Bartlett scores for experience (factor 1) and education (factor 2).

Experience: The variables that loaded into this factor were *years of work experience*, *years as a director*, and *job prestige*. The prestige of a given job was scored using the organization's score on Fortune's most admired companies for the last year the director was associated with the company. For example, if a director worked for Motorola until 1995, then the prestige score for that job is 8.38 – the score the cell phone manufacturer received in Fortune's 1995 survey. I think this is the appropriate score because it reflects the prestige that the director carried with her to her immediately subsequent appointment, and it was probably on the basis of this prestige that she was recruited for jobs and board positions at that time. (In 2009 – the year in which the dependent variable *firm reputation* is measured – Motorola scored only 5.09 on the list). It is important to note that:

- For each director there may be several *prestige of jobs* scores because the individual may have worked in many companies. An individual director's overall *prestige of jobs* score is the average of all her appointments.
- The prestige of an appointment is coded as missing when a person worked for a company that was not ranked by Fortune for a given year. I do not code this as zero as even hopeless organizations receive scores in the Fortune rankings. For example, in Fortune's 1995 list Trans World Airlines was named as the worst company, yet it still had a score of 3.05.

- Fortune began publishing the list of most admired companies in 1982. I have been unable to locate reputation rankings prior to this date and therefore the *prestige of jobs* prior to 1982 are coded as missing.

Education: Two indicators are used to measure education: *average years of education*, and *prestige of the institution that granted the last degree*.

Average years of education: Following D'Aveni (1989) the *average years of education* are measured using a 7-point ordinal Likert scale ranging from 1(= did not graduate high school) to 7 (=Ph.D.).

Prestige of education: the score of the institution that granted the director's highest degree according to the Gourman Report Ratings (Gourman, 1997a, 1997b) which rates most universities in the US and major universities abroad on a scale from 1 to 5 and was last published in 1997. Although the report has been criticized mainly for its author's refusal to divulge the methodology he used in calculating the scores, the Gourman report has been used by other management researchers (Cable & Murray, 1999; Hitt et al., 2001; Judge, Cable, Boudreau, & Bretz Jr., 1994), and has shown convergent validity with other measures of prestige of educational institutions such as the U.S. News and World Report rankings (Cable & Murray, 1999). While the US News and World report college rankings are very popular, I decided not to use them because they only rank American universities in tier 1 of their classification. Universities in tiers 2 to 4 are reviewed by they do not get a standing in the rankings.

Heterogeneity of background: Hypothesis 1b is tested using the score of heterogeneity of background, calculated as Blau's (1977) heterogeneity index by adding measures of education and work experience. Following Wiserma and Bantel (1992), I code education according to five categories: arts, sciences, engineering, business and economics, and law. Although I collected

data on all the degrees a director received, only the code for the highest degree achieved was used in the operationalization of heterogeneity of background. The director's type of work experience was coded using Keck's (1997) functional categories: finance and accounting, production and operations, research and development, special services (transportation, public relations, etc.), marketing, and general management. Because there is an increasing number of directors with backgrounds in areas other than business (educators, community activists, members of the clergy, etc) particularly among women and African-American directors (Hillman, Cannella, and Harris 2002), I added a seventh category 'non-business' to the six categories used by Keck (1997). If a director has multiple areas of work experience I code only the area in which the director has more years of experience for two reasons: first, the area in which an individual director has spent most of her career is likely to have more influence in her cognitions and way of thinking (and in UE theory demographics are a proxy for these aspects); and second, it is probably the area in which the director has built a reputation and thus, the area that respondents to Fortune's survey about the most admired companies more readily associate with her.

Heterogeneity was calculated using Blau's (1977) index of heterogeneity, which is defined as

$$D = 1 - \sum_{i=1}^N p_i^2$$

where p_i is the proportion of the total board of directors that each educational or functional category represents. The summed value is the degree of homogeneity in the board and subtracting this value from one produces a measure of heterogeneity. Blau's index has been frequently used in management research as a measure of diversity (Carpenter 2002; Keck 1997; Richard et al. 2004; Wiersema and Bantel 1992).

Social capital: The Bartlett score of the third factor derived from the PCA (see table 2). The variables that load on this factor are the *number of directorships* and the *percentage of CEOs*. I focus on directorships and the highest executive level reached by directors as they may affect the director's prestige in labor markets (Davis 1993). The cumulative number of companies where an individual has been a director throughout her career is used as a proxy for the director's personal prestige and number of network connections (Davis 1993; Finkelstein 1992; Kor and Sundaramurthy 2009; Zajac and Westphal 1996). The percentage of CEOs, current or former, in the board can also serve as an indicator of the overall prestige and connections that these individuals bring to the board.

Demographic diversity: Gender, race, and age are used to measure demographic diversity (Judge et al. 1995; Miller and Triana 2009) and test hypothesis 3. Gender diversity was measured using Blau's (1977) heterogeneity index, which was explained earlier. Racial diversity is also calculated using Blau's index of heterogeneity. Following BoardEx, I used six categories: Asian, Black, Hispanic, Indian, Middle Eastern, and White. When there is maximum homogeneity, Blau's index equals zero. For a two-category variable like gender Blau's index can range from 0 when all board members are of the same gender to 0.50 when both genders are equally represented. For a six-category variable like race the maximum value of Blau's index is 0.83.

Age heterogeneity was calculated the coefficient of variation defined as the standard deviation divided by the mean (Bantel and Jackson 1989; Knight et al. 1999).

Ideal Board profile and Fit: The first step in measuring fit between ideal board profile and focal firm profile is empirically determining the weights of each one of the characteristics of the ideal board (Venkatraman 1989; Venkatraman and Prescott 1990). For all firms in the sample, reputation is regressed on the variables I theoretically proposed in hypotheses 1 to 4:

board expertise, heterogeneity of background, social capital, and demographic diversity. Only variables that are significant in this regression are considered in the creation of the ideal board profile.

The second step is to identify the calibration and study samples. Venkatraman and Prescott (1990) determine the calibration sample using top 10 percent of firms in the sample. However, in this study using a cutoff reputation score of 7.31, which corresponds to the top 10 percent of firms, would have resulted in a calibration sample of only 31 firms, which is below the minimum 50 observations needed to run a multiple regression (Hair et al. 2006). Therefore, I decided to include the Top 13% of the firms, with reputation scores of 7.12 or higher. The bottom 13% is eliminated to arrive at an unbiased sample. The remaining 74% of firms are considered the study sample. The calibration sample is used to empirically determine the ‘standardized, mean scores along the statistically significant variables’ (Venkatraman and Prescott 1990: 10).

After calculating the weights of the relevant variables on the ideal board profile, a measure of misalignment (MISALIGN) is calculated for each of the boards in the study sample. Following Venkatraman and Prescott (1990), MISALIGN is calculated as:

$$\text{MISALIGN} = \sum_{j=1} (b_j (X_{sj} - \bar{X}_{cj}))^2$$

where X_j = score for the firm in the study sample for the j^{th} variable;

\bar{X}_{cj} = mean score for the calibration sample (or, the 'ideal' board) along the j^{th} variable;

b_j = standardized beta weight of the OLS regression equation for the j^{th} variable; and

$j = 1, n$ where n is the number of board characteristics that are significantly related to firm reputation.

Board profile fit is operationalized as a weighted Euclidean distance from the ideal profile (MISALIGN) along those board characteristics considered significant. MISALIGN values are not normally distributed (Kolmogorov-Smirnov (359) = 0.20, $p < 0.001$), therefore I used the square root transformation of MISALIGN as independent variable. As posited in hypothesis 4, a unit deviation from the ideal profile, should have a negative relationship with reputation.

Moderators:

Environmental characteristics are measured using industry-level data available from CompuStat; the U.S. Bureau of Labor Statistics; and the Kinder, Lydenburg, & Domini Statistical Tool for the Analysis of Trends in Social and Environmental Performance (KLD STATS) dataset.

Environmental Munificence: Following Dean and Snell (1996) and Keats and Hitt (1988), this measure was calculated by regressing time against the natural logarithm of industry sales for the five years preceding data collection (2004-2008). The sample for this analysis is comprised of 34,688 publicly traded companies in 201 industries in the US. The antilog of the regression slope is the measure of industry growth. The regression is represented by the following equation (Keats and Hitt 1988):

$$y_t = b_0 + b_1t + a_t \quad \text{Equation [1]}$$

Where

y = industry sales

t = year, and

a = residual

Environmental Dynamism: using equation 1 above and the same sample, the five-year (2004-2008) industry dynamism was measured as the antilog of the standard error of each regression slope coefficient (Dess and Beard 1984; Keats and Hitt 1988).

Managerial Discretion: Following Goll and Rasheed, (1997) I measure high discretion environments as those with high levels of both munificence and dynamism. I use the median split of environmental munificence and dynamism to create four types of environments (high munificence and high dynamism; high munificence and low dynamism; low munificence and low dynamism; and low munificence and low dynamism). I create a dummy variable in which 1 represents environments with high managerial discretion (high munificence, high dynamism), and 0 represents the other environments.

Environmental Complexity: I use Sharfman and Dean's (1991) measure of environmental complexity as the percentage of employees in technical, scientific, and engineering occupations at the four-digit NAICS industry level. This operationalization reflects an industry's technological complexity and its capacity to "draw on human resources to achieve competitive advantage" (Cannon and John 2007: 317). I think this measure of environmental complexity may be more appropriate for the study of board of directors than traditional measures of industry concentration, because it draws on the skills of people working for the industry, similarly to my dependent measures. I collect this data from the 2004-2008 Occupational Employment Statistics Survey of the U.S. Bureau of Labor Statistics.

Need for legitimacy: Using the KLD STATS databases for 2004, 2005, and 2006, I calculate industry-level need for legitimacy scores. KLD STATS scores 3,034 U.S. companies on seven areas of corporate social responsibility: community, corporate governance, employees and diversity, the natural environment, human rights, and consumers. Within each area, KLD has

established several criteria or activities that can be considered a socially responsible behavior (strength) and a bad social behavior (concern). For instance, in the community area, KLD scores each company in four concerns and seven strengths. An example of a strength in the community area is the item 'Charitable giving' (The company has been exceptionally generous in its giving). An example of a concern is 'Investment Controversies' (The company's lending or investment practices are controversial). Companies are assigned a score of 0 or 1 for each item in each area, where 1 indicates the presence of a strength or a concern.

Because I am interested in the need for legitimacy, I collect only data on KLD's concerns at the firm level and then aggregate at the 4-digit NAICS industry level. I think that the concerns better reflect an industry's lack of compliance with societal norms, laws, and expectations.

Dependent variable:

Firm reputation: Fortune's magazine list of the Most Admired U.S. companies is used as measure of reputation to test hypotheses 1 to 7. For the 2009 list, Fortune asked executives, outside directors and financial analysts to rate companies in their own industry along nine dimensions: Wise use of corporate assets; Quality of management; Quality of products or services; Innovativeness; Long-term investment value; Financial soundness; Ability to attract, develop and keep talented people; Responsibility to the community and the environment; and Global Effectiveness. Because only companies in the Fortune 1000 list (the 1,000 largest U.S. companies by revenue) are included in the U.S survey, the rankings have been criticized for being biased in favor of large American corporations (Fombrun 1998). Also, some authors have argued that since financial performance accounts for about 50% of the variance in Fortune's reputation scores, perceptions of reputation may be confounded by raters' expectations of financial performance (Fombrun and Shanley 1990). Despite these criticisms Fortune's

reputation scores and rankings are the most common measure of organizational reputation in management research, because appearing in this ranking contributes to the generalized favorability of organizations (Fombrun 1996; Miller and Triana 2009).

Prior financial performance is used to avoid the ‘financial halo effect’. Regressing performance measures on reputation and using the residual value as dependent variable, results in a ‘halo-removed’ reputation. Thus, I regress 2009 reputation on return on assets (ROA) and from 2004 to 2008. The predicted values correspond to the ‘financial reputation’ while the residual values represent the ‘halo-removed’ reputation (Miller and Triana 2009; Roberts and Dowling 2002). Because the effect of financial performance has already been removed by this process, I do not control for firm performance.

Control variables:

A review of the literature on corporate reputation indicated that the following variables should be added as controls:

Board Age: I control for average board age because older directors may have higher levels of expertise and social capital.

CEO power: CEO power can hamper the effects of the board of directors and decrease the directors’ propensity to appoint board members who are similar to themselves (Westphal and Zajac 1995). I control for CEO power using a dummy variable for CEO, Chairman duality, where 1 represents boards in which the CEO is also the Chairman, and 0 represents boards in which the CEO and Chairman position are held by two different people.

Board independence: Similarly to CEO power, board independence affects CEOs’ ability to appoint members with whom they share personal characteristics. The percentage of insiders in the board serves as proxy measure for board independence.

Board size: I control for board size because it affects a variety of strategic decisions and outcomes (Chaganti, Mahajan, and Sharma 1985; Judge and Zeithaml 1992; Mueller and Barker 1997), including firm performance (Dalton et al. 1999).

Organizational Age: number of years of incorporation from the founding date until it was sold, ceased to exist, or the end of the data collection period. The organizational age data is not normally distributed (Kolmogorov-Smirnov (425) = 0.12, $p < 0.001$), and therefore I use the square root of organizational age.

Organizational Size: Average number of employees from 2004-2008, to match the period of the environmental moderators. Since this variable is not normally distributed (Kolmogorov-Smirnov (431) = 0.32, $p < 0.001$), I use the natural log of total number of employees to control for organizational size.

I control for age and organizational size as companies with more experience and resources may have better reputations (Deephouse and Carter 2005; Miller and Triana 2009)

Liquidity: Because companies with more slack can deploy resources to manage their reputation (Suchman 1995) I control for liquidity using the average current ratio of current assets to current liabilities from 2004-2008. This current ratio is not normally distributed (Kolmogorov-Smirnov (359) = 0.12, $p < 0.001$), thus I use the square root of current ratio to control for organizational liquidity.

Industry reputation: average reputation score on the Fortune's Most Admired companies list of firms in the industry by 3-digit SIC code. Industry reputation is used to control for alternative explanations of results as regression to the mean.

Blockholders: Chen and Yur-Austin (2007) report differential effects of blockholders on corporate governance and strategic management outcomes. They find that outside blockholders,

usually associated with institutional investors, are better at controlling managerial extravagance, whereas inside blockholders have a stronger effect in improving asset utilization and overcoming underinvestment problems (Chen and Yur-Austin 2007) . Because both of these effects could impact firm reputation, I control for the level of both inside and outside blockholders, using data collected from Compustat. Following Chen and Yur-Austin (2007), inside blockholdings are measured as the sum of the shareholdings of managers, non-officer directors, affiliated blockholders (suppliers, relatives of managers, etc.), and Employee Share Ownership Plans (ESOP), while outside blockholders are all the other blockholders. Neither measure of blockholder ownership was normally distributed. The percentage of outside blockholders was transformed using the square root function, while the percentage of inside blockholders was transformed using the natural logarithm.

Hypotheses testing

I test hypotheses 1 to 3 in the full sample using multiple regression to predict the effect of the 1-year lagged independent variables board expertise (H1), heterogeneity of background (H1a), board social capital (H2), and board demographic diversity (H3) on firm reputation.

Following previous research, I control for average age of directors, percentage of insiders in the board, CEO/Chairman duality; organizational size, age, liquidity, blockholders; and overall industry reputation(Judge et al. 1995; Miller and Triana 2009; Suchman 1995). Since the dependent variable is financial halo-removed firm reputation I do not control for firm performance.

After identifying the significant variables in the study sample, I create the ideal board profile using the calibration sample and calculate the MISALIGN score for each company in the study sample. Hypothesis 4 is tested by regressing *Firm Reputation* on MISALIGN and the

control variables explained earlier. A statistically significant negative relationship between MISALIGN and firm reputation would support my contention that Fit between ideal board profile and focal firm board profile is positively related to firm reputation (H4).

It may be possible that the reputation of the firm attracts to the board directors with high levels of expertise, social capital, and diversity. To control for endogeneity, I ran a regression using 2004-2008 Revenues, ROA, and firm reputation to predict the significant independent variables (Chatterjee and Hambrick 2007).

I use moderated regression to test the environmental contingency effect of board fit on reputation. To test hypotheses, 5, 6, and 7, I multiply the term MISALIGN by *Dynamism*, *Complexity*, and *Need for Legitimacy* respectively. The terms of the interaction were mean-centered to facilitate interpretation (Aiken and West 1991). Hypotheses 5 to 7 are supported if there is a positive relationship between the interaction terms and reputation.

RESULTS

Descriptive statistics

Table 3 presents the correlations and descriptive statistics of the study sample. Due to differences in the databases used, sample size varies from 124 to 432 firms. Halo-removed reputation, the dependent variable, has a high standard deviation (0.93). Its highest correlation is with overall industry reputation ($r=0.49$, $p<0.01$), indicating that almost 25% of the variance in firm reputation (after removing financial reputation) could be explained by the reputation of the industry. Halo-removed reputation is also correlated with organizational size (measured by the number of employees), and board size.

Three of the independent variables -- namely board expertise, social capital, and gender diversity -- are positively correlated with firm reputation. Halo-removed reputation is also negatively correlated with MISALIGN ($r=-0.29$, $p<0.01$). This correlation is in the same direction proposed in hypothesis 4.

One of the highest correlations is between MISALIGN and Overall Industry Reputation ($r=0.55$, $p<0.01$). This suggests that the most reputable industries have low levels of deviation from the ideal board profile.

Board size shows significant positive correlations with halo-removed reputation ($r=0.19$, $p<0.01$), board expertise ($r=0.28$, $p<0.01$), board heterogeneity of background ($r=0.22$, $p<0.01$), social capital ($r=0.11$, $p<0.01$), gender heterogeneity ($r=0.20$, $p<0.01$), and racial heterogeneity, ($r=0.15$, $p<0.01$). However, it is negatively related to age heterogeneity ($r=-0.13$, $p<0.01$).

TABLE 3.

Correlations and Descriptive Statistics of the Full Sample.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
1. Halo-removed reputation																						
2. Overall reputation	.88																					
3. Expertise	.14**	.14**																				
4. Expertise Heterogeneity	.01	.03	.10*																			
5. Social Capital	.21**	.19**	.15**	.00																		
6. Gender Heterogeneity	.12*	.12*	.19**	.09	.04																	
7. Race heterogeneity	.01	.03	.00	.01	-.02	.13*																
8. Age heterogeneity	-.06	-.10*	-.14**	-.12*	-.12*	-.20**	-.12*															
9. Board age	.05	.06	.45**	.22**	.11*	.00	-.12*	-.29**														
10 Board independence	-.10*	-.10*	-.11*	-.08	-.09	-.16**	-.06	.23**	-.11*													
11. Board Size	.19**	.13**	.28**	.22**	.11*	.20**	.15**	-.13**	.10*	-.19**												
12. Org. age	.05	.05	.12*	-.01	-.02	.16**	.13*	-.13**	.05	-.08	.18**											
13. Industry reputation	.49**	.62**	.09	.02	.17**	.01	.03	-.07	.03	-.11*	.05	.06										
14. Org. size	.17**	.19**	.22**	.06	.15**	.24**	.14*	-.10*	.05	-.10	.23**	.17**	.12*									
15. Liquidity	-.06	.05	-.01	.02	-.07	.01	-.09	-.05	-.07	.06	-.11*	-.02	.00	-.05								
16. CEO duality	.11*	.13**	.13**	.01	-.01	.16**	-.04	.01	.07	-.07	.09	.04	.06	.13**	.06							
17. Outside blockholders	-.14*	-.19**	-.13*	-.11	-.03	-.02	.06	.07	-.04	.09	-.15*	-.24**	-.13*	-.24**	-.04	-.05						
18. Inside blockholders	-.20*	-.20**	-.09	-.12	-.04	-.13	.12	.22*	.02	.14	-.23*	-.11	-.16	-.07	-.02	-.01	.03					
19. MISALIGN	-.29**	-.38**	-.26**	-.05	-.18**	-.18**	-.01	.14**	-.13*	.14**	-.16**	-.14**	-.55**	-.51**	-.13*	-.15**	.16**	.15				
20. Managerial Discretion	.03	.08	.01	-.03	-.01	.05	.08	-.02	-.09	-.05	-.05	.04	.10*	-.10	-.06	.04	.11	-.10	-.01			
21. Complexity	-.03	.06	.04	.04	.06	-.02	-.14*	-.03	-.01	-.03	-.09	-.18**	.10	.05	.18**	-.11*	-.07	-.10	-.18**	-.02		
22. Need for legitimacy	.07	.08	.08	.02	.03	.02	.08	-.06	.10*	.04	.04	.06	.11*	.23**	-.16**	.12*	-.16**	-.05	-.12*	-.02	-.15**	

TABLE 3.

Correlations and Descriptive Statistics of the Study Sample (Continued)

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			
23. Managerial discretion * Misalign	-.09	-.09	-.15**	.04	-.04	-.07	-.01	.03	-.14**	.02	-.01	-.08	-.09	-.32**	-.11*	-.03	.10	.01	.42**	.59**	.00	-.09						
24. Complexity * Misalign	.03	.15**	.08	.07	.07	.06	-.08	-.07	.06	-.09	-.01	-.09	.23**	.17**	.16**	-.04	.05	-.10	-.40**	.07	.74**	-.09	.00					
25. Need for Legitimacy * Misalign	.06	.05	.13**	-.06	.04	.12*	.03	-.06	.10*	.02	.08	.15**	.04	.40**	-.09	.10	-.17**	-.07	-.32**	-.06	-.06	.69**	-.30**	-.03				
Mean	.00	5.96	.00	1.37	.00	.24	.41	.12	61.81	.14	11.55	7.51	5.96	3.18	1.11	.40	3.14	2.20	.12	.20	13.09	2.20	.02	-.34	-.01			
S.D.	.93	1.07	1.44	.20	1.00	.12	.18	.04	3.27	.09	2.71	3.13	.67	1.33	.36	.49	1.82	1.03	.12	.40	16.35	1.13	.08	2.01	.20			
N	417	432	411	426	411	426	327	424	425	426	419	424	432	427	378	419	277	124	406	391	425	429	385	401	405			

** p ≤ 0.01; * p ≤ 0.05

Analysis of Collinearity showed that the Variance Inflation Factors (VIF) were below 10 for all multiple regression analyses, indicating an acceptable degree of collinearity (Hair et al. 2006). I consider statistical significance levels of 1%, 5%, and 10%, and one tailed significance tests for directional hypotheses.

I initially entered all the controls in the multiple regression but following Cohen, Cohen, Aiken, and West (2003) I decided to remove non-significant controls in order to maintain power and validity. The original list of control variables presented in table 1 was reduced to two control variables: organizational size as measured by the natural logarithm of the number of employees, and industry reputation.

Table 4 presents the results of the multiple regression testing the effects of the board-level variables on financial halo-removed firm reputation. Board expertise ($b = 0.04$, $p < 0.001$), Social Capital ($b = 0.07$, $p < 0.05$), and Gender Diversity ($b = 0.66$, $p < 0.05$) were found to have a positive and significant effect on firm reputation, as hypothesized. Board heterogeneity of background (Hypothesis 1b), racial diversity (Hypothesis 3b), and age heterogeneity (Hypothesis 3c) did not have statistically significant effects.

Using the calibration sample, I regressed firm reputation on the three significant board-level variables identified in the full sample. The standardized beta weights and means of these three variables in the calibration sample were then used to create the MISALIGN score for the study sample which was composed of 295 firms after removing the top and the bottom 13 percent of the firms. .

TABLE 4.

Effect of the Board-Level Predictors of Halo-Removed Firm Reputation

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
	b	b	b	b	b	b	b	b
	(S.E.)	(S.E.)	(S.E.)	(S.E.)	(S.E.)	(S.E.)	(S.E.)	(S.E.)
Controls								
Mean industry reputation	.67*** (.06)	.63*** (.06)	.67*** (.06)	.65*** (.06)	.67*** (.06)	.66*** (.07)	.67*** (.06)	.62*** (.06)
LN mean employees	.07* (.03)	.05 [†] (.03)	.08** (.03)	.07** (.03)	.06* (.03)	.05 (.04)	.07* (.03)	.05 (.04)
Independent variables								
Board expertise		.04*** (.01)						.02 (.02)
Board heterogeneity of background			-.06 (.20)					.01 (.26)
Board Social Capital				.07* (.03)				.08** (.04)
Board Gender Diversity					.66* (.33)			.51 (.44)
Board Racial Diversity						-.10 (.26)		-.10* (.26)
Board Age Heterogeneity							-.22 (1.05)	1.05 (1.31)
ΔR^2	.25***	.02*	.00	.01*	.01*	.00	.00	.01
Overall R^2	.25	.27	.25	.27	.26	.24	.25	.26
Adjusted R^2	.24	.26	.25	.26	.26	.24	.25	.24
F	64.89***	47.65***	45.85***	47.12***	47.58***	32.99***	45.46***	13.12***
N	399	399	406	391	406	314	404	303

† $p \leq 0.10$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$ (one-tailed tests for hypothesized effects). The table shows unstandardized regression coefficients with standard errors in parentheses

The tests of endogeneity showed that 2004, 2005, and 2008 revenue; 2008 ROA; and 2006 reputation predicted at least one of the significant independent variables identified. Specifically, revenue 2004 ($p < 0.05$), revenue 2005 ($p < 0.10$), and revenue 2008 ($p > 0.05$) were negatively related to board expertise; suggesting that perhaps when firms face low revenues, the board's level of expertise increases. On the other hand, ROA 2008 ($p < 0.05$) was positively related to board social capital, indicating that socially connected directors are recruited by the most reputable firms. Finally, board gender diversity was positively related to reputation 2006 ($p < 0.10$) and negatively related to revenue 2008 ($p < 0.10$). The positive relationship between reputation 2006 and gender diversity could indicate that female directors are recruited or attracted to the companies with the best reputation. On the other hand, the negative relationship between board gender diversity and 2008 revenue could be evidence of the glass-cliff phenomenon (Ryan and Haslam 2007), which occurs when women are appointed to the higher levels of corporations that are about to fail. To control for endogeneity, I created three different covariates: a board expertise covariate (the predicted score of board expertise based on the regression of board expertise on 2004, 2005, and 2008 revenues); a social capital covariate (the predicted social capital score based on the regression of board social capital on 2008 ROA); and a gender diversity covariate (the predicted board gender diversity based on the regression of board gender diversity on reputation 2006, and Revenue 2008). These three variables were used as controls in the multiple regression to test hypothesis 4.

As table 5 shows, regression results indicate that MISALIGN, has a negative and statistically significant effect on firm reputation ($b = -0.57$, $p < 0.10$). That is, is misalignment – or lack of fit - with the ideal board profile reduces firm reputation, supporting hypothesis 4.

TABLE 5.

Effect of Board Misalignment (Misalign) from the Ideal Board Profile on Halo-Removed Firm Reputation.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
	b	b	b	b	b	b	b
	(S.E.)	(S.E.)	(S.E.)	(S.E.)	(S.E.)	(S.E.)	(S.E.)
Controls							
SQRT Organizational Age	.02* (.01)	.03* (.01)	.02† (.01)	.02† (.01)	.03* (.01)	.02† (.01)	.02 (.01)
Mean Industry Reputation	.26*** (.07)	.32*** (.08)	.36*** (.09)	.32*** (.08)	.36*** (.09)	.36*** (.09)	.43*** (.09)
Predicted expertise covariate	-.14† (.07)	-.14* (.07)	-.11 (.08)	-.14* (.07)	-.19* (.08)	-.09 (.08)	-.18* (.09)
Predicted social capital covariate	-4.32** (.64)	-4.30*** (.64)	-4.07*** (.68)	-4.16** (.66)	-4.33*** (.63)	-4.00*** (.70)	-3.97*** (.70)
Predicted gender diversity covariate	15.26*** (2.18)	15.44*** (2.18)	14.79*** (2.32)	15.35** (2.19)	16.28*** (2.23)	14.93*** (2.33)	16.13*** (2.39)
Independent variable							
SQRT_MISALIGN		-.57† (.40)	-.70† (.52)	-.65 (.63)	-.83* (.48)	-.44 (.50)	-1.26* (.78)
Managerial Discretion			-.06 (.14)			-.13 (.11)	.00 (.14)
Environmental complexity				.00 (.00)		.00 (.00)	.00 (.00)
Need for legitimacy					-.07 (.05)	-.03 (.04)	-.11* (.05)
Interactions							
Managerial Discretion * SQRT_MISALIGN			.91 (1.10)				-1.83† (1.19)
Environmental complexity * SQRT_MISALIGN				.02 (.04)			.01 (0.5)
Need for legitimacy * SQRT_MISALIGN					.61* (.37)		.92* (.41)
ΔR^2	.32**	.01†	.01	.00	.01†	.02	.04*
Overall R^2	.32	.33	.34	.33	.34	.34	.36
Adjusted R^2	.31	.31	.31	.31	.31	.31	.32
F	21.14***	17.91***	12.43***	13.48***	13.82***	11.01***	8.83***
N	225	225	202	224	225	201	201

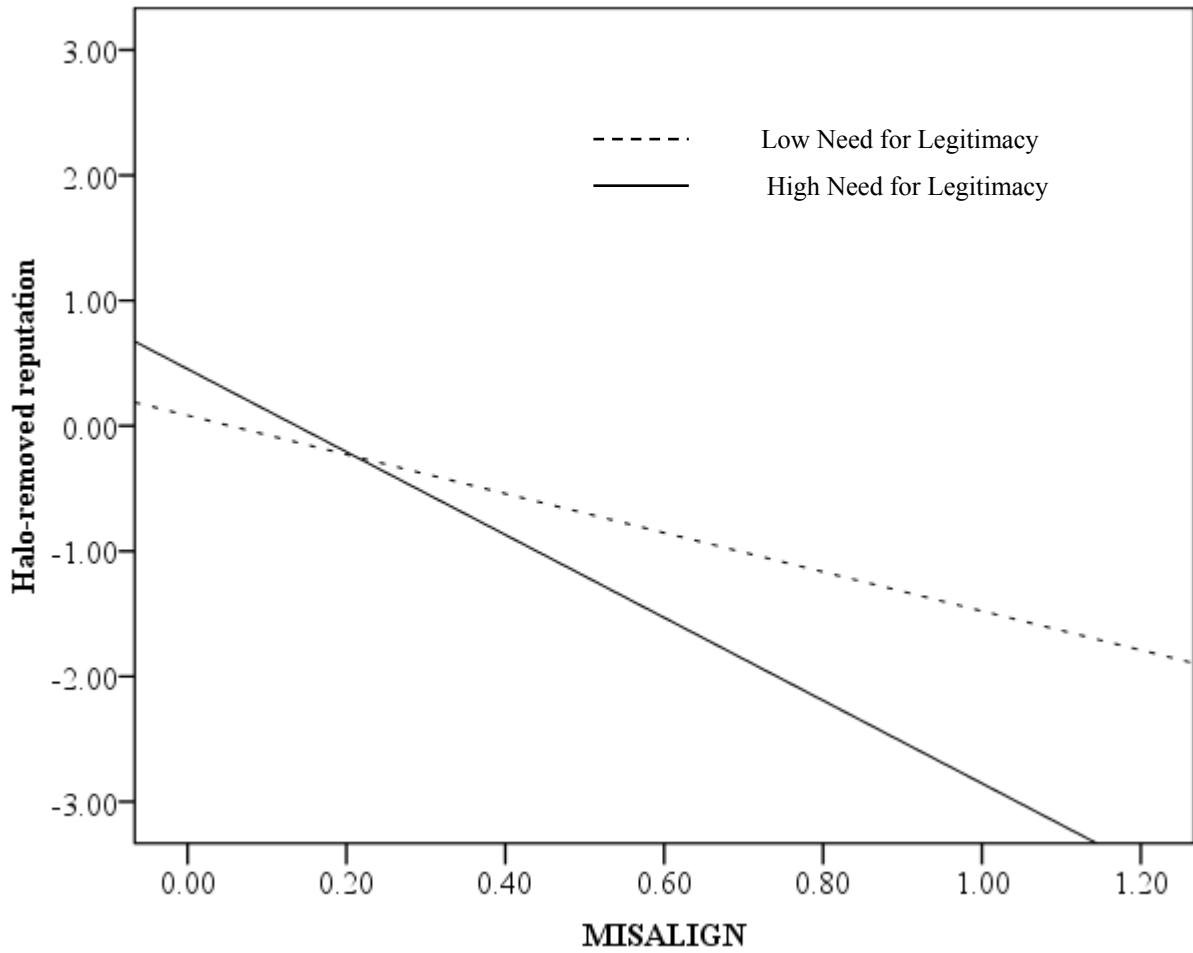
† $p \leq 0.10$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$ (one-tailed tests for hypothesized effects). The table shows unstandardized regression coefficients with standard errors in parentheses

Hypothesis 5, that managerial discretion strengthens the negative relationship between deviation from the ideal board profile and firm reputation was not supported. Hypothesis 6, which argued that environmental complexity strengthened the relationship between MISALIGN and firm reputation was also not supported.

Finally, Hypothesis 7 is supported ($b = 0.61, p < 0.05$): need for legitimacy strengthens the relationship between misalignment and reputation. As figure 3 shows, there is a negative relationship between misalignment and reputation (measured as financial halo removed reputation) under conditions of both high and low need for legitimacy. However, the difference between the slopes of the high and low need for legitimacy lines is statistically significant [$t(385) = 2.25, p < 0.05$], indicating that this negative effect is more acute for firms operating in industries with high need for legitimacy.

FIGURE 3.

Interaction between Need for Legitimacy and Misalignment from the Ideal Board Profile.



Post hoc analyses

Board heterogeneity of background and board expertise: Although board heterogeneity of background did not have a significant effect on firm reputation, it is possible that if there is any benefit of heterogeneity of background, it only accrues to the boards with high levels of expertise. There is evidence that team heterogeneity can encumber team processes. Heterogeneity may reduce efficiency because it hinders communication and social integration, and may be associated with intra-team conflict (Amason 1996; Smith et al. 1994). Boards with high levels of work experience and education – my measure of expertise – may be better able to deal with the negative effects of board heterogeneity and harness the benefits of having a diverse set of skills, experiences, and knowledge. However, a moderated regression to test whether board heterogeneity of background moderates the relationship between board expertise and firm reputation, showed not significant interaction.

Board diversity and reputation: Some authors have suggested a curvilinear relationship between diversity and firm performance (Richard, Murthi, and Ismail 2007). I ran a post-hoc analysis to explore whether a similar relationship exists between board demographic diversity and firm reputation. The analysis indicated no quadratic relationship between racial diversity and reputation, or age heterogeneity and firm reputation. However, as table 6 shows, there is a quadratic relationship between gender and reputation ($b = -4.34$, $p < 0.05$). This quadratic relationship indicates that gender diversity has a positive effect on firm reputation up to a point, after which the relationship becomes negative. Figure 4 indicates that this point is around a Blau's index of heterogeneity of about 0.30 – where the maximum gender diversity is 0.50 and the minimum is 0.

TABLE 6.

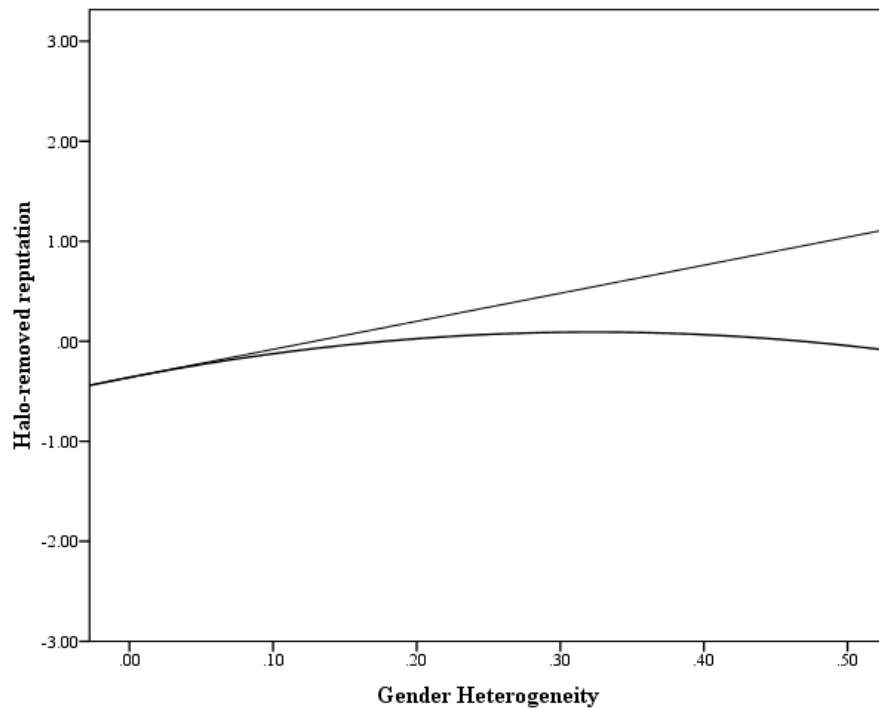
Test of the Quadratic Relationship between Gender Diversity and Halo-Removed Firm Reputation

	b (S.E.)
Gender Diversity	2.80** (1.12)
Gender Diversity ²	-4.34* (2.39)
<i>Overall R²</i>	.02
<i>Adjusted R²</i>	.02
<i>F</i>	4.60
<i>N</i>	410

* $p \leq 0.05$; ** $p \leq 0.01$. The table shows unstandardized regression coefficients with standard errors in parentheses

FIGURE 4.

Relationship between Gender Diversity and Halo-Removed Reputation



Board diversity and Board tenure: Team tenure has been shown to moderate the negative effects of demographic diversity, perhaps by increasing positive affect among team members and reducing intra-team conflict (Eisenhardt and Schoonhoven 1990; Smith et al. 1994). However, in this study, a post hoc analysis of the effect on firm reputation of the interaction between tenure and the three measures of diversity indicated no significant interaction between tenure and gender diversity, tenure and racial diversity, or tenure and age heterogeneity.

Misalignment, environmental dynamism, and environmental munificence: A potential explanation for the non-significant interaction of managerial discretion and deviation from the ideal board profile is the nature of the measure of managerial discretion. This measure is a dummy variable that separates environments with high munificence and high dynamism – and thus high managerial discretion – from the other three possible combinations of munificence and dynamism. The measure may not be fine-grained enough to tease the interaction effect of managerial discretion. An analysis using environmental munificence, environmental dynamism and misalignment from the ideal board profile as independent variables, and a three-way interaction among these three independent variables could show whether this is the case. A post-hoc multiple regression analysis indicated that the three-way interaction among environmental munificence, environmental dynamism, and misalignment from the idea board profile was not significant. Moreover, the two-way interactions were also not significant.

DISCUSSION

This paper suggests that the collective expertise, social capital, and demographic diversity of the board of directors have a positive effect on firm reputation. These effects, however, are contingent on at least one characteristics of the organization's external environment: need for legitimacy.

The positive effect of board expertise indicates that the directors' experience and education increase the firm's reputation, above and beyond the effect these can have on financial performance. This expertise is not only the accumulation of knowledge and skills, but also a reflection of the prestige of the companies and educational institutions with which the directors have been affiliated throughout their lives. High levels of expertise give directors the ability to take advantage of the '10,000-foot view' they have of the company (Lorsch and Clark 2008). This could be vital in neutralizing threats to the firm's reputation. Moreover, for external observers, the directors' many years of experience and education serve as certification of the directors' capabilities. In the absence of specific information about what goes on inside the board room, stakeholders may evaluate the firm according to the quality of the board members it attracts. Directors who achieved high levels of education at prestigious institutions and who have worked for many years at well-regarded firms, bring to the board room this track record, increasing the company's reputation through their own business credibility.

Heterogeneity of background had no effect on firm reputation. It could be that it is not enough to have a variety of backgrounds represented in the board of directors, but that these backgrounds need to complement each other in order to affect firm-level outcomes (Miles and Watkins 2007) – including reputation. My measure of heterogeneity of background only looks at the levels of diversity and does not look at the quality of this diversity. For example, a board of

directors with one lawyer, one engineer, and one accountant, scores the same in heterogeneity of background that a board with a marketer, a physicist, and a medical doctor. It could be that the effect of heterogeneity depends on certain combinations – that is, that not all combinations of backgrounds have the same effect. Alternatively, as Miles and Watkins (2007) suggest, boards may need complimentary backgrounds: pairing a board member who specializes in sales with an expert in operations, or a marketing expert with a research and development expert, for instance.

Power differentials within the board could also diminish the effects of board heterogeneity of background. This power could be based on hierarchy, seniority, tenure, or the directors' insider and outsider status. The expertise and background of the most powerful members of the board may be considered more important or more relevant. In this case, having directors with diverse educational and professional experiences may have no effect on the organization because only one perspective gets heard.

Board Social Capital also had a positive effect of firm reputation, supporting hypothesis 2. Reputations are socially constructed and through their connections directors may be able to shape this construction. For example, the social ties that directors establish throughout their careers may help them to learn about the firm's reputation among stakeholders, giving them opportunity to act upon this information to maintain or enhance the company's reputation. Also, the social capital may help them to disseminate positive information, and to challenge or correct negative information about the firm.

Through their wider network of interlocks, directors with high levels of social capital let diverse audiences learn about the existence of the firm. Thus - even if directors do not put their social capital to work in enhancing the company's reputation - this capital could add to the

company's visibility – contributing to the 'being known' aspect of corporate reputation (Lange, Lee, and Dai 2011).

The effects of demographic diversity are mixed. While board gender diversity had a positive effect on reputation ($b = 0.66, p < 0.05$), racial diversity and age heterogeneity did not have statistically significant effects.

The positive effect of board gender diversity on firm reputation, contradicts the results of Miller and Triana (2009), who found no effect of gender diversity on reputation in their study of Fortune 500 firms. They attributed this result to the lower status of women in the boards of directors. Specifically, Miller and Triana (2009) found that women were less likely than men to be chairperson of major committees, and also had less management experience – factors that decreased the women's visibility.

In order for demographic diversity to affect reputation, this diversity has to be visible to the stakeholders rating the company. Bernardi, Bean, and Weippert (2002) found that companies with female directors are more likely to publish pictures of these directors, indicating that organizations are eager to give visibility to the gender diversity of their board. Additionally, shareholders are more likely to vote for a female rather than a male director (Hillman et al. 2010). Thus, by nominating and appointing female directors, firms are signaling their commitment to gender diversity and shareholders respond positively to this signal. This dynamic can enhance the firm reputation.

Despite this encouraging result, the post-hoc analysis showed a quadratic relationship between gender diversity and firm reputation. After women have reached about 30% of the seats in the board of directors, the relationship with firm reputation starts to decrease. In this sample, the average gender diversity is 0.24 (indicating that the average percentage of females in each

board is around 24%). Researchers have considered that for female directors to go beyond tokens, there needs to be at least three women on the board (Torchia, Calabrò, and Huse 2011). When there are four or more women on the board, they have reached a critical mass, and they can actually influence the decision-making process (Asch 2003). Thus, it could be that the positive relationship between gender diversity and firm reputation derives from the women's symbolic role. If gender diversity increases to the point where women may actually have influence on the board's processes and decisions, firm reputation starts to decrease.

Racial diversity had no effect on reputation. Moreover, racial diversity showed no significant correlation with reputation. In their study of Fortune 500 companies, Miller and Triana (2009) found that racial diversity had a positive effect on firm reputation. Differences in the data sources and the categories used could explain the dissimilar results between Miller and Triana's study and my research. Miller and Triana (2009) used 4 racial categories identified by the Investor Responsibility Research Center, whereas I used six categories from BoardEx.

The maximum possible level of racial diversity in my sample using Blau's index of heterogeneity is 0.83, whereas the mean in the sample was 0.41. This indicates an overall low level of racial diversity. Furthermore, I was unable to find information on the racial composition of over 100 boards in the sample. Not only do companies not publish the race of directors on their official SEC filings, but also the race of directors is more difficult to discern from their name or photograph than other characteristics such as gender. Consequently, there is an overall lack of visibility of the racial diversity in the board of directors. This low level of visibility could explain why racial diversity had no effect, positive or negative, on firm reputation. If diversity is used by firms as a signaling mechanism, the conspicuousness of these signals is essential for them to have an effect on stakeholders.

Age heterogeneity was not correlated with reputation. The average level of age heterogeneity was very small (0.12), due to a high mean board age (61.84 years) and a low standard deviation (± 3.42 years). Therefore, the lack of support for hypothesis 3c may be due to the overall low level of board age heterogeneity in the sample. Moreover, board age was significantly and positively correlated with board expertise ($r=.45$, $p<0.01$) and board social capital ($r=0.11$, $p<.05$) – two variables that have a significant positive effect on halo-removed firm reputation. I controlled for board age and it had no statistically significant effect on firm reputation. This could indicate that board age alone has no impact on reputation; that is, an older board with little expertise and social capital has no effect on reputation.

Perhaps a racially-diverse board of directors, or a board of directors with high levels of age heterogeneity, does not have the same signaling effects than a gender diverse board. What is more, companies may be concerned about “stigma by association” which occurs when social audiences ascribe their negative stereotypes of individuals to the groups or organizations associated with these individuals (Hudson 2008). If the social audiences in this case have racial or age prejudice, organizations may try to disassociate themselves from older or racial minority directors to avoid the stigma by association.

Additionally, it is important to keep in mind the “inherent limitations” in the use of demographic variables to understand the effects of the TMT (Priem, Lyon, and Dess 1999). Although demographic characteristics are useful proxies to represent differences in perception among top executives, the measures ignore the role of power, conflict, social relations, and other factors that affect the TMT interactions. Moreover, there is ongoing discussion in management research about whether group diversity has a positive or negative effect on group-level processes and outcomes. As discussed in the case of heterogeneity of background, demographic diversity

can reduce social integration and communication, and increase conflict (Amason 1996; Smith et al. 1994). The negative effects of diversity have been shown to decrease with repeated interactions among team members, suggesting a moderating effect of team tenure on the relationship between group diversity and group performance (Eisenhardt and Schoonhoven 1990; Smith et al. 1994). Yet, in this study, analyses of the moderating effect of board tenure on the relationship between gender diversity and reputation, race diversity and reputation, and age heterogeneity and reputation were not significant.

The positive moderating effect of managerial discretion on the relationship between board fit with the ideal profile and reputation posited in hypothesis 5 was also not supported. Additionally, managerial discretion was not correlated to either MISALIGN or halo-removed firm reputation. One potential explanation for this result is the data used to calculate environmental dynamism and environmental munificence – the two variables that compose the measure of managerial discretion. I collected data on industry sales from 2004-2008 using all the firms available in CompuStat. Because this database uses only public companies, it may not adequately represent the true state of the environment. For example, Ali, Klasam and Yeung, (2009) found that measures of industry concentration derived from Compustat are only 13% correlated with measures of concentration obtained from the U.S. Census. A similar phenomenon may occur with data about environmental munificence and dynamism.

A second explanation for the non-significant interaction of managerial discretion and deviation from the ideal board profile could be that only 22% of the firms in the sample operated in environments with high managerial discretion, while all the rest operate under low managerial discretion. This could be a result of either low environmental munificence and/or low environmental dynamism. I compared the number of firms operating in each environment and

found that 197 firms are in industries with low level of munificence and 194 are in industries with high levels of munificence. On the other hand, 152 firms operate in highly dynamic environments, whereas 239 operate in stable environments. This may evidence an overall low level of dynamism in the data period collected (2004-2008). However this is unlikely because this period covers years of high volatility and uncertainty: the boom years before the economic recession that started in December of 2007 and ended in June of 2009, and also part of the recession (NBER 2010).

Hypothesis 6, which suggested that environmental complexity strengthened the relationship between board alignment and reputation, was not supported. There is ongoing discussion in strategic management and finance research about the meaning and measurement of environmental complexity (Ali, Klasa, and Yeung 2009; Cannon and John 2007). For this study, I decided to measure environmental complexity as the number of scientists, engineers, and technical professionals as a percentage of the total number of employees in an industry. This measure, which was developed by Sharfman and Dean (1991), is purported to reflect the level of technical sophistication required in an industry. Because this type of skills may reside at the board level, I thought it could be an appropriate measure of an environment in which the skills and expertise of the directors of the board could impact the firm's reputation. Yet, it may be that the directors' roles are limited to control, monitoring, and strategy formulation, and thus, their technical skills are not required to deal with the technological complexity of the firms' environment. Still, one must be careful to note that it is not that the expertise of the board of directors is without importance, as hypothesis 1 shows that the board's level of expertise has a positive impact on reputation.

While I controlled for board independence, it did not have a significant effect on firm reputation. Board independence is one feature of board of directors that has been actively promoted by corporate governance reform, in particular the Sarbanes-Oxley Act of 2002. However, at least in the case of managing corporate reputation, creating independent boards is not enough. The levels of expertise, social capital, and racial diversity are factors that need to be considered when putting together boards of directors that can enhance the firm's reputation. These three positive and significant effects indicate that beyond the traditional functions of monitoring, control, and strategic decision making, boards of directors also have a role in shaping how the firm is perceived by stakeholders.

This consideration is particularly true for companies operating in industries with a high need for legitimacy. As support for hypothesis 7 indicates, misalignment from the ideal board profile has a stronger, negative effect on the reputation of firms operating in industries with high need for legitimacy. These industries have a history of problems with products, employment practices, the environment, and other stakeholders. In these negative situations, a good reputation gives companies the benefit of the doubt, and can shield them from negative effects (Kraatz and Love 2006; Pfarrer, Pollock, and Rindova 2010).

Although this study shows how misalignment from the ideal board profiles negatively affects firm reputation, the picture is however more complex as the fit between the board ideal profile and the focal firm's board is not static. Attrition, succession, and corporate governance reforms may alter the composition of the board. Also, changes in the environment may affect the fit between the board and the environment.

Another important point is how expertise, social capital, and demographics affect the perception of the environment. My paper proposes that these three characteristics of the board

have an effect on firm reputation, and that this effect is moderated by the objective environment. Research has shown, however, that the individual perception of the environment not always matches the actual environment (Boyd, Dess, and Rasheed 1993; Sutcliffe 1994), and some of the factors I propose as independent variables (expertise, social capital, demographics) may affect this perception. For instance, Sutcliffe (1994) found that accurate perceptions of munificence may be improved by in-depth information processing – which may be a result of expertise; or by the density of connections to the industry network – which may derive from social capital. As a result of this discrepancy between the objective and the perceived environment, we should question the assumption that expertise and social capital would always be deployed whenever they are present.

Limitations

Despite the encouraging results, this study is not without limitations. First is the use of Fortune’s magazine “Most Admired Companies” as source for the reputation scores. Although this score has been previously used in management research (for example: Arthaud-Day et al. 2006; Fombrun and Rindova 1996; Fombrun and Shanley 1990; Miller and Triana 2009; Roberts and Dowling 2002), the score is based on surveys of business experts, and it does not measure the firm reputation among other stakeholders. It may be possible to improve this score by creating a multidimensional score drawing from different lists, such as the Best Companies to Work For (also published by Fortune), Best Companies for Women (published by Working Mother magazine), and J.D. Power’s consumer ratings and awards, among others. Moreover, the sample used for Fortune’s rankings cannot be used to understand the ‘being known’ dimension of corporate reputation as all companies included in the rankings are widely known.

A second limitation is that my sample only comprises American public companies, although Fortune magazine has started publishing global reputation lists. This limits the results to board variables that may affect reputation in the United States. Different values, cultures, and expectations around the globe could have an impact on the factors that enhance or reduce a firm's reputation. Likewise, national or local legislation may impose diversity quotas on the board of directors – for example board gender quotas in Norway – which may diminish the variability and importance of some of the variables proposed in this study.

As it is the case with most research on the effects of diversity, one limitation of this study is the use of visible characteristics to measure gender and race. Particularly in the case of race, my measure only allows each individual director to be classified in one of six racial categories but some individuals may self-identify in one or more races. This problem can be further compounded by the lack of distinction between race and ethnicity. Ideally, diversity should be assessed using self-identification measures which may better reflect traits, attitudes, and cognitions.

Finally, the use of cross-sectional data does not allow to test inferences about causality or to see how the variables study change across time. Future longitudinal studies could examine changes in reputation across time, or test how reputation changes after new board members are appointed using different time horizons.

Implications for Theory

This paper presents evidence that Upper Echelons theory can and should be expanded beyond the study of the executive team. Upper Echelons theory can further our understanding of how the demographic characteristics of the board of directors affect important strategic

outcomes. Although there are some studies that have looked at the supra-TMT (Finkelstein and Hambrick 1996; Jensen and Zajac 2004), most UE research focuses only on the TMT. My study shows that the characteristics of the board of directors go beyond their effect on CEO monitoring and control. We need to understand not only the processes that occur inside the board, but also the signaling effects of directors and top executives. This extension of the constructs, operationalizations, and predictions of UE to the study of the board of directors may be particularly important as the involvement of directors in the firm's strategy continues to grow.

Furthermore, this research indicates that the study of the organizational upper echelons can benefit from recognizing best-practice models and how nonconformity to these affects the organization. As this study shows, the perspective of fit as profile deviation (Venkatraman 1989) can be applied to the board of directors and, although not developed here, it may also be applied to the TMT. Practitioners have recognized that there is right board of directors and that companies need to follow best practices not only in areas like manufacturing or logistics, but also in the recruitment of directors and top executives (Dilenschneider and Ettore 2009; Lorsch and Clark 2008; Miles and Watkins 2007). Although companies may never achieve a complete fit with the ideal board profile, they may still reap some of the benefits of fit with reductions in their overall level of misalignment. An important contribution of this study is providing evidence of how fit as profile deviation can be applied to the organization's human capital, a combination rarely considered in strategic management research.

Several scholars have criticized corporate governance research for ignoring the role of the environment on the effects of the board of directors (Huse 2005; Muth and Donaldson 1998; Van den Berghe and Levrau 2004). In linking contingency theory to the study of the board of directors, this research also contributes to our understanding of how the effects of the board may

depend on the characteristics of the firm's external environment. In particular, I show how the traditional strategic environment variables of munificence, dynamism, and complexity, may not be enough to understand the moderating role of the environment on the firm's strategic choices and outcomes. We need to add a fourth dimension, need for legitimacy, to identify the limitations firms encounter by operating in industries with high levels of concerns regarding the environment, human rights, employment practices, etc. Pressure from multiple stakeholders may constraint the companies' strategic choices. At a time when the actions of firms are quickly exposed by traditional and social media, companies operating in 'tainted' industries may be constantly under scrutiny.

My study also contributes to corporate governance research by highlighting the need to go beyond traditional measures of the board based on agency theory and resource-dependence theory. These established measures of board characteristics have produced mixed results regarding the influence of the board of directors on firm-level outcomes (Dalton et al. 1998; Dalton et al. 1999). Despite the regulatory emphasis on fostering board independence and decreasing CEO power, to fully understand the roles and effects of the board of directors, we need to consider board-level characteristics such as expertise, social capital, and diversity. Moreover, corporate governance researchers need to study these characteristics as bundles and not in isolation because the level of deviation from ideal profiles matters.

An important contribution of this research is adding to our understanding of the antecedents of corporate reputation (Lange, Lee, and Dai 2011). Companies can influence their reputation not only through their products and corporate social responsibility practices, but also through the conformation of the board of directors. Specifically, my analysis shows that board expertise, board social capital, and board gender diversity have a positive effect on firm

reputation – even after removing the halo effect of financial reputation. Additionally, this study shows that following best practices in the conformation of the board of directors increases firm reputation.

Fortune's reputation scores are created by surveying specialized investment analysts and peers working in the same industry as the firms being evaluated. These audiences are more likely than the general public to have a thorough knowledge of the firm, including not only its financial records but also their executives and directors. This knowledge may influence their scoring. More importantly, although the scores are based on expert evaluations, once they are published in the magazine they are available to all stakeholders, and they are likely to influence how non-expert audiences evaluate the firm.

Implications for Practice:

For companies, this study indicates that directors are more than insiders or outsiders. They bring to the board the richness of their experience, their social networks, and their personal histories. In order to accomplish better corporate governance practices, we need to consider these differences and to think how they fit with the TMT leadership and the organizational environment. Companies face the challenge of assessing their own board, and filling up their gaps in human and social capital, and in demographic diversity (Miles and Watkins 2007). A starting point in this process is to assess their environment -- particularly their need for legitimacy – in order to recruit directors that can help them to enhance their reputation. Expertise, social capital, and demographics, affect how directors perceive situations and how they construct strategic choices (Forbes and Milliken 1999). For organizations, assembling the right board of directors should go beyond complying with norms or expectations about the right

mix of independent and inside directors (Nadler 2004). For example, organizations may need to change the composition of the board of directors, as the industry they operate on goes from young and with few competitors, to mature and more hostile. These changes in the environment may be not only the result of normal industry cycles, but also be direct consequence of the firm's strategic actions: diversification, retrenchment, internationalization, etc., can all change the environment the firm faces. Thus, part of the preparation for these strategic moves should include aligning the board's collective expertise, social capital, and demographic diversity to the new demands.

Additionally, companies need to consider their own need for legitimacy and the need for legitimacy of the industries in which they work. Operating under high levels of need for legitimacy may make more pronounced any negative effect to the firm's reputation. Moreover, low levels of legitimacy may limit the firm's strategic options. At the industry level, companies can work with trade associations to reduce the overall levels of concerns in areas such as community, corporate governance, employees and diversity, the natural environment, human rights, and consumers. At the organizational level, firms may need to identify and engage with critical stakeholders to address their concerns and perhaps distance themselves from the most egregious practices in their industries.

For individuals, and for organizations managing the career ladders of their next generation of executives, my perspective highlights the importance of developing a portfolio of knowledge, skills, and social linkages. This requires consideration of the breadth and depth of expertise necessary to perform well in executive positions and board seats, and of the network of contacts that individuals should build not only to get access to better positions, but also to better fulfill their duties as directors.

Future Research

Future research could further tease apart the nature of misalignment from the ideal board profile. The ideal profile created here is composed by three measures: board expertise, board capital, and board gender diversity. A board that does not fit this ideal profile could deviate in any of these three dimensions, or in multiple combinations of them. For example, a board may fit the ideal board profile in the expertise dimension and be misaligned in the other two dimensions. Using a measure that differentiates between the different dimensions of misalignment could help us to understand which of these dimensions is most important under particular environmental conditions.

Moreover, there may be other board-level characteristics not studied here that could impact firm reputation. Characteristics of the board's structure -- like the type of committees, the members of these committees, etc.—may affect not only the decision-making process and the good governance of the corporation but also how it is perceived by different stakeholders. Additionally, other personal characteristics of the directors such as their charitable activities, membership in social and cultural institutions, or trade associations may also affect the social capital and expertise they bring to the board and impact firm reputation.

The effects of board expertise, social capital, and demographic diversity may not be limited to firm reputation or firm performance (Haynes and Hillman 2010). Through their pooled expertise, human, and social capital, the members of the board may also affect other outcomes such as innovation, corporate social responsibility, diversification strategies, internationalization, and other important firm-level phenomena. Future research could use some of the measures and operationalizations developed in this study to understand the effect of the board of directors on a variety of organizational processes and outcomes.

Although directors are becoming increasingly more involved in strategic planning, it would be interesting to study the role of the top management team in creating and maintaining the firm's reputation. The antecedents of corporate reputation that I studied at the board-level could be easily analyzed at the TMT-level. Because the TMT is more visible to most stakeholders than the board of directors, the effect of the TMT on reputation could arguably be stronger. Understanding how the expertise, social capital, and diversity of top executives affect reputation could improve our understanding of the effects that executive have beyond firm performance. More important, since the TMT is more involved in the day-to-day operation of the corporation and its business units, the alignment of the expertise, social capital, and diversity of the TMT with best practices models and with the environment may be highly important for the successful operation of the firm.

We also need to understand how directors and members of the TMT get to these high-level positions. We know little about the career trajectories that take an undergraduate student to the upper echelons of corporate America. This study shows that their expertise and social capital matter, but it does not explain how directors accumulate them. Also, we do not understand if there are better paths to accumulate experience and social capital. For instance, is it better to have multiple different positions within a single company or to switch from firm to firm to acquire different experiences and personal contacts? Future studies could trace the careers paths of directors and top executives to further our understanding of how the best executives are made.

The construct of need for legitimacy provides an exciting avenue for improving our understanding of the context in which firms operate. In this study, need for legitimacy is an industry-level variable that seeks to capture whether the actions of an industry are not perceived as proper. Yet the perception of what is appropriate may vary not only across industries. Need

for legitimacy may vary within industries (for example Wal-Mart and Target operate in the same industry, but they may have different levels of need for legitimacy), or across countries (agricultural biotechnology companies which operate largely without controversy in the US face tremendous hostility in the EU due to concerns about genetically modified products). Future studies could improve this measure and expand it to understand the non-economic limitations and possibilities that the environment places on the firm's strategic options.

We also need to understand better the trade-offs between board expertise, board social capital, and the director's own careers and constraints. The issue of multiple directorships provides an example of the potential problems that need to be considered. Having multiple directorships helps individuals to build their social capital yet, for shareholders, for the organization that employs the individual (the 'sender' organization'), and for those in which she sits as director, multiple directorships means that the director's time and attention are more thinly spread (Dobrzynski 1996; Shyan 2009). Thus, the increased social capital resulting from more board seats, is offset by the time and effort those directorships require. As a consequence, two questions arise: what is the optimum number of board directorships; and what is the right mix of directorships in terms of industry, different committee memberships, geography, and so on. The answer to these questions can help to build the expertise and social capital necessary to be an effective director.

It would be interesting to evaluate the contribution of each director in relation to other members of the board. Is it better to have directors whose social networks overlap extensively or to have individuals with networks that intersect minimally? What level of board heterogeneity of background is optimal? In a board with maximum heterogeneity of background, no two members are experts in the same industry or the same field. How do they work together when each uses a

different jargon? How are the dynamics of decision making different in such a board from the dynamics in a more homogenous board?

Conclusion

The corporate governance literature can benefit from a perspective that considers a more nuanced picture of the board of directors. Beyond their level of independence from the organization, we need to evaluate directors according to their ability to provide expert advice and access to resources. We also need to identify best models in building and restructuring boards of directors. Although not all hypotheses were supported, this study shows that boards with high levels of expertise, social capital, and gender diversity have a positive impact on firm reputation. These and other characteristics of the board may affect a variety of strategic outcomes. Moreover, we cannot fully understand the role of the board of directors unless we consider the strategic environments in which firms operate.

REFERENCES

- Abdi, Hervé, and Dominique Valentin. 2007. Multiple Factor Analysis (MFA). In *Encyclopedia of Measurement and Statistics*, edited by N. Salkind. Thousand Oaks, CA: Sage.
- Adams, Renée B., and Daniel Ferreira. 2009. Women in the Boardroom and Their Impact on Governance and Performance. *Journal of Financial Economics* 94 (2):291-309.
- Agrawal, Anup, and Charles R. Knoeber. 2001. Do Some Outside Directors Play a Political Role? *Journal of Law and Economics* 44 (1):179-198.
- Aiken, L. S., and S. G. West. 1991. *Multiple Regression: Testing and Interpreting Interactions*. Newbury Park, CA: Sage Publications.
- Ali, Ashiq, Sandy Klasa, and Eric Yeung. 2009. The Limitations of Industry Concentration Measures Constructed with Compustat Data: Implications for Finance Research. *Review of Financial Studies* 22 (10):3839-3871.
- Amabile, Teresa. 1999. How to Kill Creativity. In *Harvard Business Review in Breakthrough Thinking*, edited by H. B. School. Boston, MA: Harvard Business School Publishing.
- Amason, Allen C. 1996. Distinguishing the Effects of Functional and Dysfunctional Conflict on Strategic Decision Making: Resolving a Paradox for Top Management Teams. *Academy of Management Journal* 39 (1):123-148.
- Anderson, Ronald C., Thomas W. Bates, John M. Bizjak, and Michael L. Lemmon. 2000. Corporate Governance and Firm Diversification. *Financial Management* 29 (1):5-22.
- Arthaud-Day, Marne L., S. Trevis Certo, Catherine M. Dalton, and Dan R. Dalton. 2006. A Changing of the Guard: Executive and Director Turnover Following Corporate Financial Restatements. *Academy of Management Journal* 49 (6):1119-1136.
- Asch, Salomon E. 2003. Effects of Group Pressure Upon the Modification and Distortion of Judgments. In *Organizational Influence Processes*, edited by L. W. Porter, H. L. Angle and R. V. Allen. New York: M.E. Sharpe.
- Ashforth, Blake E., and Barrie W. Gibbs. 1990. The Double-Edge of Organizational Legitimation. *Organization Science* 1 (2):177-194.
- Baliga, B. Ram, R. Charles Moyer, and Ramesh S. Rao. 1996. CEO Duality and Firm Performance: What's the Fuss? *Strategic Management Journal* 17:41-43.
- Bantel, Karen A. 1993. Top Team, Environment, and Performance Effects on Strategic Planning Formality. *Group & Organization Management* 18 (4):436-458.

- Bantel, Karen A., and Susan E. Jackson. 1989. Top Management and Innovations in Banking: Does the Composition of the Top Team Make a Difference? *Strategic Management Journal* 10:107-124.
- Barnett, Michael L, John M Jermier, and Barbara A Lafferty. 2006. Corporate Reputation: The Definitional Landscape. *Corporate Reputation Review* 9:26-38.
- Baysinger, Barry, and Robert E. Hoskisson. 1990. The Composition of Boards of Directors and Strategic Control: Effects on Corporate Strategy. *Academy of Management Review* 15 (1):72-87.
- Bernardi, Richard A., David F. Bean, and Kristen M. Weippert. 2002. Signaling Gender Diversity through Annual Report Pictures: A Research Note on Image Management. *Accounting, Auditing & Accountability Journal* 15 (4):609 - 616.
- Bernasek, Anna. 2010. Who Does Business Trust? *Fortune*, 123-126.
- Bezemer, Pieter-Jan, Gregory F. Maasen, Frans A. J. Van Den Bosch, and H. W. Volberda. 2007. Investigating the Development of the Internal and External Service Tasks of Non-Executive Directors: The Case of the Netherlands. . *Corporate Governance: An International Review* 15 (6):1119-1129.
- Bilimoria, Diana. 2000. Building the Business Case for Women Corporate Directors. In *Women on Corporate Boards of Directors: International Challenges and Opportunities*, edited by R. J. Burke and M. C. Mattis. Dordrecht: The Netherlands: Kluwer Academic Publishers.
- Blau, Peter M. 1977. *Inequality and Heterogeneity: A Primitive Theory of Social Structure*. New York: Free Press.
- Boeker, Warren, and Jerry Goodstein. 1991. Organizational Performance and Adaptation: Effects of Environment and Performance on Changes in Board Composition. *Academy of Management Journal* 34 (4):805-826
- Boeker, Warren, and Robert Wiltbank. 2005. New Venture Evolution and Managerial Capabilities. *Organization Science* 16 (2):123-133.
- Borch, Odd Jarl, and Morten Huse. 1993. Informal Strategic Networks and the Board of Directors. *Entrepreneurship: Theory & Practice* 18 (1):23-36.
- Bourgeois, L. J., III. 1980. Strategy and Environment: A Conceptual Integration. *Academy of Management Review* 5 (1):25-39.
- Boyd, Brian. 1990. Corporate Linkages and Organizational Environment: A Test of the Resource Dependence Model. *Strategic Management Journal* 11 (6):419-430.
- Boyd, Brian K., Gregory G. Dess, and Abdul M. A. Rasheed. 1993. Divergence between Archival and Perceptual Measures of the Environment: Causes and Consequences. *Academy of Management Review* 18 (2):204-226.

- Brewster Stearns, Linda, and Mark S. Mizruchi. 1993. Board Composition and Corporate Financing: The Impact of Financial Institution Representation on Borrowing. *Academy of Management Journal* 36 (3):603-618.
- Burke, Ronald J. 1997. Women on Corporate Boards of Directors: A Needed Resource. *Journal of Business Ethics* 16:909-915.
- Burt, Ronald S. 1997. The Contingent Value of Social Capital. *Administrative Science Quarterly* 42 (2):339-365.
- Cannon, Alan R., and Caron H. St John. 2007. Measuring Environmental Complexity. *Organizational Research Methods* 10 (2):296-321.
- Carpenter, Mason A. 2002. The Implications of Strategy and Social Context for the Relationship between Top Management Team Heterogeneity and Firm Performance. *Strategic Management Journal* 23 (3):275-284.
- Carpenter, Mason A., and James W. Fredrickson. 2001. Top Management Teams, Global Strategic Posture, and the Moderating Role of Uncertainty. *Academy of Management Journal* 44 (3):533-545.
- 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* 30:749-778.
- Carpenter, Mason A., Timothy G. Pollock, and Myleen M. Leary. 2003. Testing a Model of Reasoned Risk-Taking: Governance, the Experience of Principals and Agents, and Global Strategy in High-Technology IPO Firms. *Strategic Management Journal* 24 (9):803-820.
- Carter, David A., Betty J. Simkins, and W. Gary Simpson. 2003. Corporate Governance, Board Diversity, and Firm Value. *The Financial Review* 38:33-53.
- Caves, R. E., and M. E. Porter. 1977. From Entry Barriers to Mobility Barriers. *Quarterly Journal of Economics* 91:421-434.
- Certo, S. Trevis. 2003. Influencing Initial Public Offering Investors with Prestige: Signaling with Board Structures. *The Academy of Management Review* 28 (3):432-446.
- Chaganti, Rajeswararao S., Vijay Mahajan, and Subhash Sharma. 1985. Corporate Board Size, Composition and Corporate Failures in Retailing Industry. *Journal of Management Studies* 22 (4):400-417.
- Chatterjee, Arijit, and Donald C. Hambrick. 2007. It's All About Me: Narcissistic Chief Executive Officers and Their Effects on Company Strategy and Performance. *Administrative Science Quarterly* 52:351-386.
- Chen, Xiaoying, and Jasmine Yur-Austin. 2007. Re-Measuring Agency Costs: The Effectiveness of Blockholders. *The Quarterly Review of Economics and Finance* 47 (5):588-601.

- Child, John. 1981. Culture, Contingency, and Capitalism in the Cross National Study of Organizations. In *Research in Organizational Behavior*, edited by L. L. C. B. Staw. Greenwich: JAI Press.
- Cohen, Jacob, Patricia Cohen, Stephen G. West, and Leona S. Aiken. 2003. *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*. 3rd ed. London: Lawrence Erlbaum Associates.
- Canyon, Martin J., and Simon I. Peck. 1998. Board Control, Remuneration Committees, and Top Management Compensation. *Academy of Management Journal* 41 (2):146-157.
- D'Aveni, Richard A. 1989. The Aftermath of Organizational Decline: A Longitudinal Study of the Strategic and Managerial Characteristics of Declining Firms. *Academy of Management Journal* 32 (3):577-605.
- D'Aveni, Richard A., and Idalene F. Kesner. 1993. Top Managerial Prestige, Power and Tender Offer Response: A Study of Elite Social Networks and Target Firm Cooperation During Takeovers. *Organization Science* 4 (2):123-151.
- Daily, Catherine M., and Dan R. Dalton. 1993. Board of Directors Leadership and Structure: Control and Performance Implications. *Entrepreneurship: Theory & Practice* 17 (3):65-81.
- 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):185-208.
- 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 (3):269-290.
- Dalton, Dan R., Catherine M. Daily, Jonathan L. Johnson, and Alan E. Ellstrand. 1999. Number of Directors and Financial Performance: A Meta-Analysis. *Academy of Management Journal* 42 (6):674-686.
- Davis, Gerald F. 1993. Who Gets Ahead in the Market for Corporate Directors: The Political Economy of Multiple Board Memberships. Paper read at Academy of Management, at Atlanta, GA.
- Dawar, Niraj, and Philip Parker. 1994. Marketing Universals: Consumers' Use of Brand Name, Price, Physical Appearance, and Retailer Reputation as Signals of Product Quality. *Journal of Marketing* 58 (2):81-95.
- Dean, James W. , and Scott A Snell. 1996. The Strategic Use of Integrated Manufacturing: An Empirical Examination. *Strategic Management Journal* 17 (6):459-471.
- Deephouse, David L., and Suzanne M. Carter. 2005. An Examination of Differences between Organizational Legitimacy and Organizational Reputation. *Journal of Management Studies* 42 (2):329-360.

- DeFond, Mark L., Rebecca N. Hann, and Xuesong Hu. 2005. Does the Market Value Financial Expertise on Audit Committees of Boards of Directors? *Journal of Accounting Research* 43:153-193.
- Dess, Gregory G., and Donald W. Beard. 1984. Dimensions of Organizational Task Environments. *Administrative Science Quarterly* 29 (1):52-73.
- Dilenschneider, Robert L., and Barbara Ettore. 2009. What Society Thinks [About Boards and Business]. *Directorship: Boardroom Intelligence*.
- DiStefano, Christine, Min Zhu, and Diana Mîndrilă. 2009. Understanding and Using Factor Scores: Considerations for the Applied Researcher. *Practical Assessment, Research & Evaluation* 14 (20):1-11.
- Dobrzynski, Judith H. 1996. When Directors Play Musical Chairs: Seats on Too Many Boards Spell Problems for Investors. *New York Times*, November 17, 31.
- Donaldson, Lex. 2001. *The Contingency Theory of Organizations, Foundations for Organizational Science*. Thousand Oaks, CA: Sage Publications.
- Donaldson, Thomas, and Lee E. Preston. 1995. The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications. *Academy of Management Review* 20 (1):65-91
- Eisenhardt, Kathleen M., and Claudia Bird Schoonhoven. 1990. Organizational Growth: Linking Founding Team, Strategy, Environment, and Growth among U.S. Semiconductor Ventures, 1978-1988. *Administrative Science Quarterly* 35 504-529.
- 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 (2):102-111.
- Fich, Eliezer M. 2005. Are Some Outside Directors Better Than Others? Evidence from Director Appointments by Fortune 1000 Firms. *Journal of Business* 78 (5):1943-1972.
- Finkelstein, Sidney, and Donald C. Hambrick. 1996. *Strategic Leadership: Top Executives and Their Effects on Organizations, West Series in Strategic Management*. St. Paul, MN: West Publishing.
- Finkelstein, Sydney. 1992. Power in Top Management Teams: Dimensions, Measurement, and Validation. *Academy of Management Journal* 35 (3):505-538.
- Floyd, Kate. 2003. Women of Color and the Corporate Boardroom: Breaking through The "Cement Ceiling" *The Corporate Examiner*, http://www.iccr.org/publications/examiner_pastarticles/examiner_cementceiling.php.
- Fombrun, Charles J. 1996. *Reputation: Realizing Value from the Corporate Image*. Boston, MA: Harvard Business School Press.

- . 1998. Indices of Corporate Reputation: An Analysis of Media Rankings and Social Monitors' Ratings *Corporate Reputation Review* 1 (4):327-340.
- Fombrun, Charles J., and Violina P. Rindova. 1996. Who's Tops and Who Decides? The Social Construction of Corporate Reputations. In *New York University, Stern School of Business, Working Paper*.
- Fombrun, Charles J., and Mark Shanley. 1990. What's in a Name? Reputation-Building and Corporate Strategy. *Academy of Management Journal* 33:233-258.
- Fombrun, Charles J., and Cees van Riel. 1997. The Reputational Landscape. *Corporate Reputation Review* 1 (1):5-13.
- Forbes, Daniel P., and Frances J. Milliken. 1999. Cognition and Corporate Governance: Understanding Boards of Directors as Strategic Decision-Making Groups. *Academy of Management Review* 24 (3):489-505.
- Glick, William H., C. Chet Miller, and George P. Huber. 1993. The Impact of Upper-Echelon Diversity on Organizational Performance. In *Organizational Change and Redesign: Ideas and Insights for Improving Performance*, edited by G. P. Huber and W. H. Glick. New York: Oxford University Press.
- 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.
- Goll, Irene, and Abdul A. Rasheed. 2005. The Relationship between Top Management Demographic Characteristics, Rational Decision Making, Environmental Munificence, and Firm Performance. *Organization Studies* 26:999-1023.
- Goll, Irene, and Abdul M. A. Rasheed. 1997. Rational Decision-Making and Firm Performance: The Moderating Role of Environment. *Strategic Management Journal* 18 (7):583-591.
- Goodstein, Jerry, Kanak Gautam, and Warren Boeker. 1994. The Effects of Board Size and Diversity on Strategic Change. *Strategic Management Journal* 15 (3):241-250.
- Hair, Joseph F., William C. Black, Barry J. Babin, Rolph E. Anderson, and Ronald L. Tatham. 2006. *Multivariate Data Analysis*. 6 ed. Upper Saddle River, NJ: Pearson Prentice Hall.
- Hambrick, Donald C. 2005. Upper Echelons Theory: Origins, Twists and Turns, and Lessons Learned. In *Great Minds in Management: The Process of Theory Development*, edited by K. G. Smith and M. A. Hitt. New York: Oxford University Press.
- Hambrick, Donald C., and Richard A. D'Aveni. 1992. Top Team Deterioration as Part of the Downward Spiral of Large Corporate Bankruptcies. *Management Science* 38 (10):1445-1466.
- Hambrick, Donald C., and Phillips A. Mason. 1984. Upper Echelons: The Organization as a Reflection of Its Top Managers. *Academy of Management Review* 9:193-206.

- Hambrick, Donald, Albert A. Cannella, Jr., and Andrew Pettigrew. 2001. Upper Echelons: Donald Hambrick on Executives and Strategy [and Commentary]. *Academy of Management Executive* 15 (3):36-44.
- Haynes, Katalin Takacs, and Amy Hillman. 2010. The Effect of Board Capital and CEO Power on Strategic Change. *Strategic Management Journal* 31 (11):1145-1163.
- Hillman, Amy, and Thomas Dalziel. 2003. Board of Directors and Firm Performance: Integrating Agency and Resource Dependence Theory. *Academy of Management Review* 28 (3):383-396.
- Hillman, Amy J. 2005. Politicians on the Board of Directors: Do Connections Affect the Bottom Line? *Journal of Management* 31 (3):464-481.
- Hillman, Amy J., Albert A. Cannella, and Ira C. Harris. 2002. Women and Racial Minorities in the Boardroom: How Do Directors Differ? *Journal of Management* 28:747-763.
- Hillman, Amy J., Albert A. Cannella, and Ramona L. Paetzold. 2000. The Resource Dependence Role of Corporate Directors: Strategic Adaptation of Board Composition in Response to Environmental Change. *Journal of Management Studies* 37 (2):235-256.
- Hillman, Amy J., Gerald D. Keim, and Rebecca A. Luce. 2001. Board Composition and Stakeholder Performance: Do Stakeholder Directors Make a Difference? *Business Society* 40 (3):295-314.
- Hillman, Amy J., Gavin Nicholson, and Christine Shropshire. 2008. Directors' Multiple Identities, Identification, and Board Monitoring and Resource Provision. *Organization Science* 19 (3):441-456.
- Hillman, Amy J., Christine Shropshire, S. Trevis Certo, Dan R. Dalton, and Catherine M. Dalton. 2010. What I Like About You: A Multilevel Study of Shareholder Discontent with Director Monitoring. *Organization Science* 22 (3):675-687.
- Hitt, Michael A., Leonard Bierman, Katsuhiko Shimizu, and Rahul Kochhar. 2001. Direct and Moderating Effects of Human Capital on Strategy and Performance in Professional Service Firms: A Resource-Based Perspective. *Academy of Management Journal* 44 (1):13-28.
- Hofer, Charles W. 1975. Toward a Contingency Theory of Business Strategy. *Academy of Management Journal* 18 (4):784-810.
- Hudson, Bryant Ashley. 2008. Against All Odds: A Consideration of Core-Stigmatized Organizations. *Academy of Management Review* 33 (1):252-266.
- Huse, Morten. 2005. Accountability and Creating Accountability: A Framework for Exploring Behavioural Perspectives of Corporate Governance. *British Journal of Management* 16:65-79.

- Ireland, R. Duane, Michael A. Hitt, Richard A. Bettis, and Deborah Auld de Porras. 1987. Strategy Formulation Processes: Differences in Perceptions of Strength and Weaknesses Indicators and Environmental Uncertainty by Managerial Level. *Strategic Management Journal* 8 (5):469-485.
- Jackson, Susan E. 1992. Consequences of Group Composition for the Interpersonal Dynamics of Strategic Issue Processing. In *Advances in Strategic Management*, edited by P. Shrivastava, A. Huff and J. Dutton. Greenwich, CT: JAI Press.
- Jackson, Susan E., Karen E. May, and Kristina Whitney. 1995. Understanding the Dynamics of Diversity in Decision Making Teams. In *Team Effectiveness and Decision Making in Organizations*, edited by R. A. Guzzo and E. Salas. San Francisco: Jossey-Bass.
- Jensen, Michael, and Edward J. Zajac. 2004. Corporate Elites and Corporate Strategy: How Demographic Preferences and Structural Position Shape the Scope of the Firm. *Strategic Management Journal* 25 (6):507-524.
- Jovanovic, Boyan, and Glenn M. MacDonald. 1994. The Life Cycle of a Competitive Industry. *Journal of Political Economy* 102 (2):322-347.
- Judge, Timothy A., Daniel M. Cable, John W. Boudreau, and Robert D. Bretz Jr. 1995. An Empirical Investigation of the Predictors of Executive Career Success. *Personnel Psychology* 48 (3):485-519.
- 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.
- Keats, Barbara W., and Michael A. Hitt. 1988. A Causal Model of Linkages among Environmental Dimensions, Macro Organizational Characteristics, and Performance. *Academy of Management Journal* 31 (3):570-598.
- Keck, Sara L. 1997. Top Management Team Structure: Differential Effects by Environmental Context. *Organization Science* 8 (2):143-156.
- Kilduff, Martin, Reinhard Angelmar, and Ajay Mehra. 2000. Top Management-Team Diversity and Firm Performance: Examining the Role of Cognitions. *Organization Science* 11 (1):21-34.
- Kim, Yangmin, and Albert A. Cannella Jr. 2008. Toward a Social Capital Theory of Director Selection. *Corporate Governance: An International Review* 16 (4):282-293.
- Knight, Don, Craig L. Pearce, Ken G. Smith, Judy D. Olian, Henry P. Sims, Ken A. Smith, and Patrick Flood. 1999. Top Management Team Diversity, Group Process, and Strategic Consensus. *Strategic Management Journal* 20 (5):445-465.

- Kor, Yasemin Y. 2006. Direct and Interaction Effects of Top Management Team and Board Compositions on R&D Investment Strategy. *Strategic Management Journal* 27 (11):1081-1099.
- Kor, Yasemin Y., and Vilmos F. Misangyi. 2008. Outside Directors' Industry-Specific Experience and Firms' Liability of Newness. *Strategic Management Journal* 29 (12):1345 - 1355.
- Kor, Yasemin Y., and Chamu Sundaramurthy. 2009. Experience-Based Human Capital and Social Capital of Outside Directors. *Journal of Management* 35 (4):981-1006.
- Kosnik, Rita. 1987. Greenmail: A Study in Board Performance in Corporate Governance. *Administrative Science Quarterly* 32:163-185.
- Kraatz, Matthew S., and E. Geoffrey Love. 2006. Studying the Dynamics of Reputation: A Framework for Research on the Reputational Consequences of Corporate Actions. *Research Methodology in Strategy and Management* 3:343-383.
- Lange, Donald, Peggy M. Lee, and Ye Dai. 2011. Organizational Reputation: A Review. *Journal of Management* 37 (1):153-184.
- Lawrence, Paul, and Jay W. Lorsch. 1967. Differentiation and Integration in Complex Organization. *Administrative Science Quarterly* 12:1-47.
- Lester, Richard H., Amy Hillman, Asghar Zardkoohi, and Albert A. Cannella. 2008. Former Government Officials as Outside Directors: The Role of Human and Social Capital. *Academy of Management Journal (AMJ)* 51 (5):999 - 1013.
- Lorsch, Jay W., and Robert C. Clark. 2008. Leading from the Boardroom. *Harvard Business Review* 86 (4):104-111.
- Lorsch, Jay W., and Elizabeth MacIver. 1989. *Pawns or Potentates: The Reality of America's Corporate Boards*. Boston, MA: Harvard Business Press.
- Love, E. Geoffrey, and Matthew S. Kraatz. 2009. Character, Conformity, or the Bottom Line? How and Why Downsizing Affected Corporate Reputation. *Academy of Management Journal*, 52:314-335.
- Luo, Yadong. 2007. A Coopetition Perspective of Global Competition. *Journal of World Business* 42 (2):129-144.
- Lynall, Matthew D., Brian R. Golden, and Amy J. Hillman. 2003. Board Composition from Adolescence to Maturity: A Multitheoretic View. *Academy of Management Review* 28 (3):416-431.
- McLean, Rob. 2006. Intellectual Asset Strategy and the Board of Directors. *Intellectual Asset Management* 9-12.

- Miles, Raymond E., and Charles C. Snow. 1978. *Organizational Strategy, Structure and Process*. New York: McGraw-Hill.
- Miles, Stephen A., and Michael D. Watkins. 2007. The Leadership Team. *Harvard Business Review* 85 (4):90-98.
- Miller, Danny, and Peter H. Friesen. 1983. Strategy-Making and Environment: The Third Link. *Strategic Management Journal* 4 (3):221-235.
- Miller, Toyah, and María Del Carmen Triana. 2009. Demographic Diversity in the Boardroom: Mediators of the Board Diversity - Firm Performance Relationship. *Journal of Management Studies* 46 (5):755-786.
- Milliken, Frances J. 1987. Three Types of Perceived Uncertainty About the Environment: State, Effect, and Response Uncertainty. *Academy of Management Review* 12 (1):133-143.
- 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.
- Mizruchi, Mark S. 1996. What Do Interlocks Do? An Analysis, Critique, and Assessment of Research on Interlocking Directorates. *Annual Review of Sociology* 22:271-298.
- . 2004. Berle and Means Revisited: The Governance and Power of Large U.S. Corporations. *Theory and Society* 33 (5):579-617.
- Mizruchi, Mark S., and Michael Schwartz, eds. 1987. *Intercorporate Relations: The Structural Analysis of Business*. Cambridge, UK: Cambridge University Press.
- Mizruchi, Mark S., and Linda Brewster Stearns. 1994. A Longitudinal Study of Borrowing by Large American Corporations. *Administrative Science Quarterly* 39:118-140.
- Mueller, George C., and Vincent L. Barker. 1997. Upper Echelons and Board Characteristics of Turnaround and Nonturnaround Declining Firms. *Journal of Business Research* 39 (2):119-134.
- Mueller, Pamela. 2007. Exploiting Entrepreneurial Opportunities: The Impact of Entrepreneurship on Growth. *Small Business Economics* 28 (4):355-362.
- Murray, Alan I. 1989. Top Management Group Heterogeneity and Firm Performance. *Strategic Management Journal* 10:125-141.
- Muth, Melinda M., and Lex Donaldson. 1998. Stewardship Theory and Board Structure: A Contingency Approach. *Corporate Governance: An International Review* 6 (1):5.
- Nadler, David A. 2004. Building Better Boards. *Harvard Business Review* 82 (5):102-111.

- Nahapiet, Janine, and Sumantra Ghoshal. 1998. Social Capital, Intellectual Capital, and the Organizational Advantage. *Academy of Management Review* 23 (2):242-266.
- NBER. 2010. Business Cycle Dating Committee, National Bureau of Economic Research. <http://www.nber.org/cycles/sept2010.html>.
- Nicholson, Gavin J., and Geoffrey C. Kiel. 2007. Can Directors Impact Performance? A Case-Based Test of Three Theories of Corporate Governance. *Corporate Governance: An International Review* 15 (4):585-608.
- Norburn, David. 1986. GOGOs, YOYOs and DODOs: Company Directors and Industry Performance. *Strategic Management Journal* 7 (2):101-117.
- Norburn, David, and Sue Birley. 1988. The Top Management Team and Corporate Performance. *Strategic Management Journal* 9 (3):225-237.
- Park, Seung Ho, and Gerardo R. Ungson. 2001. Interfirm Rivalry and Managerial Complexity: A Conceptual Framework of Alliance Failure *Organization Science* 12 (1):37-53.
- Pearce, John A., and Shaker A. Zahra. 1991. The Relative Power of CEOs and Boards of Directors: Associations with Corporate Performance. *Strategic Management Journal* 12 (2):135-153.
- Petrovic, Jelena. 2008. Unlocking the Role of a Board Director: A Review of the Literature. *Management Decision* 46 (9):1373 - 1392.
- Pettigrew, Andrew M. 1992. On Studying Managerial Elites. *Strategic Management Journal* 13:163-182.
- Pfarrer, Michael D., Timothy G. Pollock, and Violina P. Rindova. 2010. A Tale of Two Assets: The Effects of Firm Reputation and Celebrity on Earnings Surprises and Investors' Reactions. *Academy of Management Journal* 53:1131-1152.
- Pfeffer, Jeffrey. 1972. Size and Composition of Corporate Boards of Directors: The Organization and Its Environment. *Administrative Science Quarterly* 17 (2):218-228.
- . 1983. Organizational Demography. In *Research in Organizational Behavior*, edited by L. L. Cummings and B. M. Staw. Greenwich, CT: JAI Press.
- Pfeffer, Jeffrey, and Gerald R. Salancik. 1978. *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row.
- Priem, Richard L., Douglas W. Lyon, and Gregory G. Dess. 1999. Inherent Limitations of Demographic Proxies in Top Management Team Heterogeneity Research. *Journal of Management* 25 (6):935-953.
- Pugliese, Amedeo, Pieter-Jan Bezemer, Alessandro Zattoni, Morten Huse, Frans A. J. Van Den Bosch, and H. W. Volberda. 2009. Boards of Directors' Contribution to Strategy: A

- Literature Review and Research Agenda. *Corporate Governance: An International Review* 17 (3):292-306.
- Rao, Hayagreeva. 1994. The Social Construction of Reputation: Certification Contests, Legitimation, and the Survival of Organizations in the American Automobile Industry: 1895--1912. *Strategic Management Journal* 15:29-44.
- Richard, Orlando C. 2000. Racial Diversity, Business Strategy, and Firm Performance: A Resource-Based View. *Academy of Management Journal* 43 (2):164-177.
- Richard, Orlando C., Tim Barnett, Sean Dwyer, and Ken Chadwick. 2004. Cultural Diversity in Management, Firm Performance, and the Moderating Role of Entrepreneurial Orientation Dimensions. *Academy of Management Journal* 47:255-266.
- Richard, Orlando C., B. P. S. Murthi, and Kiran Ismail. 2007. The Impact of Racial Diversity on Intermediate and Long-Term Performance: The Moderating Role of Environmental Context. *Strategic Management Journal* 28 (12):1213-1233.
- Richard, Orlando C., and Roger M. Shelor. 2002. Linking Top Management Team Age Heterogeneity to Firm Performance: Juxtaposing Two Mid-Range Theories. *International Journal of Human Resource Management* 13 (6):958-974.
- Rigby, Darrell, and Chris Zook. 2002. Open-Market Innovation. *Harvard Business Review* 80 (10):80-89.
- Rindova, Violina P. 1999. What Corporate Boards Have to Do with Strategy: A Cognitive Perspective. *Journal of Management Studies* 36 (7):953-975.
- Roberson, Quinetta M., and Hyeon Jeong Park. 2006. Examining the Link between Diversity and Firm Performance: The Effects of Diversity Reputation and Leader Racial Diversity. In *CAHRS Working Paper Series*. Ithaca, NY: Cornell University.
- Roberts, Peter W., and Grahame R. Dowling. 2002. Corporate Reputation and Sustained Superior Financial Performance. *Strategic Management Journal* 23 (12):1077-1093.
- Robinson, Gail, and Kathleen Dechant. 1997. Building a Business Case for Diversity. *Academy of Management Executive* 11:21-30.
- Ryan, Michelle K., and S. Alexander Haslam. 2007. The Glass Cliff: Exploring the Dynamics Surrounding the Appointment of Women to Precarious Leadership Positions. *Academy of Management Review* 32 (2):549-572.
- Schoonhoven, Claudia Bird. 1981. Problems with Contingency: Testing Assumptions Hidden within the Language of Contingency Theory. *Administrative Science Quarterly* 26:349-377.
- Schoorman, F. David, Max H. Bazerman, and Robert S. Atkin. 1981. Interlocking Directorates: A Strategy for Reducing Environmental Uncertainty. *Academy of Management Review* 6 (2):243-251.

- Scott, W. Richard. 1992. *Organizations: Rational, Natural, and Open Systems*. Englewood Cliffs, NJ: Prentice Hall.
- Sharfman, Mark P., and James W. Dean. 1991. Conceptualizing and Measuring the Organizational Environment: A Multidimensional Approach. *Journal of Management* 17 (4):681-700.
- Shrum, Wesley, and Robert Wuthnow. 1988. Reputational Status of Organizations in Technical Systems. *American Journal of Sociology* 93:882-912.
- Shyan, Lee Su. 2009. 1 Man, 152 Board Seats: Investors Ask: Can He Cope? *The Straits Times*, April 22.
- Siciliano, Julie I. 1996. The Relationship of Board Member Diversity to Organizational Performance. *Journal of Business Ethics* 15 (12):1313-1320.
- Simerly, Roy L., and Mingfang Li. 2000. Environmental Dynamism, Capital Structure and Performance: A Theoretical Integration and an Empirical Test. *Strategic Management Journal* 21 (1):31-49.
- Singh, Val. 2007. Ethnic Diversity on Top Corporate Boards: A Resource Dependency Perspective. *International Journal of Human Resource Management* 18 (12):2128 - 2146.
- Singh, Val, Susan Vinnicombe, and Phyl Johnson. 2001. Women Directors on Top UK Boards. *Corporate Governance: An International Review* 9 (3):206.
- Smith, Ken G., Ken A. Smith, Judy D. Olian, Henry P. Sims, 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.
- Smith, Paul. 2001. Myths and Misconceptions. *New Zealand Management*, 52-53.
- Steingraber, Fred G., and Karen Kane. 2010. Corporate Directors at Risk as Government Takes Over. *Houston Chronicle*, January 9, B7.
- Subrahmanyam, Vijaya, Nanda Rangan, and Stuart Rosenstein. 1997. The Role of Outside Directors in Bank Acquisitions. *Financial Management* 26 (3):23-36.
- Suchman, Mark C. 1995. Managing Legitimacy: Strategic and Institutional Approaches. *Academy of Management Review* 20 (3):571-610.
- Sutcliffe, Kathleen M. 1994. What Executives Notice: Accurate Perceptions in Top Management Teams. *Academy of Management Journal* 37 (5):1360-1378.
- Tessler, Joelle. 2008. Paulson Oversees Historic Government Intervention. *BusinessWeek*, http://www.businessweek.com/bwdaily/dnflash/content/sep2008/db20080919_053378.htm.

- Tonello, Matteo. 2007. Reputation Risk: A Corporate Governance Perspective. In *Corporate/Investor Summit Series*. New York: The Conference Board.
- Torchia, Mariateresa, Andrea Calabrò, and Morten Huse. 2011. Women Directors on Corporate Boards: From Tokenism to Critical Mass. *Journal of Business Ethics* 102 (2):299-317.
- Tosi, Henry L., and John W. Slocum. 1984. Contingency Theory: Some Suggested Directions. *Journal of Management* 10 (1):9-26.
- Tsui, Anne S., Terri D. Egan, and Charles A. O'Reilly. 1992. Being Different: Relational Demography and Organizational Attachment. *Administrative Science Quarterly* 37 (4):549-579.
- Useem, Michael. 1982. Classwide Rationality in the Politics of Managers and Directors of Large Corporations in the United States and Great Britain. *Administrative Science Quarterly* 27 (2):199-226.
- Useem, Michael, and Jerome Karabel. 1986. Pathways to Top Corporate Management. *American Sociological Review* 51 (2):184-200
- Van den Berghe, L. A. A., and Abigail Levrau. 2004. Evaluating Boards of Directors: What Constitutes a Good Corporate Board? *Corporate Governance: An International Review* 12 (4):461-478.
- Venkatraman, N. 1989. The Concept of Fit in Strategy Research: Toward Verbal and Statistical Correspondence. *Academy of Management Review* 14 (3):423-444.
- Venkatraman, N., and John E. Prescott. 1990. Environment-Strategy Coalignment: An Empirical Test of Its Performance Implications. *Strategic Management Journal* 11:1-23.
- Walt, Nicholas van der, and Coral Ingley. 2003. Board Dynamics and the Influence of Professional Background, Gender and Ethnic Diversity of Directors. *Corporate Governance: An International Review* 11 (3):218-234.
- Wang, Jia, and Betty S. Coffey. 1992. Board Composition and Corporate Philanthropy. *Journal of Business Ethics* 11:771-778.
- Warner, Judy, Patricia W. Smith, Gretchen Michals, and Ashley Chaney. 2010. How to Build the Right Board: Composition and Development. *Directorship: Boardroom Intelligence*. .
- Watson, Warren E., Kamalesh Kumar, and Larry K. Michaelsen. 1993. Cultural Diversity's Impact on Interaction Process and Performance: Comparing Homogeneous and Diverse Task Groups. *Academy of Management Journal* 36 (3):590-602.
- Weigelt, Keith, and Colin Camerer. 1988. Reputation and Corporate Strategy: A Review of Recent Theory and Applications. *Strategic Management Journal* 9 (5):443-454.

- 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 Edward J. Zajac. 1995. Who Shall Govern? CEO/Board Power, Demographic Similarity, and New Director Selection. *Administrative Science Quarterly* 40:60-83.
- Wiersema, Margarethe, and Karen A. Bantel. 1992. Top Management Team Demography and Corporate Strategic Change. *Academy of Management Journal* 35:91-121.
- Withers, Michael C., Amy J. Hillman, and Albert A. Cannella. 2012. A Multidisciplinary Review of the Director Selection Literature. *Journal of Management* 38 (1):243-277.
- Yermack, David. 2004. Remuneration, Retention, and Reputation Incentives for Outside Directors. *Journal of Finance* 59 (5):2281-2308.
- Zahra, Shaker A., and John A. Pearce. 1989. Boards of Directors and Corporate Financial Performance: A Review and Integrative Model. *Journal of Management* 15 (2):291-334.
- Zajac, Edward J., and Max H. Bazerman. 1991. Blind Spots in Industry and Competitor Analysis: Implications of Interfirm (Mis)Perceptions for Strategic Decisions. *Academy of Management Review*, 16 (1):37-56.
- Zajac, Edward J., and James D. Westphal. 1996. Director Reputation, CEO-Board Power and the Dynamics of Board Interlocks. *Administrative Science Quarterly* 41 (3):507-529.