DOES UPPER ECHELONS TEAM DYNAMIC MATTER?
THE CRITICALITY OF EXECUTIVE TEAM BEHAVIOR
IN ECONOMIC VALUE CREATION

by

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for the degree of Doctor of Philosophy

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DEDICATION

To my mother, Cherie Bercea Charas, who inspired me to pursue a Ph.D. Her position:

“if you want to be a stewardess be a pilot; a nurse, be a doctor; a teacher, be a professor.”

Thank you Mamy for always encouraging me shoot for the stars, and giving me the grit to try.
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Does Upper Echelons Team Dynamic Matter?
The Criticality of Executive Team Behavior in Economic Value Creation

Abstract

by

SOLANGE CHARAS

For 150 years, scholars and practitioners have been studying the relationship between the leaders of an organization and the performance of their firm, but despite this extensive research, there are few sure prescriptions for success. A recent survey revealed that 90% of board directors believe their personal performance is exemplary, but only 30% of directors feel the performance of their board as a whole is exemplary (Heidrick & Struggles, 2010). Equally disturbing is that 85% of directors believe the biggest weakness of their CEO is the ability to effectively lead teams and generate results (Larcker & Miles, 2013). My dissertation research explored this gap between individual and team performance at the board and C-Suite levels and further explored the impact of team dynamic quality on financial performance. We focused on the upper echelons of the organization as this level is has been shown to have a significant impact on firm outcomes (Hambrick, 2007).

The dissertation describes four phases of research. In the first study, we interviewed 23 directors of public companies and looked at governance data from a third-party source to explore the relationship between team dynamic quality in the
Boardroom and governance quality of the firm. The second and third studies were quantitative and attempted to assess the quality of team dynamic in the boardroom and C-Suite to understand the role of team dynamic in explaining an organization’s ability to out-perform its competitors. Our second study analyzed input from 182 board directors, the majority of whom served on publicly-traded companies. Our third study analyzed input from 123 C-Suite executives of publicly traded organizations. Our research showed that the quality of board team dynamic can explain 4% of corporate profitability, and the quality of C-Suite team dynamic can explain 20% of corporate profitability. We also found a leveraged effect of team outcomes on financial performance for both samples, with board teams having an eight-times greater predictive power for financial performance than individual directors and C-Suite teams having a four-times greater predictive power for financial performance than individual executives. The final phase of inquiry focused on the 36 organizations from which data for both the board and the C-Suite were reported. From this analysis, we found that if the C-Suite team dynamic was healthy, the quality of the board team dynamic was irrelevant in explaining the organization’s ability to out-perform its competitors.

**Key words:** Board directors; Top Management Team (TMT); upper echelon theory; team theory; team dynamic; multiple team membership; cultural intelligence; corporate financial performance; information asymmetry.
Chapter 1: Introduction

Introduction

For 150 years, scholars and practitioners alike have been trying to understand the relationship between the leaders of an organization and the performance of their firm. Perhaps the earliest inquiry was posed by Adam Smith (1863) in *The Wealth of Nations* when he observed that directors:

“being the managers rather of other people’s money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own....Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company” (p. 439).

It is not surprising that we have indeed seen a profusion of negligence in the management of some of the more prestigious companies (e.g., WorldCom, Global Crossing, Enron, Tyco, Lehman Brothers, Arthur Andersen), and each year more business titans falter or fail. But corporate failures are not new—they have been occurring since the beginning of commercial times. Why has this issue become so central in present time? Why has the management of companies, especially to those outside the corporate entity, become such a locus of interest?

The widespread interest in corporate governance, I believe, is due to the fact that it now has implications for the everyday person. Until the early 1970s, the idea of the middle class investing in the equity market was an unfamiliar concept. The only people who made investments in companies were the privileged few—those in the upper class of financial wealth and social status, but even that special class of savvy investors needed protection, as evidenced by the passage of the Securities Act of 1933 and the Securities
Exchange Act of 1934 in the aftermath of the 1929 stock market crash. The passage of these acts to protect shareholders ushered in successive eras of increasing numbers of individuals investing in equities markets. It was not until the introduction (and marketing) of risk-adjusted mutual funds, however, that the common person could invest with some sense of financial security in equity investments. This increase in investments fueled the exponential growth of the market and the resulting exposure of the assets of the middle class to the vagaries of directors and top management. In the 1950s approximately 100 mutual funds existed, and by the end of the 1990s there were well over 10,000 mutual funds. By 2009, mutual funds held approximately 24% of all U.S. corporate stocks (Belinfanti, 2009). 

Investors included not only individuals but institutions representing individuals’ wealth (typically their retirement funds), with assets invested at an all-time high. The consequence of corporate failures, touching only the rich in the 1920s, reached well beyond the upper class and into the heart of the middle class by the 1990s, and it explains why institutions like CalPERs, Institutional Shareholder Services (ISS), and other shareholder activist organizations have demanded higher levels of transparency in governance at the board and top management levels.

What impact has this enhanced interest had on actual governance quality and the study of governance processes?

Given these failures, the government has gotten involved—a direct affront to the laissez faire preference of most business people—to protect shareholders (owners) from the erratic outcomes driven by directors and executives (representatives). The Sarbanes-Oxley Act of 2002 and the Dodd Frank Act of 2010 have had a material effect on corporate governance of U.S. firms, heightening public scrutiny of board behavior
and generating pressure for companies to reevaluate board composition and internal controls. However, many researchers have posited that these regulations have fallen short of their purpose and even generated negative unintended consequences (Linck, Netter, & Yang, 2009; Romano, 2005). The baton has been picked up by shareholder activists to demand higher levels of transparency and accountability from corporations and the institutions that analyze them. Yet, we still do not understand the effects of individual representatives on ultimate firm performance, and we are unable to determine what makes good companies good and bad companies bad.

As recently as 2012, one of my colleagues from the Ph.D. program stated in his dissertation that:

“The vast majority of the directors I know, and have worked with, are hard-working, dedicated professionals who are committed to the proper oversight and management of the companies for which they have been entrusted. Most of them are frustrated by ill-conceived regulatory and legislative actions that have turned their jobs into corporate watchdogs at the expense of not being able to engage effectively in the larger and more critical strategic issues facing their companies” (Bailey, 2012: xiii).

This statement embodies what I believe to be the underlying unhealthy condition in the boardroom and C-Suite, namely that board directors and C-Suite executives have a bad habit of looking outside of themselves (and their teams) for the external genesis of their lacking governance. The focus of my dissertation research is to understand the role of team dynamics in generating bottom-line corporate results—that is, to look inside the team to see how smart, experienced, and well-connected people, or as Bailey stated, “hard-working, dedicated professionals,” can work more effectively as a team to generate their collective desired outcomes and overcome what they perceive to be obstacles. Aristotle’s 2,000-year-old axiom fundamentally guides my inquiry—that the whole is
greater than the sum of the parts—and we attempt, in our three research studies, to show how this proverb applies to modern corporate governance.

**Impetus for Research**

Three events provided the catalyst for my research: (a) a statement by Warren Buffet, (b) recent research reflecting directors’ perceptions of their own performance and that of their CEOs, and (c) my personal experiences as an upper echelon advisor and upper echelon team member.

Warren Buffet could be considered one of the most respected and perhaps most sought-after board directors in America. In his Berkshire Hathaway 2002 annual report, he made a shocking revelation that the personal agenda of directors often trumps the interests of the shareholders:

“There were people, decent and intelligent though they were, simply did not know enough about business and/or care enough about shareholders to question foolish acquisitions or egregious compensation. My own behavior, I must ruefully add, frequently fell short as well: Too often I was silent when management made proposals that I judged to be counter to the interests of shareholders. In those cases, collegiality trumped independence” (p. 17).

If Mr. Buffet found that the boardroom environment is not conducive to the highest quality of participation, what are other, lesser directors thinking and doing?

The second source of inspiration for my research was two recent surveys of directors that highlighted the gaps between current research and real-life trends. One study, sponsored by the University of Southern California’s Marshall School of Business, revealed that 90% of directors believe they are exemplary directors, but only 30% of their boards, evaluated by these same directors, are performing at exemplary levels (Heidrick & Struggles, 2010). How is it possible that over-performing individuals are generating
under-performing boards? The second study, sponsored by Stanford University’s Graduate School of Business, revealed that “directors are clearly concerned about their CEO’s ability to [lead] top talent”—only 15% of directors believe their CEOs performance is “very effective,” citing that the CEO’s biggest weakness is his or her ability to mentor and develop the C-Suite executives (Larcker & Miles, 2013: 1). Given that it is the “top management team (TMT), [effectively] led by the CEO, that has the largest effects on organizational functioning” (Stoker, Grutterink, & Kolk, 2012: 583), why are 85% of boards tolerating less-than-stellar levels of performance from their CEOs? A CEO’s shortcomings in leadership, effective management, and mentorship of his or her team of direct reports could potentially have negative consequences for the organization’s performance. Interesting to note is that none of these surveys indicates that regulatory or legislative actions are to blame for these deficiencies. It is obvious by these two survey findings that board directors and top executives are not embracing Aristotle’s philosophy, either in the way they perform or in the way they recruit directors to the boardroom and the C-Suite,\(^1\) focusing primarily on individual attributes versus the candidate’s ability to work well with the existing board and top management teams. The well-accepted tenet, supported by observable outcomes, is that teams are able to out-produce even the most productive individual (Wheelan, 2012). The gap, especially at the board and TMT level, is that neither effective teamwork nor team dynamic is specifically considered.

The third reason for my interest in this topic comes from my own personal experiences as a board and TMT advisor as well as being a board member and TMT

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\(^1\) In this work, I refer to top management teams (TMTs) and C-Suites interchangeably.
member myself. Over the 20 or so years of advisory services I have provided, I have seen hundreds of boards and TMTs and have observed great and terrible boards and TMTs, always wondering—holding the qualifications and motivations of these professionals constant—what accounts for good and bad boards and TMTs? As a board director and TMT member, I experienced for myself good and bad teams but was still at a loss about what distinguishes these outcomes. My co-professionals were dedicated, knowledgeable, focused, and passionate, so what was the something that made the difference? It wasn’t until I was exposed to the notion that team dynamic makes or breaks a team, and more importantly, that an unbiased, data-driven assessment can pinpoint aspects of team dynamic that characterize team quality, that a new way of looking at the upper echelon emerged for me. What is consistent through my own experiences and through interviews with hundreds of executives over 25 years is that when a team is brought together, or an executive is added to a board or TMT, we cross our fingers and hope for the best because there simply is no sure-fire way to screen candidates for their impact on the future success of the team. The possibilities of having an evidence-based approach to create and manage teams to success, as well as a way of measuring the direct impact of teams on economic value creation, are the most exciting concepts to emerge in the field of management. Ultimately, my motivation for this research is the opportunity to make game-changing, thought-leading contributions to both the academic and practitioner communities. The creation of an elegant team diagnostic tool—the TLI (Lingham, 2005)—allows for the reconsideration of the causal relationships between team dynamic and firm outcomes without having to include a long
list of independent variables or use individual demographics as a proxy for team dynamic, which in the past has proven inadequate.

The call to understand this relationship is best expressed by Finkelstein, Hambrick, and Cannella (2009):

“The past two decades of explosive growth of this domain [have] not yielded a particularly orderly or concise set of findings. In fact, the literature on top executives is immensely diverse in methods and perspectives, and is often inconsistent in results” (p. 9).

Others have posited that previous research has failed to produce useful results primarily because the unit of analysis has been the individual and because economic theories were the predominant lens through which boards and TMTs were considered (Huse, Hoskisson, Zattoni, & Viganò, 2011). Despite the vast research focused on teams or the upper echelons of the organization, there is still relatively little research on the intersection of these two streams of research—research on teams and research on upper echelon (boards and top management team)—and the impact on corporate performance. The value of research on top executives is articulated by Pitcher and Smith (2001): “There are few more important subjects to strategy scholars, or for that matter to practitioners, than the link between the people at the strategic apex of the organization and that organization’s performance” (p. 1). The value of research on executives working in teams is highlighted by Hambrick (2007)—“attention to executive groups, rather than to individuals, often yields better explanations of organizational outcomes” (p. 334)—and Finkelstein et al. (2009)—the “small group of people at the top of an organization can dramatically affect organizational outcomes” (p. 3). By using a direct measure of team dynamic, we hope to better understand and predict the relationship
between the lived team experiences of board directors and C-Suite executives and the impact of these teams on firm outcomes.

Bringing these elements together generated my research questions:

• What are the enablers of and impediments to director participation in board deliberation?

• What impact do team dynamic and performance at the board level have on corporate performance?

• What impact do team dynamic and performance at the TMT (C-Suite) level have on corporate performance?

• What is the relationship between dynamic quality in the boardroom, the C-Suite and firm performance?

Several elements distinguish our research from our predecessors’ researcher in this field. They include the combination of: (a) considering the team as our primary unit of analysis versus the individual, (b) adopting a behavioral lens versus an economic lens in considering relationships and outcomes, (c) employing a scale that directly measures team dynamic versus inferring team dynamic quality by proxy, and (d) selecting corporate financial performance as the dependent variable versus a subjective measures of organizational outcomes (e.g., decision-making quality). These differences will be discussed in greater detail in the body of the dissertation.

This research, as a departure from the traditional research inquiry, focuses on the role of team dynamic at the top of the organization—the board of directors and the top management team—on firm performance to better understand the value-creating impact of these teams. Our research is not about what boards and TMTs do—we are not interested in their roles or processes (decision-making, resource allocation, etc.). We focus on the behavioral predisposition of executives to work well in teams as well as the
quality of the dynamic created among them as the container to facilitate quality
information exchange, innovation, and the important team characteristic of self-efficacy,
which we believe are the antecedents to effective decision-making, resource allocation,
and other TMT outputs. By using a team dynamic assessment tool as a direct measure of
team dynamic, we hope to shift future research from indirect (using demographics or
aspects of team behavior as a proxy) to direct measures of team dynamic. We also hope
to shed light on where interventions in team interactions can improve the team dynamic.
Will Aristotle’s principle express itself in the boardroom and C-Suite? Our interest was
to be able to identify the causal link between management’s ability to work as a team to
reduce information asymmetry (Greenwald & Stiglitz, 1994; Stiglitz, 2002) and capitalize
on knowledge sharing and integration (Nonaka, von Krogh, & Voelpel, 2006; Srivastava,
Bartol, & Locke, 2006) through improving team dynamic quality (Lingham, Richley, &
Serlavos, 2008), and enhance enterprise value. By understanding whether team
interaction quality at the board level and TMT level is an antecedent to firm performance,
we might be better able to explain and predict corporate performance in the future.

**Dissertation Order**

This dissertation will highlight the path that was followed to explore this
important relationship between upper echelon teams and the outcomes they produce. A
brief explanation of how the two top teams in the organization—the board and the C-
Suite team—were distinguished, namely how these two teams differ in terms of their
characteristics and why each team should be studied independently of the other, and
then their combined impact on economic value creation. I will highlight other research
that has addressed the relationship between upper echelon and firm performance and
why prior studies have generated disappointing results in their ability to explain this relationship. I will articulate the gap in academic inquiry, how my research attempts to address this gap, and specifically why my research protocol is unique. Chapter 2 will present a literature review of how other scholars have addressed this subject, their findings and how my research addresses gaps in understanding the phenomena. In Chapter 3, an explanation of the theoretical framework employed in designing the three research inquiries will be presented. The theories referenced informed us about relationships between constructs and what outcomes we expected to see. A description of the research methodology will be provided and a rationale for how we selected a mixed-methods approach to this research agenda. We will also describe how our qualitative research informed our qualitative research and how the quantitative model designed for the board team evolved for the TMT research. In Chapter 4 will provide an integrative narrative on the relationship between team dynamic quality and economic value creation at the board and TMT level. We will provide a brief summary of each of the research inquiries and the salient findings. In addition, will explore the relationship between the two top teams in the organization—board team dynamics and TMT dynamics—and the resulting impact of the combination of dynamic quality of each team on corporate financial performance. We hope to demonstrate why this team-based approach might be a game-changer in understanding and predicting future corporate performance outcomes. The complete manuscripts of each of the three research projects can be considered stand-alone works and are provided in their entirety² in the Appendix. To illustrate the power of the team approach and its practical implications,

² Two of the three manuscripts have been published in academic journals. The versions included in the Appendix are the published versions.
Chapter 5 presents a case study describing a real-life project executed for a nonprofit board. The methodology, findings, recommendations, and more importantly, the impact the project had on the client organization two years after project completion will be provided. Chapter 6 will complete the dissertation with a statement of our concluding thoughts, limitations of the research, and our future research agenda.
Chapter 2: Literature Review of Prior Research in Board/TMT

I reviewed literature in several streams related to teams and upper echelons and present a review of prevalent literature on teams in general, boards, TMTs, and multiple team members (MTM). Since we are interested in the intersection between boards, TMT and team dynamics and how each is related to corporate performance, we focus specifically on this subset of literature. As our primary inquiry is focused on team dynamic, we include information on how this term has been addressed in prior literature. Lastly, we summarize what we know and do not know about teams, boards, and TMTs and identify the gaps in the literature we hope our research addresses.

Team and Multiple Team Membership (MTM) Literature

Teams have been studied for decades, primarily due to the inherent belief that teams can offer “greater adaptability, productivity and creativity than individuals and provide more complex, innovative and comprehensive solutions to solve organizational problems” (pp. 5–6). Two meta-analyses of team-based research were reviewed to understand the major themes of research in this area. One review, conducted in 2002, looked at 67 empirical studies (Gully, Joshi, Incalcatera, & Beaubien, 2002). It found effect sizes stronger at the team level than at the individual level. The study also found that team self-efficacy—or the teams “belief in their capability to perform a specific task” (p. 820) and team potency—or the “generalized beliefs about the capabilities of the team across tasks and contexts” (p. 820) have positive relationships with performance with interdependence moderating the relationship between team self-efficacy and team performance outcomes (Gully et al., 2002). Another meta-analysis, conducted in 2008, concurred that teams have a stronger impact on organizational-level performance than
individuals have and that “communication and cohesion among team members positively affected firm [outcomes]” (Mathieu, Maynard, Rapp, & Gilson, 2008: 415). Other scholars have affirmed that “effective teamwork is becoming increasingly important to organizational success…however we still need to better understand how to structure top-performing teams” (Basadur & Head, 2001), especially as we are seeing the migration of work performed from individuals to teams in all areas of the economy (Nicolay et al., 2012).

A consistent theme among scholars is that there is a process involved that enables teams to generate better outcomes than individuals—namely the ability to leverage and apply knowledge from many people to address specific tasks and generate desired outcomes. Teams do this by sharing information and developing solutions through their collective efforts (Nonaka, 1991; Park, Spitzmuller, & DeShon, 2013). Past research has examined the relationship between teams and dependent variables such as team satisfaction (Kirkman, Rosen, Tesluk, & Gibson, 2004), innovativeness (Tjosvold, Tang, & West, 2004), learning (1999), creativity (Gilson & Shalley, 2004); potency (Collins & Parker, 2010; Guzzo, Yost, Campbell, & Shea, 1993; Zhang, Li, Ullrich, & van Dick, 2013); task completion (Amason & Sapienza, 1997; Cohen & Bailey, 1997; De Dreu & Weingart, 2003; Gabrielsson & Winlund, 2000; Gladstein, 1984); psychological safety (Edmondson, 1999); and other non-financial outcomes, but relatively little research focuses on the impact of teams on financial performance.

An initial paradigm of causal relationships between members, processes, and outcomes was represented by the linear relationship characterized by the input-process-output (IPO) model, widely held as the definitive model in the team literature for many
expanded on this concept, proposing that the outcomes that teams produce are not a
function of a linear process, but in fact, teams are complex and dynamic entities
characterized by feedback loops that ultimately lead to learning and adaptation. Ilgen et
al. (2005) recharacterized teams as complex, and identified input-mediator-output-input
(IMOI) as the driving cycle by which teams produce output: signaling that the
interactions between team members are a critical aspect of this complex, dynamic, and
recursive process. This perspective that teams are complex entities was supported by
more in-depth research (Arrow, McGrath, & Berdahl, 2000; Edmondson, Roberto, &
Watkins, 2003). Regardless of how the process is described, central to team theory is that
something occurs that transforms individual and group inputs into valuable outputs—with
this something generally referred to as team processes, team interaction, team dynamic,
or behavioral integration.

Multiple team membership. The academic literature exploring the impact of
individuals on multiple teams is scant (Mathieu et al., 2008). More than thirty years ago,
Kolodny (1979) identified that in matrixed organizations “multi-team membership
becomes normal” (p. 548), but since that time, relatively little research has been focused
on how these teams function together and their resulting impact on organizational
performance. What little research has been conducted has focused on boundary-
spanning—when one or more team members work across team boundaries. Ancona and
Caldwell’s (1992) research took a unique approach to boundary-spanning research
focusing on the external team activity versus behavior within teams with the objective of
discovering the “relatively unknown pattern of groups' external activities with essential
others” (p. 634). What these scholars found was that “the type of external communication teams engage in, not just the amount, determines performance. Over time, teams following a comprehensive strategy enter positive cycles of external activity, internal processes, and performance that enable long-term team success” (p. 634). This finding provides some context for exploring the quality of communication and interaction between teams, and if the team dynamic quality of one team may affect another team through their cycles of communication, activity and processes. Beyond this work in external behaviors related to boundary-spanning, we were not able to find any studies that investigated the quality of the dynamic of one team on other teams either report directly into it, or having shared team membership. We are specifically interested in this phenomenon due to the hierarchical and shared team membership that characterizes boards and TMTs. For our research, we showcase that this phenomena of hierarchical and MTM teams exist—namely that the TMT reports in to the Board and that CEOs and their direct reports are each simultaneously on at least two teams: CEOs are typically on the board of directors and leading their C-Suite team, and their direct reports are simultaneously on the C-Suite team and leading their own functional team (e.g., operations, finance, human resources, marketing). Despite the fact that individuals simultaneously being on multiple teams appears to be the norm for at least 65% of knowledge workers (Zika-Viktorsson, Sundström, & Engwall, 2006), with some estimates as high as 94.9% (Martin & Bal, 2006), little research has addressed this area: “Most academic research has focused on intact teams without accounting for the possibility of multi-teaming” (Chudoba & Watson-Manheim, 2007: 67), and as far as we know, based on an extensive search of the academic literature, no research exists that
addresses simultaneous MTM at the upper echelon of the organization. A study conducted in 2011 explored the allocation of time and attention as well as the flow of information on a team’s productivity when individuals are simultaneously members of multiple teams, and found a curvilinear relationship: “At moderate levels, MTM can benefit individuals, teams, and organizations by more effectively distributing time, attention, and information, but it can hurt them when MTM is very low (through inefficiency and suboptimal information flow) or very high (through fragmentation)” (O'leary, Mortensen, & Woolley, 2011: 5). Particularly germane to our research is that they found, at the organizational level a strong relationship between MTM and productivity:

“The positive effects of MTM are driven primarily by the resulting network of interconnected teams. This network forms a set of pathways connecting various parts of the organization and its members to one another. As individuals are concurrently members of multiple teams in an organization, those teams are relationally linked to one another through their members….The result is increased resource interdependence among different units, or ‘multi-coupled project organizations’ (Söderlund, 2002: 428), where teams share members and the work of one team can have a powerful ripple effect through its network of connections” (p. 23).

Because of the paucity of research on this subject, they specifically suggested that future inquiries address the impact of disparate team dynamics on the ability of individuals to function effectively in each team (O'leary et al., 2011).

**Boards**

The seminal work in the area of boards, board processes, and corporate performance impact is the Forbes and Milliken (1999) paradigm-shifting model examining boards from a multiple-theory approach (see Figure 1). In our study, we specifically focused on the impact of the processes (represented by the relationship
dynamic—also known as the *team dynamic*) on board-level and firm-level outcomes.

Forbes and Milliken’s (1999) fundamental theory articulates that board processes should be explored for three reasons: (a) “influence of board demography on firm performance...[is] complex and indirect,” (b) “beliefs and behaviors [cannot] be inferred reliably from demographic variables alone,” and (c) the “study of process constructs has the potential to expand and refine our understanding of group dynamics” (Forbes & Milliken, 1999: 490–491). It is easy to see why their work ushered in a new era of research. It was the first to consider boards from this economic-behavioral context, it encouraged new approaches and a greater understanding of boards (Gabrielsson & Huse, 2004; Hambrick, Werder, & Zajac, 2008; Huse et al., 2011), and it marked a departure from relying solely on economic theory and demographically driven antecedents of firm performance. They proposed that boardroom aspects should be examined at four intervals—director characteristics, board processes, board-level outcomes, and firm-level outcomes (Forbes & Milliken, 1999). In their theory, they combined different units of analyses—individuals, groups, and firm-level constructs in the same theoretical model—also signaling a new approach to understanding board antecedents, processes, and outcomes and their impact on the organization. The model uses board demography and the presence of knowledge and skills as indicators of board characteristics.
Another model that considers boards as teams was proposed by Vandewaerde, Voordeckers, Lambrechts, and Bammens (2011) and follows the same logic of input, mediator, output (see Figure 2). In this model, Vandewaerde et al. (2011) emphasize the importance of the mediator—or the “mechanisms that express the nature of the black box in linking drivers to outputs” (Vandewaerde, Voordeckers, Lambrechts, & Bammens, 2012: 438)—and how it has been understudied. Key to their study was the recognition of team processes that play a “pivotal role” in team effectiveness. They specifically focused on the same attributes neatly captured by the diagnostic tool used in our study (Lingham, 2005). This recent work acknowledged the dearth of academic knowledge “about how boards of directors function and what determines their effectiveness” (Vandewaerde et al., 2012: 441).
FIGURE 2
The Board of Directors as a Team: A Theoretical Model (Vandewaerde, Voordeckers, Lambrechts, & Bammens, 2011)

Top Management Teams (TMTs)

The seminal book *Strategic Leadership* (Finkelstein et al., 2009) examines the role of boards and top management teams and their indirect impact on corporate financial performance. The research closely considered the role of business leaders and their pivotal positions at higher levels of the organization’s hierarchy. Hambrick and Mason’s original upper echelons theory (1984) view proposes that top executives (e.g., CEOs and top management team members) in organizations are important determinants of organizational success as paraphrased: “strategic leadership resides at the intersection of cognitive, social and political concepts” (Finkelstein et al., 2009: 5). Finkelstein et al., (2009) examined the relevance of different characteristics to try to establish a model that predicts financial performance as a result of strategic leadership. The aspects they explored included psychological aspects of individual leaders, demographic characteristics, experience, turnover and succession, and compensation, but the researcher did not address the impact of team dynamic quality and how teams impact
financial performance. Similar to the Forbes and Milliken (1999) model that considered individual, team, and firm outcomes, Finkelstein et al. (2009) offer a model of top management teams, essentially following the same logic that leads from individuals to processes to team outcomes to firm outcomes (see Figure 3).

**FIGURE 3**

<table>
<thead>
<tr>
<th>Individual Characteristics</th>
<th>Team Outcomes</th>
<th>Firm level Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top Management Teams</strong></td>
<td><strong>Strategic Decision-Making</strong></td>
<td><strong>Organizational Outcomes</strong></td>
</tr>
<tr>
<td>Composition</td>
<td>Process</td>
<td>Strategy</td>
</tr>
<tr>
<td>- Heterogeneity</td>
<td>- Formulation</td>
<td>- Firm performance</td>
</tr>
<tr>
<td>Structure</td>
<td>- Implementation</td>
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</tr>
<tr>
<td>- Role interdependence</td>
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<tr>
<td>- Size</td>
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</tr>
<tr>
<td>Process</td>
<td></td>
<td></td>
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<tr>
<td>- Social integration</td>
<td></td>
<td></td>
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<tr>
<td>- Consensus</td>
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</tbody>
</table>

Prior research is lacking in two regards—they do not study TMTs as teams and they do not study the impact on TMTs dynamic quality on corporate financial performance. Of the few works published that examine the relationship between TMT and corporate financial performance, most of the research has relied on the individual profiles of TMT members. To demonstrate the inconclusiveness of the correlation between individual TMT members and corporate financial performance, we highlight three specific studies: Certo, Lester, Dalton, and Dalton (2006) found a positive relationship between TMT functional heterogeneity and corporate financial performance (ROA) and increased sales growth; Halebian and Finkelstein (1993) found a negative relationship between TMT functional heterogeneity and corporate financial performance, and Cannella, Park, and Lee (2008) found no statistically significant relationship between
TMT team heterogeneity and firm performance, except where the TMT members were colocated. As we can see, there are no definitive findings between TMT demographics and firm performance, creating an opportunity to study the phenomena from a different perspective—examining TMTs dynamic quality versus their demographic profile.

Each stream of research has explored the respective impacts on the value creation chain of different variables, but the topic of boards and TMTs has not been adequately studied, past the assertion that top management working as teams should produce higher levels of quality performance. Little research has been done to quantify the quality of teams or to determine whether the quality of the team dynamic has any impact on financial performance.

**Defining Team Dynamic**

In much of team literature, the term *team dynamic* is used interchangeably with other behavioral descriptors as articulated above (team processes, team interaction, or behavioral integration). Scholars have generally agreed that team dynamic is considered to be the interactions between and among team members, demonstrating their ability to deal with differences, trust the other, create a meaningful context, handle conflict and tension, and enact effective leadership roles within the team (Curry et al., 2012). Others have defined it as “team members engaged in tasks using tools and resources” to satisfy two team objectives—“to complete group projects and to fulfill member needs” (McGrath, Arrow, & Berdahl, 2000: 98). Hambrick (2007) described team dynamic as the process by which TMTs “collectively engage in information processing or decision making,” asking, “if top executives do not collectively engage in information processing or decision making, then what is the point in trying to use their collective characteristics
(demographic or otherwise) to predict company strategy or performance?” (p. 336).

Others have described team dynamic in a TMT as “the pattern of interaction and influence among the executive group” (O’Reilly, Snyder, & Boothe, 1993: 158). Despite a comprehensive and generally accepted definition of team dynamic, past research has recognized that team dynamic is a complex, formative, and latent factor, and as such is difficult to measure directly. Prior research has tried to capture team dynamic by measuring substitute variables or to infer team dynamic quality by proxy. The primary methodology employed in past research has been to rely on demographic characteristics such as team composition (Hambrick & Mason, 1984; Hmieleski & Ensley, 2007; Murray, 1989), educational diversity (Simons, Pelled, & Smith, 1999), TMT colocation (Cannella, Park, & Lee, 2008), and TMT size (Amason & Sapienza, 1997) as a way to infer the quality of the team dynamic. Isolated behavioral characteristics such as trust (Farrell et al., 2005), CEO leadership style (Carmeli, Schaubroeck, & Tishler, 2011; Srivastava et al., 2006; Stoker et al., 2012), leader-member exchange (Carmeli et al., 2011; Priem, 1990; Simsek, Veiga, Lubatkin, & Dino, 2005; Wei & Lau, 2011), communication quality and frequency (Edmondson et al., 2003; Marks, Zaccaro, & Mathieu, 2000), social integration (Simsek et al., 2005), interdependence (Park et al., 2013), consensus (Ensley & Hmieleski, 2005; Hmieleski & Ensley, 2007; Simsek et al., 2005), team diversity (Wei & Lau, 2011), shared mental models (Li, 2013), and the Big Five dimensional personality model characteristics (Peterson, Martorana, Smith, & Owens, 2003) have also been used as a proxy for team dynamic. The primary limitation of these prior works is that team dynamic has been measured indirectly, and therefore the construct is not indicative of actual team dynamic quality.
For our study, we considered team dynamic to be the degree to which team members interact successfully to achieve the team’s and their personal objectives by understanding how the team operates through their experiences, conversations, and interactions. And to address the limitation of prior research of using a proxy for team dynamic, we employed a specific validated and reliable scale—the TLI—developed to capture the overall phenomenon of team dynamic (Lingham, 2009).

**Selected Summary of Prior Research**

A review of 41 articles and book chapters from 2000 until the present time related to boards and TMTs is summarized in Appendix E. These articles were selected based on their relevance to the focus of our inquiry. The prevalent themes of these works reveal the following:

- The prevalent unit of analysis of prior study has been the individual—specifically, individual demographics, characteristics, and behaviors. Relatively little work has been done employing the team as the unit of analysis. In our review, approximately 26% used the team as the unit of analysis.

- Approximately 26% of the studies used corporate financial performance as the dependent variable. The primary measure of financial performance was return on assets, return on equity, or return on sales. One study employed Tobin’s q as the financial measure. The majority of works focus on nonfinancial or subjective performance measures.

- Close to 60% of the studies employed a quantitative approach to the research.

**Articulating the Gap in Academic Literature**

Based on the review of current literature, a picture emerges of what we know, what we do not know, and the gaps that need to be addressed. Table 1 summarizes these concepts that informed our research questions.
### TABLE 1
Summary of Research Informing the Current Study

<table>
<thead>
<tr>
<th>Area</th>
<th>What We Know</th>
<th>What We Do Not Know</th>
<th>Identified Gap</th>
</tr>
</thead>
</table>
| Teams and MTM | • When properly managed, teams are more effective at producing robust results than individuals acting alone.  
  • Teams produce more robust results than individuals by leveraging the skills, expertise, and energy of team members through a process often described as behavioral integration, team processes, or team dynamic. Two models explain this phenomenon: input-process-output (IPO) and input-mediator-output-input (IMOI).  
  • Team dynamic has been partially or indirectly measured by selecting demographic proxies to infer behavioral outcomes.  
  • Individuals on multiple teams can benefit the team and be benefitted by being a MTM when the frequency of being on multiple teams is in moderation. | • How behavioral integration or team processes (team dynamic) facilitates or hinders team effectiveness.  
  • A comprehensive and direct measure of team dynamic has not previously been employed to understand the impact of these team processes on team effectiveness.  
  • The impact of team dynamic on the “ripple effect” of multiple team members between their teams and overall performance of each team. | • A holistic direct measure of team dynamic may shed light on the conditions that need to be present to leverage individuals’ abilities and generate higher levels of collective performance.  
  • The “ripple effect” of team dynamics quality on teams with overlapping (multiple) team members at the upper echelon of the organization. |
| Boards      | • Boards provide leadership, direction, monitoring, and counsel to the TMT and have an impact on organizational performance.  
  • Forbes and Milliken (1999) posited that there are intervening processes (team dynamics) that are present at the board level that generate board-level and firm-level outcomes.  
  • Most research examines the demographic profile of individual directors with the unit of analysis at the individual level. | • Boards are considered a “black box” with processes well-hidden to outsiders due to the lack of access to and direct observation of boards and their activities.  
  • We do not have a clear understanding of these intervening processes due to the historic lack of access to board directors.  
  • A comprehensive, holistic and direct measurement of team dynamic did not exist until 2009 and has not been used with upper echelon teams. Team dynamic has been measured in past research by using indirect, proxy measures of selected elements of team dynamic.  
  • We do not have a clear understanding of the impact of boards functioning as teams on firm outcomes as the unit of analysis of past research has been based on the individual director demographic. | • Directly measure the quality of team dynamic experienced by board directors to see whether Forbes and Milliken’s (1999) model is supported.  
  • Examine the impact of boards on firm outcomes by considering boards as a team, and identify boards as a team-level construct. |
| TMT         | • Hambrick’s (1984) original upper echelon theory espouses that executives are the key determinants of organizational | • We do not have a clear understanding of how team dynamic impacts corporate financial performance. | • Directly measure the quality of team dynamic and identify what conditions are experienced by TMTs to see whether |
success.

- Hambrick’s (2007) revised theory articulates that this is possible only when behavioral integration (high-quality team dynamic) of players at the top of the organization occurs.
- Most research examines the demographic profile of individual executives with the unit of analysis at the individual level.
- We do not have a clear understanding of what conditions need to be present for high-quality team dynamic.
- Despite some prior research, we do not have a clear understanding of how the quality of TMTs functioning as teams impacts firm outcomes.

Hambrick’s (2007) theory is supported.

- Examine the impact of TMTs on firm outcomes by considering TMTs as a team, identifying them as a team-level construct.

Our research attempts to address gaps in the literature by (a) using the team as the unit of analysis, (b) focusing on economic value creation and relative financial performance by using relative profitability performance, (c) exploring the “ripple effect” of team dynamic quality between board teams and C-Suite teams, and (d) most importantly, using a validated measure of team interaction quality as a direct measure of team dynamic and effectiveness rather than using a demographic proxy, as has been used in other research.
Chapter 3: Theoretical Framework

Theoretical Framework

Drawing upon prior research and our own observations from work as an upper echelons advisor, we generated a theoretical framework as a context for our research. We were particularly interested in studying boards and top management teams (TMTs) in relationship to corporate outcomes, as they reside at the strategic apex of a firm (Mintzberg, 1979). Based on team theory, which informs us that under appropriate conditions teams out-perform individuals in generating results, we incorporate several supporting theories—upper echelons, and information asymmetry—in generating our framework. Upper echelons theory (Hambrick, 2007) posits that boards and TMTs have a greater impact on outcomes than any other constituency in the organization. Information asymmetry theory (Stigler, 1961; Stiglitz, 2002) advances that economic value can be created when information asymmetry between decision makers is reduced. Taken together, we built a framework that allows for economic value creation through the sharing and application of individual knowledge communicated with others to collectively generate effective outcomes for the team and, ultimately, for the firm. The balance of this chapter explains the theories employed in generating this research framework. In addition, we will describe how our theoretical framework informed our mixed methods research design.

Team theories. As discussed in the literature review, teams have been studied for decades because of the inherent benefits of leveraging the collective knowledge and experience of team members. Teams are better able than individuals to address complex challenges that require the integration of different perspectives and to generate innovative
solutions (Arrow et al., 2000; McGrath et al., 2000). The advantage of teams over individuals has been attributed to “a) the shifting of suggestions in social interaction which serves as an error-correcting mechanism, b) the social support furnished in interaction which facilitates thinking, and c) the competition among members for respect which mobilizes their energies for contributing to the task” (Edge & Remus, 1984: 35).

Team theories abound, and each has its own explanation of directionality between variables, but whatever the mechanism, these theories espouse that effective teamwork is associated with higher levels of productivity, and organizations with effective team leadership significantly outperform organizations with weaker leadership (Podsakoff, MacKenzie, & Bommer, 1996). This is why high-performing teams are so important to firm outcomes and why the majority of firms have teams as their organizing philosophy (Beus, Jarrett, Taylor, & Wiese, 2013).

In our review of the literature, we found that team theory, as described by Marschak and Radner (McGuire, Marschak, Radner, McGuire, & Arrow, 1972) and Alchian and Demsetz (1972), is loosely based on agency theory and recognizes the team as an agent representing the interest of the principals (or the firm) in executing their tasks. This association is extremely relevant for our academics and practitioners studying governance impact, as the majority of board and TMT research has been conducted within the context of agency theory. According to Edmondson et al. (2003), team effectiveness theory proposes that “unless group process is managed accordingly, asymmetric distributions of situation-specific information and interests will reduce decision-making effectiveness” (p. 297). This concept of asymmetric distributions of knowledge is germane to our theoretical framework because central to our hypotheses is
the assumption that there is a relationship between team dynamic quality and the ability of team members to appropriately participate and share their knowledge.

For our study, we focused on two types of teams at the upper echelons of the organization: boards and TMTs. These two groups of people meet the criteria for teams as they are “groups of interdependent individuals that can self-regulate their behavior on relatively whole tasks. [They] 1) [have] face to face interaction; 2) [are] employees with interrelated tasks who are responsible for making a product or providing a service; [and] 3) [exercise] discretion over decisions such as task assignments, methods for carrying out the work and scheduling of activities” (Cohen & Ledford, 1994: 14). Therefore, like our research predecessors, we considered the board of directors and TMTs to be teams (Conger & Lawler, 2009; Forbes & Milliken, 1999; Vandewaerde, Voordecker, Lambrechts, & Bammens, 2011; Vandewaerde et al., 2012), and in our research, we expected to observe these teams out-performing individuals specifically on their impact on firm performance. As described in the input-process-output model (McGrath, 1964) and input-moderator-output-input model (Ilgen, Hollenbeck, Johnson, & Jundt, 2005), the underlying assumption of these models is that there is an intervening process (or mediator) that exists between the inputs of team members and the outputs of the team, which was central to our theoretical framework. We were interested in finding out whether team dynamic quality (as captured by the TLI) is this mediator and, if so, how powerful this mediator is in generating team and firm outcomes.

**Behavioral theories related to boards.** The use of behavioral theories is a relatively new in board research. According to a meta-analysis performed in 2011, only 10% of all recent research done reflected non-economic-based theories (Huse et al.,
of behavioral theories referenced, scholars have documented a range of theories applied to boards, including identity theory (Ashforth & Mael, 1989), theory of planned behavior and reasoned action (Ajzen, 2002; Madden, Ellen, & Ajzen, 1992), social networking theory (Granovetter, 1973), and group process theory (Shaw, Robbin, & Belser, 1971) in framing and explaining director actions and their impact on firm outcomes.

Some scholars have suggested that multi-theoretical frameworks be employed (Cacioppe & Stace, 2009; Eisenhardt, 1989; Forbes & Milliken, 1999; Judge, 2011) because they believe single-theory approaches do not adequately explain observed phenomena. Despite diverse approaches and underlying theories employed by scholars, there is consensus that observing boards to understand their behavior and predict the impact of their governance on corporate outcomes is virtually impossible because of the difficulty in gaining access to actual board processes (Daily, Dalton, & Jr, 2003; Hambrick, 2007; Pettigrew, 1992). As previously discussed, Forbes and Milliken (1999) posited that boards have an impact on firm performance and based on their theory, which combines different units of analyses—individuals, groups, and firm-level constructs—in the same theoretical model, a new approach to understanding board antecedents, processes, outcomes and their impact on the organization emerged. Forbes and Milliken (1999) postulated that boards that are able to leverage individual knowledge through effective “intervening processes” to have a greater impact on both board-level outcomes and firm-level outcomes. Forbes and Milliken’s (1999) article was theoretical in nature and was not subjected to empirical testing at that time. Over the years, many scholars have referenced and modified this model in their theoretical and empirical works. Most
recently Vandewaerde et al. (2011) updated the Forbes and Milliken’s “board processes” of effort norms, cognitive conflict, and use of knowledge and skills by replacing these constructs with team and individual processes and emergent states in the new model. They also replaced the original models “cohesiveness” with “more ‘soft’ outcomes such as members’ affective reactions and viability outcomes” (p. 439). The liberties that Vandewaerde and colleagues took with the original model gave us the courage to respecify the original model to reflect our beliefs about team dynamic. Our theoretical framework was informed by three models previously discussed (Finkelstein et al., 2009; Forbes & Milliken, 1999; Vandewaerde et al., 2012) and we hope by better articulating the constructs in the original and updated theoretical models—namely by replacing the indirect measures of team processes with a direct measure of team dynamic and employing improved measures of team output—we hope to further the predictive power of these theoretical models.

**Behavioral theories related to TMTs.** The predominant behavioral theory used to understand the behavior of TMTs is upper echelons theory. This theory, introduced by Hambrick and Mason in 1984, states that: (a) management decisions are a function of individual executive interpretation of contextual elements, and (b) interpretations are a function of the “executive’s experiences, values and personalities” (Hambrick, 2007: 334). This theory, when introduced, posited that the characteristics of the individuals in the TMT would yield stronger explanations of outcomes than the characteristics of the CEO would, with evidence suggesting that TMTs, rather than CEOs alone, provide better predictions of organizational outcomes (Finkelstein & Boyd, 1998; Tushman & Rosenkopf, 1996). Even though the original theory espoused that leadership is a “shared
activity, and the collective cognitions, capabilities, and interactions of the entire TMT influence strategic decisions and outcomes” (Hambrick, 2007: 334), the theory still did not consider the TMT as an integrated team but instead a collection of individual attributes. In 2007, Hambrick made some modifications to the theory, drawing attention to “behavioral integration” (p. 336) of TMTs as critical to team effectiveness. Hambrick (2007) found that TMTs that exhibit behavioral integration have “direct positive effects on organizational performance” . Behavioral integration is the process by which TMTs “collectively engage in information processing or decision making” (Hambrick, 2007: 336). He also held that “if top executives do not collectively engage in information processing or decision making, then what is the point in trying to use their collective characteristics (demographic or otherwise) to predict company strategy or performance?” (p. 336). Another essential point made in Hambrick’s (2007) revision to upper echelons theory is that “the theory offers good predictions of organizational outcomes in direct proportion to how much managerial discretion exists” (p. 335), a subject we explored by comparing the team dynamic quality at the board level and the TMT in the same organizations. Although some scholars believe the real decision maker is the CEO and therefore discount the study of TMTs (Dalton & Dalton, 2005), we held firm to our belief that there is immense value in understanding the dynamic of the TMT and inquiring into the relationship between good and bad team dynamic at the apex of the organization and corporate financial performance. As stated by Finkelstein et al. (2009), “TMTs are not only a central component in the strategic decision-making process and in postdecision implementation; they may also be viewed as a basic organizational attribute, worthy of exploration in their own right” (p. 123).
Similar to Forbes and Milliken (1999), Finkelstein et al. (2009) offered a model of TMTs that considered three discrete levels—individual, team, and firm—as discussed in the previous chapter. Their model essentially followed the same logic presented by Forbes and Milliken (1999) from individual characteristics to team outcomes to firm outcomes (Finkelstein et al., 2009). Given that these two models of board and TMT impact on firm-level outcomes are similar in structure, we adopted a consistent approach to studying our two constituent groups—board directors and TMTs.

Information asymmetry. The exchange of information is critical in decision making and management, and it has been proposed that directors and TMTs have an obligation to engage in and contribute to the exchange of information to fulfill their obligations to stakeholders (Boone & Hendriks, 2009). It has been suggested that the TMT is the “information processing center of an organization in its relationship with its environment” (Haleblian & Finkelstein, 1993: 845). As it relates to teams, in a meta-analysis of teams and information, researchers found that “information sharing is a central process through which team members collectively utilize their available informational resources” (Mesmer-Magnus & DeChurch, 2009: 535). When information is not effectively exchanged, information asymmetry occurs—“different people know different things…and information asymmetries arise between those who hold that information and those who could potentially make better decisions if they had it” (Connelly, Certo, Ireland, & Reutzels, 2011: 42). It has been suggested that “information exchange and integration act in a multiplicative way: both processes are needed to extract the benefits of TMT…for firm performance” (Buyl, Boone, Hendriks, & Matthyssens, 2011: 158). The ability of the signalers and receivers to understand these communication
transmissions is contingent upon the individual’s sensitivity to both spoken and tacit communication. The economic implication of information asymmetry “lies in ascribing costs to information acquisition processes that resolve information asymmetries in a wide range of economic and social phenomena” (Connelly et al., 2011: 42). The minimization of these information acquisition costs in the boardroom and C-Suite may result in higher quality decision making, task performance, and, ultimately, corporate performance. This concept of the exchange and integration of information as a key to success has been applied to boards and TMTs before, including the recent work by Boxer, Perren, and Berry (2013), which highlighted the “fragility of TMTs to the process of information sharing and hiding” (p. 55). Other authors have identified the importance of effective information sharing (reducing information asymmetry) as the key to effective management processes, organizational success, and financial performance (Boone & Hendriks, 2009; Boxer et al., 2013; Buyl et al., 2011; Certo, Daily, & Dalton, 2001; Connelly et al., 2011; Edmondson et al., 2003; Finkelstein et al., 2009; Forbes & Milliken, 1999; Hendry & Kiel, 2004; Payne, Benson, & Finegold, 2009; Rutherford, 2007).

Bringing these theories together, we generated the five assumptions that underlie our theoretical framework:

a) teams outperform individuals, and therefore it is through the coordinated efforts of many people that economic value is created;

b) the executives of a firm (the board and TMT), when working together effectively, have a greater impact on firm performance than when they act alone;

c) team dynamic—the ability of teams to create environments and relationships characterized by high levels of trust, psychological safety, and a shared
context for knowledge sharing—is the conduit through which individual knowledge is shared with others to integrate and apply knowledge, and generate effective decisions and innovative approaches;

d) information asymmetry is reduced when team dynamic quality is high, resulting in economic value creation; and

e) team members are able to make information explicit and generate effective solutions only if there is high quality team dynamic.

Figure 4 illustrates the theoretical framework employed for both the board and TMT research and identifies the constructs used in the board and TMT quantitative studies respectively.

**FIGURE 4**

Theoretical Framework

Research Approach and Methodology

*Prevalent unit of analysis in past research.* The prevalent unit of analysis in the vast majority of past research has been the individual director/executive and most economic and legal theory relies on the actions of individuals rather than groups in expressing the behavioral tenets of theory (Daily & Dalton, 1992; Daily et al., 2003; Eisenhardt, 1989; Forbes & Milliken, 1999; Gabrielsson & Huse, 2004). However, there have been calls from scholars to adopt the board as a collective unit or the “board as team” as the unit of analysis (Finkelstein et al., 2009; Vandewaerde et al., 2011) and to
study top management as teams (Amason, Shrader, & Tompson, 2006; Boxer et al., 2013; Cacioppe & Stace, 2009; Hambrick, 2007) to better understand the impact of these management entities on corporate outcomes (Machold, Huse, Minichilli, & Nordqvist, 2011; McIntyre, Murphy, & Mitchell, 2007; Payne et al., 2009; Zhang et al., 2013). This team orientation is reflected in the surge of recent work on the impact of teamwork in upper echelons (Finkelstein et al., 2009; Hambrick, 2007; Huse et al., 2011).

Confounding the lack of clarity on board- and TMT-level antecedent relationships to firm level outcomes is the recognition that most research has employed secondary-source data or “easily available data and the use of standardized methods” (Gabrielsson & Huse, 2004: 11–12), rather than primary data. Of the hundreds of articles written about board governance and TMTs since 1990 only a few have produced original survey data for their quantitative analyses (Minichilli, Zattoni, Nielsen, & Huse, 2012). The few works collecting original data have focused primarily on director behavior and its relationship to board task performance (Bailey & Peck, 2011; McNulty & Peck, 2010; Minichilli, 2009; Minichilli et al., 2012; Zona & Zattoni, 2007), strategic involvement of directors (Machold et al., 2011), TMT and corporate social responsibility (Klossner, 2012) and director behavior and influence on third parties (Westphal & Bednar, 2005, 2008; Westphal & Stern, 2007).

For all these reasons—the preponderance of theoretical frameworks, difficulty in accessing primary data, and difficulty in determining the most appropriate unit of analysis—scholars have referred to the board and the TMT as “black boxes” (Hambrick, 2007; Leblanc & Schwartz, 2007; Neill & Dulewicz, 2010; Pettigrew & McNulty, 1995; Vandewaerde et al., 2012). Scholarly works have not yet succeeded in lifting the shroud
of boardroom and TMT mystery, we believe, because the unit of analysis for the majority of research remains focused on the individual.

**Levels of analysis in the dissertation research.** Our research objectives, as stated above, were to better understand the relationship between how individuals work in and as teams and how this impacts firm-level outcomes. Given that we were examining factors at three different levels—individual, team, and firm—we considered this a multi-level inquiry. According to Rousseau (1985), there is a distinction between levels as the unit of measurement and levels as the unit of analysis, with measurement being the “unit to which the data are directly attached” and the analysis being the “unit to which the data are assigned for hypothesis testing and statistical analysis” (p. 4). In our study we focused on the unit of measurement, and in order to avoid the problem of misspecification, were careful to observe attributes at appropriate levels and by confirming the statistical validation of constructs. At the individual level (micro level), we were careful to collect data specific to the individual and not influenced by their association with the team or organization. At the team level (meso level), despite collecting information on the lived individual experiences of team members, the scale was carefully designed to collect data about how the team (not the individual) functioned, and at the firm level (macro level), we collected secondary information, not biased by individual participants.

When superimposed on the team process models, multi-levels correspond appropriately. The input-process-output model (McGrath, 1964) and the enhanced input-mediator-output-input model (Ilgen et al., 2005) “articulated the nature of the components that drive team effectiveness (i.e., inputs), the nature of the “black box”
linking such drivers with outcomes (i.e., mediators), and the complex nature of the criteria space (i.e., outcomes)” (Mathieu et al., 2008: 460). In the design of our research projects, we were informed by this articulation and examined the behavioral characteristics of team members (inputs at the micro level) that contribute to high quality team dynamic, the quality of the interaction among team members in exchanging and integrating information (mediators at the team or meso level), and the impact of team performance on organizational financial outcomes (outcomes at the firm or macro level).

The majority of research on the relationship between team performance and financial performance has relied on individual demographics as a proxy for team effectiveness, thereby excluding the meso level as a unit of measurement. Given the inconclusive nature of prior scholarly research based on individual characteristics (versus team characteristics) and firm financial performance, we specifically wanted to understand the role of team dynamic on firm performance.

*Distinguishing two types of teams.* In our research, we studied two different types of teams—boards and TMTs. It is clear that both boards and TMTs meet the criteria of team, as demonstrated above. However, we recognize that they in fact are two different types of teams. Although these two teams interact with each other, in reality they have very different roles, structures, and contexts. According to recent research, “typically, boards are in charge of monitoring, controlling and arranging the incentives of TMTs (Williamson, 1984) while TMTs implement and inform on the strategies set forth by the board” (Rivas, 2012: 574). Even though upper echelons theory does not distinguish between these two types of teams, in our research, it was necessary to do so. In the next chapter, we will describe how the structural equation modeling (SEM) model
evolved from the board model to the TMT model (by the exclusion of certain independent variables and the exclusion of a specific relationship between constructs) to address these differences. Table 2 summarizes the observed differences between boards and TMTs.

<table>
<thead>
<tr>
<th></th>
<th>Boards</th>
<th>TMT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographic location</strong></td>
<td>Sometimes considered virtual</td>
<td>Typically colocated</td>
</tr>
<tr>
<td><strong>Meeting frequency</strong></td>
<td>Episodic: typically 5 to 6 times per year</td>
<td>Regular: typically weekly or bi-weekly</td>
</tr>
<tr>
<td><strong>Meeting length</strong></td>
<td>Long: typically 1 to 1½ days per meeting</td>
<td>Short: typically 1 to 1½ hours per meeting</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
<td>Partially affiliated: Typically the majority of board directors are</td>
<td>Fully affiliated: Executives are considered “insiders” because of</td>
</tr>
<tr>
<td>(insider/outsider)</td>
<td>considered “outside or independent” from the firm. An “independent</td>
<td>their strong affiliation with the firm and because they are paid</td>
</tr>
<tr>
<td></td>
<td>director” is one who is not an executive officer or employee of the</td>
<td>directly for these full-time services.</td>
</tr>
<tr>
<td></td>
<td>listed company and who, in the opinion of the board of directors,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>has no relationship that would interfere with the exercise of</td>
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</tr>
<tr>
<td></td>
<td>independent judgment in carrying out the responsibilities of a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>director, according to Nasdaq Equity Rule 5605(a)(2).</td>
<td></td>
</tr>
<tr>
<td><strong>Source of income</strong></td>
<td>Fees and other remuneration are typically not the sole source of</td>
<td>Typically 100% or a vast majority of the executive’s income comes</td>
</tr>
<tr>
<td></td>
<td>income.</td>
<td>from the firm.</td>
</tr>
<tr>
<td><strong>Employers</strong></td>
<td>Multiple: Typically board members sit on multiple boards, and non-</td>
<td>Single: Typically executives have only one employer, with the</td>
</tr>
<tr>
<td></td>
<td>retired board members have either full-time or part-time</td>
<td>exception of executives who serve on boards of other companies.</td>
</tr>
<tr>
<td></td>
<td>employment.</td>
<td></td>
</tr>
<tr>
<td><strong>Performance evaluation</strong></td>
<td>Not transparent: For listed companies, there is some requirement by</td>
<td>Highly transparent: All executives have some form of performance</td>
</tr>
<tr>
<td></td>
<td>exchanges that performance evaluations occur, but there are no</td>
<td>evaluation as it is part of the board management process, and</td>
</tr>
<tr>
<td></td>
<td>standards set, nor are the evaluations disclosed to shareholders.</td>
<td>typically, performance evaluations are linked to remuneration plans.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance evaluations are typically disclosed as part of the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reporting process and justification for rewards.</td>
</tr>
<tr>
<td><strong>Reporting relationship</strong></td>
<td>None: Typically boards have no reporting relationship other than to</td>
<td>Hierarchical: The CEO/President typically has the authority to fire</td>
</tr>
<tr>
<td></td>
<td>the shareholders who appoint them. Chairperson or lead director does</td>
<td>any team member. The CEO/President is perceived as the final</td>
</tr>
<tr>
<td></td>
<td>not have formal responsibility for each director or the authority to</td>
<td>decision maker, with team members directly reporting to him or her.</td>
</tr>
<tr>
<td></td>
<td>fire a director. Often boards are characterized as “primus inter</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pares” with a leader among equals.</td>
<td></td>
</tr>
<tr>
<td><strong>Expected Outcomes</strong></td>
<td>Purely cognitive in nature. Boards typically are held accountable for</td>
<td>Financial and organizational results are the primary</td>
</tr>
<tr>
<td></td>
<td>three results: monitoring and controlling, bringing resources to the</td>
<td>accountabilities for the C-Suite. These results are expected to be</td>
</tr>
<tr>
<td></td>
<td>firms when necessary, providing guidance and counsel to the executive</td>
<td>generated from appropriately managing firm resources, effectively</td>
</tr>
<tr>
<td></td>
<td>management team. Boards are not held directly accountable for firm</td>
<td>pursuing appropriate strategies, identifying opportunities for</td>
</tr>
<tr>
<td></td>
<td>performance.</td>
<td>financial gain, generating the firm’s products/services, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>managing risks. Outcomes are measured and are directly linked to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>firm performance.</td>
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</table>
Use of mixed methods. We employed a mixed methods approach to our series of research questions. Mixed methods is a term used in social sciences to describe “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study” (Johnson, Onwuegbuzie, & Turner, 2007: 120). Because our study is focused on behavioral manifestations of individuals working together as a team, the advantage of this type of research is that it “tends to focus the researcher on behavior and the results of behavior rather than on verbal expressions of behavior” (Bouchard, 1976: 270). In addition, the fundamental benefit of mixed method approach is that it “enhances our beliefs that the results are valid and not a methodological artifact” (Bouchard, 1976: 268).

In designing our mixed method approach, we first employed a qualitative approach to identify the behavioral attributes consistent with team dynamic at the boardroom level. We then constructed a quantitative study to test our hypotheses. Lastly, we applied this quantitative approach to a different audience—namely TMT executives.

For our first study, focused on the micro level of analysis, we developed a grounded theory for the behavior of individual directors in the boardroom. Qualitative research is instrumental in understanding the what, how, and why of social phenomena. We recognized the need to better understand the dynamics in the boardroom, specifically because of the paucity of literature related to behavioral aspects of directors (Huse et al., 2011). Qualitative methods are uniquely appropriate to research problems related to perceptions and relationships that shape understanding and action (Strauss & Corbin, 1990), especially at the individual level. We conducted semi-structured interviews with
board directors from small and medium enterprises (SMEs) to elicit detailed narratives about cohort interactions inside and outside the boardroom, acquiring “firsthand, sensory accounts of phenomena as they occur in real world settings” (LeCompte & Preissle, 1993: 3). We followed the recommendations of (Corbin & Strauss, 2008) for the concomitant collection and analysis of phenomenological data, utilizing the technique of rigorous constant comparison, which revealed patterns in the data.

Once we understood the barriers to effective board dynamics, we conducted two quantitative studies to test the relationship between team dynamic quality and team-level outcomes in the boardroom and C-Suite (meso level) and the relationship between team dynamic quality and corporate financial performance (macro level). Our interest was to study the value creation chain between individual director and TMT characteristics on corporate financial performance mediated by team dynamic quality.

Quantitative research methods are critical in the systematic empirical examination of relationships between observed phenomena (Hair, Black, Babin, & Anderson, 2010). This process of proposing hypotheses and applying statistical techniques to analyze data is instrumental in understanding the strength and validity of relationships between observed events (Van de Ven, 2007). Measuring the variables is the first step in understanding relationships between constructs in a model, and in our case, we employed already existing and validated scales in the data collection phase of our research. We then employed a structural equation model (SEM) approach to test conceptual models consisting of multiple causal relationships (Hair et al., 2010). In addition, to testing the impact of different groups, we employed ANOVA analysis where appropriate.
A distinguishing element of our research is that we utilized an elegant and relatively new validated team assessment tool—the Team Learning Inventory (Lingham, 2005)—to capture data at the team level of analysis (meso level). By employing this assessment tool, we were able to improve upon prior studies that either used the individual as the unit of analysis for team-level constructs or those that selected the team as the unit of analysis but lacked a direct measure of team dynamic quality.

Our research questions and approach are summarized in Table 3.

**TABLE 3**

<table>
<thead>
<tr>
<th>No.</th>
<th>Research Questions</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>What are the enablers and barriers to SME director participation in board deliberation? What makes good boards good and bad boards bad?</td>
<td>A qualitative study to construct grounded theory for the behaviors of directors in the boardroom and to offer a new set of conceptual explanations for understanding boardroom dynamics.</td>
</tr>
<tr>
<td>2.</td>
<td>How do board team characteristics and team interaction quality meaningfully impact corporate profitability?</td>
<td>A quantitative study of public and private for-profit organizations to provide insights into the impact of board team performance on relative corporate profitability as a measure of organizational success.</td>
</tr>
<tr>
<td>3.</td>
<td>How do TMT characteristics and team interaction quality meaningfully impact corporate profitability?</td>
<td>A quantitative study of public and private for-profit organizations to provide insights into the impact of TMT performance on relative corporate profitability as a measure of organizational success.</td>
</tr>
</tbody>
</table>

By using the TLI to directly measure the quality of team interactions, we had an impartial way of assessing team dynamic quality without introducing bias either from members within the group (influenced by social desirability bias (Grimm, 2010)) or from the personal filters (Van de Ven, 2007) through which the researcher determines the quality of team performance. In addition, using a validated instrument eliminates the need to rely on demographics or other selected behavioral attributes that make up only a portion of team dynamic as a proxy for team effectiveness—the approach extensively employed by prior researchers. Using the TLI, we could understand the impact of team...
dynamic as a mediator between individual team member characteristics and financial performance, as measured by relative profitability.

Figure 5 provides a schematic of how the research was conducted. We started with a qualitative inquiry at the individual (micro) level into the behavioral influences in the boardroom that predict high versus low corporate governance ratings. We used this insight to design our next study on boards to better understand the relationship between behavioral attributes at the individual and team level on team-level (meso) outcomes and firm-level (macro) outcomes. Lastly, we examined whether or not these behavioral attributes and team-level characteristics at the C-Suite (TMT) level have similar consequences on firm-level (macro) outcomes.

The next chapter presents a summary of the findings from each of the three research projects and a discussion of the impact of the upper echelons of the organization, taken independently (boards separate from TMTs), on corporate finance as observed through structural equation modeling. We then address the combined impact of boards’ and TMTs’ dynamic on the 36 organizations where we have data for the same company for both kinds of teams and the patterns that emerged when we compared team dynamic quality and financial performance.
Chapter 4: Summary of Prior Research and Integration of Findings

This chapter provides a summary of all three research projects that comprise the dissertation. It also includes a discussion of how the board model evolved into the TMT model and a discussion of our findings when we compared the team dynamic quality of boards and TMTs within the same organizations. We hope that this summary will present a perspective of how all three research projects plus the additional new analysis supported each successive research inquiry.

Research Question 1: Threats to Board Stability—Understanding SME Director Behavior

The following is a summary of our first paper, which addressed our first research question: What are the enablers and impediments to director participation in board deliberation? The full paper (Charas & Perelli, 2013) can be found in Appendix A.

Research approach. For this qualitative research inquiry, semi-structured interviews were conducted with 23 small and medium enterprise (SME) board directors of public companies ranging in market capitalization from $145 million to $3.7 billion. We felt it was relevant to target SME organizations as approximately 70% of U.S. companies are recognized as such, and they are disproportionately understudied (Machold et al., 2011: 649–650). To elicit detailed narratives about interactions inside and outside the boardroom—acquiring “firsthand, sensory accounts of phenomena as they occur in real world settings” (LeCompte & Preissle, 1993: 3), we followed the recommendations of Corbin and Strauss (2008) for the concomitant collection and analysis of phenomenological data. We utilized the technique of rigorous constant comparison to reveal patterns in the data (Strauss & Corbin, 1990). Respondents
described the roles of individual directors, detailed when and how directors deliberated specific issues, identified factors that inhibited or facilitated deliberations, and described the behavioral norms of board work. Data analysis, following the recommendations of Corbin and Strauss (2008), was conducted in three phases of open, axial, and selective coding—a process intended to identify categories and themes from which research findings emerge. This iterative process systematically reduced the data to three useful super-categories: board composition and process (including recruitment/screening/expulsion, structure, rules, and realms); roles/relationships (including norms, compliant/deviant behavior, communications, teamwork, and conflict management); and board performance (including self-assessment, accountability, and governance ratings). Commonalities between the dimensions of these categories revealed a dominant theme, captured by respondents’ perceptions of their experiences as board members operating in two distinct behavioral realms, each governed by implicit behavioral norms and expectations. We interpreted these patterns referencing Erving Goffman’s ideas about human performance in his seminal work, *The Presentation of Self in Everyday Life* (Goffman, 1959). Formal and informal board norms and behavior, mapped with Goffman’s concept of “front stage” and “back stage” human performance.

**Relationship of governance quality to financial performance.** We relied on a third-party source for governance rating information as we were interested in learning whether the outcomes of boardroom dynamic were correlated with governance ratings. Governance Metrics International (GMI) provided, expressly for this study, the ratings for the sample organizations. Our sample represented 11 organizations with high and low governance ratings respectively. Although the relationship between governance quality
ratings and future financial performance is not definitive (Bhagat & Bolton, 2008; Daines, Gow, & Larcker, 2010), two recent studies have demonstrated a positive correlation between GMI ratings and future firm performance (Ertugrul & Hegde, 2009) and “a positive statistically significant relationship between GMI ratings and future shareholder returns” (Spellman & Watson, 2009: 1). We examined the financial profiles of organizations in the sample to understand the degree to which governance ratings corresponded to economic value creation/destruction. For our study, value creation/destruction is a calculation which indicated the degree to which organizations were generating value for shareholders in excess of a risk-free rate of return. We selected 4.5% as the risk-free rate of return as this is indicated by Duff & Phelps as the appropriate rate corresponding to the time of this analysis (Grabowski, 2011). The calculation was: \[\text{Operating Revenue} - (\text{Assets} \times 4.5\%)\], and generated either a positive or negative quotient. When this number was positive, value was created over an expected risk-free rate. When considering all 22 organizations, we found a strong positive correlation between governance ratings and value creation: High-governance-rated firms created value, and low-governance-rated firms destroyed value. This result confirmed our expectation that there would be a relationship between the boardroom and the bottom line.

**Findings.** Our findings from this phase, which informed our quantitative research design, were as follows:

a) There was something powerful about the way directors spoke to one another, especially when they disagreed. Interviews revealed two kinds of boardroom conflict—cognitive and affective—with very different implications for board performance. Boards that recognized affective conflict and addressed it quickly were associated with high governance quality, whereas boards that
were less willing to address affective conflict or ignored it altogether were associated with low governance quality. The type of conflict needs to be managed for a board to be effective;

b) There was a possible association with attrition rate—boards that did not address affective conflict experienced higher attrition, at 24% per year, compared with 13% per year attrition on boards that actively addressed affective conflict. Given that boards have infrequent face-to-face meetings, stability is critical for effective board dynamic;

c) There appeared to be a relationship between board governance quality and prior personal relationships of directors. High-governance-quality boards cast a wide net when recruiting directors and often recruited people with whom the other directors did not have a prior relationship. The research showed close to 70% of high-governance-board directors were strangers when they joined their board, whereas only 25% of directors recruited to low-governance boards were unknown quantities.

These findings had direct implications for studying team dynamic in the boardroom to better understand how team dynamic impacts board and firm outcomes.

Research Question 2: Improving Corporate Performance by Enhancing Team Dynamic at the Board Level

The following is a summary of our second paper, which addressed our first quantitative research question: What impact do team dynamic and performance at the board level have on corporate performance? The full paper (Charas, 2014b) can be found in Appendix B.

Research approach. For this inquiry, we fashioned a survey questionnaire of existing validated and reliable scales to capture information for each construct in our theoretical framework as described in the previous chapter. These constructs are described in more detail below. Survey questionnaires were e-mailed to participants, including board members of randomly selected public and private for-profit organizations in the United States, of all sizes and industry types. We included 182 eligible
respondents (1.42% of the total participants) in the quantitative analysis. Eligibility was based on having complete primary and secondary source data. Response rates this low are not uncommon among samples comprised of people in the upper echelons of an organization (Stimpert, 1992b), as these respondents are often overburdened, time-pressed, and generally unwilling to share information about themselves or their organization. The 182 respondents represented 166 unique organizations from the sample (due to multiple same-company respondents), with an average company size ranging from $200 million to $95 billion in revenues. These directors collectively served on the boards of 572 U.S. firms, had an average of 12 years of board experience, and represented an acceptable range of industry type and representative gender diversity (Rosener, 2011). A summary of the demographic information for directors and their firms can be found in the paper in Appendix B.

**Constructs and hypotheses.** Based on an extensive literature review, we constructed a theoretical framework, presented in the previous chapter. For the board-level analysis, we selected the following variables:

a) Independent variables: Individual characteristics of board members, which included professional capital, social capital (Haynes & Hillman, 2010), and cultural intelligence (Earley & Mosakowski, 2004). Professional capital was a measure of the depth and breadth of directors’ industry and functional experience, as well as their prior board experience. Social capital was a measure of the depth and breadth of the directors’ social network, as determined by BoardEx (a relational software system that maps relationships among over 500,000 board directors in the U.S., Canada, and United Kingdom.)

b) Mediators: Team characteristics and team outcomes, which included a direct measure of the quality of team dynamic as measured by the TLI (Lingham, 2005), to understand the mediated relationships between individual characteristics and team outcomes and the between individual characteristics and firm outcomes. For the board analysis, because boards meet infrequently
and directors have comparatively little interaction with one another (compared to TMTs), we used the current assessment of board dynamic rather than the gap between desired and current. We felt this was a better representation of the actual state of dynamic in the boardroom. Board-level outcomes included team task performance, i.e., the ability of the board to apply skills and knowledge to accomplishing tasks (Bateman, Wilson, & Bingham, 2002), and team self-efficacy (or potency), i.e., the team’s belief that it can be successful in accomplishing its collective goals (Collins & Parker, 2010);

c) Dependent variable: Firm outcome, which was measured by the firm’s relative profitability performance compared to other similarly-sized firms in the same industry, for profitability.

We developed and tested 13 hypotheses in the model. For a complete explanation of why these variables were selected, please refer to the full manuscript in Appendix B.

**Measurement model.** We conducted and exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to test the validity and reliability of the constructs (high Cronbach’s αs) and model fit. These constructs were then used in a structural equation model (SEM). We employed two approaches to test mediation. First, we took the Baron and Kenny (1986) approach, in which we tested changes to the direct effect after adding the mediating variable. Second, we conducted bootstrapping using 2,000 bias-corrected resamples. Using this second approach allowed us to determine the strength and significance of the standardized indirect effect of the mediated relationships (Baron & Kenny, 1986; Preacher & Hayes, 2004). Overall, we had a stronger than typical predictive model of corporate profitability ($R^2 = .20$) exceeding the most recent prevalent $R^2$ (ranging from .07 to .16) of other recent academic works using profitability as a dependent variable (Ali Shah, 2009; Gill, Biger, & Tibrewala, 2010; Gill & Obradovich, 2012). We had excellent model fit ($CMIN/DF = 1.29$, $CFI = 0.988$, $NFI = $)
Findings. Our findings from this phase supported 11 of the 13 hypotheses and included the following:

a) Cultural intelligence of individual directors, i.e., their predisposition to work well in teams, was critical in generating high-quality team dynamic;

b) The quality of board-level team dynamic, as captured by the TLI, was highly correlated with firm profitability;

c) Boards that were able to function effectively as a team had an 800% greater impact on firm profitability than any one well-qualified board director.

Given that the top two teams in an organization are, according to selected scholars are the most influential on firm outcomes (Finkelstein et al., 2009; Mintzberg, 1979), we wanted to understand the impact that team dynamic has on the next team down in the organization—the C-Suite of executives, or TMT. We designed our third research inquiry to capture this information.

Research Question 3: How Powerful Top Management Teams Can Drive Financial Performance—The Critical Role of Team Dynamic in Economic Value Creation

The following is a summary of our third paper, which addressed our second quantitative research question: What impact do team dynamic and performance at the top management team (TMT) level have on corporate performance? The full manuscript can be found in Appendix C.

Research approach. For this inquiry, we used the same survey questionnaire as for the board research inquiry. Survey questionnaires were e-mailed to participants, including top management team members of randomly selected public and private for-
profit organizations in the United States, of all sizes and industry types. We had 409 eligible respondents (2.0% of the participants) and selected for analysis a subset of respondents representing only public companies as we believed the financial performance data would be more reliable if obtained from a third party (which is possible only for public companies) rather than from the respondents themselves. The remaining 123 organizations had an average company size ranging from $0.2 billion to $78 billion in revenues. Executives had an average of 27 years of functional experience and 16 years of executive experience and represented an acceptable range of industry type and representative gender diversity (Rosener, 2011). A summary of the demographic information for directors and their firms can be found in the manuscript in Appendix C.

Constructs and hypotheses. Based on an extensive literature review, we constructed a theoretical framework, presented in the previous chapter. For the TMT-level analysis, we selected the following variables:

a) Independent variable: Individual characteristics included cultural intelligence. For this study, we excluded professional capital and social capital because, unlike boards, TMTs meet frequently, and the CEO can better determine and monitor the professional capital appropriate for each of his or her direct reports. If the level of professional capital is not appropriate, we would expect the CEO to replace the underqualified professional. For boards, professional capital is more critical as there is no superior to replace a director should his or her qualifications not meet the needs of the board, and since the board meets infrequently, it is more difficult to ascertain whether there are gaps in professional capital capabilities. As for social capital, our prior research showed that TMTs are typically not selected based on the network of their outside resources as board directors are. For these reasons—parsimony, and model fit—we excluded professional capital and social capital from the TMT model. The way the model evolved will be discussed below.

b) Mediators: Team characteristics and team outcomes, which included a direct measure of the quality of team dynamic, as measured by the TLI (Lingham, 2005), to understand the mediated relationships between individual characteristics and team outcomes and between individual characteristics and
firm outcomes. For this analysis we calculated the gap between the desired and current level of dynamic quality to understand the overall health of the dynamic in the TMT. Teams with high gaps were considered dysfunctional, whereas teams with low gaps were considered healthy. For the TMT research, we selected the actual gap as the indication of team dynamic quality as these teams meet frequently and have more direct interaction with one another. This led us to believe that the gap in the dynamic quality would have a greater impact on team and firm outcomes than the current level of dynamic. TMT-level outcomes included team task performance, i.e., the ability of the board to apply skills and knowledge to accomplishing tasks, and team self-efficacy (or potency), i.e., the team’s belief that it can be successful in accomplishing its collective goals;

c) Dependent variable: Firm outcome, which was measured by the firm’s relative profitability performance compared to other firms in the same industry, size-adjusted for profitability.

We developed and tested eight hypotheses in the model. For a complete explanation of why these variables were selected, please refer to the full manuscript in Appendix C.

**Measurement model.** We conducted and EFA and CFA to test the validity and reliability of the constructs (high Cronbach’s αs) and high model fit. These constructs were then used in a SEM model. We employed two approaches to test mediation. First, we took the Baron and Kenny (1986) approach, in which we tested changes to the direct effect after adding the mediating variable. Second, we conducted bootstrapping using 2,000 bias-corrected resamples. Using this second approach allowed us to determine the strength and significance of the standardized indirect effect of the mediated relationships (Baron & Kenny, 1986; Preacher & Hayes, 2004). Because we had two types of respondents—team leaders and team members—we analyzed the embedded groups as well. One additional inquiry was based on a multi-group analysis to determine which, if any, group within the TMT (CEOs or team members) had a greater impact on their firm’s financial performance. We conducted an analysis of variance (ANOVA) to determine the
impact of team dynamic quality based on the two different groups (Hair et al., 2010; Weir, 2005). Using this approach, we estimated the significance of group differences between team leaders and team members, interpreted the effects of the variable, identified the differences between the groups, and validate the results, if any, between the two groups on the one variable. Based on this invariance testing, we compared model paths across groups and found that group-level analysis was appropriate. Overall, we had a stronger than typical predictive model of corporate profitability ($R^2 = .45$ for team leaders and $R^2 = .21$ for team members) compared to previous research conducted on TMTs, in which $R^2$ values ranged from .07 to .44 (Ali Shah, 2009; Amason et al., 2006; Boone & Hendriks, 2009; Buyl et al., 2011; Carmeli, Tishler, & Edmondson, 2012; Gill et al., 2010; Gill & Obradovich, 2012). We had excellent model fit (CMIN/DF = 1.047, CFI = 0.994, NFI = 0.890, RMSEA = 0.014, PCLOSE = 0.965, standardized RMR = .0721, chi-square = 40.849, degrees of freedom = 39). We found no concerns with validity and reliability of our latent constructs (AVE > 0.50, CR > 0.70, MSV < AVE, and $\sqrt{AVE}$ interconstruct correlations).

**Model evolution.** In analyzing the TMT data, we began by using the board model, and then we adjusted the model to reflect nonsignificant constructs and relationships as appropriate. The evolution of the model is described below. Each iteration of the model, from the initial testing of the TMT data in the board model to the final TMT model, generated acceptable to good model fit.

**Iteration 1.** We found that two constructs from the board model were not significant in the TMT model: Professional Capital ($p = .362$) and Social Capital ($p =
.515). All other $p$ values were within an acceptable range, except for the relationship between Team Self-Efficacy and Profitability at .129.

**Iteration 2.** We removed the Social Capital construct as noted above because social networks are typically not a competency critical for success in the TMT. We found that Professional Capital still did not fit in the model ($p = .340$), so this construct was removed. All other $p$ values were within an acceptable range, except for the relationship between Team Self-Efficacy and Profitability at .129.

**Iteration 3.** We removed the Professional Capital construct as noted above because professional capabilities are monitored continuously by the CEO, and if there are discrepancies, they will either be addressed with additional training, or the incumbent will be replaced. There is low tolerance in the C-Suite for underperforming individuals, as evidenced by the high turnover rate of CEOs (Favaro, 2013a). We found that the relationship between Team Self-Efficacy and Profitability was still not acceptable at .129, so this relationship was removed, with the resulting model demonstrating $p$ values all within acceptable range for all remaining relationships and good model fit as described above.

In the board model, we covaried the error terms for Team Effectiveness and Team Self-Efficacy to account for their high correlation. In the TMT model, covarying the relationship was not appropriate as model fit was not achieved. However, we observed how correlated these two constructs were in the correlation table, despite the fact that the items measuring these constructs fell independently of one another in the pattern matrix table. Other researchers have found this strong correlation but factorially distinct
relationship between these two variables (Collins & Parker, 2010), which supports our finding.

**Findings.** Our findings supported all eight hypotheses for team leaders and six of the eight hypotheses for team members. Contrary to what we expected to see, there was no relationship between team dynamic gap and profitability performance and no relationship between team self-efficacy and profitability performance. These two exceptions to the model make sense as we believe the team members’ experience of the team is not the direct driver for teams to change, and that it is primarily when the team leader experiences dysfunctional team dynamic that changes are made. Therefore, whatever the team member experiences will not be directly linked to profitability performance. The mediated relationships at the team level were supported, however.

In general, the research findings can be summarized as follows:

a) An executive’s cultural intelligence (CQ) contributes directly to team dynamic. As CQ has never been measured at the C-Suite level and is seldom screened for in executives, this is a never-before observed relationship and a significant new finding;

b) Organizations with a healthy team dynamic in the C-Suite consistently outperformed organizations with a weak team dynamic in the C-Suite. This result was consistent with prior research that has found that teams with high-quality team dynamic tend to set more challenging goals, persist in the face of difficulty, and are more likely to succeed;

c) The C-Suite’s team dynamic explains 20% of overall firm profitability performance—good dynamic contributed positively to profitability, and weak dynamic detracted from profitability.

**Additional Findings**

When we designed our two quantitative studies, we did not expect to have overlap between participating organizations. Given how difficult it is to gather information from
the upper echelons of an organization (Bednar & Westphal, 2006; Stimpert, 1992a), we were delighted to have information from approximately 1,000 executives representing boards and TMTs. We did not use all the data collected from the close to 1,000 participants as not all submissions met the criteria set for each of the quantitative studies. However, for our purposes in this last phase of the research, we screened from these submissions to screen for our eligible target constituents. Based on this specific eligibility criteria, we found that we had responses representing 36 organizations at both the board level and the TMT level. These 36 organizations represented 137 responses from 112 unique individuals: 25 individuals responded to both the board and TMT surveys for their organizations. Financial information was available from secondary sources for 26 (72%) of these organizations. Table 4 presents demographic information for the 36 organizations and respondents.

### TABLE 4
Demographic Information For 36 Organizations And Respondents

<table>
<thead>
<tr>
<th>Area</th>
<th>Board Respondents</th>
<th>TMT Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Participants</td>
<td>76 Directors</td>
<td>61 Executives</td>
</tr>
<tr>
<td>Gender Diversity</td>
<td>11% women</td>
<td>11% women</td>
</tr>
<tr>
<td>Total Companies</td>
<td>36 organizations</td>
<td></td>
</tr>
<tr>
<td>% Public</td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td>Average Asset Size</td>
<td>$943 Million, ranging from $.2 million to $19 billion</td>
<td></td>
</tr>
<tr>
<td>Industries Represented</td>
<td>Agriculture</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Business Services</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Construction/Transport/Extraction</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Financial Services/Insurance/REIT</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Healthcare/Pharmaceuticals</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Manufacturing</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Not-for-profit</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Professional Services</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Wholesale/Retail</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Software/Technology</td>
<td>14%</td>
</tr>
</tbody>
</table>

With information about both the board and TMT team dynamic quality for 36 organizations, we were curious to see whether patterns would emerge specifically related
to the quality of team dynamic of each of the two teams and financial performance. To our knowledge, no research has ever been conducted comparing characteristics of two related teams, let alone information on team dynamic quality, and we were excited to analyze the data. To create a context for the interpretation of our findings, we examined research performed by Ancona and Caldwell (1992) on boundary spanning. We have previously addressed this research in the Chapter 2. To guide our interpretation, we are highlighting their central finding as it related to teams and boundary spanning.

Ancona and Caldwell’s (1992) research was based on technology teams and focused on external implications of boundary spanning. We found the following results helpful as a framework for interpreting our research findings: (a) team performance was positively associated with activity that was ambassadorial in nature. They defined ambassadorial activities as “communicating frequently with those above them in the hierarchy” (p. 640); (b) successful teams were characterized by engaging in frequent and meaningful communications with outsiders. This observation is consistent with our underlying assumption that the reduction of information asymmetry would yield higher levels of team performance quality (Mesmer-Magnus & DeChurch, 2009); and (c) consistent with Homans’ (1950) observation, complexity and conflict found in the external environment tended to be replicated within the group when information was highly valuable and was imported into the group (Ancona & Caldwell, 1992; Homans, 1950). This observation is important in the interpretation of our results as we found a consistent trend in this concept of the replication of the nature of teams based on the information with which they were interacting.
Our data were based on an assessment of team dynamic, the number of respondents per company per team, and, in 72% of the cases, the relative performance of the organization compared to the competitive market. The challenge we faced was that since no prior research had compared intact teams at the upper echelons, we had little direction on the most effective way to do so. And, as no prior work had ever been conducted on team dynamic quality, we allowed the data to dictate the appropriate threshold to select in determining good versus poor dynamic quality. Our first step was to determine the degree to which the team had achieved its desired state by subtracting the desired dynamic score from the current dynamic score and converting this number to a percent achievement level. We then had a consistent yardstick against which to measure the degree to which teams were successful in achieving their desired team dynamic. Where there were multiple respondents for organizations, the dynamic scores reported by each respondent were averaged, and the dynamic gap percentage was calculated using the averages (as the TLI was also proven to be a team level construct using Compositional Modeling (Chan, 1998) criteria (Lingham, 2005). Each organization’s dynamic gap percent was calculated in this manner. We then sorted these for each team category (boards and TMT) from high to low. We calculated the mean and median gap to understand the relative distribution and found that the mean and median gap for boards and TMTs were identical. From this point, we began to sort the data based on arbitrary gaps and found that the data were most meaningful at a 10% gap. We assigned the categories of “good” and “poor” dynamic quality based on whether the gap between desired and current dynamic was less or more than 10%. Those teams whose gap was less than 10% were considered good, and those with a gap greater than 10%
were considered poor. Figure 6 illustrates the correlation. We found a strong relationship between the overlap of good-dynamic boards and TMTs and poor-dynamic boards and TMTs, with close to 75% of the companies falling in the two corresponding boxes (shaded green for good and red for poor in Figure 6). We found fewer incidences of mixed team dynamics (good board/poor TMT or poor board/good TMT), with only 25% of the organizations falling in those two corresponding boxes. Based on Homans’ (1950) observation that complexity and conflict found in the external environment tended to be replicated within the group when information was highly valuable and was imported into the group, we believe that there is something viral about team dynamic between teams. When it is good, good team dynamic tends to be expected in other related teams, especially when there is a common team member in both teams. When team dynamic is poor, it tends to be poor for both teams, as if there is not an expectation for good team dynamic. Because our research did not address causality, we do not know how the teams were influencing each other, but there was a correlation between the two categories. When team dynamic is good, it tends to be replicated within the team most closely related to it, and this is why we see 75% of the organizations falling in the same quality category, without certainty of the causality. If we assume Ancona and Caldwell’s (1992) research was an accurate representation of teams, then we might be able to ascribe directionality from board to TMT, as Ancona and Caldwell indicate that “ambassadorial” activities are related to teams that interact effectively with individuals higher up in the hierarchy. This means that team dynamic quality at the TMT level may be influenced positively because of the efforts of interaction from TMT to board (subordinate to
superior team), and TMTs with high levels of ambassadorial activity will be influenced by the dynamic quality at the board level.

**FIGURE 6**

Prevalence of Combinations of Team Dynamic for Boards and TMTs

<table>
<thead>
<tr>
<th>Boards</th>
<th>TMTs</th>
<th>Poor (&gt; 10% gap)</th>
<th>Good (&lt; 10% gap)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>7 companies (19%)</td>
<td>5 companies (14%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 36)</td>
<td>(n = 17)</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>4 companies (11%)</td>
<td>20 companies (56%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 25)</td>
<td>(n = 57)</td>
<td></td>
</tr>
</tbody>
</table>

We explored whether each of the four categories had the same respondents for board and TMT dynamic quality, or the degree to which there was multiple team member (MTM) representation. We found that for all categories, there was between 50% and 100% MTM representation except for the category representing good boards/poor TMT, where there were no MTMs. We do not believe the absence of MTMs for this group (good boards/poor TMT) had an impact on the results as the sample size in this category was small, and we did not observe variations in the other categories where we had good representation of MTMs responses.

We next explored whether there was a relationship of the good/poor categorization to firm performance. As we already had data on the financial performance
of the organizations compared to their competitor group, we could confidently categorize performance by this classification. When we examined the organizations that fell in each of the four boxes, where we had financial performance information, we found an interesting performance pattern. Figure 7 illustrates this finding.

**FIGURE 7**

*Prevalence of Relative Financial Performance of Selected Organizations*

<table>
<thead>
<tr>
<th>Boards</th>
<th>TMTs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor (&gt;10% gap)</td>
<td>Good (&lt;10% gap)</td>
</tr>
<tr>
<td>50% out-performed competitors&lt;br&gt;n = 2 companies</td>
<td>100% out-performed competitors&lt;br&gt;n = 13 companies</td>
</tr>
<tr>
<td>50% out-perform competitors&lt;br&gt;n = 6 companies</td>
<td>100% out-perform competitors&lt;br&gt;n = 5 companies</td>
</tr>
</tbody>
</table>

Figure 7 shows that when organizations have TMTs with high-quality team dynamic, they will out-perform their competitors, regardless of the quality of board team dynamic (column entitled Good TMT). This is an interesting finding as it implies that the TMT is a stronger predictor of firm performance than is the board. This finding is supported by my prior research that showed that board team dynamic quality predicted only 4% of firm profitability (Charas, 2014b), whereas TMT team dynamic quality predicted 20% of firm profitability (Charas, 2014a). The opposite is true as well in that when the TMT had poor dynamic quality, 50% of the time, the organization
underperformed against its competitor group, regardless of the board’s team dynamic quality (column entitled Poor TMT).

We analyzed the data from a third perspective. In this view, we organized the data by board and by TMT. In this way, we could review the findings based on the combination of all boards with both good and poor (G/P) TMTs and all TMTs with both good and poor (G/P) boards. Figure 8 presents this analysis. In terms of predicting financial performance, the strongest predictor of financial performance was the TMT as listed above, as 100% of the organizations out-performed their competitors when TMT dynamic quality was good. The implication is that if the TMT does not have good team dynamic quality, then an effective way for the organization to out-perform its competitors is having good team dynamic quality at the board level. When this was the case (good board/poor TMT), 93% of the organizations out-performed their competitors.

**FIGURE 8**

Cross-Comparison of Performance Findings Based on Boards’ and TMTs’ Dynamic Quality

<table>
<thead>
<tr>
<th>Summary of TMTs</th>
<th>Summary of Boards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor TMT with G/P Board</td>
<td>Poor Board with G/P TMT</td>
</tr>
<tr>
<td><strong>50% out-perform competitors</strong></td>
<td><strong>73% out-perform competitors</strong></td>
</tr>
<tr>
<td><em>n = 11 companies</em></td>
<td><em>n = 12 companies</em></td>
</tr>
<tr>
<td>Good TMT with G/P Board</td>
<td>Good Board with G/P TMT</td>
</tr>
<tr>
<td><strong>100% out-perform competitors</strong></td>
<td><strong>93% out-perform competitors</strong></td>
</tr>
<tr>
<td><em>n = 25 companies</em></td>
<td><em>n = 24 companies</em></td>
</tr>
</tbody>
</table>
Integrating All Research Findings

In summary, our research findings across all three research inquiries can be summarized as follows:

a) The way directors interact in the boardroom had an impact on the governance quality of boards (Charas & Perelli, 2013). This interaction informed our subsequent quantitative research;

b) Team dynamic quality in the boardroom had a direct and indirect impact on firm performance. We found that boards with high-quality team dynamic had an 800% greater explanatory power for firm performance than any individual director, and we found that this dynamic quality predicted up to 4% of firm profitability (Charas, 2014b). Team effectiveness and team self-efficacy were highly correlated and had an overall positive correlation to firm performance. These findings generated an interest in understanding the next team in the organizational hierarchy—TMTs;

c) Team dynamic quality in the TMT had a direct and indirect impact on firm performance. We found that TMTs with high-quality team dynamic had a greater explanatory power for firm performance than any individual director, and this dynamic quality predicted up to 20% of firm profitability (Charas, 2014a). We confirmed that team effectiveness and team self-efficacy were highly correlated in the C-Suite and had an overall positive correlation to firm performance. We next turned our attention to examining the combinations of team dynamic between boards and TMTs;

d) We found that regardless of the team dynamic quality in the boardroom, TMT team dynamic quality, amongst our sample, was a strong predictor of firm profitability performance. However, we believe that team dynamic quality may be viral as the highest prevalence of combinations had the same quality of team dynamic (i.e., good with good, poor with poor). Despite not having tested causality, we believe that having high team dynamic quality in the boardroom is essential to generating high team dynamic quality in the TMT as, based on ambassadorial behavior observed by Ancona and Caldwell (1992), the effect is hierarchical when team members spend time with their organization’s superiors. In addition, we believe that the viral impact is a result of the phenomenon that Homans (1950) observed—that the quality of complexity and conflict in one team can affect another team, especially if the information flow is significant and important to the receiving team. Ultimately, what we observed is that teams with high-quality team dynamic, as measured by the TLI (Lingham, 2005), were correlated with organizations that consistently out-performed their competitors.
Chapter 5: Case Study

Nothing is more powerful in describing the impact of a team dynamic assessment and intervention than seeing the approaches in action and the real-life results they generate. This chapter will present a case study of a board team dynamic consulting assignment at a nonprofit organization, executed in 2011. This case study will illustrate the approaches used in assessing and coaching board teams, as well as an evaluation of the impact the project had on the organization. The client and the identity of the individuals involved in the project have been concealed to respect the privacy of the parties. The balance of this chapter will provide information on the background of the organization, the objectives and scope of the client engagement, the consulting project phases, and the post-assignment evaluation and conclusions of the effectiveness of the approach.

Background of the Organization

In order to protect the organization and its directors and executives, I will not provide any specifics about the client other than to describe it in broad terms. This pro bono consulting project was performed for the board of directors of a nonprofit organization in the arts sector, located in New York, which was approximately nine years old at the time of the assignment. The board had 12 directors of varying backgrounds and tenures. The stated objective of the board was to grow the total number of directors from 12 to 20 by 2013, as directors were a critical source of funding for the organization. Each director had to pledge over $7,500 per year to remain on the board. It was required that at least one half of these funds come from their personal account, with the balance raised through their personal network.
Recruiting to this board was a challenge because people in the arts community typically do not have the financial resources necessary to join the board, and those who have the financial resources typically are not part of the arts community. In addition, there had been several directors on their board over the years who were willing to donate money to have their name associated with the board but were not interested in being an active board member. Therefore, the organization had a relatively large board, with the majority of the directors either inactive or located outside of the New York area and therefore not attending board meetings in person. The organization did not consider dedicated service to the board (attending all meetings, being responsible for projects, or serving on/chairing a committee) as an offset for the required donation.

**Objectives and Scope of the Client Engagement**

The fundamental objectives of the assignment were to:

- Assist the board in assessing their inherent strategic strengths and weaknesses. This was important as the board was concerned about the appropriate structure and representation of functional expertise on the board. The board was also concerned about the effectiveness of its relationship with the operating organization. These concerns were forefront as the Executive Director was a founder and a board member. In fact, the Executive Director had hand-picked the board, and the board was concerned that it was not providing the appropriate type and level of strategic direction and oversight because of this relationship.

- Define the overall positioning of the organization vis-à-vis the market to recruit qualified board directors. The board wanted to better understand the current recruiting environment, given the time proximity to the financial crisis. They were concerned that due to the financial crisis, fewer people would be interested in donating funds to an arts organization and that without generous directors, the organization would run out of funds. Their foremost concern was this giving potential, and they wanted to get a better understanding of the propensity for people to contribute to and be active in the organization.
• Develop profiles of skills and competencies needed on the board. Given that the board directors were hand-selected by the Executive Director and Chairperson, there was some concern that the directors did not have the appropriate background, skill set, knowledge, experience, and functional expertise to best govern. They were interested in a third-party assessment of the types of competencies required for the board to fulfill its monitoring and governance responsibilities. In addition, the board wanted to have a formal articulation of the profile of directors in terms of their professional and social capital. They wanted this profile not only to reflect seated board directors but also to anticipate future needs.

• Provide a methodology to screen director candidates for needed skills, competencies, and behavioral attributes. Given that the objective of the organization was to grow the board of directors from 12 to 20 members over the next three years, it was imperative that the board have a more formal go-to-market approach. This would include the refinement of key messages, drafts of marketing materials, and communication guidelines for sourcing potential directors. The assignment would include developing basic criteria for screening and selecting appropriate directors and an interview guide to identify behavioral characteristics of director candidates. This guide would help the recruitment process as it would allow for the identification of key behavioral attributes of director candidates to complement the behavioral profile of seated board members (see Appendix D).

Consulting Project Phases

The team conducted the assignment in five phases: (a) project kick-off, (b) discovery, (c) recruitment planning, (d) recruitment strategy, and (e) board presentation and project close (see Figure 9). This section describes these phases, including the phase objectives, activities, findings, and recommendations.
**Project kick-off phase.** The engagement began with the kick-off phase in February 2011. This phase lasted approximately three months. I led the phase with the assistance of the Project Manager.

**Objectives.** The objectives of the kick-off phase were to gain a better understanding of the organization and arrive at a shared understanding and agreement with the client as to the project steps and deliverables. It was critical to gain the client’s commitment to the project and articulate their accountability in the successful completion of the project. In addition, we introduced the assessment tools to be employed in completing the project.

**Activities.** Activities in the kick-off phase included document review, introduction and discussion of the assessment tools, meetings, and review of next steps.
**Document review.** To understand the organization, we reviewed a large volume of diverse documents ranging from marketing materials to annual reports to board charters. We also reviewed three years of press releases, pamphlets, newsletters, brochures, and biographies of management and board members. We were provided a binder with information related to the organization, including its history, mission, vision, and values statements. In addition to reviewing documents describing the organization, we also reviewed five years of financially related reports that allowed us to better understand the operations of the organization, including strategic plans, operating budgets, annual budgets, and other information. The third category of documents reviewed included materials related to their past and current board recruitment efforts. Our objective was to determine whether any policies or documented processes were already in place. In addition to recruitment materials, we also requested and reviewed any on-boarding documents the board used with new directors. We also reviewed the board’s performance management policy specifically to evaluate the performance and contribution of each director. These materials were key to understanding the performance expectations and values of the board. Organizational charts were reviewed to understand the reporting relationships on the board to the Executive Director and within the organization itself. Lastly, we studied the board’s by-laws and manuals to understand the policies related to director recruitment, length of service, elections, and other administrative and governance guidelines.

**Introduction and discussion of assessment tools.** We explained that the consulting would cover both the professional capital aspects as well as the behavioral aspects of board recruiting. Based on my prior research (Charas, 2012), we explained that is critical
to recruit board directors who fit with the current board in terms of their behavioral attributes as this generates a higher level of team effectiveness, which is critical in generating bottom-line measurable results for the organization. Therefore the focus was not just on the functional expertise and experience of director candidates, but also on their behavioral profile. To best understand the desired behavioral attributes for future board directors, we needed to profile the existing board. To do this, we would employ the Team Learning Inventory (TLI) screening instrument.

The Team Learning Inventory identifies and maps the quality of the interaction between team members and the overall impact of dynamic quality on team efficacy (Lingham, 2005). The tool gathers information on 10 fundamental attributes that characterize team dynamic. These 10 attributes include: engagement—being emotionally involved, open and receptive to new experiences; active listening—listening to and looking at all sides of an issue before acting; individuality—freedom to be unique and share your own unique life experiences; relationality—being connected to one another through acting and agreeing on issues; solidarity—being equals or peers and collective minded; shared leadership; understanding—effectively creating a context to rationalize and evaluate ideas and issues; action—getting things done; experimenting versus contemplating ideas; planning—functioning effectively based on agendas and time constraints; power and influence—equally sharing opportunity to influence and contribute to purpose, goals and tasks; openness—focusing on issues or ideas of concern to individual directors or the team as a whole. These 10 characteristics represent four dimensions including divergent, convergent, power & influence and openness. The value of the TLI is that it allows for the identification of gaps between how team members
experience the current climate of the team (current dynamic) and how they believe things need to be in the future (desired dynamic) for the team to be high-functioning. The tool specifically addresses purpose, membership, roles, context, processes, and action planning of the team.

Meetings. To get first-hand information about the organization and the board, as well as describe in detail the project phases and activities and gain buy-in from the client team, we had several meetings with the project representatives, including the board Chairperson, the Executive Director, and the Director of Development. Despite the Director of Development not being officially on the board, he attended all board meeting and was assigned as Project Manager and key contact for us in the organization. The balance of this section describes the content and outcomes of the meetings.

We began the meetings with team introductions in which we introduced the project team and the roles each individual on the team would play. There were five consultants on the team.

We next discussed issues that were significant to the Chairperson, including a review of board directors and the Executive Director of the organization, and we refined the project to meet her expectations. We identified the ideal culture and climate for the board and the organization in general to achieve their vision and mission. Beyond the description of the tasks that had to be accomplished, we identified what conditions would need to be present for a high performing, passionate team. This exercise included an articulation of the feeling of board meetings, the quality and amount of communications, the sense of accountability and camaraderie among board members, and how people would feel when they were together and when they left the board meetings. The other
reason to work closely on the macro-view of the team leader is that we wanted to begin to shift the mental framework from individual directors to how the board worked as a team because at the end of the day, the leader is evaluated on the results of the board, not of any one individual on the board.

We discussed ground rules for the engagement, such as the importance of clear communication between the consulting team and the client team, sender, and receiver. We discussed and agreed to the tone and timing of messages and responses. We also established a schedule that we would follow in communicating updates to client team members.

We presented a formal project plan articulating the timeline and tasks that were planned to complete the project and produce a valuable deliverable. This plan is presented in Figure 9. We also discussed what support we would expect from the client organization, including providing materials and documents, scheduling meetings, coordinating interviews with board directors, and being available to respond to requests for information.

We articulated what we would provide as the project deliverables, including the discovery interview summary; results of the TLI assessment; a brief roadmap for future team effectiveness; other discovery information such as best practices in nonprofit board recruitment processes; additional information about the organization gleaned through our work such as the quality of alignment between the business strategy and vision/mission of the organization; a market analysis that would include a basic summary of the current recruiting environment for nonprofit organizations; a gap analysis that would highlight the needs of the board to meet their recruiting objectives and a description of the
functional expertise and behavioral profile needs; position profiles that would include up to 10 position profiles that could be used to recruit new directors; a marketing and recruitment plan that would include guidelines and an action plan (communications, timeline, and task assignments) that board directors accountable for recruitment implementation could use; and a recruitment evaluation guide that would cover how to screen and select appropriately from director candidates, based on the defined position profiles and behavioral criteria (see Appendix D).

**Review of next steps.** Lastly, we reviewed the project plan and highlighted the next steps to be completed by the client and consulting teams. The next step in the project was the discovery stage. We outlined the steps, timeline, and deliverables for this phase of the project. We discussed any special considerations they desired, confirmed the timeline for the discovery phase, tentatively scheduled our next meeting, and addressed any questions the client team had. We confirmed with the client that we were meeting their expectations for the project at this point.

**Discovery phase.** The discovery phase started in May 2011. This phase lasted approximately 6 weeks. I led the phase and did the majority of the activities. Interpreting the findings was a collaborative effort including other team members and Dr. Lingham.

**Objectives.** Our objectives in this phase were to gain a better understanding of the board from the perspective of selected directors, administer the assessment tools, and present the assessment to the client project team.
Activities. Activities in the discovery phase included interviews of selected stakeholders; administration of the TLI instrument; synthesis of interview findings and analysis of assessment tools; and a review of next steps.

Interviews of selected stakeholders. We interviewed nine board directors individually over a three-week period. These interviews were taped with the consent of the interviewee and later transcribed. The interviews were either read or heard by at least two consulting team members to ensure reliability in the statement of key messages and verification of pros and cons of the board as described to us. Interviews followed a set protocol to ensure consistency of the questions asked. The topics covered were board structure and responsibilities; board decision making and focus; the nature of board meetings, including frequency, attendance, agendas, and overall feeling of the board meetings; director relationships, specifically whether there were groups or dyads of directors who spoke frequently outside of board meetings; the existence of factions and fault lines on the board; current development and recruitment processes and the strengths and weaknesses of those processes; perception of directors on future board needs; and any other issues that were of interest to the directors.

Administration of the TLI instrument. The Team Learning Inventory was administered online. Board directors were sent an e-mail with the URL link to complete the 30-question survey.

Synthesis of interview findings and analysis of assessment tools. To best understand the culture of the board, we compared the assessment tools with the information we gained from our interviews. Much like a mixed methods approach, we triangulated the quantitative findings with the qualitative findings.
Meetings. We had a preliminary meeting with the Chairperson to present the findings from the interviews and assessment tools. This was an informal meeting simply to present the findings to the project sponsor. We had a subsequent meeting with the client project team to go through the findings in detail.

Findings of interviews and assessment tool and subsequent recommendations. The benefit of the mixed method approach is that we were able to gain valuable information, validate it with the assessment tool and then verify our observations and findings with the client. This qualitative/quantitative approach allowed us to gather information, control for bias and then have a context from which to design appropriate recommendations.

Interview findings. The interviews focused on strengths and weaknesses of the organization and on future board needs. The most prevalent topics that emerged were related to board meetings; board relationships and interactions; decision-making process and perceived quality; future needs specifically addressing finance, business, and strategy; fund raising; marketing and outreach; location; and artistic representation. In the balance of this section we will highlight some of the interview findings.

The majority of directors experienced the board meetings as structured and businesslike. They reported that the meetings follow an agenda. There was consensus that there was strong leadership by the Chairperson, and that this leadership was appreciated. Board meeting minutes were taken and distributed to all members, and these minutes were recapped at subsequent meetings. Overall, directors felt that board meetings fostered open communication and allowed members to give and provide feedback and exchange ideas. The drawbacks of the current board meeting structure
were that meetings could sometimes be draining and unproductive. Some directors reported feeling worse about themselves at the end of the meetings. There was some sense that directors tended to lose interest, become frustrated, and not fully engage in meetings because they did not feel there was any forward movement in the meetings, i.e., issues were discussed but not decided. Directors also reported that the same board members spoke at each meeting, with some board directors being more talkative and assertive and others speaking only when asked. They felt the Chairperson should do a better job at balancing the contributions from all directors. Consistent with the finding above, directors also reported that sometimes the meetings felt like they were for information dissemination rather than a forum for deliberating issues. They reported that there was often a lack of interest demonstrated as there was little follow-up by directors, especially on issues needing attention between board meetings.

Directors reported that a strength of the board was the diversity of professionals representing the business world, nonprofit organizations, and artistic community. There was a high level of perceived respect among board directors and a general sense of admiration and respect for the Chairperson. The directors also reported some drawbacks of the board relationships, such as that board directors did not know each other on a personal/social level and therefore did not feel very connected to one another. There was also a disconnect between the longer tenured and newer board directors, and there were limited opportunities to get to know one another. Some directors expressed that there used to be a balance of all communities represented on the board, but it seemed as if there were more people from the business (specifically banking) community, which skewed the perspective. Lastly, there was consensus that some board members worked harder than
others, which bred a level of resentment between those engaged and working and those who just attended board meetings.

Another strength of the board was the ability of the executive committee to facilitate decision making through sub-committees. There was also a general perception that decisions were made in the best interest of the organization, both short- and long-term. Board sub-committees were appreciated by the majority of directors as they made it easier for the board to understand specific issues, but there seemed to be a cost to this as not all board directors were engaged in all issues, abdicating some responsibility to the sub-committees. The board directors reported the weaknesses of the decision-making process which included the lack of candid conversations in the boardroom and anemic meeting which impeded their ability to make quality and timely decisions. They reported that planning was lacking at the board level. Some directors felt that it took too long to make decisions, whereas others felt there was not enough time to digest and deliberate on issues to make effective decisions. There was a sense that decisions were made more as a reaction and not proactively, which was consistent with the observation of weak planning. A major observation of the weakness of the board was their lack of succession planning, which impeded their ability to make effective decisions and influence the future direction and leadership of the organization.

*Results of the assessment tool.* We identified that the board had certain behavioral strengths, including detail orientation, intellectual capacity, and analytic ability to examine facts carefully. In general, we concluded that the board as a whole liked to collect data, used past experience constructively, sought links between ideas, and thought
things through carefully—usually at the expense of reaching a conclusion, however. The balance of this section will present the specific results of the TLI assessment tool.

The TLI is an assessment tool that captures the individual’s experience of team dynamic. The team member is asked to respond to 30 statements reflecting the elements of team dynamic. They are presented with statements and select, on a 1-5 scale representing strongly disagree to strongly agree, how they experience the statement today on the team. They are then asked to respond to the same statement imagining that the team was operating at its highest level of effectiveness. In this way, we are gathering information on the characteristics that exist today on the team, as well as the desired characteristics to create a highly effective team. Once we have both current and desired responses, we are able to ascertain the “health” of the team by determining how far away they are from the desired state on each of 10 team dynamic characteristics. We calculated the gaps between current and desired aspects of team dynamic, and determined that the largest gaps for this board were related to active listening, relationality, solidarity, and planning. Because we knew there was a board committee specifically focused on planning for the board and organization, we did not specifically address this gap. However, we discussed the ramifications of having large gaps in the divergent quadrant (referenced above) of the assessment and that the board’s lack of active listening and connecting emotionally was impeding their ability to generate a healthy dynamic. We also highlighted where the board had small gaps, including in the areas of openness, understanding, individuality, engagement, and power and influence. The small gap indicated that these were all very positive aspects of board dynamics. The results of the TLI were important because we know that teams have the potential to outperform
individuals in terms of performance quality, productivity, flexibility, and innovation (Podsakoff et al., 1996). Organizations across industries are therefore becoming more team-focused (Beus et al., 2013). The need to develop healthy and successful teams has resulted in organizations and educational institutions seeking out or designing more immediately applicable team development programs. We explained to the client that in generating this report, the current and desired interactions were averaged from the organization’s individual board members’ responses and mapped in a way that provided immediate impact and insights for the board to engage in learning and development. A visual representation of the TLI results is presented in Figure 10.

**FIGURE 10**
Team Learning Inventory Results

![Results of Team Learning Inventory](image)
Subsequent recommendations. We performed a gap analysis to understand the discrepancies between where the board was currently and where it needed to be to achieve its objectives, specifically focusing on board structure and process. We considered all aspects from the interview summaries and assessment results to generate a series of recommendations.

We presented an alternative structure for the board that would address the social loafing observed on the board while not diminishing the board’s size. We recommended adopting a two-level structure for board directors: (a) a supra-board with individuals who were less able to attend meetings or less interested in actively participating in governance but still wanted to be associated with the organization and (b) an operating board comprised of directors who wanted to have an active role in governance. The board would be limited in size to between 8 and 12 directors as research has shown an inverse relationship between board size and board effectiveness. The current advisory board structure would be maintained. A graphic representation of the recommended board structure is provided in Figure 11.
FIGURE 11
Recommended Board Structure

We recommended the creation of a nominating committee commissioned by and responsible to the board of directors. This committee’s purpose would be to address matters pertaining to board recruitment, nominations, selection, orientation, training, and evaluation, in accordance with the established policies and practices of the organization. Our recommendation included a statement of the scope and objectives of the committee: reviewing the mission, vision, goals, and strategies of the organization and determining the new skills, knowledge, personal contacts, and other attributes future board members would need to possess in order for the board to meaningfully contribute to advancing the strategic plan of the organization. We outlined the recruitment process for the nominating committee, including screening and qualifying director candidates and
bringing the information to the full board for a vote. Once approved by the board, the committee would be responsible for on-boarding the new director. In addition, we recommended that the committee be accountable for periodically reviewing the organization’s strategic plan as well as the profile of current board members’ strengths and weaknesses to identify the gap in the skills and knowledge needed on the board to achieve the strategic goals of the organization. We recommended the following accountabilities for the nominating committee:

(a) study/assess the current composition of the board to determine skills and experience;

(b) identify skills and experience needed on the board;

(c) annually review the procedures for board recruitment;

(d) develop an orientation and training plan for new board directors and assist in the planning of the annual board retreat;

(e) annually evaluate its work as a committee and the objectives to which it has committed and report findings to the board of directors.

*Review of next steps.* We met with the client team to recap the steps in the upcoming recruitment planning phase and confirmed that we were meeting the expectations of the client at this point in the project.

*Recruitment planning phase.* The recruitment planning phase started in June and lasted approximately four weeks. All team members participated in this phase of the work, applying their specific competency.

*Objectives.* The objectives of this phase were to conduct an assessment of the current board’s skills and competencies, functional expertise, and behavioral predisposition. This was different from the assessments conducted in the prior phase as
those analyses focused on the assessment of the team, structure, and processes at the board level and on understanding individual behavioral profiles. The purposes of assessing skills and competencies, functional expertise, and behavioral predispositions were to map to the strategic needs and priorities the board had identified in the prior phase and to identify where the gaps were.

**Activities.** Activities in the recruitment planning phase included analysis of the board’s skills, functions, and behaviors and a review of next steps.

*Board skills analysis.* We performed a skills analysis of the current board of directors to understand their professional capabilities. Based on the interviews of board directors, we created a tailored list of skills required for board success. In addition, we inventoried the skills represented by each board director, based on information from our interviews or where we did not interview the director, on a review of their profile provided to us by the organization. This skills assessment is presented in Figure 12.
**Board functional analysis.** We performed a functional analysis of the current board directors to understand the professional experience of the board. Based on a standard list of knowledge required for effective boards and an understanding of the current functional expertise of the board members, we were able to identify gaps in functional knowledge. This gap analysis is presented in Figure 13. We identified gaps in the following areas: public relations expertise to enhance the visibility of the organization, strategic marketing experience to further develop the marketing plan for the organization, creative/artistic experience to represent the views and ideas of the creative community and union constituents, and nonprofit grant writing and development expertise to tap available public and private funds and corporate giving.
**Board behavioral analysis.** We performed a behavioral analysis of the current board directors to understand their behavioral predispositions. We recommended that the board focus their recruitment efforts on directors who were more action oriented, could influence people and events through direct action, and had a focus on and ability to get things done.

**Review of next steps.** We met with the client team to recap the steps in the upcoming recruitment planning phase and confirmed that we were meeting the expectations of the client at this point in the project.
**Recruitment strategy phase.** The recruitment strategy phase started in July and lasted approximately six weeks. This phase was co-led by the Marketing Strategy specialist and me, with assistance from the Project Manager.

**Objectives.** Objectives in this phase included the drafting of the following documents: preliminary position profiles, an evaluation guide for candidate screening, on-boarding guidelines, and a marketing/recruitment analysis and plan.

**Activities.** Activities in the recruitment strategy phase broadly included creation of board position profiles, creation of an interview script to screen candidates for needed qualities, creation of on-boarding and orientation materials for new board members, development of marketing strategy, and review of next steps.

**Position profiles.** We created four position profiles to address the specific functional expertise identified as missing at the board level. These position profiles articulated the key roles and responsibilities for each new director; skills, competencies, functional expertise, and general behavioral characteristics needed to fit in with the current board; and the behaviors required to create a more balanced team dynamic on the board. As these profiles are very detailed and specific to the board, we will not provide the actual documents here.

**Screening scripts.** Given that most director candidates are not predisposed to taking screening tests, the nominating committee would have to discern these behavioral characteristics through the interview process. Therefore, we created an interview script that would allow the interviewers to identify the needed behavioral characteristics through their dialogue with the candidate. We identified that the behavioral type missing
from the board were people who were predisposed to action, and included questions such as:

- Please describe a time when you had an idea and transferred it into a specific action that resulted in success;
- Please describe a time when you worked with others to brainstorm ideas and then took those ideas and created an action plan;
- Have you ever been in a situation where there were lots of ideas but none or few were implemented? What happened, and how did you feel about that?
- What motivates you as a volunteer?

We also created a list of key words and behaviors that interviewers should listen for to understand whether the candidate is predisposed to action behaviors. In addition to questions to determine the behavioral predisposition of the candidate, we created a list of potential questions that addressed other areas identified as important to the board, such as previous board experience, thoughts on boards in general, functional expertise, and level of commitment.

We recommended that a summary of each candidate be created for the board to review that would highlight the strengths of the candidate as a potential director. These questions included:

- Does the candidate appear to be committed to the mission and philosophy of the organization?
- Can the candidate contribute the time necessary to be an effective board member?
- Does the candidate possess some of the key skills, knowledge, and other assets that match the board recruiting priorities and complement the existing behavioral profiles and functional expertise?
• Does it appear that the candidate can place the organization’s purposes and interests above his or her own professional and personal interests when making decisions as a board member?

*On-boarding/orientation materials.* Given some of the feedback we received from board directors, we believed that on-boarding would be an important process for new directors. We created an outline of the orientation materials that should be further developed by the organization and utilized to on-board new board members. We recommended that a binder be created for new directors that would have the following sections: About the Organization (including vision, mission and history), About the Board (including profiles of each director, by-laws, charter, and committees); Strategic Plan; Prior Annual Reports; Meeting Minutes (including at least one year of meeting minutes); Board Responsibilities (including board position descriptions, a schedule of board meetings, and special events), Board and Director Evaluation (including the skills/competency matrix that was developed for the board and other resources to identify performance standards), and other documents such as marketing materials of the organization, a contact list of other directors, and a list of key people in the organization.

*Marketing strategy.* The board’s goal was to grow from 12 to 20 members. Considering the current attrition rate and board term length, we calculated that there would have to be at least two to three new directors added to the board each year through 2014 to achieve the target number. An aggressive recruitment strategy would be needed as well as an aggressive go-to-market approach to generate the pool of candidate directors. The following topics were covered with the client team to identify the appropriate marketing strategy:
Traditional Four Ps vs. Social Marketing Four Ps: We explained that in the new era of social marketing, the traditional four Ps of product, price, placement, and promotion were slightly outdated, and to be successful, the board would have to answer the following questions to address social marketing’s four Ps: What is the benefit of being on this board (product)? What is being exchanged for being associated with the organization (price)? Where is the service being offered (place)? How does the organization recruit (promotion)?

We worked with the board to help them articulate a positioning statement, emphasizing that it should be simple, clear, and competitive; that it would be for internal communication but could also guide external communication; that it should resonate with the organization; that it must connect with candidate directors in both rational and emotional ways; and that it should reflect the organization’s personality and brand. The statement follows a specific formula shown in Figure 14. We worked with the organization in developing this positioning statement, but given our confidentiality agreement, we are not able to provide it here.

**FIGURE 14**

Formula for the Positioning Statement

<table>
<thead>
<tr>
<th>Fundamentals of the Positioning Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positioning:</strong></td>
</tr>
<tr>
<td><strong>Set the tone...</strong></td>
</tr>
<tr>
<td>To...</td>
</tr>
<tr>
<td>XXXX is the...</td>
</tr>
<tr>
<td>That...</td>
</tr>
<tr>
<td>Because...</td>
</tr>
<tr>
<td>So that...</td>
</tr>
</tbody>
</table>

**SAMPLES:**
- To the next generation of xxxx, the board play a critical role in helping xxxx
- XXXX board help sustain the most recognized place to xxxx in the country so that xxxx get their chance.
- XXXX board members play a critical role in ensuring the xxxx supports a lifetime of dreams.

Target Audience: We determined that the target audience for board recruiting messages should include the current board and organization staff members, who act as advocates; potential board directors, who are leads; peers and partner organizations, which act as multipliers; and current funding organizations, which act as believers.
Online Resources and Tools for Recruitment: We provided the board with online resources for them to use in posting their interest in recruiting directors and to access profiles of directors interested in serving on nonprofit boards. These three resources were: www.boardcafe.org, www.boardsource.org, and www.boardnetusa.org.

Recruiting Brochure Outline: As most prospective board members know little about the organization they are being invited to govern, the intent of the recruitment brochure is to give candidates a good sense of what they are “getting themselves into.” The recruitment brochure should answer three questions: What is the organization all about? What would my job be as a board member? How does the recruitment process work?

Marketing Activities: We recommended to the board that they make board recruitment a key component of every outreach effort, including all print communications, direct mail, posters, postcards, flyers, advertising campaigns, brand campaigns, personal networking groups, tweets, LinkedIn page, and Facebook page. Making board recruitment part of their communication campaigns was a completely new concept for the board.

Review of next steps. We met with the client team to discuss the activities coming up in the final phase of the project, in which we would be developing a summary report for the board and presenting this report in person to address any questions they might have. As always, we confirmed with the client that we were meeting their expectations for the project at this point.

Board presentation and project close. This phase of the engagement took place on September 9, 2011 and consisted of a meeting with the client’s full board. The meeting lasted approximately 90 minutes, and took place in mid-town Manhattan at the offices of the board Chairman. I made the presentation and was accompanied by the consulting team’s Marketing Manager.

Objectives. Our goal was to create a final board report that would communicate the important aspects of the project in a way that would engage board directors. We also
wanted to wrap up any open items that the client team wanted addressed and get their evaluation of the project process, team, and final deliverables.

**Activities.** Activities in this phase included creating a “snap shot” summary of the project and meeting with the client team to close the project.

**Board presentation.** We created a snap shot summary of the project—including all five phases: kick-off, discovery, recruitment planning, recruitment strategy, and project closing—which served as the board presentation. The final recommendations included: adding professional expertise to the board in four identified areas; recruiting specifically for the behavioral characteristics required to complement the board; considering a new board structure that would include a supra-board and operating board and the existing advisory board; creating a nominating committee based on the scope, objectives, and responsibilities articulated; finalizing outlines (or entire documents) for director position profiles, selection criteria, interview and evaluation guidelines, recommended processes, and on-boarding and orientation documents; and further developing and implementing the marketing strategy and positioning statement to enhance visibility in the community of qualified professionals seeking board positions.

**Project closing.** We met with the client team to close the project. This meeting consisted of ensuring that the client’s expectations were met (which they were), addressing any remaining questions, and reviewing the next steps that the client had to perform to complete the project.

**Post-Assignment Evaluation and Conclusions of the Effectiveness of the Approach**

To better understand the impact of the consulting assignment, we conducted three follow-up interviews with the project client team (Board Chairperson, Executive
Director, and Director of Development) two years after the project’s completion. These interviews were recorded and transcribed, and the general impressions of the project are summarized below.

**Overall value of the project.** The executives interviewed for this case study felt that the project made a significant positive difference to their organization. When the project was being executed, the organization was completing the worse year in their history, and there was serious doubt as to whether the organization would survive. Their biggest challenge at the time was to address the worst fiscal short-fall they had had in their nine years of operation, and in retrospect, they all reported that the future looked bleak. They attributed this to many issues but primarily to the lack of board direction and involvement. Their attempt to fix the board was a Hail Mary effort. Given that their primary source of funding comes from board members, their thinking was to increase the board size by 50% to raise money.

At the time of the post-project interview (November 2013), they had just completed the most successful year in the history of the organization, ending the year with a large financial surplus that would allow the organization to focus on their mission rather than on fund raising. All three executives claimed that the success of the organization was directly related to the involvement and direction of a transformed board. They acknowledged that the project was an eye-opener about their board’s effectiveness, and after the project, they were active in changing the board. One director explained that it was like an “alcoholic realizing that they’re an alcoholic.” The realization by the board that they were dysfunctional was met with—as the director described—“classic denial.”
He explained that with time, however, the board began to see the truth of their unhealthy
dynamic and processes, and they realized that change was essential.

**Goal achievement of the board.** In reviewing the original objectives of the board
for the project, we concluded that the board has in fact achieved its objectives. The list
below is derived partly from a document that one of the client team members prepared
before our follow-up interview. Some of the content is replicated here, with his consent.

- There were 12 directors on the board when we commenced the project. The
  board’s goal was to have 20 directors by 2013. At the time of the follow-up
  interview, the board had 19 members, down from 20 as one director had
  resigned unexpectedly in October 2013.

- The board had a dramatic shift in demographic representation. At the
  inception of the project, there were five women and 11 men. Now there were
  nine women and 10 men. (At the inception of the project, I had informally
  shared with the client team the research that was done at Harvard regarding
  the enhanced performance of teams when women are included as team
  members. Despite gender not being a focus of the project, gender equality
  was one of their unarticulated goals.)

- At the time of the project, the board had little understanding the availability of
  candidates, especially in a challenging economic climate. By providing them
  with a strategy as well as additional resources, they were better able to reach
  potential board members.

- The board improved its marketing through the suggestions we provided on
  how to portray the organization as a desirable nonprofit to join at the board
  level, our guidance of the client team through a series of exercises to create a
  positioning statement, and their inclusion of board recruitment efforts as part
  of their general marketing and communications.

- At the inception of the project, the board recruiting process was unstructured.
  As a result of the project, the organization established a nominating
  committee; identified the types of professionals who needed to be represented
  on the board—those with PR, strategic marketing, creative, and nonprofit
  development experience—in order to forward the strategic objectives of the
  organization; recruited the desired professionals; and shifted the functional
  expertise from financial services to a more diverse representation of all
  professions, especially those germane to the organization’s mission.
• The three executives interviewed articulated that they had a more dynamic board now with different ideas and approaches, and they felt that the board had migrated from the prior behavioral profile to something more balanced. They reported that their deliberations were more creative now, and action was taken more readily.

• The board implemented some of the suggestions on new ways to achieve and maintain their fund raising objectives.

• The board had a deeper understanding of and appreciation for the current board members’ skill sets, team characteristics, behavioral predispositions, and value to the organization, especially as the organization grows.

• The board was currently considering changing the board structure to adopt the supra-board/operating board structure.


Chapter 6: Conclusion

Our research shows that there are strong and statistically significant relationships among individual cognitive readiness for teamwork (as measured by cultural intelligence), the resulting quality of team dynamic, and ultimately, corporate financial performance. The relationships are mediated by team effectiveness and team self-efficacy. Our findings, with strong $p$ values for all final model relationships, had compellingly high $R^2$ values at the board level (.20) and TMT level (.45), indicating that the models as stipulated have strong predictive power. It is our hope that the academic and practitioner communities will acknowledge the value of our research findings and apply this new knowledge appropriately. The academic and practitioner communities alike should be compelled to further explore implications of the exponential improvement we found between the impact of individuals and the impact of teams on corporate financial performance. At the board level, our research showed that individuals have a 0.5% impact on firm profitability, whereas the team as a whole had a 4% impact on firm profitability (eight times greater). When considering the TMT, prior research has shown that individual executives have a 5% impact on firm financial performance (Bertrand & Schoar, 2003), but our research showed that the team as a whole can have a 20% impact on firm financial performance (four times greater). We have also shown that there is a relationship of team dynamic quality between related teams. This raises the question of whether team dynamic is able to spread from one team to another within an organization (i.e., viral).
Anticipated Contributions

We hope that our research on teams will have relevance in two different domains—academic and practitioners. As teams are lauded in much of the literature due to their heightened effectiveness in various corporate functions, relatively little is known about the nature of team dynamic. Recent research has shown that the majority of employees work in teams and that, depending on the type of organization, up to 94.9% of employees are on multiple teams simultaneously (O'leary et al., 2011). Yet, we know relatively little about what makes teams good or poor, how to select employees to optimize team effectiveness, and how to manage teams to greatness. In the practitioner’s world, with the lack of any reliable methodologies related to team composition, coaching and performance assessment, we pick individuals based on our visceral impressions, put them together on a team, and then hope for the best. Employees can provide an account of their experiences on effective teams and ineffective teams, but they are at a loss to be able to articulate the “something” that makes it so (Derby, Larsen, & Schwaber, 2006).

In our work, we have attempted to verify that team dynamic quality, as measured by the Team Learning Inventory (Lingham, 2005), is a measure of the “something.” With this new assessment tool, we have the possibility of bringing rigor to screening and selecting appropriate individuals for teams, assessing the quality of the team dynamic, and providing interventions to improve the team by identifying the specific gaps in dynamic quality that need to be addressed.

Turning our attention to the upper echelons of the organization, with the exception of a few works, little is available on what characterizes good team dynamic at the board and TMT levels (Collins & Parker, 2010; Edmondson et al., 2003; Neill &
Dulewicz, 2010) or the impact of teams dynamic on corporate outcomes. We hope that our work, which strongly links team dynamic quality with financial performance, will make a difference in future research. We believe that our work will further contribute to the academic community in the following ways: (a) contribute to the body of knowledge on the impact of cultural intelligence as an antecedent to team dynamic quality, (b) further support the relationship between team outcomes and firm outcomes, (c) provide an example of the validity of the TLI scale (Lingham, 2005), especially as it applies to the upper echelons of the organization, and (d) demonstrate a relationship between upper echelons theory and information asymmetry theory in generating economic value.

From a practitioners perspective, we have identified several key constituents that could potentially benefit from the research findings and from the application of the TLI assessment tool. These segments, not in order of importance, include:

a) boards of directors who want to understand the quality of their TMTs and the impact team dynamic quality has on performance. As the board has a fiduciary responsibility to shareholders, they are directly responsible for monitoring the quality of the CEO as well as the named (proxy) executives, and indirectly the entire TMT, they should be very interested in this research as it provides an appropriate way to measure the current and potential impact the TMT has on bottom-line performance—and a possibility of improving corporate performance by up to 20%, based on the quality of team dynamic in the TMT;

b) newly appointed CEOs/presidents, who could use the TLI to quickly understand the quality of the existing dynamic of their new teams, thereby shortening the learning curve and leading more effectively, sooner. Researchers have shown that there is a relationship between information asymmetry and early dismissal of CEOs (Zhang, 2008). By reducing information asymmetry at the board and TMT levels, there is a greater likelihood that CEOs can demonstrate their leadership potential and avoid the waste of executive talent and the resulting disruption to the firm that occurs with high CEO turnover (Shen, 2003);
c) CEO/presidents of firms that underperform their competitors. By identifying the quality of the TMT dynamic, appropriate action can be taken to improve team dynamic quality, team outcomes, and ultimately, corporate financial performance, as this research shows a strong relationship between these factors;

d) private equity/venture capital/hedge fund professionals who regularly assess and evaluate the individuals of TMTs in target acquisitions. Our research revealed that it is not individual executives but rather how the TMT works as a team that best predicts future profitability. The current assessment approach is therefore flawed because it does not provide the acquirer/investor a true picture of the potential of the TMT to generate economic value;

e) any organization that values team performance, which could include for-profit, nonprofit, and higher education organizations. We also see applicability to teams within organizations, such as R&D teams, sales teams, and operations teams. Because the investment in the diagnostic tool and subsequent team coaching interventions are highly leveraged in that small investments yields large positive results to the organizational;

f) executive recruiters, who could use the assessment tool as a way to understand an existing team’s dynamic quality and culture and use this information as a way to screen for and select appropriate candidates to present to the client. The strategy would either be to select candidates who will fit into the current dynamic and maintain it or to introduce a candidate as a change agent to improve the current team dynamic; and

g) equity analysts, who could potentially use this research to isolate and measure the impact of a significant driver of firm performance—the TMT. This could be one more tool in analyzing current and future firm potential in creating shareholder value and could add a dimension to the quality and reliability of equity research recommendations.

Limitations

The persistent challenge in research is to achieve accuracy, simplicity, and generalizability simultaneously in a single work (Weick, 1979). Therefore, our limitations reflect these three areas. From the perspective of accuracy, a host of other variables could have been used to operationalize our specific measures. We selected our independent variables to reflect the measures used in prior research and to reflect, in our
opinion, the attributes that executives demonstrate in the performance of their duties and the qualifications most often sought for these roles. A shortcoming of this particular study is that we were not analyzing actual team results but rather the perception of the team by individual team members. In addition, despite the reliability of the TLI measure, this is the first time the TLI has been used in this type of research on upper echelons participants. Future research should validate the measure with this particular audience.

To operationalize team outcomes, we selected team effectiveness as measured by innovation, quality, and synergy, but other measures could have been used to evaluate team outcomes (Bateman et al., 2002). There are other scales that might have been used to operationalize team self-efficacy or team potency. The strong correlation between these two constructs in our findings may also be a limitation. When considering the dependent variable of firm performance, we did not simultaneously operationalize other constructs that may have influenced financial performance, such as Return on Sales (ROS), Return on Assets (ROA), and Return on Equity (ROE), which have been used in prior research. We based our team self-efficacy construct selection and scales on the most recent work in this area by Collins and Parker (2010), who highlight that their work is based on specific team capabilities, but “teams in other contexts might have additional team self-efficacy beliefs” (p. 1020). The selection of firm profitability as the dependent variable was based on works (Amason et al., 2006; McIntyre et al., 2007; Payne et al., 2009).

Another aspect of accuracy relates to the quality of the data collected. From the perspective of using human subjects and relying on them as a primary data source, there is an inherent risk of bias due to self-selection of participants. Given that our participants
were top executives, our data may not be a true representative sample due to self-selection, as prior research has demonstrated a very low participation rate for this population (Stimpert, 1992a). An element that may have further inhibited participation was our need to link participants to their organization’s performance, precluding anonymity. This condition created a risk of insufficient response rate and a risk of bias in the responses that we did receive. We cannot control for bias in self-reported data that may be influenced by social desirability, a possible factor given the nature of the data and the natural desire of participants to present themselves and their organizations in a favorable light (Edwards, 1957; Fisher, 1993; Grimm, 2010). We believe this was not the case in our data, however, as we had representation from over 1% of all publicly traded organizations, and the data had a high degree of variance.

When considering the goal of simplicity, we attempted to make the models as parsimonious as possible while still generating reliable results. We approached the problem from a multi-theoretical framework, relying on team theory, upper echelons theory, and information asymmetry theory, and despite the calls for using multi-theoretical approaches, we cannot be certain that this was the most appropriate framework from which to consider the problem and interpret findings.

Finally, there may be limitations in terms of generalizability. We posit a relationship between upper echelon team behavior and corporate financial performance, but there are conceivably many factors that could explain this relationship beyond the constructs we selected for this model. In addition, the results may only be applicable to the upper echelons—the levels in which our survey participants belonged—and not beyond this group.
Future Research Agenda

We have a strong interest in continuing our research inquiry related to team dynamic at different levels of an organization and its impact on corporate financial performance. Based on our current sample, there are two specific areas we can pursue: a) understand the impact of TMTs dynamic on financial performance and b) further explore the relationship of team dynamic between upper echelon teams. To address the first inquiry we can assign the 10% team dynamic gap threshold as an indicator of good or poor team dynamic and rerun the structural equation modeling to see if the results are different. In this way we could confirm if the 10% gap between current and desired dynamic quality is a meaningful threshold. The second inquiry we can pursue is to request additional data from organizations where we had board data but not TMT data. Creating a more robust sample beyond the 36 organizations would add to the reliability, validity and meaning of our findings.

Beyond our current model, I have three fundamental areas of interest. First, I would like to further understand the relationship of knowledge creation to team dynamic. To our knowledge, there is no validated scale that captures Nonaka’s SECI (socialization, externalization, combination, internalization) process (Nonaka, Toyama, & Konno, 2000), but we believe the Team Learning Inventory (Lingham, 2005) could support this research. We believe that team dynamic is similar to Nonaka et al., (2000) identified condition of ba or the “the shared context for knowledge creation” (p. 5) in the SECI process. We consider the TLI results an effective measure of ba, and we would like to further understand the knowledge creation process given different conditions of ba.
In addition, as a result of our exposure to multiple team membership, I would like to better understand the impact of related teams. How do these hierarchical and peer teams work together to optimize their effectiveness? What conditions need to be present to facilitate high-performing related teams, and what impact do high performing teams have, not only on the organization but also on team members in the manifestation of organizational citizenship behavior?

Lastly, I would like to collaborate in research exploring the behavioral characteristics, especially at the team level, of the upper echelons of an organization led by others in my cohort (Milagros Pereyra-Rojas, Adrian Wolfberg, Heather Grooms) and scholars from other universities (Christopher Long at Georgetown University, Dan Jones at University of Texas at El Paso). Dr. Lingham and I have also briefly discussed future research employing the TLI scale. In my pursuit of collaborating in primary research, I have been included in a National Science Foundation grant proposal submitted in December 2013 entitled “A bio-behavioral model of financial misbehavior drawing from behavioral theories of incentive salience and personality theories of empathy” (Proposal number 1416866), and I hope there will be many more research grant proposals to come.
Appendix A
Threats to Board Stability: Understanding SME Director Behavior

Original Article

Threats to board stability: Understanding SME director behavior
Received (in revised form): 6th February 2013

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ABSTRACT Of the more than one-third of US firms rated low in corporate governance (GMI), most (86 per cent) have underperforming boards – a cause of considerable concern given growing evidence of a positive relationship between firm governance and financial performance. Most governance research has focused on board demographics to explain governance quality, but we answered a call – reflecting a surge of recent work on teamwork in contexts – for empirical inquiry of the sparsely researched link between board dynamics and governance. Semi-structured interviews with 23 board directors of the United States publicly traded small and medium sized enterprises (SMEs) with high and low independently-attributed governance ratings and analysis of financial performance data of the firms they serve revealed surprising differences between the two groups with respect to how they recruit directors, manage conflict both in and beyond the formal boardroom and deal with deviant director behavior – factors, our results suggest, that affect both board stability and performance. We interpreted our results referencing sociologist Irving Goffman’s classic dramaturgical framework of “self-presentation in everyday life,” discovering in the vivid narratives of board directors evidence of how tacit social norms govern behavior in frontstage (boardroom) and back stage (extra-boardroom) member interaction. Directors are commonly selected to join boards based on their professional capital, but are seldom screened for understanding and appreciation of appropriate behavior inside and outside the boardroom or ability and willingness to address affective conflict in either realm. Directors insensitive to differences between ‘front stage’ and ‘back stage’ behavior, however, may suffer diminished individual performance and tenure on boards and weaken board effectiveness. High governance-rated organizations appear to have a lower tolerance for aberrant director behavior and a stronger inclination to address and resolve affective conflict than low-rated firms. Our results have implications for both practice and future research. Only 1 of the 22 firms (4.5 per cent) in our sample screened candidate directors for behavioral competencies. Failure to do so, our findings reveal, may result in higher levels of affective conflict inside and outside the board.

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room, higher levels of board attrition, lower consequent levels of stability and ultimately lower governance quality. Our work contributes to a still lean body of work on board process, recently assessed to account for only 12 per cent of governance research. Board governance, consequently, remains a ‘black box’ begging for light.


**Keywords:** corporate governance; board governance; SMEs; affective conflict; cognitive conflict; behavioral competencies

**INTRODUCTION**

Of the more than one-third of US firms rated low in corporate governance (GMI, 2009), most (86 per cent) have underperforming boards – a cause of considerable concern given growing if not untested (Larcker and Tanyan, 2011) evidence of a positive relationship between firm governance and financial performance (Spellman and Watson, 2009; Adut et al, 2011). Despite shareholder belief that boards are comprised of successful, experienced and responsible executives working as a team to effectively carry out their legal and ethical obligation to represent and protect owner interests (Brennan, 2006), directors are often described as ‘timid followers at the boardroom table … who leave their spines and better judgment at the door’ (Zweig, 2010, p. 43). Too often board members are more concerned about finding board appointments than the shareholders they represent (Westphal and Stern, 2007), abdicating their obligation to monitor and control management by simply ‘rubber-stamping’ their initiatives (Beaver et al, 2007).

Although Nicholson and Kiel (2004, p. 15) emphasize that boards must function as actively engaged teams rather than ceremonial bodies to ensure corporate success, boardroom dynamics – including how individual directors contribute to the cognitive quality of the board as a whole – remain shrouded in mystery. Much of the literature on boards considers their demographic composition as a predictor of board efficacy (Westphal and Zajac, 1995; Kilduff et al, 2000; Daily et al, 2003; Edmondson et al, 2003; Minichilli, 2009; McNulty and Peck, 2010; Minichilli et al, 2012), but increasingly some researchers suggest behavioral factors (both at individual and team levels) better explain the ability of boards to govern, make effective decisions and create organizational value (Huse, 2005, 2007; Leblanc and Gullies, 2005; Pye and Pettigrew, 2005; Roberts et al, 2005; Minichilli, 2009). Even so, there are calls for ‘more research into personal and interpersonal dimensions of directors’ behaviours to better understand and measure the quality of the board’s cognitive product’ (Neill and Dulewicz, 2010, p. 294).

Responding to this call, we conducted a qualitative inquiry based on semi-structured interviews with a relatively understudied subset of corporate directors – those at the helm of small and medium sized US enterprises. Our sample included directors of boards with governance ratings in the top and bottom quartiles for such firms. Results shed light on directors’ ‘lived experiences’ as public company stewards, distinguishing realms of boardroom reality as perceived and experienced by board members and their correspondence to public ratings of governance quality as assessed by an independent agency. The reported differences in how low and high governance-rated board directors view their and their board’s performance invoked the classic dramaturgical metaphor developed by sociologist Erving Goffman (1959) who interpreted life as theatre. We used his theory of ‘front’ and ‘back’ stage human performance, summarized below, to interpret and inform our findings. They may
be relevant to scholars and practitioners of governance interested in the relationship between director and board behavior and governance rating quality as well as characteristics of passive versus active boards.

**SHEDDING LIGHT ON THE ‘BLACK BOX’ OF BOARD PROCESS: OLD AND NEW RESEARCH APPROACHES**

Hundreds of articles—employing, however, only a few explanatory models—have tried to describe and predict behavior in the boardroom, the so-called ‘black box’ (Leblanc and Schwartz, 2007; Neill and Dulewicz, 2010) of board process. However, such models have been argued to range from faulty to incomplete. Pettigrew, for example, observed that in board research ‘great inferential leaps are made from input variables to output variables with no direct evidence on the processes and mechanisms which presumably link the inputs to the outputs’ (Pettigrew, 1992, p. 171).

Of nearly 100 articles on governance in major publications recently reviewed by Huse et al. (2011), the majority (78 per cent) employed economic theories, while only 12 per cent referenced behavioral or contextual approaches. As a result, ‘...we still know little about how boards actually work and how their behavior may be improved to contribute to value creation’ (Huse et al., 2011, p. 5).

According to Letendre (2004) ‘...no board can provide significant value to an organization unless its members truly operate as a team’ (Letendre, 2004, p. 102). A rapidly accruing body of work on team dynamics, team learning, and team interaction at predictors of efficacy in other contexts (Kolb et al., 2001; Kayes et al., 2005; Rezania and Lingham, 2009; Boyatzis et al., 2010), however, has yet to be applied to boards. In a 2009 article, Payne and colleagues assert that recent research on teams ‘demonstrate(s) a causal link between team practices or attributes, effectiveness, and outcomes’ and claim ‘decision-specific and relationship attributes, rather than board demographics, represent the greatest influence on the strategic decision-making process’ (Payne et al., 2009, pp. 707–708). Because achieving an effective team dynamic among directors has ‘a major impact on the efficiency of the board members’ (Gabrielson and Huse, 2004, p. 22), it is surprising that ‘only a small number of studies have focused ... on ... process’ (Neill and Dulewicz, 2010, p. 295).

The preponderance of governance literature employing agency and stewardship theories while ignoring director collective behavior (Johnson et al., 1996; Daily et al., 2003; Finkelstein and Mooney, 2003; Erakovic and Overall, 2010), compelled Huse et al. (2011) and others (Boytun et al., 2011; Machold et al., 2011; Sarra, 2011; Minichilli et al., 2012) to call for a change in the research agenda to better capture how boardroom processes and relationships shape decision-making. Behavioral theories as defined by Gabrielson and Huse (2004, p. 21) are concerned with ‘processes and relational dynamics between the various actors in and around the boardroom and the impact on board-level and firm-level outcomes. Although a number of recent studies have addressed how individual characteristics (Zahra and Pearce, 1989; Nikbakht et al., 2010), cognitive abilities (Morner et al., 2010) and motivation (Maharaj, 2009) of board members promote board ‘cohesion’ (Forbes and Milliken, 1999), generate value (Cohen and Bailey, 1997; Sommerville, 2002; Finkelstein and Mooney, 2003; Gabrielson and Huse, 2004; Huse, 2007) and heighten the effectiveness of boards (Payne et al., 2009; Neill and Dulewicz, 2010; Machold et al., 2011), more work is needed on the effects of interpersonal director dynamics.

Bird (1993) and later Stevenson et al. (2003), referencing Erving Goffman’s work a half-century ago, for example, emphasized (albeit in other contexts) the powerful effects of backwash shifts in informal linkages on how groups work together – a focus that, if applied to boards, may shed light on governance quality. Goffman distinguished between
different ‘selves’ that human actors project in ‘front’ versus ‘back’ stage performances in everyday life. On the front stage (in our case, the formal boardroom), a ‘team of performers … cooperate to present to an audience a given definition of a situation’ (Goffman, 1959, p. 238), while, on the back stage, the real work gets done, often in decidedly different ways. There, as Goffman describes it, what is otherwise said and done front stage in a performance for watchful eyes, is often ‘knowingly contradicted as a matter of course’ (Goffman, 1959, p. 112) with the result that ‘orderly social interaction becomes “disorganised” and performance disruptions may have consequences of a… far reaching kind’ (Goffman, 1959, p. 242). These consequences, which Goffman advises might include the ‘discrediting’ of a performer, member disenfranchisement or termination of a relationship or interaction, are often associated with violations of social norms or, in his parlance, ‘manners.’ According to Goffman, the social world is mediated primarily through manners, the development of which, as summarized by Strong (1983) is an essential task in socialization. ‘There are manners appropriate to every type of social occasion. (As) individuals we are both shaped by and in turn shape manners, being on the one hand, grossly deformed by them if the manners and occasions are to our disadvantage — but, on the other hand, possessing the capacity to use them to our advantage’ (Strong, 1983, pp. 346-347).

Our work points to differences in how directors use or misuse socially accepted ‘manners’ for dealing with two types of conflict recognized in the literature — cognitive conflict, defined by Amason and Sapientza (1997, p. 495), as ‘task-oriented disagreement arising from differences in perspective’ and affective conflict, an ‘individual-oriented disagreement arising from personal dissatisfaction.’ Unlike the potentially salutary effects of cognitive conflict, affective (or emotional and relationship) conflict (characterized by Leblanc (2010) as lapses in personal integrity, communication, teamwork and commitment), diminishes team cohesion and stability (De Dreu and Weingart, 2003), restricts team judgment (Carnevale and Probst, 1998) and may impede or negatively influence individual participation and thus curtail feedback critical in effective decision-making cycles. Affective conflict ‘undermines constructive interaction by provoking resentment, cynicism and avoidance,’ rendering a team dysfunctional by “… initiating a downward spiral … that can undermine [team] effectiveness’ (Buchholz et al, 2005, p. 408).

Despite recognition that the best way to generate quality cognitive output is to challenge other’s beliefs and assumptions, it has been observed that directors are often disinclined to ‘express their concerns’ Westphal and Bednar (2005, p. 286). Boards, according to Huse (2007), often exhibit groupthink because board culture ‘discourages dissent.’ It is observed that when directors are put in a group they ‘inevitably start to conform’ (Sonnensfeld, 2002) — exactly the opposite of what is deemed productive in creating valuable cognitive output. Even Warren Buffett has admitted to succumbing to the power of social pressure by: ‘… too often (remaining) silent when management made proposals…judged to be counter to the interests of shareholders. In those cases, ‘collegiality trumped independence’ (Buffett, 2002, p. 17). Deutsch and Gerard (1955, p. 635) offer a cautionary message: ‘unless groups encourage their members to express their own, independent judgments, group consensus is likely to be an empty achievement.’ Often, however, when they do express independent judgments, they violate board ‘manners.’

We designed a qualitative study to reveal, from the narratives of SME directors, their ‘lived lives’ on public boards — how and to what extent ‘manners’ and the management of conflict affect board stability and ultimately board performance.

METHODS

Methodological Approach

Qualitative methods are uniquely appropriate to research problems related to perceptions
and relationships that shape understanding and action (Strauss and Corbin, 1990). We conducted semi-structured interviews with SME board directors to elicit detailed narratives about cohort interactions inside and outside the boardroom acquiring "firsthand, sensory accounts of phenomena as they occur in real world settings" (Le-Compte and PREisle, 1993, p. 3). We followed the recommendations of Corbin and Strauss (2008) for the concomitant collection and analysis of phenomenological data utilizing the technique of rigorous constant comparison to reveal patterns in the data. We interpreted these patterns referencing Erving Goffman’s ideas about human performance in his seminal work, ‘The Presentation of Self in Everyday Life’ (Goffman, 1959). We also examined secondary data including financial and demographic documents reflecting the firms our respondents represented and we employed Governance Metrics International (GMI) rating data to segregate the firms in our sample.

Sample

Our sample consisted of 23 board members from 22 publicly-traded firms with an average market capitalization of US$1 billion, ranging from $145 million to $3.7 billion. These companies are considered SMEs, which, although constituting approximately 70 per cent of US companies, are recognized as disproportionately understudied organizations (Machold et al, 2011).

Governance Metrics International (GMI) provided, expressly for this study, the names of 300 organizations with high (A and B ratings) and low (C and D ratings) corporate governance ratings from which the firms in our sample were sourced. Although the relationship between governance quality ratings and future financial performance is not definitive (Bhagat and Bolton, 2008; Daines et al, 2010), two recent studies have demonstrated a positive correlation between GMI ratings and future firm performance (Ertugrul and Hegde, 2009) and a positive statistically significant relationship between GMI ratings and future shareholder returns (Spelbring and Watson, 2009, p. 1). Twelve directors from companies with high governance ratings and eleven directors from companies with low governance ratings were interviewed. Sample demographics are summarized in Table 1.

Our informants averaged 6 years of experience on their respective boards, served on an average of two board committees, were 70 per cent male, 82 per cent American,

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Table 2: Financial profile of companies

|                                | FT TE | Market cap | Revenues ($bn) | Profit margin (%) | Assets ($bn) | Value creation/  
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<td>High corporate governance ratings</td>
<td>5352</td>
<td>$821</td>
<td>$1,227,159</td>
<td>8.2</td>
<td>$710,430</td>
<td>$100,634</td>
</tr>
<tr>
<td>Low corporate governance ratings</td>
<td>4507</td>
<td>$969</td>
<td>$351,037</td>
<td>11.1</td>
<td>$115,801</td>
<td>$238,320</td>
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<tr>
<td>Average of all companies</td>
<td>4968</td>
<td>$942</td>
<td>$528,922</td>
<td>9.3</td>
<td>$140,144</td>
<td>$44,060</td>
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82 per cent Caucasian and well educated. Overall, 52 per cent held post-graduate degrees. The boards averaged nine members each, with female representation of 14 per cent. This profile is consistent with the demographic profile of the most recent board study conducted by Korn/Ferry International (2011). Counter-intuitively, low governance-rated boards were more diverse, included more women and had more highly-educated members with more direct board experience — suggesting the inadequacy of demographic composition alone to explain effective board outcomes.

Industries represented in the research included Services 36 per cent; Healthcare 18 per cent; and Financial and Consumer Goods, both at 14 per cent; with each of Basic Materials, Industrial Goods and Technology representing less than 9 per cent of the sample. Interestingly to note is that 45 per cent of the public companies on which these directors had served have been delisted (35 per cent high governance-rated and 33 per cent low governance-rated).

We also examined the financial profiles of participating organizations, focusing on employee size, market capitalization, asset size, revenue size, profitability and, most importantly, value creation/destroyed indicators at the time of the research. As shown in Table 2, differences were most obvious in the latter three variables. On an average, employee size was between 4,000 and 5,000 employees for both high and low governance-rated firms, with average market capitalization close to $1 billion. High and low governance-rated firms had relatively close asset bases of between $1.1 and $1.7 billion. Firms differed, however, in revenue levels, profitability and value creation/destroyed. High governance-rated firms had lower profit margins (8.2 per cent) compared with low governance-rated firms (11.1 per cent). In addition, the high governance-rated firms generated close to 4-times more revenue ($1.2 billion) than the low governance-rated firms ($351 million). That low governance-rated firms generate higher levels of profitability on lower levels of revenues suggests they are out-performing the high governance-rated firms, however, the value creation/destroyed metric indicates the opposite with high governance-rated firms creating and low governance-rated firms destroying value.

Value creation/destroyed measures the degree to which organizations are generating value to shareholders in excess of a risk-free rate of return. It essentially evaluates if the shareholder would have been better off investing their money in a risk-free bond or in the corporation. We selected 4.5 per cent as the risk-free rate of return as this is indicated by Duff & Phelps as the appropriate rate corresponding to the time of this analysis (Grabowski, 2011). To calculate if organizations are creators or destroyers of value, an expected return on assets (4.5 per cent) is subtracted from operating revenues (Operating Revenue − (Assets × 4.5 per cent)). This ultimately reflects how effectively an organization utilizes its asset base. When this number is positive, value creation exceeds an expected 4.5 per cent of asset growth and therefore meets the value creation hurdle – the investor is better off investing in the company. Over 60 per cent of high governance-rated organizations created value; whereas only 40 per cent of low governance-rated organizations did so – 60 per cent of low governance-rated organizations destroy value.
This implies that low governance rated firms are not effectively using assets to generate profitable returns, but instead are cannibalizing assets to generate profits.

Data Collection

Between June and September, 2011, we conducted 60-minute semi-structured face-to-face or telephonic interviews with 23 board directors of US SME public companies using a pre-tested interview protocol. These subjects were selected from a list of 300 GMI-identified SME organizations with high and low governance ratings. Open-ended questions were designed to elicit detailed narratives about actual lived experiences of directors in the boardroom during the deliberation of important board issues and outside the boardroom in committee meetings and other work sessions. Respondents described the roles of individual directors, detailed when and how directors deliberated specific issues, and identified factors that inhibited or facilitated deliberations and the behavioral norms of board work. These interviews were digitally recorded and transcribed and the interview transcripts were used in the coding process. Documents available in the public domain were reviewed to understand the board’s charter, mission and objectives and the backgrounds of individual board members were researched. Financial information and corporate performance data for each organization were sourced, reviewed and compared.

Data analysis, following the recommendations of Corbin and Strauss (2008), was conducted in three phases of open, axial and selective coding – a process intended to identify categories and themes from which research findings emerge. The first phase (open coding) involved rigorous line by line examination of interview transcripts to identify what Boyatzis coined ‘codable moments,’ that is, potentially significant fragments of text (Boyatzis, 1998). We identified more than 1382 such fragments, later grouped into 89 initial categories. In an intensive second phase of analysis (axial coding) we compared and contrasted the categories, eliminating some and merging and relabeling others as patterns, themes and concepts emerged (Strauss and Corbin, 1990). The coding process was accomplished using both manual techniques and coding software.

This iterative process systematically reduced the data to three useful super-categories: Board Composition and Process (including recruitment/screening/expulsion, structure, roles, realms); Roles/Relationships (including norms, compliant/deviant behavior, communications, teamwork and conflict management); and Board Performance (including self-assessment, accountability and governance ratings). Linkage between the dimensions of these categories revealed a dominant theme, captured by respondents’ perceptions of – and ‘lived lives’ as – board members operating in two distinct behavioral realms, each governed by implicit behavioral norms and expectations. Analysis in the third (selective) stage of coding was then guided by the theoretical framework of Goffman’s dramaturgical model of social interaction (Goffman, 1959). Formal and informal board norms and behavior, mapped in terms of Goffman’s concept of ‘front stage’ and ‘back stage’ human performance, are summarized in Figure 1.

Coded dimensions of front stage behaviors included congeniality, collegiality, formality, concern with image, scrutiny, and ceremoniousness. Characteristics of back stage performance included informality, proactivity, self-expression, tolerance, open-mindedness, candor and willingness to debate. Coded realm-specific roles, communication styles and approaches to engagement with fellow board members were identified for each environment are discussed in the next section.

RESULTS

Summary of Key Findings

Our results suggest SME directors of both high and low governance-rated firms – irrespective of firm size, type or industry – differentiate alike between norms and behaviors corresponding to two distinct venues in which they
perceive board work gets done – the formal board chamber itself and a variety of far less-structured opportunities for full or partial board interaction outside the boardroom. In accord about the dual realms of the board environment, low and high board governance-rated directors, however, differ in how they deal with conflict and respond to perceived violations of social norms – or, in Goffman’s terms ‘manners’ – associated with them.

High governance-rated boards are more sensitive to social norm nonconformity and are quicker and more willing to deal with disruptive behavior, whereas low governance-rated boards, seemingly disinclined to confront fellow directors, tolerate affective conflict longer and allow it to foster and disrupt productive board dynamics. Both high and low governance-rated boards expel members for violations of social norms (Fehr and Fischbacher, 2004), but our data suggest the high governance-rated firms expel directors as a last resort – only after remedial efforts have failed. Low governance-rated firms tolerate the errant behavior without addressing it and then tend to abruptly expel an errant director when unaddressed affective conflict becomes too much to bear. The result is that low-governance rated boards have higher levels of attunement which may affect board stability.

The frequency with which boards address and resolve affective conflict may be associated with board recruitment practices. Our data indicate low governance-rated firms more frequently recruit from an ‘inside circle’ of candidates while high governance-rated boards cast a wider net and are more apt to utilize professional recruiters to identify qualified candidates with whom they have no prior professional relationship. The ‘close ties’ (Granovetter, 1973) of low governance-rated boards may inhibit intra-member confrontation when perceived relationship ‘costs’ are high, as supported by Westphal and Stern’s (2007) observation that ‘social influence behaviors, in the form of ingratiating tactics directed at fellow board members,’ are more prevalent than ‘behaviors believed to contribute to effective corporate governance’ (Westphal and Stern, 2007, p. 268) especially among directors with prior relationships. The interests of close-ties directors may extend beyond the board and involve higher personal risk, accounting for the disinclination to address affective conflict as it emerges.

Front and Back Stage Board Performance

Directors of both high and low governance-rated firms described their interaction with co-directors in the formal boardroom as typically ‘collageal,’ ‘congenial,’ ‘respectful’ and ‘nice’ and the meetings themselves as ‘structured,’ ‘formal’ and ‘subject to scrutiny’ (by which informants meant that board discussion was recorded through board minutes and subject to disclosure).
The boardroom was characterized by both groups as a ‘ceremonial site’ used mostly for information dissemination and ratification, often regarding issues ‘already deliberated in committee’ prior to boardroom review. Our data revealed the boardroom protocol for both high and low governance-rated boards favors ‘keeping to the agenda’ and ‘staying on schedule.’

Irrespective of individual director or firm differences (including governance ratings), all of the SME directors concerned that the ‘real work’ or ‘heavy lifting’ of the board is performed outside the boardroom – in, for example, committee meetings and executive sessions, at pre-board meeting dinners or during informal spontaneous conversations either in person or by telephone. Outside the boardroom, informants revealed, they felt free to express their opinions, openly debate issues and disagree. There, issues important to the board were researched and analyzed, opinions expressed, and coalitions built. Compared with the formal and cordial communications among directors at board meetings, interaction outside the boardroom was described as more ‘open,’ ‘direct,’ ‘frequent,’ ‘informal’ even sometimes ‘blunt.’

Reported, however, were far greater incidences (83 per cent versus 36 per cent) of informal conversation between directors of high versus low governance-rated firms with the high governance-rated firms attesting to frequent, private and ad hoc conversations outside the boardroom or committee context. Only two directors (one from each of a high and low governance-rated firm) insisted that such conversations did not happen – either inside or outside the boardroom – and were specifically discouraged.

The table below provides examples of narratives of high governance-rated firm directors (left column) and low governance-rated firm directors (right column). These quotes were selected to represent and contrast the experience of directors related to board communications (Table 3).

More directors of high governance-rated boards attested that in committee meetings and in executive session the convention of ‘nice’ – so valued in the boardroom – is ceded in favor of honest and direct conversation. One high governance-rated firm director, for example, noted:

“When you go into executive session, you have no worries about saying, ‘You know, Joe, who presented XYZ, I thought, did a crappy job because...’ I mean they wouldn’t say that. Now they might ask Joe or Sally a lot of difficult questions, so obviously you get a sense of how they’re being challenged, but then behind closed doors it might have been, ‘I don’t agree with Joe at all, I think they did a crappy job.’ And, ‘why would we go with Joe’s opinion or you know,’ so much more blunt discussion.

‘Manners’ and Their Meaning

Although the behavioral norms associated with SME board performance – front stage versus back stage – are not formally articulated, understanding of and adherence to them is assumed. Our directors vividly described the effect of what they considered non-conforming or unexpected director behavior on the functioning of the board. Director behavior that did not conform to expectations was noticed and negatively perceived. Certain behavior was reported to be inappropriate inside the boardroom but tolerated in committee meetings and other extra boardroom venues where directors engaged more informally and candidly with one another and where behavioral boundaries were more explicit. There directors tolerated co-directors’ ‘over-assertiveness,’ for example, even if annoyed by it. Directors noted that when in session, however, most board members adhered to the polite formality of prescribed norms, cognizant that their meetings were subject to disclosure and aware of potential implications of their and fellow board members’ behaviors (Fehr and Fischbacher, 2004).

Directors of both high and low governance-rated firms who did not conform to the social norms of the board were perceived to
Table 3: Back channel communications

<table>
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<tr>
<th>Back channel communications prevalent among directors</th>
<th>Low governance-rated organizations</th>
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<tr>
<td>I will talk to the lead director generally once or twice between board meetings on issues specific to [Company]. And I’ll talk to the CEO at least once or twice between board meetings. Someone might call someone else – I’m gonna be a little obtuse here – to try to say, well, ‘Hey, George, I really think this candidate would be really good. What’s your worries about it?’ for example. So, if you haven’t reached consensus, then, at least some groups of folks don’t agree with the decision. So, there might be some – everything’s politic. And so, there might be some discussions going on to try to change people’s minds. So in all cases I have to say, when I think of my own experience, I will call directors directly, but in just about all cases it’s directors that are on committee and so the discussion that I’m having with them are directly related to a specific topic of the committee…. I’ve called many times because we might be looking at companies to buy and this one and that one and what I think, and stuff. ...definitely some sidebar conversations. In fact, there were many sidebar conversations. Politics ran deep on that issue.</td>
<td></td>
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<td>You pick up the phone and say, ‘What do you think about X, Y, or Z? I wanna put this forward. I how do you think it’ll be received?’ He clearly did use back channels, but also, you know at a certain point if people were waffling, you know, he could sort of bring down the gavel and say this is the way it’s going to go.</td>
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<td>It really begins with the CEO and the chairman. If there is agreement, at least superficially, on a path or at least a topic and the argument pros and cons, then in fact the chairman may say, you know what, why don’t you discuss with so and so who was a [industry] executive who could give you good input.</td>
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<td>There’s been times when we know something’s coming up for discussion, and if any one of us doesn’t feel like we know where the other person, the other one or two people are coming from, then sometimes a phone call will take place.</td>
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who was also a close friend of the founder (to take action).’ Another director, discussing repeated incidents of ‘strong treatment’ of one board member by another in the boardroom, recounted the board decision to ultimately ‘step in.’ In some instances reported by directors, non-conforming behavior was less explicit. One director, spearheading a firm turnaround, was concerned when two co-directors who had asked the CFO to provide information to the board repeatedly over 5 years, never pushed to have the information delivered. They were eventually removed from the board for succumbing to pressures exerted by the CEO and top management team.

**Attrition and Board Instability**

Although 43 per cent of small-cap S&P firms experience director departures annually (Barrett, 2012), in our sample, 86 per cent of the 22 companies experienced director attrition. We analyzed the attrition rate of the companies in our sample over the period 2009 to 2011 inclusive. All but three had at least one change in director over the measurement period. The overall average rate of director attrition was almost 18 per cent per year (ranging from 13 per cent to 20 per cent) over the 3-year measurement period 2009–2011. The average for high governance-rated organizations was 15 per cent and for low governance-rated firms 20 per cent. When compared with the index of annual attrition rate for all S&P Small Cap company of 19 per cent (Barrett, 2012), the high governance-rated firms out-performed the index, whereas the low governance-rated firms underperformed against the index. Of the three organizations having no change in director, two were high governance-rated organizations.

Although the directors of both high and low governance-rated SMEs commented on non-conforming behavior in the boardroom, the frequency of their comments and level of concern about it was different. High governance-rated firm directors disclosed more about disruptive or otherwise deviant behavior, provided explicit examples of it, and expressed more concern about its effects. These directors also divulged differences in the way boards recruited and appointed new directors.

**Director Recruitment**

Directors of low governance-rated SMEs are more likely than those of high governance-rated firms to be recruited as a result of a personal relationship with an existing board member or corporate executive. High governance-rated boards more frequently consider and appoint directors with no prior direct social connection to the board.

Each director in our sample recounted the story of his/her personal recruitment and appointment to the board. Directors of firms with low-governance ratings revealed membership as a direct result of personal or professional association with an existing board member or officer of the firm, twice as often as did directors of high-governance-rated firms – 63 per cent of low governance-rated firm directors acknowledged having been recommended by a firm principle versus 25 per cent of high governance-rated firm board members. Most directors of high governance-rated SMEs in our sample revealed having no prior connections with firm principles prior to their recruitment and appointment. Only three acknowledged a direct connection either with an existing director or with a private equity firm investing in the company. In each case, however, the interviewee described the relationship as distant and impersonal. The majority of these directors described their recruitment as based primarily on their credentials and experience.

Eighty-five percent (85 per cent) of the high governance-rated firms in our sample used external assistance in identifying and assessing director candidates contrasted with 23 per cent of low governance-rated firms. However, there was no indication that the external firm used a behavioral approach in screening director candidates.

Of interest, only one board (high governance-rated) was reported to use a rigorous screening process, including skills and/or behavioral testing. All directors discussed reliance on past track
records and the single in-person interview to determine the ‘fit’ of the candidate director for the board.

**DISCUSSION**

Petigrew and McNulty (1995, p. 848) note that Tricker’s (1978) comment about corporate boards ‘is still reassuring: the work of the director, in and out of the boardroom, is rated as the most under-researched management topic.’ Most of the still sparse work on board dynamics has focused on what happens in the physical boardroom, with little attention to the interaction of directors outside of it—and is concerned more with process than personal interaction. This is surprising given that most of the work of the board is acknowledged to occur in committee meetings and during extra-boardroom inter-member interactions to solicit opinions and build coalitions. Limiting attention to processes confined to the formal boardroom sacrifices insight into critical decision-making and strategy production by the board in informal extra-boardroom settings.

In contrast to the work of Westphal and Bednar who reported a ‘general tendency for outside directors of firms with relatively low performance to underestimate the extent to which other board members shared their concerns’ (Westphal and Bednar, 2005, p. 286), our study indicates directors of both high and low governance-rated boards understand the importance of their full participation in board deliberations and strive to make their concerns known to and understood by their colleagues. Nell and Duarte (2010, p. 302) found that minimizing affective conflict through ‘harmonious personal relationships between board members (…) highly important’ and ‘(…) a crucial, yet often neglected, driver of board effectiveness.’

Our data suggest that the criticality of interpersonal relationships is well understood by directors of both low and high governance-rated organizations, especially by the latter. Respondents in both groups expressed concern about offending co-directors by challenging their ideas or opinions in the boardroom where a sense of ‘formality’ and ‘congeniality’ prevails and directors are feign to breach deeply imbedded behavioral norms specific to that environment. Instead, they favor being ‘nice,’ demonstrating ‘mutual respect,’ and following the agenda—behavior also consistent with directors’ recognition that board ‘performance’ may be viewed by a critical (and potentially hostile) audience of shareholders, executive management and regulators. The formal non-confrontational environment of the boardroom facilitates information exchange, reduces the costs associated with information asymmetry and projects professionalism—the appropriate performance for a critical public audience.

However, outside of the boardroom, directors—especially those serving high governance-rated organizations—report operating less formally and having more frequent and much more direct exchanges with one another. A tolerance for openness (even ‘bluntness’) was revealed in those interactions—and challenges, even confrontational, behavior considered inappropriate and unacceptable in the boardroom itself, was endured in exchanges outside of it. Although they are implicit rather than articulated, most directors appear to understand the behavioral norms of formal and informal board performance. Both adherence to traditional boardroom behavioral norms and engagement in antithetical behavior outside of the boardroom, however, were more pronounced in high versus low governance-rated firms—which may explain lower director attrition on the high governance-rated firms. Directors who better distinguish between the behavioral norms specific to both operating realms of the board (challenging/questioning in informal settings; polite and civil in formal settings) may be more likely to survive by avoiding sanctions for violations of social norms, contributing to board stability.

We heard strikingly similar stories from directors of both low and high governance-rated organizations about occasionally deviant behavior in the boardroom. Most of the informants in our study identified at least one fellow director
whose non-conforming behavior deleteriously impacted board performance and was encouraged to leave the board, or not asked to stand for nomination for a subsequent term. When directors breach boardroom etiquette—a challenge to boardroom stability—despite how much value they bring to the knowledge base of the board, they are considered, ‘uncooperative,’ ‘overbearing,’ ‘overpowering,’ or ‘egoistic’ and may be chided, ostracized or ultimately removed from the board. Our informants described the salutary effects of removing a disruptive director, stressing board harmony and increased efficiency.

Our findings, grounded in ‘in situ’ data, are conceptualized in Figure 2. They suggest that directors are recruited onto boards through either direct or indirect personal relationships, primarily driven by the resources, talent or experience they bring to the board. It is expected that directors will easily adapt to the unique culture of any given board by complying with the tacit behavioral norms that characterize that board. In the end, the board’s ability to manage and balance the negative effect of affective conflict and the positive effect of cognitive conflict leads to board stability and governance quality level. Other studies have suggested a relationship between governance quality and firm financial performance (Leblanc and Gillies, 2005; Berthelot et al, 2010; Jo and Harjoto, 2011).

As argued by Pettigrew and McNulty, a board’s ‘dynamics are as important as its structure’ (Pettigrew and McNulty, 1995, p. 859).

In accordance, our data speak to the salience of behavioral as well as professional qualifications for board appointment. Because director interaction is so vital in producing high quality processes and ultimately results (Pye and Pettigrew, 2005), in addition to screening for functional skills and industry experience, specific attention should be paid to the behavioral skills of board candidates. Possessing the capacity to adapt to board environment and culture and to perform appropriately in both ‘formal’ and ‘informal’ board environments seem to be essential qualifications for the role.

LIMITATIONS
Our results should be considered in light of several potential limitations. Our sample was small consisting of directors of 22 SME firms in varied industries. Results may not be generalizable to all such firms. The data was collected at the individual level and may not reflect the perceptions of other members of the same boards. Future studies should compare and contrast data sourced from multiple firm directors. Although conscious effort was made to reduce researcher bias, the principal investigator has herself served as a corporate board member and committee chairperson and her experience may have influenced data interpretation.

IMPLICATIONS FOR FUTURE RESEARCH
This study addressed directors’ behaviors in the conduct of their roles on publicly-traded SME boards. Directors are commonly selected...
to join boards based on their professional capital, but are seldom screened for understanding and appreciation of appropriate behavior inside and outside the boardroom or ability and willingness to address affective conflict in both realms. Directors insensitive to differences between 'front stage' and 'back stage' behavior may suffer diminished individual performance and tenure on boards and weaken board effectiveness. High governance-rated organizations appear to have a lower tolerance for aberrant director behavior and a stronger inclination to address and resolve affective conflict rather than 'sweep it under the carpet.'

Our data also suggest that prior director relationships with other board members may affect if and how aberrant behavior is addressed. Both propositions deserve further research. In particular, studies that link directors' recognition and execution of appropriate cultural board norms, affective conflict management and board process costs and attrition are recommended. Sonnenfeld (2002), Finkel et al (2007) and others have offered prescriptive papers on how boards should work as 'teams' but little research has been done in this area — specifically using 'team' as the unit of analysis (Michael et al, 2000). Our results underscore the potential contribution of such work to improve the understanding of governance quality and its impact on financial performance.

IMPLICATIONS FOR PRACTICE
Boards spend a great deal of time and energy recruiting qualified directors to fill functional expertise gaps and generate a level of diversity needed to achieve high quality strategic, advisory and monitoring results. When sourcing directors, high governance-rated boards cast a wide net, considering incumbents with whom they have no direct relationship — whereas low governance-rated boards tend to recruit from an "inner circle" of contacts. Despite the natural inclination to recruit those that are "most like us," it may very well be that it is the director outside a board's "comfort zone" that generates better results for the board as a whole.

Although research substantiates that managing behavioral profiles boosts cognitive output and increases team effectiveness and stability, SME firms seldom screen for the "behavioral" skills or competencies of directors — only 1 of the 22 firms (4.5 per cent) in our sample did so. Our data suggest that failure to properly screen for director behavioral characteristics may result in higher levels of affective conflict inside and outside the boardroom, which in turn leads to higher levels of board attrition, lower levels of stability and ultimately lower governance quality.

Failure to screen for director behavioral characteristics inhibits prediction of aberrant or disruptive behavior (inside as well as outside the boardroom) that can destabilize boards. High governance-rated boards appear to better manage affective conflict in a manner that reduces board attrition and increases board stability while lower governance-rated boards replace 1 in every 4 directors per annum a debilitating, inefficient and costly process. Understanding the dynamics of the existing board will facilitate the identification, selection and assimilation of new directors in the pursuit of high quality governance.

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Appendix B
Improving Corporate Performance by Enhancing Team Dynamics at the Board Level

Original Article

Improving corporate performance by enhancing team dynamics at the board level

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ABSTRACT Board performance research conducted over the last 50 years has focused on individual directors' economically-motivated behaviors and outcomes, and has generated inconsistent and disappointing results. Most research does not consider the board as a team, despite recent calls for a focus on collective board processes and behaviors. A recent survey revealed that 90 per cent of directors rate their individual performance as very effective but only 30 per cent rate overall board performance at an equivalent level, exposing a gap that needs to be addressed. The discrepancy between individual and team performance effectiveness was the focus of this research, based on original data from 182 directors and their assessment of their board's dynamic, team task performance efficacy, team potency and the impact of their activities, as a board, on firm profitability. Our findings show that director experience, social network and cultural intelligence quotient, as well as their ability to achieve high levels of team interaction — thereby lowering information asymmetry — have a significant impact on corporate profitability. Our study demonstrates that the impact of board functioning as a team is an eight times greater predictor of corporate performance than individual director demographics. We found that this team dynamic as well as team potency has a positive impact on profitability, while the focus on compliance-oriented tasks has a significantly negative effect on profitability. The insights of this study should help boards and their advisors better focus their efforts to improve team dynamic, optimize board interactions and refocus their attention on value-creating activities. We also believe that improving board team dynamics will have an unintended consequence of bringing a level of individual and team satisfaction back to the boardroom.

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Keywords: board of directors; team dynamics; corporate financial performance

INTRODUCTION

Board performance has been at the center of modern corporate governance research for more than two decades, with the majority of inquiry relying exclusively on economic
theories generating inconsistent and disappointing results (Baumbridge, 2010; Huse et al., 2011). Equally unsatisfactory is that most research has centered on the individual director as the unit of analysis instead of the board as a team, despite calls – since the early 2000s – for a focus on collective board processes and behaviors to understand and predict board performance quality (Leblanc and Gilles, 2003; Letendre, 2004; Huse, 2005; Pye and Pettigrew, 2008). The contrast between the individual and team level unit of analysis is strikingly clear when considering information from board members revealing that 80 per cent consider themselves to be ‘very effective’ but only 30 per cent rate the overall board’s performance as very effective in addressing their most important and strategic initiatives’ (Heidrick and Struggles, 2010). This is a disturbing revelation as shareholders and other stakeholders mistakenly believe that boards are comprised of successful, experienced and responsible executives working as a team to effectively carry out their legal and ethical obligation to represent and protect shareholder interests (Bernman, 2006), but, instead, we learn that less than half the time boards are assessing their collective performance as effective (Heidrick and Struggles, 2018). Poor board governance is one of the causes of shareholder activism (Smith, 1996; Gillan and Starba, 2007; Bobchak and Weinbach, 2010). Much of the recent academic literature on boards has preferred the recommendation that directors should work as a team to be able to produce better board outcomes (Cohen and Bailey, 1997; Forbes and Milliken (F&M), 1999; Sonnenfeld, 2002; Finkelstein and Mooney, 2003; Leblanc and Gilles, 2003; Letendre, 2004; Pye and Pettigrew, 2005; Zott and Zattoni, 2007; Conger and Lawler, 2009; Payne et al., 2009; Van Ees et al., 2009; Huse et al., 2011; Vandewaerde et al., 2011; Lounch, 2012), but these studies are based on theoretical assumptions.

Despite our exhaustive search, we could not find any empirical academic studies that examined actual data on boards working as teams – measuring director’s assessment of teamwork, team productivity and team potency (TP). This research, we believe, is the first of its kind to analyze collective board performance rather than at the individual level. Responses to an original and comprehensive team-focused survey from 182 directors and publicly available information were used to better understand team dynamics, team task performance (TTP) and the collective board’s impact on corporate profitability. Our research explores how a board’s team characteristics meaningfully impact corporate profitability. We contribute to existing literature in several ways. First, we explore whether board dynamics are in fact an ‘intervening process’, as posited by many scholars, in the value-creation chain from director characteristics to firm-level performance. Second, we refine board dynamics as the way teams interact, captured by the Team Learning and Development Inventory (TLI) (Lingham, 2005, 2009). Third, we introduce a new behaviorally-based measure to predict the directors’ potential contribution to board dynamics by determining their cultural intelligence quotient (CQ) (Barley and Mosakowski, 2004). Fourth, we explore the impact that TP and TTP have on corporate profitability.

LITERATURE REVIEW

The inquiry into the impact that boards of directors have on their organizations began over 150 years ago (Smith, 1863) and continues to be studied today (Munichelli et al., 2012). Hundreds of articles have been written to try to capture the ‘mystery’ of the boardroom, directors and their impact on the successful management of the firm (Zahn and Pearce, 1989; Gabrielsson and Huse, 2004; Pingel, 2007; Hambrecht et al., 2008; Huse et al., 2011). When considering the perspectives employed in these inquiries, it is useful to review the different streams of literature on this topic – economic, behavioral, individual-based and team-based frameworks – from which to observe and consider board characteristics and outcomes.
The prevalent framework used to interpret and predict the motivations and behaviors of individual directors has been based in economic theories. Scholars have employed agency theory (Eisenhardt, 1989; Boyd, 1990; Donaldson and Davis, 1991; Bathala and Rao, 1995), stewardship theory (Donaldson and Davis, 1991; Muth and Donaldson, 1998) and resource dependence theory (Casciaro and Piskorski, 2005; Haynes and Hillman, 2010) as the lens through which to observe, interpret and predict director behavior, in their activities to optimize the financial return to shareholders. Despite these theories having been criticized as too narrow when considered as a sole theoretical framework (Eisenhardt, 1989), there is value in understanding that directors do provide important monitoring functions in an attempt to resolve, or at least mitigate, agency conflicts between agents and principal (Bathala and Rao, 1995).

Another stream of research—the newest in the portfolio of approaches—is the use of behavioral theories to explain board actions and outcomes (Hambrick et al., 2008; Van Essen et al., 2009; Huse et al., 2011). These theories include some new and some old behavioral theories including identity theory (Ashforth and Mael, 1989), theory of planned behavior and reasoned action (Madden et al., 1992; Ajzen, 2002), and social networking theory (Granovetter, 1973), as well as various theories of the firm that have recently been applied to board behavior (Cyert and March, 1963; Grant, 1996; Rumelt, 1997; Slater, 1997) in framing and interpreting director actions and their impact on firm outcomes. Despite diverse approaches and underlying theories employed by scholars, there is consensus that observing boards, understanding their behavior and predicting the impact on corporate outcomes is virtually impossible because of the difficulty in gaining access to actual board processes (Pettigrew, 1992; Daily et al., 2003). In addition to reviewing the panoply of theoretical frameworks, we observe that the prevalent unit of analysis is the individual director, and that most economic and legal theory relies on the actions of individuals in expressing the behavioral tenets of theory. However, there have been calls from scholars to consider the board as a collective unit or the “board as team” as the unit of analysis to try to better understand the impact of the board on corporate outcomes. This is reflected in the surge of recent work on teamwork in contexts as an empirical inquiry of the sparsely-researched link between board dynamics and governance (Huse et al., 2011). Confounding the lack of clarity on board-level antecedent relationships to firm-level outcomes is the recognition that most research conducted employs secondary-source data or “easily available data and the use of standardized methods” (Gabrielsson and Huse, 2004), preempting efforts to gather primary data on the subject. Of the hundreds of articles written about board governance since 1990, only 8 per cent address director performance from a behavioral perspective (Huse et al., 2011), and of these only a few have produced original survey data for their quantitative analyses (Minichilli et al., 2012). For all these reasons—the preponderance of theoretical frameworks, difficulty in accessing primary data and defining the most appropriate unit of analysis—scholars refer to the board as a “black box” (Pettigrew and McNulty, 1995; Leblanc and Schwartz, 2007; Neill and Dalewicz, 2010) and scholarly works have not yet succeeded in lifting the shroud of boardroom mystery.

**THEORY AND HYPOTHESES**

We begin our research with the question: How do board team characteristics and team interaction meaningfully impact corporate profitability? Our research question is informed in part by prior research conducted by other scholars, and in part by our own qualitative research on board directors’ behaviors, based on their lived experiences. Our prior research demonstrated that there are distinct behavioral patterns both inside and outside the boardroom among directors. These behavioral norms, specifically in the ways directors coordinated information sharing, participated in deliberations and recruited new
directors, practices, were central to our quantitative investigation of 'teamwork' at the board level (Charsis and Perelli, 2013).

In deconstructing boards and the hypothesized impact on corporate performance, we reference the F&M (1999) paradigm-shifting model (see Figure 1). We specifically focus on the impact of the processes or the relationships-dynamic on board-level and firm-level outcomes. F&M's (1999) fundamental theory articulates that board processes should be explored for three reasons: influence of board demography on firm performance ... [is] complex and indirect, beliefs and behaviors [cannot] be inferred reliably from demographic variables alone and the study of process constructs has the potential to expand and refine our understanding of group dynamics" (F&M, 1999). Their work ushered in a new era of research - to consider boards in an economic-behavioral context (Günterdin and Huse, 2004; Hambrick et al, 2008; Huse et al, 2011).

In addition, their work marks a significant moment in academic research: it signals the departure from an exclusive reliance on economic theory and director demographics to predict board outcomes, and a move to examining the actual behaviors of board directors framed by both behavioral and economic theory. They propose that boardroom aspects should be examined at four intervals - director characteristics, board processes, board-level outcomes and firm-level outcomes (F&M, 1999). Their theory combines different units of analyses - individuals, groups and firm-level constructs in the same model - another departure from the traditional approach of studying boards.

The F&M model uses board demography and the presence of knowledge and skills as its indicator of board characteristics. In our model, we update these constructs to represent the vital input from directors using professional capital (PC) and social capital (SC), or what is referred to combined as 'board capital' (Hillman and

Figure 1: F&M (1999) model.
Dalziel, 2003). PC and SC, in their ‘resource provision function’ (Haynes and Hillman, 2010), represent the human and SC of the board and serve as a proxy for the director’s ability to provide resources to the board (Hillman and Dalziel, 2003). PC is a measure of the knowledge, depth of expertise and degree of experience in management and on boards that the director bring with them to their service role on the board (Haynes and Hillman, 2010). SC is a measure of the breadth of the network of connections the director has among other board directors of both public and private organizations (Haynes and Hillman, 2010). On the basis of resource dependence theory, depth of board capital will have an impact on firm-level outcomes, or, in our study, profitability, because of the perceived value and resources the director brings to the board. Resource dependence theory (in the economic school) describes the value relationship between directors and company stakeholders, explaining that directors contribute value to the organization through the resources they bring in the form of ‘legitimacy, advice and counsel, links to other organizations, etc’ (Hillman and Dalziel, 2003; Nicholison and Kiel, 2004). Our model combines both economic and behavioral theories, as each on its own is not sufficient to explain the impact of the board on firm-level outcomes. We therefore hypothesize that:

Hypothesis 1a: Higher levels of Professional capital (PC) increase profitability.

Hypothesis 1b: Higher levels of Social capital (SC) increase profitability.

In our work, we assume that boards are teams and should be studied through this theoretical framework, despite this conceptualization being ignored or even denied in past board research (Vandeweerdé et al., 2012). Boards can be considered teams as they are ‘groups of interdependent individuals that can self-regulate their behavior on relatively whole tasks. [They have] 1) face to face interaction; 2) are employees with interrelated tasks responsible for making a product or providing a service; and 3) exercise discretion over decisions such as task assignments, methods for carrying out the work and scheduling of activities’ (Cohen and Lefford, 1994). Therefore, we consider the board of directors a ‘team’ in the same way others have considered and studied boards at the theoretical level (F&M, 1999; Conger and Lawler, 2009; Vandeweerdé et al., 2011; Vandeweerdé et al., 2012). This distinction that boards are teams is genuine when considering the next level of inquiry in F&M’s (1999) model: board processes. They identify effort norms, cognitive conflict and the use of skills and knowledge as the ‘intervening process’. We assume that the referenced intervening process is the board’s dynamic. F&M (1999) state that the ‘study of process constructs has the potential to expand and refine our understanding of group dynamics… the identification of independently predictive processes represents an important complement to knowledge about the direct or indirect effects of board demography’ (F&M, 1999). According to Curry et al (2012), team dynamics is defined as being able to deal with differences, trusting the other, creating a meaningful context, handling conflict and tension, and enacting effective leadership roles within the team (Curry et al., 2012). McGrath et al (2000) define it as ‘team members engaged in tasks using tools and resources to satisfy two team objectives – to complete group projects and to fulfill member needs (McGrath et al, 2000). Therefore, we measure dynamics to determine the degree to which team members interact successfully to achieve the team’s and their personal objectives by capturing how the team operates through these interactions. We measure the degree and quality of a board’s dynamic or interaction using the TLI (Lingham, 2009). Specifically, the scale was developed to capture the ‘socio-psychological’ aspects of teams, as it was observed that great team experiences are defined by team member interaction with regard to ‘... trust, relating to others, safety and other
social-emotional aspects of team interaction. Most of these aspects of team interaction are embedded in the lived experience of a team based on the quality of their interaction along the task-relational continuum' (Lingham, 2009). In our model, we refer to the dynamics of a team as team interaction quality (TIQ). We hypothesize, like F&G, that certain board characteristics, namely, PC of the director, will have an impact on intervening processes. We believe that the quality of relevant information, industry and management experience represented by a director's PC will contribute to the richness of the exchange and quality of interaction. According to Hollenbeck et al. (1998), 'the degree to which each team member has all the information necessary to perform their role in the team process ... is the most critical variable’ in team success (Hollenbeck et al, 1998). Therefore, we posit that:

**Hypothesis 2:** Higher levels of Professional Capital (PC) increase team interaction quality (TIQ).

Perhaps one of the most important aspects of any successful team is the exchange of information. It is incumbent on the director to be able to share information to optimize the decision-making process, and it is the team member's (in our case, the director’s) responsibility to behave in a manner that fosters the exchange of information and facilitates effective decision making. Effective exchange of information is critical in decision making, and we posit that directors have an obligation to be engaged in and contribute to the exchange of information. When information is not effectively exchanged, information asymmetry occurs — 'different people know different things ... and information asymmetries arise between those who hold that information and those who could potentially make better decisions if they had it’ (Connelly et al, 2011). The ability of the directors to understand each other is contingent upon each individual's sensitivity to both spoken and tacit or nuanced communication. The facets of this theory, and its economic implications, lie in ascribing costs to information acquisition processes that resolve information asymmetries in a wide range of economic and social phenomena (Connelly et al, 2011). The minimization of these information acquisition costs in the boardroom may result in higher levels of decision making, task performance and ultimately profitability. Therefore, dynamics is a measure of the directors’ ability to communicate information to one another, reducing the economically detrimental impact of information asymmetry — as observed, ‘information asymmetry is likely to play an important role in determining whether boards will be effective in carrying out their duties’ (Rutherford, 2007).

We again update F&G’s model by adding an aspect that has not yet been measured at the director level — CQ. CQ is a measure of the individual director's 'ability to make sense of unfamiliar contexts and then blend in' (Earley and Mosakowski, 2004). CQ measures an individual's ability to 'distinguish behaviors produced by the culture in question from behaviors that are peculiar to particular individuals and those found in all human beings' (Earley and Mosakowski, 2004). We measured CQ as an indicator of the director's ability to conform with and be successful in the social norms indicative of each board (Chavez, 2012), as well as an indicator of the director's ability to receive and transmit 'signals' (Blige Bird and Smith, 2005). According to Ang and Van Dyne (2008), 'CQ has relevance to groups, teams, and organization' (Ang and Van Dyne, 2008), and Triandis (2006) adds that individuals with high CQ may be more effective in adapting to organization dynamics as 'people who are culturally intelligent are also more flexible than the average person and thus more able to adjust to different organizational environments' (Triandis, 2006).

Most recently, researchers have identified that it is the director's ability to understand the nuances of relationships and social norms in the boardroom that distinguishes high- from low-performing boards (Hanse, 1998; Leblanc and Gillies, 2005), and CQ is a direct measure of this — the ability to perceive and adjust one's
behavior to different cultural settings. The value that directors add to the organization is not the knowledge that resides in them (resource providing), but their ability to share this knowledge for the benefit of the firm (knowledge application) in a dynamic setting. Therefore, our third set of hypotheses relate to the ability of the director to understand and adapt appropriately to different cultural settings, optimizing their ability to communicate effectively and impact the dynamic in the boardroom (TIQ), as well as the board’s ability to accomplish tasks.

As indicated above, we consider TIQ as the measure of the quality of the intervening processes. Several researchers have investigated the phenomena of board dynamics. Erkovic and Overall (2010) describe dynamics as ‘more than a summation of individual contributions where … different people working together in a board-level environment genuinely adds value to the organization’. According to Huse (1998), ‘trust and emotion play … an important part in the boards’ activities’. He adds that dynamic is contingent on the feelings of the director about their fellow directors’ competence, capacity, timing, even their integrity, their good intentions or their reliability (Huse, 1998). F&M (1999) state that board dynamics are heavily dependent on social-psychological processes, especially related to group participation and interaction, information exchange and dialogue (F&M, 1999). Another point of view on the importance of dynamics in the boardroom comes from Letendre (2004): ‘… the quality of the interactions among the participants or “boardroom dynamics” is a crucial variable in effective decision-making and achieving other desired meeting outcomes’. The question of board team dynamics and board task performance was examined in our study to try to reveal the contents of the ‘black box’ (Gabrielsson and Huse, 2004; Leblanc and Schwartz, 2007) and the direct and indirect impact this has on corporate profitability.

In our study, task performance was operationalized through collecting information on the skills directors believe the board applies in generating cognitive outcomes, the freedom directors have to express innovation, and directors’ attention to compliance and risk management issues. Therefore, we hypothesize on the relationship between director characteristics and board-level outputs:

**Hypothesis 3a:** Higher levels of cultural intelligence quotient (CQ) increase Team Interaction Quality (TIQ).

**Hypothesis 3b:** Higher levels of cultural intelligence quotient (CQ) increase Team Task Performance (TTP).

The most recent conceptual framework in the stream of board research has been the use of behavioral theory – the ‘interactions and behavioral processes among and between actors in and around the boardroom’ (Van Ees et al., 2009). Van Ees et al. (2009) further suggest that studying boards from a behavioral perspective adds more value than using the traditional economic frameworks, as using behavioral theory brings us closer to what is actually happening in the boardroom and this is more actionable for practitioners. In fact, beyond the simple exchange of information, ‘the focus on how boards add value has increased the relative importance of practices that facilitate boards working together well as a group’ (Payne et al., 2009). Perhaps the most influential of the scholars contributing to this stream of literature are Huse and colleagues in their pronouncement that to unravel the mystery of the board we should ‘... emphasize how the board, [works] as a team together and rather than only as individual board members ... [and how they] can effectively coordinate firm activities and utilize different resources to create value. As no board member is likely to possess the full complement of information and knowledge necessary to achieve desired goals, then working as a team permits greater productivity than can be achieved by individual efforts’ (Gabrielsson et al., 2007). To best observe the behaviors that represent this concept, we need to understand different aspects of board performance ranging from how directors perform as a team, to how well directors are able to respond
to contextual and cultural differences (Earley and Mosakowski, 2004) that define each board environment (board culture), to the intervening processes or the dynamic of the relationships of the board directors (Minichilli et al., 2012) and how they impact resulting board-level outcomes of TP and TTP. TP is a measure of a team’s ‘collective perceived capability of working together to achieve tasks’ (Collins and Parker, 2010). Collins and Parker (2010) focused on distinguishing the different drivers of team performance, examining elements of potency, processes and outcomes. TP as identified, is an important board-level outcome, as teams with a ‘strong belief in their capabilities set higher goals, develop strategies to achieve their goals, and persist in the face of setbacks’ (Collins and Parker, 2010). They also found that ‘the broader bandwidth of team potency may be most predictive when a team does not obtain realistic feedback’ (Collins and Parker, 2010), and given that boards are special teams that meet infrequently and receive little feedback, the use of potency was appropriate.

In a study that focused on the importance of TP compared with other antecedents of TTP, potency was the strongest predictor of team performance (Campion et al., 1993; Champion et al., 1996). According to Ilgen et al. (2005), effective teams are characterized by members believing that they are competent enough to accomplish their task (potency), provide an environment of psychological safety, demonstrate a desire to work and stay together (bonding and solidarity), are able to adapt to changing situations, and are able to learn. These team characteristics set the environment for the important intervening processes or board dynamic that is ‘complex and indirect’ (F&D, 1999) and thus crucial in generating vital and effective board-level outcomes. Because CQ is a measure of how well an individual can adapt to different social norms in group settings and TP is a measure of the team’s psychological profile, we posit that it is the quality of the interaction of directors that enhances their ability to adapt to different cultures in generating a shared mental model of TP. Because PC is a measure of the director’s experience and expertise, the ability to share this information effectively will lead to a higher level of belief that the team can accomplish their objectives. It is through their ability to achieve high levels of interaction and appropriately share their experience and expertise that their collective belief in their ability to achieve goals can be manifested in TP. We therefore hypothesize the following relationships between board characteristics, TIQ and TP:

Hypothesis 4a: Team interaction quality (TIQ) mediates the relationship between cultural intelligence quotient (CQ) and team potency (TP).

Hypothesis 4b: Team interaction quality (TIQ) mediates the relationship between professional capital (PC) and team potency (TP).

As described above, we would expect a relationship between the knowledge resources the director brings to the board and their ability to perform effectively in a team because of a heightened ability to communicate. When TIQ is high, we would expect to see this resulting in higher levels of TTP. O’Reilly III et al. (1998) observed that because boards are charged with complex, interactive tasks, the degree of TIQ – or as they characterize it, ‘interpersonal attraction’ – will have an impact on how well those tasks are performed. Because in a team it is the collective actions of each individual that contribute to the ability to achieve task completion, a high level of information exchange, group decision making and shared mental models are required to achieve the TTP goals. It is through the ‘interacting processes’ or dynamics that teams are able to generate outcomes. We therefore hypothesize that:

Hypothesis 5a: Team interaction quality (TIQ) mediates the relationship between cultural intelligence quotient (CQ) and team task performance (TTP).
Hypothesis 5b: Team interaction quality (TIQ) mediates the relationship between professional capital (PC) and team task performance (TPP).

Again, CQ measures the ability of a director to appropriately and effectively understand the dynamic of the team, and contribute their knowledge and skills to enabling the team to achieve their goals. Knowledge-based theory of the firm and team interaction theory would support our prediction of a mediated relationship between CQ and firm profitability, and we hypothesize that:

Hypothesis 6: Team interaction quality (TIQ) mediates the relationship between cultural intelligence quotient (CQ) and profitability.

Measuring TP is important because 'teams with a strong belief' in their capabilities set higher goals, develop strategies to achieve their goals, and persist in the face of setbacks' (Collins and Parker, 2010). Groups with high levels of potency are more likely to achieve success in team goals. Given the ultimate goal of the board is to represent the interests of the shareholders by guiding the organization to financial success, for our study we selected relative profitability performance as the indicator of corporate success, and therefore board success. We hypothesize the following relationship:

Hypothesis 7: Team potency (TP) mediates the relationship between team interaction quality (TIQ) and profitability.

The literature of late is rife with references to the relationship between TIP and financial performance, and organizations are increasingly focusing on teams to increase competitive advantage’ (Hartmann, 2002). Teams have become the focus of businesses interested in improving their productivity and profitability, as collaboration, continuous learning and shared access to information have been shown to generate value in organizations by improving productivity, enhancing creativity, increasing response times and improving decision making (Lawler et al, 1995). Several scholars have suggested that there is a direct and causal relationship between board task performance and corporate financial performance (Brennan, 2006; Spellman and Watson, 2009; Adut et al, 2011); companies with active boards produce higher levels of investor returns and economic value creation than those with passive boards (Millstein and MacAvoy, 1998; Karanam and Valetas, 2005; Brennan, 2006). Our aim is to understand this relationship further and hypothesize the following:

Hypothesis 8a: Team task performance (TPP) mediates the relationship between team interaction quality (TIQ) and profitability.

Hypothesis 8b: Team task performance (TPP) mediates the relationship between cultural intelligence quotient (CQ) and profitability.

These hypotheses and the results are represented in Figure 2. Note that consistent with the F&M model we have distinguished the four levels of focus - board characteristics, board processes, board-level outcomes and firm-level outcomes.

RESEARCH DESIGN
To understand the influence of the identified factors on relative profitability performance of public and private for-profit organizations, we conducted a quantitative study using a combination of survey data, proprietary data from third-party sources and public domain information. We followed a strict psychometric survey methodology that gathered individual responses addressing selected constructs. By using a blended quantitative approach using multiple sources of data, we reduced the potentially high level of method and social desirability bias in this type of study. The following section describes the method we used for the development of our survey instrument (including operationalization) and data collection for our study. A summary of the constructs operationalized in
Figure 2: Hypothesized model and results. 
*P<0.10; **P<0.05; ***P<0.01.

our study and the sources of scales used can be found in Table 1. These constructs are discussed in detail below.

**Board characteristics – Independent variables**

Board director PC and SC measures were operationalized by accessing three sources of information: public domain information about director professional profiles; private third-party information about director social capital (BoardEx); and by collecting primary information from directors themselves about their level of cultural intelligence.

**Professional Capital**: To best understand the types of skills/competencies and relative importance directors place on PC, we referenced prior research conducted on directors of public companies (Chana, 2012). Our prior research indicated that board directors are primarily recruited for their knowledge, experience, and social network. In our study, we define knowledge and experience as PC, which was represented by a score calculated by standardizing and then weighting attributes represented in Table 2.

**Social Capital**: SC was a raw score collected from a relationship capital management database (BoardEx). This raw score represents the number of connections each director has in a database of over 500,000 directors of both public and private organizations. SC raw score was converted to a standardized value.

**Cultural Intelligence Quotient (CQ)** measures metacognitive, cognitive, motivational and behavioral aspects of adapting to different cultures. For our research, we measured only three aspects of director's behavioral characteristics including metacognitive, motivational and behavioral and excluded cognitive as this aspect is not relevant to board tasks. Metacognitive aspects capture ‘the mental processes that individuals use to acquire and understand cultural knowledge, including knowledge and control over individual thought processes.’ Motivational aspects measure the ‘capacity to direct attention and energy toward learning about and functioning in situations characterized by cultural differences.’ Behavioral aspects describe the ‘capability to exhibit appropriate verbal and nonverbal actions when interacting with people from different cultures’ (Ang and Van Dyne, 2008). The most critical aspect of CQ is the behavioral aspect as
Table 1: Summary of constructs described in research design section

<table>
<thead>
<tr>
<th>Type of variable/construct name</th>
<th>Definition</th>
<th>Number of items</th>
<th>Source of scale/information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent: PC</td>
<td>The skills, competencies and experience of directors represented by years of industry experience, number of boards served, current executive management role, cumulative years of board experience and highest level of education achieved</td>
<td>5</td>
<td>Public domain information</td>
</tr>
<tr>
<td>Independent: SC</td>
<td>A numeric value indicating the degree to which the director is 'connected' to over 500,000 other directors in the BoardEx database. A measure of the breadth of their social network and therefore their social capital</td>
<td>1</td>
<td>BoardEx</td>
</tr>
<tr>
<td>Independent: CQ</td>
<td>A numeric measure of the director’s ability to adapt to and behave appropriately with regard to the cultural and social norm characteristics of each board</td>
<td>14</td>
<td>CQS – Self Report (Ang and Van Dyne, 2008) Likert: 1-7</td>
</tr>
<tr>
<td>Mediator: TIQ</td>
<td>A measure of the health of the dynamic of the team, as indicated by the ability of the team to create a ‘safe and supportive environment’, embracing and respecting differences, developing strong trusting relationships, generating learning and getting tasks done effectively</td>
<td>30</td>
<td>TLI, Lingham (2009) Likert: 1-5</td>
</tr>
<tr>
<td>Mediator: TTP</td>
<td>Three factors comprise TTP: Skills; the degree to which directors have adequate training and are competent and exhibit flexibility in the use of their skills; Innovation: a measure of the degree to which directors seek approaches to improve their systems of work; Compliance quality: a measure of the degree to which directors understand, comply with and are concerned with compliance and administrative requirements and standards set by the board</td>
<td>15</td>
<td>Team Effectiveness Questionnaire (Bateman et al., 2002) Likert: 1-5</td>
</tr>
<tr>
<td>Mediator: TP</td>
<td>A psychological measure of the team’s collective perceived capability of working together to achieve tasks</td>
<td>8</td>
<td>Collins and Parker (2010) Likert: 1-5</td>
</tr>
<tr>
<td>Dependent: Profitability</td>
<td>A relative measure of the organization’s performance compared with an index of size-adjusted industry average profitability</td>
<td>2</td>
<td>Public domain information (S&amp;P, Hoovers and so on)</td>
</tr>
</tbody>
</table>

Verbal and nonverbal behavior 'are the most salient features of social interaction' (Ang and Van Dyne, 2008). Overall, CQ is a measure of the director’s ability to adapt to and behave appropriately with regard to the cultural and social norm characteristics of each board. Using the Cultural Intelligence Quotient Scale (CQS) – Self Report (Ang and Van Dyne, 2008) employing a Likert scale of 1 to 7, a unique CQ value was calculated for each director. An exploratory factor analysis (EFA) for all constructs using primary data was conducted.
Table 2: Development of the PC construct

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Weight (in percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of industry experience</td>
<td>30</td>
</tr>
<tr>
<td>Number of boards served</td>
<td>30</td>
</tr>
<tr>
<td>Current executive management role (CEO, direct report to CEO, other corporate level, outside advisor)</td>
<td>20</td>
</tr>
<tr>
<td>Cumulative number of years on boards</td>
<td>10</td>
</tr>
<tr>
<td>Highest level of education achieved</td>
<td>10</td>
</tr>
</tbody>
</table>

using principal component analysis as the extraction method and Promax with Kaiser normalization as the rotation method, converging in five iterations. We believe that the scale for CQ was appropriately operationalized for our participants, with Cronbach’s $\alpha = 0.93$. The questions used to assess CQ are provided in Table 3.

Board processes – The mediators

The mediator for board-level outcomes is TIP or what F&M (1999) refer to as the ‘dynamic’ or the measure of ‘boardroom intervening processes’. To capture the director’s perception of TIP, we employed the TIP questionnaire developed by Lingham (2009). This questionnaire focuses on the crux of team interaction by assessing the extent to which the board is currently creating a ‘safe and supportive environment, embracing and recognizing different differences, developing strong trusting relationships, generating learning and getting tasks done effectively’ (Lingham et al., 2009). The 50 items in this scale measure interaction among team members on 10 behavioral attributes: engagement, active listening, individuality, relationship, solidarity, understanding, action, planning, power and influence, and openness. Board members responded to team-level questions on a 5-point Likert scale. As the instrument is a proprietary product of Interactive Science, the raw data were provided to this organization and they in turn provided a single score representing the level of TIP per participant, and used to represent the mediator of board processes (or team dynamic) in our analysis. Because of the proprietary nature of the diagnostic tool, we are not able to provide the scale here. A single score was used for each participant, and therefore we did not need to perform any reliability or validity tests.

Board-level outcomes

Board-level outcomes are measured by two aspects – the degree to which boards are effective in achieving tasks (TTP) and the level of perceived TP. Given that a board’s primary output is cognitive in nature, TTP was measured in relation to ‘service delivery’ (Bateman et al., 2002), and we attempted to capture aspects of TTP and compliance quality levels. For our analyses, three aspects were selected as appropriate to capture the information deemed most indicative of TTP and confirmed by our prior qualitative research, namely, skills, innovation and compliance quality (Charas and Percelli, 2013). Skills measured the degree to which directors have adequate training and are competent to do ‘board work’, as well as a measure of the flexibility in the use of their skills (Bateman et al., 2002). Innovation measured the degree to which directors seek approaches to improve their systems of work (Bateman et al., 2002). Compliance quality measured the degree to which directors understand, comply and are concerned with compliance and administrative requirements and standards set by the board (Bateman et al., 2002). Compliance quality
Table 3: Survey questions

<table>
<thead>
<tr>
<th>TTP and TP questions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The membership of the board can be readily identified</td>
<td></td>
</tr>
<tr>
<td>There is a common sense of purpose for directors</td>
<td></td>
</tr>
<tr>
<td>Directors are clear about their roles on the board</td>
<td></td>
</tr>
<tr>
<td>There is effective communication among directors</td>
<td></td>
</tr>
<tr>
<td>Individuals are valued as board directors</td>
<td></td>
</tr>
<tr>
<td>The board is highly valued by other parts of the organization</td>
<td></td>
</tr>
<tr>
<td>Directors feel proud to be a member of the board</td>
<td></td>
</tr>
<tr>
<td>Morale among directors is high</td>
<td></td>
</tr>
<tr>
<td>There is effective and appropriate leadership on the board</td>
<td></td>
</tr>
<tr>
<td>All directors perform to the best of their ability on the board</td>
<td></td>
</tr>
<tr>
<td>Directors have a high level of stakeholder awareness</td>
<td></td>
</tr>
<tr>
<td>The board has clearly defined their stakeholders</td>
<td></td>
</tr>
<tr>
<td>There are clearly defined standards for working practices for the directors</td>
<td></td>
</tr>
<tr>
<td>Standards are monitored on a regular basis</td>
<td></td>
</tr>
<tr>
<td>Feedback on the monitoring of standards is given to directors on a regular basis</td>
<td></td>
</tr>
<tr>
<td>There are measurable standards for outcomes that are measured</td>
<td></td>
</tr>
<tr>
<td>Directors are adequately trained and are competent to perform the professional aspects of their jobs</td>
<td></td>
</tr>
<tr>
<td>Directors are adequately trained in the administrative systems and procedures</td>
<td></td>
</tr>
<tr>
<td>Director training and development needs are systematically identified</td>
<td></td>
</tr>
<tr>
<td>Resources are identified and made available for training needs</td>
<td></td>
</tr>
<tr>
<td>There is a formal system in place to identify director development and training needs</td>
<td></td>
</tr>
<tr>
<td>Directors are encouraged to try new work methods or introduce new ideas</td>
<td></td>
</tr>
<tr>
<td>Directors are involved from the outset in new developments related to the company</td>
<td></td>
</tr>
<tr>
<td>Innovation is rewarded on the board</td>
<td></td>
</tr>
<tr>
<td>Problems related to the company's business are quickly identified</td>
<td></td>
</tr>
<tr>
<td>Once identified, the board is quick to address the problems</td>
<td></td>
</tr>
<tr>
<td>Problem solving is seen as an opportunity for learning and growth</td>
<td></td>
</tr>
<tr>
<td>The board believes it can become unusually good at producing high-quality work</td>
<td></td>
</tr>
<tr>
<td>The board expects to be known as a high-performing team</td>
<td></td>
</tr>
<tr>
<td>We feel we can solve any problem the board encounters</td>
<td></td>
</tr>
<tr>
<td>The board has confidence in itself</td>
<td></td>
</tr>
<tr>
<td>The board believes it will get a lot done when it works hard</td>
<td></td>
</tr>
<tr>
<td>No task is too tough for this board</td>
<td></td>
</tr>
<tr>
<td>The board believes it can be very productive</td>
<td></td>
</tr>
<tr>
<td>The board expects to have a lot of influence</td>
<td></td>
</tr>
</tbody>
</table>

| Cultural intelligence questions                                                                 |   |
| I am conscious of the cultural knowledge I use when interacting with people of different cultural backgrounds |   |
| I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me |   |
| I am conscious of the cultural knowledge I apply to cross-cultural interactions       |   |
| I check the accuracy of my cultural knowledge as I interact with people from different cultures |   |
| I enjoy interacting with people from different cultures                              |   |
| I am confident that I can socialize with locals in a culture that is new to me      |   |
| I vary the rate of my speech when a cross-cultural situation requires it             |   |
| I am sure I can deal with the stresses of adjusting to a culture that is new to me   |   |
| I enjoy living in cultures that are unfamiliar to me                                 |   |
| I am confident that I can grow accustomed to the shopping conditions in a different culture |   |
| I change my verbal behavior (for example, accent, tone) when a cross-cultural interaction requires it |   |
| I change my non-verbal behavior when a cross-cultural interaction requires it        |   |
| I use pauses and silence differently to suit different cross-cultural situations      |   |
| I alter my facial expressions when a cross-cultural interaction requires it          |   |
aspects essentially measure the impact that external factors [name removed] and other regulatory requirements) as well as internal factors of corporate governance standards have on directors. These TTP aspects were captured through a board task performance audit scale developed by Bateam et al. (2002) with questions clustered around six core themes. Because half of these themes were captured in the team dynamic measure (described above), we selected those items that directly reflected task performance and were not related to TIQ—skill, innovation and compliance quality. An EFA was performed as described above, and only one of the six items representing the skill factor was removed. The resulting Cronbach’s α = 0.92 reflects the remaining items for TTP.

TP is a measure of the team's assessment of their capability spanning many domains (Guzzo et al., 1993) and was captured with a scale created by Guzzo et al., (1993) and adapted by Collins and Parker (2010), made up of eight questions employing a 5-point Likert scale. (Guzzo et al., 1993; Collins and Parker, 2010). We used all items in the validated scale. The TP Cronbach α = 0.92. The scale is presented in Table 3.

**Firm-level outcome**

Profitability Performance was the selected firm-level outcome measure. It was operationalized by comparing the participant organization’s profit margin (defined as net income divided by total revenues) with the average of the size-adjusted comparable industry profit margin index. The size adjustment was based on three size categories: revenues of under US$5 million, between US$5 million and US$10 million, and over US$50 million. The company's published financial statements as well as rating agencies, namely, Hoovers, S&P and Mergent, were sourced both to collect information on the participant’s organization and to establish the average level of profitability of all organizations in a given industry group and revenue size. This relative measure allowed us to determine whether the profitability of the participant's company over- or under-performed the industry average and the magnitude of that relative performance.

**Control variables**

We control for several factors, including industry category, company size as measured by employee count, and the proportion of inside versus outside directors on the board. Because we used an industry- and size-adjusted calculation for profitability performance, we did not have an additional control for industry and firm size. There is an argument to include the total number of employees as a measure of size in a study that aims to predict firm financial performance (Zajac and Weseval, 1996; Finkehein and Boyd, 1998). In addition, there is precedent for considering the size of the board when predicting firm performance (Yermack, 1996; Dalton et al., 1998; Eisenberg et al., 1998). Recent studies have explored how the proportion of executive and independent directors and board composition impact firm performance (Wagner et al., 1998; Finegold et al., 2007).

**Instrument development**

We developed a survey using items from existing and validated scales to gather information for our analysis. Given the limited potential target participants (board directors of public and private for-profit organizations) and their disinclination to participate in surveys (Wagner et al., 1998), we did not run a pilot study so as not to exhaust the limited number of potential participants. In addition, we used validated scales and did not introduce any original survey questions. Table 1 provides details on the sources of information and scales used to operationalize each construct in our research.

**Data collection and sample demographics**

An electronic-based survey was used to reach potential participants. Invitations were e-mailed
to target participants, comprising board members of randomly selected public and private for-profit organizations in the United States, of all sizes and industry types. Of the nearly 13,000 confirmed receipts of the survey questionnaire e-mails, 422 recipients completed the questionnaire, yielding a 3.5 per cent response rate. Rates this low are not uncommon among samples including top management and, in our case, board members (Stimpert, 1992), as these respondents are often overburdened, time-pressed and generally unwilling to share information about themselves or their boards. For each respondent, additional information was collected from secondary data sources. Full complements of primary and secondary data were collected for 182 participants (1.42 per cent of total sample, and 43 per cent of respondents). Tables 4 and 5 summarize the demographic information for the participating organizations as well as director demographic profiles.

The data demonstrate appropriate levels of diversity, gender and representation of the industry as a whole. We performed an ANOVA test to determine whether any of the demographic characteristics of the respondents or timing of survey completion (early versus late respondents) had a significant impact on any of the variables. We found that there was a significant

Table 4: Summary of company profile information

<table>
<thead>
<tr>
<th>Area</th>
<th>Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total participants</td>
<td>182 directors</td>
</tr>
<tr>
<td>Total companies</td>
<td>165 unique organizations (due to multiple same-company respondents)</td>
</tr>
<tr>
<td>Percentage of public</td>
<td>70 per cent</td>
</tr>
<tr>
<td>Average revenue size in dollars</td>
<td>$2.2 billion, ranging from $0.2 to $95 billion</td>
</tr>
<tr>
<td>Average number of directors</td>
<td>8, ranging from 2 to 20</td>
</tr>
<tr>
<td>Average number of inside directors</td>
<td>1, ranging from 0 to 10, 70 per cent of boards had at least 20 per cent non-independent directors</td>
</tr>
<tr>
<td>Industries represented</td>
<td>Professional services 25 per cent; transportation/extraction/construction 21 per cent; manufacturing 13 per cent; wholesale/retail 13 per cent; software/technology 11 per cent; health care/pharmaceuticals 9 per cent; financial services/insurance/REIT 9 per cent.</td>
</tr>
</tbody>
</table>

Table 5: Summary of director profile information

<table>
<thead>
<tr>
<th>Area</th>
<th>Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average age</td>
<td>62, ranging from 40 to 86</td>
</tr>
<tr>
<td>Gender</td>
<td>14 per cent women</td>
</tr>
<tr>
<td>Average number of boards served</td>
<td>4.9 boards, ranging from 1 to 25</td>
</tr>
<tr>
<td>Average board tenure</td>
<td>12.6 years, ranging from less than 1 year to 45 years</td>
</tr>
<tr>
<td>Profile of current position</td>
<td>CEO 64 per cent; direct report to CEO 30 per cent; retired/advisors 6 per cent</td>
</tr>
<tr>
<td>Highest level of education</td>
<td>Master's degree 52 per cent; bachelor's degree 37 per cent; doctorate 10 per cent; no degree 1 per cent</td>
</tr>
<tr>
<td>Current board role</td>
<td>Independent director 72 per cent; independent chairman 13 per cent; CEO/chairman</td>
</tr>
</tbody>
</table>
relationship between board role and profitability performance, but no other characteristic or survey completion timing impacts were significant. As we control for board role, we are not concerned about this relationship.

RESEARCH METHOD

Measurement model
We used validated scales in a different context than the original use, and we performed an EFA and a confirmatory factor analysis on the observed variables that should theoretically comprise latent constructs, with both analyses yielding passing levels of model fit, reliability and validity (CMIN/DF = 1.94, CFI = 0.89, NFI = 0.79, RMSEA = 0.07, PCLOSE = 0.600, Standardized RMR = 0.086, $\chi^2 = 1170.9$, Degrees of freedom = 603). Normality of the composite variables for each of the constructs (calculated using factor scores from the measurement model in AMOS) passed tests for skewness and kurtosis, but the profitability performance score was slightly skewed (2.20) and exhibited moderate kurtosis (4.49). We believe that these low levels are not problematic in our analysis. In addressing common method bias, we use multiple sources of data for our model, therefore it is less likely that common method bias will impact our results.

Structural model
We tested our hypotheses using structural equation modeling employing IBM SPSS and AMOS software version 20. We tested the hypothesized model and then eliminated non-significant relationships in order to achieve adequate model fit. We appropriately co-varied the residual errors for TP and TTP (Bateman et al., 2002; Hurr, 2003; Kenny, 2003; Collins and Parker, 2010). Thus, we were able to account for their statistical correlation, without implying theoretical causation. We employed two approaches to test mediation: first, we took the Baron and Kenny (1986) approach in which we tested changes to the direct effect after adding the mediating variable; second, we conducted bootstrapping using 2000 bias-corrected resamples. Using this second approach allowed us to determine the strength and significance of the standardized indirect effect of the mediated relationships (Baron and Kenny, 1986; Preacher and Hayes, 2004). To best understand a surprising relationship, we ran a multiple regression analysis between the first-order factors of TTP and profitability performance, and found that the quality factor, representing the area of compliance, had a dominant negative impact, outweighing the positive impact of skills and innovation. Therefore, we consider TTP to be almost exclusively reflective of the team's attention to compliance quality. The means, standard deviations and correlations of variables are reported in Table 6. We find that board member characteristics are strong antecedents to board-level outcomes, which are significantly related to firm performance.

Overall, we had a stronger than typical predictive model of corporate profitability ($R^2 = 0.20$) exceeding the most recent prevalent $R^2$ (ranging from 0.07 to 0.16) of other recent academic works using profitability as a dependent variable (Ali Shah, 2009; Gill et al., 2010; Gill and Obradovich, 2012). In addition, we observed fairly strong Squared Multiple Correlations ($R^2$) for TTP (0.70) and TP (0.44), presented in Table 7.

We had excellent model fit (CMIN/DF = 1.29, CFI = 0.988, NFI = 0.949, RMSEA = 0.04, PCLOSE = 0.656, Standardized RMR = 0.0571, $\chi^2 = 32.21$, Degrees of freedom = 25). In terms of the validity and reliability of our latent constructs, we found no concerns (that is, AVE $>0.50$, CR $>0.70$, MSV $<$ AVE and $\sqrt{AVE}$ inter-construct correlations).

RESULTS
The results of our analyses are presented in both Figure 2 and Table 8. These two representations provide a summary of our findings for each hypothesis tested.
Table 6: Mean, standard deviation and correlation coefficients

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>-0.004</td>
<td>0.533</td>
</tr>
<tr>
<td>Cultural Intelligence</td>
<td>-0.025</td>
<td>0.684</td>
</tr>
<tr>
<td>TIQ</td>
<td>3.43</td>
<td>0.367</td>
</tr>
<tr>
<td>SC</td>
<td>-0.002</td>
<td>1.026</td>
</tr>
<tr>
<td>Potency</td>
<td>0.011</td>
<td>0.578</td>
</tr>
<tr>
<td>Team Effectiveness</td>
<td>2.308</td>
<td>0.323</td>
</tr>
<tr>
<td>Profitability Performance</td>
<td>13.364</td>
<td>0.071</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>PC</th>
<th>Cultural Intelligence</th>
<th>TIQ</th>
<th>SC</th>
<th>Potency</th>
<th>Team Effectiveness</th>
<th>Profitability Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>-0.231</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cultural Intelligence</td>
<td>-0.146</td>
<td>0.95</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TIQ</td>
<td>0.234</td>
<td>0.93</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SC</td>
<td>-0.085</td>
<td>0.004</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Potency</td>
<td>0.155</td>
<td>0.664</td>
<td>0.003</td>
<td>0.91</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Team Effectiveness</td>
<td>0.376</td>
<td>0.817</td>
<td>-0.014</td>
<td>0.822</td>
<td>0.92</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Profitability Performance</td>
<td>-0.114</td>
<td>0.09</td>
<td>0.229</td>
<td>0.069</td>
<td>-0.066</td>
<td>1.0</td>
<td>-</td>
</tr>
</tbody>
</table>

Diagonal is Cronbach's α value.

Table 7: Squared multiple correlations results

<table>
<thead>
<tr>
<th>Squared multiple correlations</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team interaction</td>
<td>0.064</td>
</tr>
<tr>
<td>Potency</td>
<td>0.440</td>
</tr>
<tr>
<td>Team effectiveness</td>
<td>0.703</td>
</tr>
<tr>
<td>Corporate profitability</td>
<td>0.204</td>
</tr>
</tbody>
</table>

Of the 13 hypotheses tested in our model, 11 were supported. As for predicting the dependent variable of profitability performance, all hypotheses directly and indirectly related to profitability performance were statistically significant and positive, other than TTP (compliance-driven), which had a strong negative impact.

**DISCUSSION**

Overall, our model supports the F&M (1999) four-stage model, showing that, in fact, director characteristics accentuated by a healthy boardroom dynamic will produce better board-level outcomes, which in turn have an impact on firm-level outcomes.

**Antecedents to board performance**

PC and SC are supported in the model and have a direct and statistically significant impact on profitability performance. These attributes are aligned with the economic-based resource dependence theory. It is clear that the knowledge and experience a director brings to the boardroom, as well as their network, are instrumental in accessing and utilizing resources in a manner that generates economic value. For this reason, we recommend that in the recruiting process nominating committees screen director candidates carefully for their industry, functional and leadership experience, and attempt to recruit directors who have a robust network of professional relationships. However, we see that PC and SC are not sufficient antecedents for full participation in the boardroom. CQ is important and critical in producing effective team interaction (0.22, P<0.01), facilitating task performance (0.26, P<0.01) and generating TP (0.15, P<0.01) — all critical in predicting relative profitability performance. We believe that higher levels of CQ are associated with higher levels of TIQ, TTP, TP and ultimately profitability because of the ability of directors to perform effectively in the team setting. In addition, our prior research has shown that board recruiting practices can be linked to the quality of corporate governance, the success of the director candidate in assimilating in the culture unique to each boardroom, director satisfaction and director tenure (Chara, 2012). Executive recruiters assisting boards should be screening for this vital behavioral quality in serving their corporate clients, and board candidates seeking new appointments should cultivate CQ skills.
Table 8: Presentation of hypotheses, evidence and results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Evidence</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1a: Higher levels of professional capital (PC) increase</td>
<td>0.17***</td>
<td>Supported</td>
</tr>
<tr>
<td>profitability.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 1b: Higher levels of social capital (SC) increase profitability</td>
<td>0.18***</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 2: Higher levels of professional capital (PC) increase team</td>
<td>0.10**</td>
<td>Supported</td>
</tr>
<tr>
<td>interaction quality (TIQ).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 3a: Higher levels of cultural intelligence quotient (CQ)</td>
<td>0.22***</td>
<td>Supported</td>
</tr>
<tr>
<td>increase team interaction quality (TIQ).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 3b: Higher levels of cultural intelligence quotient (CQ)</td>
<td>0.20***</td>
<td>Supported</td>
</tr>
<tr>
<td>increase team task performance (TTP).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 4a: Team interaction quality (TIQ) mediates the</td>
<td>-0.15***</td>
<td>Supported</td>
</tr>
<tr>
<td>relationship between cultural intelligence quotient (CQ) and team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>potency (TP).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 4b: Team interaction quality (TIQ) mediates the</td>
<td>-0.02 ns</td>
<td>Not supported</td>
</tr>
<tr>
<td>relationship between professional capital (PC) and team potency (TP).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 5a: Team interaction quality (TIQ) mediates the</td>
<td>0.20***</td>
<td>Supported</td>
</tr>
<tr>
<td>relationship between cultural intelligence quotient (CQ) and team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>task performance (TTP).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 5b: Team interaction quality (TIQ) mediates the</td>
<td>0.06 ns</td>
<td>Not supported</td>
</tr>
<tr>
<td>relationship between professional capital (PC) and team task</td>
<td></td>
<td></td>
</tr>
<tr>
<td>performance (TTP).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 6: Team interaction quality (TIQ) mediates the</td>
<td>-0.13***</td>
<td>Supported</td>
</tr>
<tr>
<td>relationship between cultural intelligence quotient (CQ) and profitability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 7: Team potency (TP) mediates the relationship between</td>
<td>0.39***</td>
<td>Supported</td>
</tr>
<tr>
<td>team interaction quality (TIQ) and profitability.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 8a: Team task performance (TTP) mediates the</td>
<td>0.42***</td>
<td>Supported</td>
</tr>
<tr>
<td>relationship between team interaction quality (TIQ) and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>profitability.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 8b: Team task performance (TTP) mediates the</td>
<td>0.15***</td>
<td>Supported</td>
</tr>
<tr>
<td>relationship between cultural intelligence quotient (CQ) and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>profitability.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P<0.01; **P<0.05; *P<0.10; ns = not statistically significant.

Team dynamics

TIQ appears to be the 'intervening process' identified by F&J (1999), however not in the manner we expected. It does not translate the director characteristics and individual behaviors to board-level outcomes of TTP and TP, but it is critical in the model in predicting TTP and TP. TIQ is a significant and powerful antecedent to board-level outcomes. F&J (1999) identified that there is an 'intervening process' at the board level that drives board- and firm-level outcomes (F&J, 1999). Others have referred to this as the board's dynamic (Leblanc and Gillies, 2003; Letendre, 2004; Huse et al., 2005; Leblanc and Schwartz, 2007; Huse et al., 2011). TIQ is the heart of our model, and the critical 'intervening process' that determines the success or failure of the board as a team, and therefore their ability to generate measurable profitability enhancement, demonstrated by the relationship TIQ has with TTP (0.77, P<0.01), TP (0.66, P<0.01) and directly
with profitability ($0.42, P<0.01$). Achieving a high level of board team dynamics reduces information asymmetry as demonstrated by Greenwald and Stiglitz (1994); the reduction of information asymmetry between those who make decisions (agents) and the theoretical beneficiaries of those decisions (principals) is a way to optimize value creation (Greenwald and Stiglitz, 1994). Boards are primarily decision-making groups composed mostly of outsiders who bring substantial independence at the price of lower inside knowledge of the firm and its strategies’ (Minichilli et al., 2012).

According to the most recent survey of board directors conducted by Clyd et al (2012), 97.8 per cent of boards are engaged in an evaluation process; however, the focus of the evaluation is on individual directors, and not the board as a team (Clyd et al., 2012). We recommend that boards replace the individual director evaluation, adopting a team-based assessment (like the TLI) to measure the effectiveness of the board’s dynamic and the resulting impact on profitability performance.

**Team task performance**

TTP is an interesting mediator as it plays an important clarifying role between TIQ and profitability performance. When we measured the direct relationship between TIQ and profitability performance, we found that it was weak and not significant ($\beta = 0.06$). This is because TIQ has both positive and negative impacts on profitability performance that are 'canceling' each other out (hence the low $\beta$). However, when we add TTP as the mediator, we find that TTP is channeling the negative impact TIQ has on profitability performance (indirect $\beta = -0.33$, $P<0.01$), which then allows the positive effect to be manifested in the direct path ($\beta = 0.42$, $P<0.01$). Thus, the mediating role of TTP, although not as expected, provides greater clarification on the censure and distress effects TIQ has on profitability performance. The attention and concern with board policy and government regulations compliance, enhanced by TTP, is diminishing the positive impact that team dynamic and TP have on the board’s ability to generate positive profitability results. Given the ever-increasing complexity in the governance compliance arena (Sarbanes-Oxley in 2002, Dodd-Frank in 2010), 50 per cent of directors report that they spend at least 60 per cent more time on compliance issues than they did in the previous year (Clyd et al., 2012). It is not surprising that devoting so much time and attention to regulation compliance detracts from directors’ ability to spend meaningful time on value-creating activities such as strategy development, succession planning, underwriting the business operations better, developing human capital and risk management (Clyd et al., 2012; Charis and Perelli, 2013). Focusing on compliance issues required by legislation at the expense of other board activities and the negative impact on firm performance has been highlighted in past research (Romanc, 2009a, 2009b; Shadab, 2008). In addition to the negative impact compliance has on profitability performance, qualified professionals who once welcomed the opportunity to join boards no longer accept board positions as they are leath to take on the additional accountability of regulatory compliance as well as the reputational risk of being associated with a non-complying board (Lorch, 2012; Spencer Stewart, 2010). Our recommendation is two-fold: boards should consider improving the dynamic of the boardroom to make their limited time together more effective, freeing up time to address strategic (less administratively oriented) and value-creating topics. In addition, boards may want to consider availing themselves of advisors well versed in compliance issues, and charging that individual or committee with the overall responsibility for board compliance.

**Team potency**

TP is a strong driver of profitability in our model as the “collective beliefs about [the team’s] likely effectiveness … is related to actual effectiveness as both a cause and a consequence.”
Our model demonstrates that TP is a strong predictor of profitability (0.44, P<0.01). The model also demonstrates the strong relationship between TIQ and TP (0.66, P<0.01), further indicating the importance of a healthy dynamic in the boardroom. As expressed by Guzzo et al (1993), the way to improve potency is to energize and inspire others, enlist commitments and set high goals, and address unproductive conflict among team members. It is clear that team dynamics is the critical 'intervening process' that drives not only TTP, but TP as well, and why it is so vital in high-performing teams. On the basis of the results of our analysis, our single model could easily capture two distinct theoretical frameworks: the economic-based model that only considers director PC and SC as antecedents to profitability has validity; and a second behavioral model that begins with TIQ and shows how critical TIQ is in generating FFP and TP, which in turn are strong predictors of relative profitability. The combined theoretical frameworks have greater predictive value.

LIMITATIONS AND IMPLICATIONS FOR FUTURE RESEARCH
The model we hypothesized and presented is characterized by several limitations. First, we have approached the problem from a multi-theoretical framework, relying on economic, behavioral and team theory, and we cannot be certain that this was the appropriate framework from which to consider the problem and interpret the model. Second, although we have tried to show a statistically significant relationship between board-level outcomes and profitability performance, there are many factors that could explain this relationship beyond the constructs selected for this model. Third, although our model has strong predictive significance, we based our results on a relatively small sample size of 182 directors. However, given that recent research in this area is based on published sources of data, and our research is based on primary data, we believe that our participant size is supportable. In addition, to fully understand the dynamics of the team, multiple perspectives of the same team needed to be collected. Our work is based on one perspective of team performance on the board. Lastly, we selected relative profitability of the firm – compared with same-sized organizations in comparable industries – as the measure of performance. There are many other measures that might be better indicators of firm performance. Future research should take these limitations into consideration when designing further research protocols. In addition, to isolate the impact of team dynamic, we recommend that experimental research be performed by working with boards to enhance their dynamic and measuring the impact of improved dynamic on board- and firm-level outcomes over time.

CONCLUSIONS
Our research has clearly demonstrated that there is a relationship between director characteristics and their impact on corporate profitability, as a departure from the prevalent individual-focused economic-based theories. Our model shows that in fact directors do have a statistically significant impact on profitability performance, but it is a small impact, explaining less than 0.5 per cent of performance. We have demonstrated that the behaviors of directors – successfully exchanging information, developing trust and a shared mindset, having collective belief on their ability to accomplish their goals – are in fact the intervening processes introduced by F&M (1999) and thus critical to corporate success. We have shown that this team dynamic – heretofore never measured – is the antecedent to economic value creation, and that the impact of "boards as teams" has an 800 per cent or eight times (8X) greater predictive impact on profitability performance, as the model suggests that up to 4 per cent of profitability performance is explained by integrated actions at the team level. By considering the board as a team, we
have a basis for understanding how economic value can be created through reducing information asymmetry, improving directors' ability to appropriately respond to the cultural/social norms of the team through the expression of CQ and develop TP. Our hope is that future research will build on our team-behavioral approach and further explore how seamlessly integrating board and top management team dynamics and strategic initiatives could be a powerful antecedent to firm profitability.

NOTES
1. Heidrick and Struggles (2010) list long-term strategy development, identifying future business threats and opportunities and succession planning as the top three accountabilities for boards based on their recent survey.
2. Items can be obtained by contacting Dr. Linglham directly.

REFERENCES


dissertation, University of Illinois at Urbana-Champaign.


Appendix C
How Powerful Top Management Teams Can Drive Financial Performance: The Critical Role of Team Dynamic in Economic Value Creation

Abstract

Eighty-five percent (85%) of board directors believe the biggest weakness of their CEO is the ability to effectively lead teams and generate results. This study addresses this phenomenon by examining the relationship between an organization’s Top Management Team (TMT) behaviors and corporate profitability. We examine the individual executive’s cultural intelligence (CQ) or “team readiness” as an antecedent for a high-quality team dynamic and how this in turn impacts economic value creation. We represent a pathway from individuals to corporate financial performance by examining the relationship between individual and team outcomes, mediated by team dynamic quality. Employing a survey comprised of a new comprehensive measure of team dynamic, as well as existing measures for cultural intelligence, team effectiveness, and team self-efficacy, we collected data from 123 upper echelon executives. Our objective was to understand how team dynamic impacts the ability of TMTs to leverage the knowledge and experience of their members (as a team) to create economic value. This quantitative study reveals a strong and significant predictive relationship between TMTs and economic value creation, explaining 20% of a firm’s relative profitability performance. The implication of this study is that a reliable and valid method to assess the dynamics of the TMT (CEOs and their direct reports) now exists and allows us to understand the current contribution to and future potential for economic value creation.

Key words: Top Management Team (TMT), upper echelon theory, team theory, team dynamic, CQ, cultural intelligence, behavioral integration, corporate
Introduction

A 2013 report from the Center for Leadership Development and Research reveals that 85% of board directors believe the biggest weakness of their organization’s CEO is the ability to mentor and develop direct reports—the “C-Suite” or TMT executives. This finding signals a concern about CEOs’ ability to lead top talent (Larcker & Miles, 2013), which is also reflected in the increasingly shorter tenure of CEOs (Favaro, 2013b; Kaplan & Minton, 2012). This is critical as according to Finkelstein, Hambrick, and Cannella (2009), “the top management team is at the strategic apex of the organization—it is the executive body most responsible for strategic decision making and, by extension…organizational outcomes…and performance” (p. 122). CEOs’ shortcomings in leadership, effective management, and mentorship of their team of direct reports could potentially have severe negative consequences to the executives of the organization, the overall organization performance, and particularly the CEO if the result is termination. However, CEOs’ shortcomings are only part of the issue, as recent research has shown that CEOs alone are not the “necessary ingredient for turning a new strategy into organizational performance” (Stoker et al., 2012: 582), and in fact “it is the top management team (TMT), [effectively] led by the CEO, that has the largest effects on organizational functioning” (p. 583). The implication is that teams have a greater impact on performance than any single individual (Katzenbach & Smith, 1992). Other studies focusing on what researchers called “dynamic quality” of executive teams at the top of the organization and the corresponding impact on corporate financial performance have
generated inconsistent results (Cannella et al., 2008; Certo, Lester, Dalton, & Dalton, 2006; Haleblian & Finkelstein, 1993) due to inconsistent approaches in hypothesizing causality, as well as a lack of a reliable method to measure team dynamics quality. As recently as 2011, Carmeli, Schaubroeck, and Tishler called for further research as “little attention has been paid to the determinants of TMT behavioral integration, or even more generally toward understanding how CEO behavior influences TMT dynamics in a way that affects firm performance” (Carmeli et al., 2011: 400).

Our research responds to this call by exploring the pathway connecting TMT executives’ team readiness, experience of team dynamic, team outcomes, and corporate financial performance. While much of recent research focuses on the link between TMT demographics and organizational outcomes, what has been largely ignored is the behavioral aspect of TMTs or the “intervening processes” and subsequent impact of “collective action” of the TMT on firm outcomes (Jarzabkowski & Searle, 2004). For our study, we explore the mechanisms that foster team effectiveness and the impact on corporate profitability, including:

- the behavioral predisposition of executives to function effectively in team settings, reflected by their cultural intelligence (Chen & Lin, 2013);

- team dynamic quality or the interactions between and among team members demonstrating, what Curry et al (2012) refer to as the team’s ability to deal with differences, trust the other, create a meaningful context, handle conflict and tension, and enact effective leadership roles within the team (Curry et al., 2012); and

- team outcomes as defined by team effectiveness—the ability to apply skills and generate solutions—and team self-efficacy—the belief the team members collectively hold about their ability to achieve their goals (Collins & Parker, 2010).
Our research is unique for several reasons. First, despite the inclusion of individual and firm-level constructs, our primary focus is on the impact of the “team,” whereas the majority of research on TMT impact on organization performance has been at the individual level. Second, our research is the first to employ a direct and comprehensive measure of team dynamic quality rather than selected aspects of the team dynamic (e.g., trust, communication, colocation) previously used by other researchers (discussed later in this paper) to infer team dynamics quality. Third, we select corporate financial performance as the dependent variable—a departure from the majority of TMT research typically employing nonfinancial performance elements such as team effectiveness, innovation, or strategic decision-making quality. Lastly, whereas much of prior research is based on secondary data collected from public domain sources (Gabrielsson & Huse, 2004), our research is based on primary data collected from TMT executives themselves, reflecting the lived and personal experiences of these executives.

We believe our findings contribute to the body of research on TMTs by articulating the relationship between team dynamic, the team’s ability to generate desired outcomes (or team outcomes as defined by team effectiveness and team self-efficacy), and ultimately, the impact on corporate financial performance. The balance of this paper presents a review of relevant theories we referenced related to teams, selected past research informing our work, our research inquiry and corresponding conceptual model, detailed descriptions of the research methodology and findings, a discussion of the implications of these findings, limitations, and directions for future research.
Team Research

Teams have been studied for decades, primarily due to the inherent belief that teams can offer “greater adaptability, productivity and creativity than individuals and provide more complex, innovative and comprehensive solutions to solve organizational problems” (Lingham et al., 2008: 5–6). This concept is supported by a 2002 meta-analysis of 67 empirical studies of team-based research which found effect sizes stronger at the team level than at the individual level, and that team self-efficacy and team potency have positive relationships with performance with interdependence moderating the relationship between team self-efficacy and team performance (Gully et al., 2002). An additional meta-analysis conducted in 2008 concurred with the earlier study, finding that teams have a stronger impact on organizational-level performance than individuals have and that “communication and cohesion among team members positively affected firm [outcomes]” (Mathieu et al., 2008). Other scholars affirm that “effective teamwork is becoming increasingly important to organizational success...however we still need to better understand how to structure top-performing teams” (Basadur & Head, 2001), especially as we are seeing the migration of work performed from individuals to teams in all areas of the economy (Nicolay et al., 2012).

A consistent theme among scholars is that there is a process involved in facilitating teams to generate better outcomes than individuals can generate—namely the ability to leverage and apply knowledge from many people to address specific tasks and generate desired outcomes. Teams do this by sharing information and developing solutions through the collective efforts of the team (Nonaka, 1991; Park et al., 2013). This was demonstrated in a recent paper that demonstrated that “the effect of individual
managers on firm performance...CEOs, CFOs, and other top-level executives can have
an effect on large firms, although the magnitude of their impact is limited” (Mollick,
2012: 8) and that the top positions individually explain less than 5% of the variation in
firm performance among Fortune 800 companies (Bertrand & Schoar, 2003). An initial
paradigm of causal relationships between members, processes, and outcomes was
represented by the input-process-output (IPO) model, widely held in the team literature
for many years (Hackman & Morris, 1974). Ilgen, Hollenbeck, Johnson, and Jundt
(2005) expanded on this concept, proposing that teams are complex and dynamic entities
characterized by feedback loops that ultimately lead to learning and adaptation (Ilgen et
al., 2005). Ilgen et al. (2005) recharacterized the process as input-mediator-output-input
(IMOI)—signaling that the interactions between team members are a critical aspect of
this complex, dynamic, and recursive process. This perspective was supported by other
research (Arrow et al., 2000). Regardless of how the process is described, central to team
theory is that something occurs that transforms individual and group inputs into valuable
outputs—with this something generally referred to as team processes, team interaction,
team dynamic, or behavioral integration.

In much of team literature, the term team dynamic is used interchangeably with
other behavioral descriptors as articulated above. Scholars have generally agreed that
team dynamic is considered to be the interactions between and among team members,
demonstrating their ability to deal with differences, trust the other, create a meaningful
context, handle conflict and tension, and enact effective leadership roles within the team
(Curry et al., 2012). Others have defined it as “team members engaged in tasks using
tools and resources” to satisfy two team objectives—“to complete group projects and to
fulfill member needs” (McGrath et al., 2000: 98). Hambrick (2007) described team
dynamic as the process by which TMTs “collectively engage in information processing or
decision making,” asking, “if top executives do not collectively engage in information
processing or decision making, then what is the point in trying to use their collective
characteristics (demographic or otherwise) to predict company strategy or performance?”
(p. 336). Others have described team dynamic in a TMT as “the pattern of interaction
and influence among the executive group” (O’Reilly et al., 1993: 158). For our study, we
consider team dynamic to be the degree to which team members interact successfully to
achieve the team and individual team member personal objectives by understanding how
the team operates through their experiences, conversations, and interactions.

Despite a comprehensive and generally accepted definition of team dynamic, past
research has recognized that team dynamic is a complex, formative, and latent factor, and
as such is difficult to measure directly (Carmeli et al., 2012). Prior research has tried to
capture team dynamic by measuring substitute variables or to infer team dynamic quality
by proxy. The primary methodology employed in past research has been to rely on
demographic characteristics such as team composition (Hambrick & Mason, 1984;
Hmieleski & Ensley, 2007; Murray, 1989), educational diversity (Simons et al., 1999),
TMT colocation (Cannella et al., 2008), and TMT size (Amason & Sapienza, 1997) as a
way to infer the quality of the team dynamic. Isolated behavioral characteristics such as
trust (Farrell et al., 2005), CEO leadership style (Carmeli et al., 2011; Srivastava et al.,
2006; Stoker et al., 2012), leader-member exchange (Carmeli et al., 2011; Priem, 1990;
Simsek et al., 2005; Wei & Lau, 2011), communication quality and frequency
(Edmondson et al., 2003; Marks et al., 2000), social integration (Simsek et al., 2005),
interdependence (Park et al., 2013), consensus (Ensley & Hmiesleki, 2005; Hmileski & Ensley, 2007; Simsek et al., 2005), team diversity (Wei & Lau, 2011), shared mental models (Li, 2013), and the Big Five dimensional personality model characteristics (Peterson et al., 2003) have also been used as a proxy for team dynamic. The primary limitation of these prior works is that team dynamic has been measured indirectly, and therefore the construct is not indicative of actual team dynamic quality. To address this limitation, in our research we employed a specific validated and reliable scale—the Team Learning and Development Inventory (TLI)—developed to capture the overall phenomenon of team dynamic (Lingham, 2005).

**Upper Echelons—A Special Case of Teams**

Upper echelon theory describes the specific role of the TMT in shaping work processes and influencing corporate outcomes (Hambrick & Mason, 1984; Hambrick, 1994b). Hambrick and Mason (1984) identified a distinct relationship between the executives of an organization and firm outcomes. The original theory described two behavioral influences: (a) that management decisions are a function of individual executive interpretation of contextual elements and (b) that interpretations are a function of the executive’s experiences, values, and personality (Hambrick & Mason, 1984). Characteristics of the individuals in the TMT will yield stronger explanations of outcomes than focusing exclusively on the CEO, with evidence suggesting that TMTs rather than CEOs alone provide better predictions of organizational outcomes (Finkelstein & Boyd, 1998; Tushman & Rosenkopf, 1996). Even though Hambrick’s (1984) original theory espoused leadership as a shared activity, it was not until his 2007 revisions that he indicate that “the collective cognitions, capabilities, and interactions of
the entire TMT influence strategic decisions and outcomes” (Hambrick, 2007: 334). His original theory did not consider the TMT as an integrated team but as a collection of individuals with specific attributes. To address this gap, Hambrick modified the theory to include the concept of “behavioral integration” of TMTs, positing that TMTs exhibiting behavioral integration have “direct positive effects on organizational performance” (Hambrick, 2007: 336). According to Finkelstein et al. (2009), “TMTs are not only a central component in the strategic decision-making process and in post-decision implementation; they may also be viewed as a basic organizational attribute, worthy of exploration in their own right” (Finkelstein et al., 2009: 123).

The current gap between upper echelon behavior and measurable firm outcomes is best highlighted by Finkelstein, Hambrick, and Cannella (2009) in their observation that “the past two decades of explosive growth of this domain [has] not yielded a particularly orderly or concise set of findings. In fact, the literature on top executives [working as teams] is immensely diverse in methods and perspectives, and is often inconsistent in results” (Finkelstein et al., 2009: 9), primarily because the unit of analysis, ironically, has typically been the individual, and economic theories were the predominant lens through which boards and TMTs were considered (Huse et al., 2011). The call for a change in research lens is highlighted by Hambrick (2007): “Attention to executive groups, rather than to individuals, often yields better explanations of organizational outcomes” (Hambrick, 2007: 334), and the “small group of people at the top of an organization can dramatically affect organizational outcomes” (Finkelstein et al., 2009: 3). These two observations taken together offer a compelling perspective of executives
working as effective teams and compel us to investigate the behaviors of executives as a team, rather than as individuals.

This focus on the team’s ability to integrate their knowledge and experience as well as to collectively capture “the degree to which the group engages in mutual and collective interaction” (Hambrick, 1994a: 188) is critical to understand the economic implications of teams performing effectively. One of the most important aspects of any successful team is their ability to effectively exchange and integrate information (Boone & Hendriks, 2009; Nonaka, 1994). It is the team member’s responsibility (guided by CEO leadership) to behave in a manner that fosters the rich exchange of information and facilitate effective knowledge creation, innovation, and high-quality decision making.

**Information Asymmetry**

This exchange of information is best described by referencing signaling theory which expresses the relationship between signaler and receiver, and the effectiveness of the signals transmitted, received, and interpreted (Spence, 2002). The ability of the signalers and receivers to understand these communication transmissions is contingent upon the individuals’ sensitivity to both spoken and tacit communication. The principles of signaling theory and its economic implications “lies in ascribing costs to information acquisition processes that resolve information asymmetries in a wide range of economic and social phenomena” (Connelly et al., 2011: 42). The minimization of these information acquisition costs in the TMT may result in higher levels of decision making, task performance, and, ultimately, profitability (Stigler, 1961). Information asymmetry and team effectiveness theory specifically related to executives imply that “unless group
process is managed...asymmetric distributions of situation-specific information and interests will reduce TMT decision-making effectiveness” (Edmondson et al., 2003: 297).

Therefore, a benefit of high-quality teams is that they create an environment for executives to effectively exchange information, reduce the economically detrimental impact of information asymmetry, and potentially generate economic value (Boxer et al., 2013; Lambert, Leuz, & Verrecchia, 2012). This is the fundamental basis of our inquiry, and by using team theory, upper echelon theory, and the reduction of information asymmetry as a context for our work, we hope to explain the relationship among TMT members, the outcomes they generate (mediated by team dynamic quality), and firm performance.

**Highlights of Four Similar Studies**

To create a context for our research, we identified and reviewed 29 articles written between 2000 and 2012 directly related to the relationship between TMTs and their impact on firm financial performance. A summary of these articles and book chapters can be found in Appendix E. The range of theories employed in these works included sense making (Kilduff, Angelmar, & Mehra, 2000), social cognitive theory (Collins & Parker, 2010; Stolarski & Tilebein, 2009), diversity (Cannella et al., 2008), team learning (Carmeli et al., 2012), and agency theory (Bailey & Peck, 2011), with the most prevalent being upper echelon theory (Hambrick & Mason, 1984; Hambrick, 1994b; Hambrick, 2007), cited by 45% of the articles. Of these 29 articles, four works, published between 2006 and 2012, were most similar to our inquiry as they used quantitative methods, specified both individual- and team-level units of analysis, focused on measurable financial indicators as the dependent variable, had statistically significant
results, and had high $R^2$s. The balance of this section addresses each of these four articles and explains their relevance to our research. Additional references to other works and theories will be cited as they relate to each of our hypotheses in the next section.

Amason, Shrader, and Tompson’s (2006) research identified that a TMT’s demographics influence its information processing abilities and that the fit (or alignment) between TMTs and the ventures they manage is relevant to the team’s ability to achieve success. These researchers found that by studying new venture teams, they could isolate the impact of behavioral integration on firm performance because the impact of TMT performance is not “confounded by other sources of influence” found in mature firms. They concluded that interaction effects alone explained 7% of the total variation in firm performance, and they confirmed a relationship between team dynamics and firm performance specific to new venture firms (Amason et al., 2006: 145). This finding provides an impetus for us to explore the direct relationship between team dynamic and firm performance in a broader context than new venture firms.

Boone and Hendriks (2009) studied the impact of locus of control, TMT diversity, and team mechanisms on return on sales. They specifically studied how three team mechanisms—collaborative behavior, accurate information exchange, and decision-making decentralization—moderated the impact of TMT diversity on financial performance. They found that TMTs’ collaborative behavior was a necessary condition to harness the functional diversity of the TMT and its ability to generate positive impact on firm financial outcomes. Boone and Hendriks (2009) defined collaborative behavior as “the degree to which a TMT acts as a real team with fruitful cooperation among executives” (Boone & Hendriks, 2009: 165). Collaborative behavior, in this research,
was operationalized with three items: (a) fruitful, rewarding cooperation within the team, (b) ease of asking advice from any member of the group, and (c) the TMT’s operation as a “real” team. We believe these questions address the outcomes of teams but not the underlying characteristics or experience of the team dynamic. Boone and Hendriks (2009) confirmed the relationship between team processes (albeit observed indirectly) and firm performance, informing our work on the concept of collaborative behavior and its impact on firm performance.

The third work relevant to our research was undertaken by Buyl, Boone, Hendriks, and Matthyssens (2011) and focused on the moderating role of the CEO in understanding the relationship between TMT diversity and firm performance, specifically addressing the integrative role of the CEO. Buyl and colleagues posited that the CEO’s expertise and background have an impact on integrating the TMT functional diversity to generate firm performance. They concluded that CEO and TMT characteristics do interact in realizing the potential advantages of distributed TMT functional expertise. Their worked demonstrated that teams that overcome fragmentation through CEO leadership act as a “real team,” have a higher capacity to deal with behavioral complexity, and integrate diverging opinions into balanced strategic decisions (Buyl et al., 2011). Buyl et al.’s proxy for team dynamic was information exchange and integration as measured by adapted scales capturing perceived communication openness. Our research builds on this work using a scale to assess comprehensive team dynamic (Lingham, 2005) rather than one aspect—communication quality—as a proxy for dynamic. In addition, Buyl et al.’s (2011) research supports our examination of the
differences between CEO and TMT experiences about team dynamic and the impact this
difference has on predicting firm-level outcomes.

Lastly, Carmeli et al.’s (2012) research on the relationship between CEO
leadership style, the impact on behavioral integration and potency, and, ultimately, firm
performance is most closely related to our study. Carmeli et al. (2012) concluded that a
CEO’s empowering leadership was positively correlated to TMT behavioral integration,
enhanced TMT potency, and firm performance. They operationalized behavioral
integration by capturing three dimensions—information exchange, collaborative
behavior, and joint decision making—by employing the scale developed by Simsek et al.
(2005). In this work, behavioral integration was considered a meta construct, implying
that team dynamic is a complex, formative construct. The researchers concluded that
there is a relationship between CEO empowering leadership, TMT processes, and firm
performance (Carmeli et al., 2012). Our work is informed by this research as Carmeli et
al. (2012) established a causal relationship between these independent variables and firm
performance. Their measure of behavioral integration was indirect, however, reflecting
dynamic outcomes rather than actual team dynamic. Our contribution is the use of the
assessment of the actual lived experiences of team members as the team currently
functions as well as an indication of what they desire the experiences to be to be
optimally effective. The distinction of this assessment is that it directly captures team
experience rather than infer if from indirect measures of team dynamic.

These four works and their attributes are summarized in Table C1.
### TABLE C1
**Summary of Selected Relevant Works**

<table>
<thead>
<tr>
<th>Author/ Year</th>
<th>Title of work</th>
<th>Type of Research, Unit of Analysis/Focus</th>
<th>Theories Referenced</th>
<th>Independent Variables/Mediators</th>
<th>Dependent Variables</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amason, Shrader, &amp; Tompson (2006)</td>
<td>Newness and novelty: Relating TMT composition to new venture performance</td>
<td>Quantitative, New teams</td>
<td>Information processing, Strategic management, Upper echelon</td>
<td>TMT demographics, Novelty, TMT size, TMT heterogeneity</td>
<td>New venture performance (sales growth, profitability, and stock market returns)</td>
<td>A team's demographics influence its information processing abilities. Performance should reflect, at least partially, the fit between the characteristics of the TMT and the level of venture novelty. (p. 125)</td>
</tr>
<tr>
<td>Boone &amp; Hendriks (2009)</td>
<td>TMT diversity and firm performance: Moderators of functional-background and locus-of-control diversity</td>
<td>Quantitative, Individual characteristics</td>
<td>Upper echelon, Information exchange, Locus of control, Team collaborative behavior</td>
<td>Functional diversity, Locus of control diversity, Collaborative behavior, Accurate information exchange, Decentralized decision making</td>
<td>Firm performance (IT firms)</td>
<td>Three team mechanisms (collaborative behavior, accurate information exchange, and decision-making decentralization) moderate the impact of TMT diversity on financial performance of 33 information technology firms. (p. 165). Diversity has the potential to enhance decision quality and organizational performance, whereas locus of control might trigger relational conflict and is therefore potentially detrimental to firm effectiveness. TMTs' collaborative behavior and information exchange are necessary conditions to unleash the performance benefits of diversity but do not interact with LOC diversity.</td>
</tr>
<tr>
<td>Carmeli, Tishler, &amp; Edmondson (2012)</td>
<td>CEO relational leadership and strategic decision quality in top management teams: The role of team trust and learning from failure</td>
<td>Quantitative, CEO leadership</td>
<td>Upper echelon, Team learning theory</td>
<td>CEO relational leadership, TMT trust, TMT learning from failure</td>
<td>Strategic decision making</td>
<td>CEOs relational leadership impacts the quality of strategic decisions of TMTs by creating psychological conditions of trust and facilitating learning from failures in their teams. The relationship between CEO relational leadership and team learning from failures was mediated by trust between TMT members. Team learning from failures mediated the relationship between team trust and strategic decision quality.</td>
</tr>
</tbody>
</table>

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Based on our inquiry and a careful review of prior research, we identified certain independent variables and mediators that we believed would have an impact on corporate profitability performance, described in more detail below. Team and upper echelons theories inform us that selected individual behavioral characteristics of TMT members have an impact on the team dynamic critical to team success and that TMT performance has an impact on the firm as a whole. We present our research questions and conceptual framework next.

**Research Questions and Conceptual Framework**

Informed by the review of selected theories and prior research, our inquiry focused on two fundamental questions:

- How does the quality of team dynamic meaningfully impact the ability of TMTs to achieve their goals and, ultimately, contribute positively to corporate profitability?

- Is the CEO’s experience of the quality of team dynamic a stronger predictor of firm performance than the experience of team dynamic quality of team members?

Our conceptual framework describes a pathway between individual executives’ team readiness, through team outcomes, mediated by team dynamic and finally to firm outcomes. To describe our conceptual framework, we begin with the individual, as we are informed from prior research that an individual’s team behavioral-readiness has an impact on the quality and effectiveness of the team (Carmeli et al., 2011; Charas, 2013; Finkelstein et al., 2009; Lubatkin, Simsek, Ling, & Veiga, 2006; Zhang et al., 2013).
Cultural Intelligence

We start our framework with the ability of executives to understand social norms and culture unique to each team by measuring cultural intelligence (CQ). CQ is an indication of an individual’s ability to make sense of unfamiliar contexts and blend into social settings (Earley & Mosakowski, 2004). It has been shown that people with high levels of CQ are “culture sensitive,” adapt easily to diverse settings and situations, and most importantly, have an innate motivation to do so (Chen & Lin, 2013). CQ is an indication of an individual’s cultural awareness during social interactions with team members (Ang, Van Dyne, & Koh, 2006). Prior research has demonstrated that when individuals on a team have high levels of CQ “knowledge sharing improves because the team members are consciously aware of others’ cultural preferences before and during interaction” and “team members with high levels of CQ are able to adjust their mental models during and after team interactions of knowledge sharing” (Chen & Lin, 2013: 678). These researchers also highlight that teams with high levels of CQ tend to have high levels of team self-efficacy. Triandis (2006) observed that individuals with high CQ may be more effective in adapting to organization dynamics as “people who are culturally intelligent are also more flexible than the average person and thus more able to adjust to different organizational environments” (p. 24). Therefore, if team dynamic represents the interactions between and among team members, and team members with high levels of CQ have a greater ability of having meaningful interactions with their teammates, we believe that CQ is an indication of an individual’s readiness or is an antecedent to working effectively in the team and contributing to team dynamic quality. As it relates to leadership, another work found that leaders with high CQ have the ability
to identify which new behaviors are required and how to apply them to be successful (Arkoubi & Elizabeth Davis, 2013).

To fully understand the critical nature of knowledge sharing, we reference the knowledge-based theory of the firm (Grant, 1996) that states the “firm is conceptualized as an institution for integrating knowledge” (Grant, 1996: 109), with the fundamental premise that “knowledge is viewed as residing within the individual, and the primary role of the organization is knowledge application rather than knowledge creation” (Grant, 1996: 109). The value that executives add to the organization is not the knowledge that resides in them (resource providing) but their ability to share this knowledge for the benefit of the firm (knowledge/skill application) in a dynamic team setting.

**Team Dynamic Quality**

The next construct in our conceptual model is based on team characteristics. Upper echelon theory informs us that the top management team has a critical impact on a firm by strategically orienting and controlling the firm in an indirect way (Hambrick & Mason, 1984). Because prior research has shown that TMT impact is a function of team dynamic (Carmeli et al., 2011; Hambrick, 2007; Jarzabkowski & Searle, 2004), we employed team dynamic as the measure of the quality of the intervening processes or a measure of behavioral integration as previously discussed. Carmeli et al. (2011) found that CEO empowering leadership is positively related to TMT behavioral integration, which in turn enhances TMT self-efficacy and firm performance (Carmeli et al., 2011). Prior works have measured the current state of team dynamic (indirectly) whereas we are interested in the degree to which the team is experiencing their desired team dynamic (Lingham, 2005; Lingham, 2009) required to be an effective team. Therefore, as a
departure from prior works that measures team dynamic as a static state, we measure team dynamic as a “dynamic” condition and identify the current and desired condition to understand how interactions emerge (Alvarez, 2012). This comparison of current and desired team dynamic experience allows us to understand the emergent nature of the team (DeRue, Hollenbeck, Ilgen, & Feltz, 2010). The calculated gap between the current dynamic quality and the desired dynamic quality is a truer indication of team dynamic quality: Teams with small gaps have high-quality dynamic as they are operating close to their desired state; teams with high gaps have low-quality dynamic as they are operating far from their ideal condition. Therefore, the construct we use is referred to as team dynamic gap.

**Team Outcomes**

The most recent conceptual framework in the stream of TMT research has been the examination of behavioral integration as the intervening variable that transforms or mediates the resources of individual executives into high performing teams. Team outcomes in the context of the TMTs are considered to be “service delivery” (Bateman et al., 2002) as the predominant output of TMTs are cognitive and leadership in nature. We believe TMT outcomes subsequently cascade through the organization as an expression of the TMT as a whole and reflect how each TMT executive translates and communicates corporate goals, objectives, and directives to his or her respective functional teams. To measure the outcomes of the TMT, we identified two aspects: team effectiveness and team self-efficacy. These two aspects of team outcomes have been shown to be highly correlated but are in fact factorially distinct (Collins & Parker, 2010).
Team effectiveness captures how the team applies the diverse skills and knowledge of team members to solve problems, innovate, and uphold quality standards established by the CEO or the board. Team effectiveness, when defined as the team’s ability to reflect the interdependence, leadership, joint decision making, and equal influence of individual team members, has been shown to have an impact on firm performance (Weisbord, 1985). Team self-efficacy (or potency) is a measure of a team’s “collective perceived capability of working together to achieve tasks” (Collins & Parker, 2010: 1004). It measures the team’s self-assessment of its capability spanning many domains (Guzzo et al., 1993) and has been shown to be an important driver of team performance and therefore firm performance (Carmeli et al., 2011; Collins & Parker, 2010; Larson & LaFasto, 1989). According to Ilgen et al. (2005), effective teams are characterized by members believing that they are competent enough to accomplish their task (self-efficacy), providing an environment of psychological safety, demonstrating a desire to work and stay together (bonding and solidarity), adapting to changing situations, and learning. In a study that focused on the importance of team self-efficacy compared to other indicators of team outcomes, self-efficacy was the strongest predictor of team outcomes (Campion, Medsker, & Higgs, 1993; Champion, Papper, & Medsher, 1996). These team characteristics set the environment for the important intervening processes, or TMT dynamic, that are “complex and indirect” (Forbes & Milliken, 1999: 490) and crucial in generating vital and effective TMT outcomes.

These theoretical underpinnings inform the conceptual framework summarized graphically in Figure 1 and guide our beliefs about the relationships between each
construct in our model. Our hypotheses, discussed in the next section, provide more information about the relationships identified in Figure C1.

FIGURE C1
Conceptual Framework

Hypotheses

The fundamental focus of this study was to identify how to reduce information asymmetry and generate knowledge creation through reducing team dynamic gap (which represents the quality of the team dynamic), enhancing the performance of TMTs, and, ultimately, improving corporate profitability performance. This section outlines the hypotheses that guided our research.

The concept of individual cognitive readiness for enhanced team performance (as indicated by CQ) has been identified as an antecedent for general team success as individual factors are necessary to “mentally prepare the individual to establish and maintain performance in a complex team environment” (Bowers & Cannon-Bowers, 2014: 302). Bowers and Cannon-Bowers (2014) theoretical work (not specifically focused on TMTs but on all teams in general) concludes that cognitive and behavioral characteristics of individuals contribute to the effectiveness of teams. These
characteristics include knowledge, leadership, communication, interpersonal skills, and positive attitude (Bowers & Cannon-Bowers, 2014). Despite this long list of individual attributes that contribute to team success, we selected cognitive readiness (represented by CQ) as the antecedent to team dynamic gap for our study, as we assume that TMT members possess the required core functional, technical, leadership, industry skills, and knowledge, identified in the Bowers and Cannon-Bowers (2014) study, to perform competently in their position or else they would be self- or otherwise selected out of the team by the CEO. Assuming that requisite TMT qualifications are present, the distinguishing factor contributing to a team’s dynamic strength or weakness is then the executive’s cognitive readiness or ability to discern culture, climate, and social norms (as captured by the CQ measure). We introduce CQ as a construct never employed before in TMT research (as far as we know, based on an exhaustive search of the literature) and relate this individual competency to the quality of team dynamic. By employing the TLI scale (Lingham, 2005), we can capture the actual and desired experiences of team dynamic directly from team members and understand the quality of team dynamic, referring to this as team dynamic gap (as previously described). Our first hypothesis describes the impact of CQ on team dynamic gap. We believed there would be an inverse relationship between CQ and team dynamic gap, expecting that a higher level of CQ would be associated with a smaller team dynamic gap.

**H1: Cultural intelligence (CQ) has a negative relationship to team dynamic gap.**

We believed there would be a negative relationship between team dynamic quality (represented by team dynamic gap) and team outcomes (represented by the combined constructs of team effectiveness and team self-efficacy, described below). We
believed this relationship to be negative as the smaller the gap, the stronger the team
dynamic and therefore the better the outcomes of team effectiveness and team self-
efficacy. We believed there would be a relationship among high-quality team dynamic,
the reduction of information asymmetry, and the creation of knowledge, and we relied on
the team dynamic scale (Lingham, 2005) to provide an indication of the health of the
dynamic in the TMT as an indication of information asymmetry reduction and knowledge
sharing. The issue of collective action at the TMT level was explored by Jarzabkowski
and Searle (2004), and they concluded that “a dysfunctional team is unable to function
collectively and so has low strategic capacity for improving company performance”
(Jarzabkowski & Searle, 2004: 407). Therefore, we hypothesized about the relationship
between team dynamic gap and team effectiveness as well as the direct relationship
between team dynamic gap and relative firm profitability.

**H2a: Team dynamic gap is negatively related to team effectiveness.**

**H2b: Team dynamic gap is negatively related to profitability performance.**

Our third set of hypotheses relate to the relationship between team outcomes and
firm outcomes. Prior research has shown a direct relationship between team
effectiveness and team self-efficacy (Collins & Parker, 2010). Despite the high
correlation between these constructs, they are factorially distinct, and taken together,
these two constructs describe team outcomes. We hypothesized a relationship between
TMT team outcomes and firm outcomes as measured by relative profitability
performance. Team self-efficacy “is an emergent state that represents the belief of team
members in their joint capability of executing certain behaviors necessary to attain a
desired level off performance on specific tasks” (Srivastava et al., 2006: 1239). This
shared belief enables them to develop confidence in their ability to perform a task successfully (Tasa, Taggar, & Seijts, 2007). Tasa et al.’s (2007) study affirmed that teamwork behavior was related to subsequent collective efficacy, which was significantly related to final team performance. Because in a team, collective actions of each individual contribute to the ability to achieve task completion, a high level of information exchange, group decision making, and shared mental models are required to achieve the team’s task performance goals. It is through the intervening processes (i.e., team dynamic) that teams are able to generate outcomes. We therefore hypothesized the relationships among TMT characteristics, team dynamic quality, and team self-efficacy described in H3a, H3b, and H3c.

**H3a: Team effectiveness has a positive impact on team self-efficacy.**

**H3b: Team effectiveness has a positive impact on profitability performance.**

**H3c: Team self-efficacy has a positive impact on profitability performance.**

When considering the mediating relationships among the constructs, we considered that team outcomes (i.e., the combination of team effectiveness and team self-efficacy), are the manifestation of how diverse skills and knowledge are facilitated by team dynamic to generate positive team effectiveness and high levels of team self-efficacy. Our hypotheses H4a and H4b were based on our logical conclusion that there is an inverse relationship between team dynamic and information asymmetry—namely the better the team dynamic, the smaller the degree of information asymmetry—and that information asymmetry theory posits that the greater the level of information asymmetry, the worse the quality of economic outcomes. We selected corporate profitability
performance as the defining outcome for TMTs, and the best indicator of team outcomes, as it most directly measures what stakeholders care about.

**H4a:** Team effectiveness mediates the relationship between team dynamic gap and profitability performance.

**H4b:** Team self-efficacy mediates the relationship between team effectiveness and profitability performance.

**Research Method**

To understand the influence of the identified factors on relative profitability performance of a for-profit organization, we conducted a quantitative study using a combination of primary survey data as well as secondary data from proprietary third party sources and the public domain. We collected data to capture individual-, team-, and firm-level indicators. We followed a strict psychometric survey methodology (Guilford, 1954) that gathered individual responses in survey form, rather than in the laboratory, and directly mapped them to the concepts in the model. By using a blended quantitative approach with multiple sources of data, we reduced the potentially high level of method bias and social desirability bias sometimes observed in this type of study. The following section describes the methods we used to construct our survey instrument (including operationalization) and to collect data for our study.

**Independent Variable**

**Cultural intelligence.** Cultural intelligence (CQ) measures metacognitive, cognitive, motivational, and behavioral aspects. For our research, we measured metacognitive—the “mental processes that individuals use to acquire and understand cultural knowledge, including knowledge of and control over individual thought
processes” (Ang & Van Dyne, 2008: 5), motivational—the “capacity to direct attention and energy toward learning about and functioning in situations characterized by cultural differences” (Ang & Van Dyne, 2008: 6), and behavioral—the “capability to exhibit appropriate verbal and nonverbal actions when interacting with people from different cultures (Ang & Van Dyne, 2008: 6)—aspects of directors. Cognitive aspects—those which reflect “knowledge of norms, practices and conventions in different cultures that has been acquired from educational and personal experiences” (Ang & Van Dyne, 2008: 5) were omitted from the survey as they had little relevance to the TMT environment, measuring an executive’s resident knowledge of different cultures in the world and not their capacity to adapt to these cultures. The most critical aspect of CQ is the behavioral aspect because verbal and nonverbal behavior “are the most salient features of social interaction” (Ang & Van Dyne, 2008: 7). These same three aspects of CQ were selected and operationalized in a recent study on the impact of CQ on team knowledge sharing (Chen & Lin, 2013). Using the Cultural Intelligence Quotient Scale (CQS) – Self Report (Ang & Van Dyne, 2008: 389) employing a Likert scale of 1 to 7, a unique CQ value was calculated for each executive. An exploratory factor analysis for all constructs using primary data was conducted, using principal component analysis as the extraction method, Promax with Kaiser Normalization as the rotation method, converging in five iterations. The resulting pattern matrix is presented in Table C5. The items used to collect information for primary data constructs are provided in Appendix C2. We believe that the scale for CQ was appropriately operationalized for our participants, with Cronbach’s α = .907.
Mediating Variables

**Team dynamic gap.** The mediator for TMT outcomes is team dynamic gap. To capture the executive’s perception of team dynamic, we employed the TLI questionnaire developed by Lingham (2005). This questionnaire focuses on the crux of team interaction by assessing the extent to which the TMT is currently creating a “safe and supportive environment, embracing and respect[ing] differences, developing strong trusting relationships, generating learning and getting tasks done effectively” (Lingham et al., 2008: 8). The 30 items in this scale measure interaction among team members on 10 behavioral attributes. These attributes include engagement, active listening, individuality, relationality, solidarity, understanding, action, planning, power and influence, and openness. TMT members responded to team-level questions on a 5-point Likert scale. The four dimensions of team interaction as capture by the TLI (Lingham, 2005) were validated at the group level (Inter Class Correlations ranged from .76 to .96.) and a Cronbach’s $\alpha = .92$ (Lingham, 2009). This statistically robust, valid and reliable instrument is a proprietary product of Interaction Science, and the researchers were instructed on the appropriate method to calculate the composite scores required for this research. The team dynamic gap was calculated by subtracting the desired score from the current score. This score was used to represent the mediator of TMT processes (or team dynamic) in our analysis. Other studies have used a composite single score to capture elements of team dynamic, so we feel this was an appropriate approach (O’Reilly et al., 1993).

**Team effectiveness and team self-efficacy.** TMT outcomes were measured by two aspects—the degree to which TMTs are effective in achieving tasks (team
effectiveness) and the level of perceived team self-efficacy. Team effectiveness was measured in relation to “service delivery” (Bateman et al., 2002). Informed by prior qualitative research with board directors, we selected three aspects of team effectiveness to capture the information deemed most indicative of task performance and quality: innovation, quality, and synergy (Charas, 2012). These team effectiveness aspects were captured through a task performance audit scale developed by Bateman et al. (2002) with questions clustered around six core themes. Because some of these themes were captured in the team dynamic measure (described above), we selected those items that directly reflected team outcomes and were not related to team dynamic quality. Innovation measured the degree to which executives sought approaches to improve their systems of work (Bateman et al., 2002); quality measured the degree to which executives were aware of stakeholders and their needs, and whether standards were identified and monitored (Bateman et al., 2002); and synergy measured the sense of purpose that is shared among team members (Bateman et al., 2002). An exploratory factor analysis was performed, and low-loading items (> .3) were removed. The resulting pattern matrix for remaining items is included in Table C5. The resulting Cronbach’s α = .892 reflects the remaining 12 items for team task performance.

Team self-efficacy is a measure of the team’s assessment of its capability spanning many domains (Guzzo et al., 1993; Tasa et al., 2007) and was captured with a scale created by Guzzo et al. (1993) and adapted by Collins et al. (2010), made up of eight questions employing a 5-point Likert scale (Collins & Parker, 2010; Guzzo et al., 1993). We used six items in the validated scale. An exploratory factor analysis was
performed, and the results are presented in Table C5. The team self-efficacy Cronbach’s 
$\alpha = .846$.

**Dependent Variable**

**Relative profitability performance.** This variable was selected as a measure to capture the performance of the organization compared with its industry group, adjusted for size. This is a unique measure of performance as the majority of research measures outcomes (or the dependent variable) as an absolute value rather than a relative (or comparative) value as we did in this study. It was operationalized by comparing the participant organization’s profit margin (as defined by net income divided by total revenues) to the average of the size-adjusted comparable industry profit margin index. The size adjustment was based on three size categories: revenues of under $5 million; $5 million to $50 million; and over $50 million. Rating agencies, namely Hoovers, S&P, Dun & Bradstreet, and Mergent, were sourced to collect information on the participant’s organization and to establish the average level of profitability of all organizations in a given industry group and revenue size. This relative measure allowed us to determine whether the profitability of the participant’s company over- or under-performed the industry average and the magnitude of that relative performance. We believe that in an economy and society where success is measured relative to external benchmarks, and the prevalent benchmark used by equity analysts is financial in nature, this is the most relevant context of performance.

**Embedded Group Analysis**

When analyzing the data, we considered two groups within our data set—team leaders (CEOs and presidents) and team members (all other executives reporting to the
team leader.) We felt this was an important distinction to explore because of the clear reporting relationship that distinguishes the leader from the members of the TMT. In addition, we were informed by prior research that different roles in team (team leader vs. team member) may have a different impact on team outcomes (Belbin, 2010; Carmeli et al., 2012; Colbert, Barrick, & Bradley, 2013; Zhang et al., 2013).

**Control Variables**

We controlled for several factors, including size of TMT, tenure of executives in their role, industry, and firm size. There is precedent for considering the size of the TMT when predicting firm performance (Amason & Sapienza, 1997; Certo et al., 2006). Tenure of the executive in the team was included based on the work of Pitcher and Smith (2001) and McIntyre, Murphy, and Mitchell (2007). The industry-specific and size-adjusted control is reflected in the operationalization of the firm performance calculation.

**Measures**

We composed a survey employing items from existing and validated scales to gather information for our analysis. Based on our success using the instrument with directors (Charas, 2013), we did not feel it necessary to pilot the survey to TMT executives. This previous success and the general disinclination of executives to participate in surveys (Wagner, Stimpert, & Fubara, 1998) supported our position, and we did not want to exhaust the limited number of potential participants. In addition, we felt that pilot testing was not required as we used validated scales and did not introduce any original survey questions. Table C2 summarizes the operationalization of constructs and their respective sources of data.
### TABLE C2
Summary of Constructs

<table>
<thead>
<tr>
<th>Type of Variable/Construct Name</th>
<th>Definition</th>
<th># Items</th>
<th>Source of Scale/Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent: Cultural Intelligence (CQ)</td>
<td>A numeric measure of the executive’s ability to adapt to and behave appropriately to the cultural and social norms characteristic of each TMT.</td>
<td>12</td>
<td>Cultural Intelligence Quotient Scale (CQS) – Self Report (Ang &amp; Van Dyne, 2008: 389) Likert scale of 1 to 7</td>
</tr>
<tr>
<td>Mediator: Team Dynamic Gap</td>
<td>A measure of the health of the dynamic of the team, as indicated by the ability of the team to create a “safe and supportive environment, embracing and respecting differences, developing strong trusting relationships, generating learning and getting tasks done effectively” (p. 9). This was calculated by comparing the current to the desired perception of team interactions.</td>
<td>30</td>
<td>TLI, Lingham (2009) Likert scale of 1 to 5</td>
</tr>
<tr>
<td>Mediator: Team Task Performance (TTP)</td>
<td>Four factors comprise TTP: Skills—the degree to which directors have adequate training and are competent and exhibit flexibility in the use of their skills; Synergy—the sense of purpose that is shared among team members; Innovation—a measure of the degree to which executives seek approaches to improve their systems of work; Quality—a measure of the degree to which directors understand, comply with, and are concerned with standards set by the board or the CEO. Quality is also a measure of the degree to which the executives are aware of and concerned with the needs of the stakeholders.</td>
<td>12</td>
<td>Team Effectiveness Questionnaire (Bateman et al., 2002) Likert scale of 1 to 5</td>
</tr>
<tr>
<td>Mediator: Team Self-Efficacy</td>
<td>A psychological measure of the team’s collective perceived capability of working together to achieve tasks.</td>
<td>6</td>
<td>Collins and Parker (2010) Likert scale of 1 to 5</td>
</tr>
<tr>
<td>Dependent Variable: Profitability Performance</td>
<td>A relative measure of the organization’s performance compared with an index of size-adjusted industry average profitability.</td>
<td>1</td>
<td>Public domain information (S&amp;P, Hoovers, etc.)</td>
</tr>
</tbody>
</table>

Data Collection and Sample Demographics

To reach our elusive and busy target population, we felt that an electronic-based survey would be the most effective approach. An invitation to participate in the online, short survey was e-mailed to target participants, comprised of executives of randomly selected from public and private for-profit organizations in the United States, of all sizes and industry types (see Table C2). Over 60,000 executives were targeted for participation. Based on our prior e-mail experience, we believe that approximately
20,000 executives viewed the e-mail invitation, with 636 participants completing at least 80% of the questions, yielding an approximate 3% response rate. Rates this low are not uncommon among samples that include top management (Stimpert, 1992b), as these respondents are often overburdened, time-pressed, and generally unwilling to share information about themselves or their organizations. For each respondent, additional information was collected from secondary data sources. To be included in the study, a full complement of primary and secondary data were required, and of the 636 respondents, 409 (approximately 2.0% of total sample and 64.3% of respondents) were eligible to be included in the quantitative analysis. This particular research analysis focused on the respondents from publicly-traded organizations. We selected this subset of the data pool because of the reliability of the secondary data source—namely financial performance. Oftentimes, there is a social desirability bias on self-reported data that include financial performance. To avoid this type of bias, for this analysis we only included responses from public companies. Table C3 summarizes the demographic information for all participating organizations and the subset of public company organizations. Notable is that the percentage of women participating in the survey was consistent with the overall demographic prevalence of women in TMT roles in Fortune 500 companies at 14.3% for 2012 (Kurtzleben, 2012).
TABLE C3
Summary of Company Profile Information

<table>
<thead>
<tr>
<th>Area</th>
<th>All Companies</th>
<th>Public Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Participants</td>
<td>409 executives</td>
<td>123 executives</td>
</tr>
<tr>
<td>Total Companies</td>
<td>320 unique organizations (due to multiple</td>
<td>114 unique organizations (due to multiple</td>
</tr>
<tr>
<td></td>
<td>same-company respondents)</td>
<td>same-company respondents)</td>
</tr>
<tr>
<td>Percentage of Public</td>
<td>36.5%</td>
<td>100%</td>
</tr>
<tr>
<td>Average Asset Size</td>
<td>$7 billion, ranging from $0.2 million to $78</td>
<td>$8.4 billion, ranging from $1 million to $78</td>
</tr>
<tr>
<td></td>
<td>billion (Median = $120 million)</td>
<td>billion (Median = $1.5 billion)</td>
</tr>
<tr>
<td>Average Size of TMT</td>
<td>6.3 members, ranging from 2 to 15</td>
<td>7.2 members, ranging from 2 to 15</td>
</tr>
<tr>
<td>Gender Diversity</td>
<td>12.2% women</td>
<td>12.2% women</td>
</tr>
<tr>
<td>Industries Represented</td>
<td>Professional Services 25%</td>
<td>Professional Services 15%</td>
</tr>
<tr>
<td></td>
<td>21% Transport/Extraction/Construction</td>
<td>12% Transport/Extraction/Construction</td>
</tr>
<tr>
<td></td>
<td>13% Manufacturing</td>
<td>8% Manufacturing</td>
</tr>
<tr>
<td></td>
<td>13% Wholesale/Retail</td>
<td>6% Software/Technology</td>
</tr>
<tr>
<td></td>
<td>11% Software/Technology</td>
<td>4% Healthcare/Pharmaceuticals</td>
</tr>
<tr>
<td></td>
<td>9% Healthcare/Pharmaceuticals</td>
<td>8% Financial Services/Insurance/REIT</td>
</tr>
<tr>
<td></td>
<td>8% Financial Services/Insurance/REIT</td>
<td>4%</td>
</tr>
</tbody>
</table>

Table C4 summarizes the profile of the public company individual executive participant.

TABLE C4
Summary of Public Company Executive Profile

<table>
<thead>
<tr>
<th>Area</th>
<th>Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Years of Functional Experience</td>
<td>27 years</td>
</tr>
<tr>
<td>Average Years of Executive Experience</td>
<td>16 years</td>
</tr>
<tr>
<td>Average Years of Experience in Position</td>
<td>7.3 years</td>
</tr>
<tr>
<td>Average Years with Organization</td>
<td>13 years</td>
</tr>
<tr>
<td>Profile of Current Position</td>
<td>CEO 28%</td>
</tr>
<tr>
<td></td>
<td>Direct report to CEO 72%</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td>Bachelor’s Degree 36%</td>
</tr>
<tr>
<td></td>
<td>Master’s Degree 46%</td>
</tr>
<tr>
<td></td>
<td>Doctorate 18%</td>
</tr>
</tbody>
</table>

The data in Table C4 demonstrate appropriate levels of data diversity and representation of industry as a whole.

Analytical Approach

Measurement Model

Because we used validated scales in a different context from that of the original use, we performed an exploratory factor analysis and a confirmatory factor analysis on the observed variables that should theoretically comprise latent constructs, with both
analyses yielding a good level of model fit, reliability, and validity (CMIN/DF = 1.477, CFI = .964, NFI = .898, GFI = .881, RMSEA = .024, PCLOSE = .999, standardized RMR = .0499, Chi-square = 1599.8, degrees of freedom = 1083). The pattern matrix generated in Table C5 used maximum likelihood as the extraction method and represents the exploratory factor analysis for all construct items discussed above.

**TABLE C5**

**Pattern Matrix**

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Factor 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eff_Syn_10</td>
<td>.845</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eff_Inv_2</td>
<td>.688</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Eff_Syn_9</td>
<td>.678</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eff_Syn_5</td>
<td>.672</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Eff_Syn_8</td>
<td>.578</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Eff_Inv_5</td>
<td>.402</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Eff_Inv_3</td>
<td>.345</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eff_Inv_4</td>
<td></td>
<td>.937</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eff_Qual_5</td>
<td></td>
<td></td>
<td>.937</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eff_Qual_4</td>
<td></td>
<td></td>
<td>.925</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eff_Qual_3</td>
<td></td>
<td></td>
<td>.873</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eff_Qual_6</td>
<td></td>
<td></td>
<td></td>
<td>.671</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self_Eff_3</td>
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<td></td>
<td></td>
<td>.824</td>
<td></td>
</tr>
<tr>
<td>Self_Eff_6</td>
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<td></td>
<td></td>
<td></td>
<td>.711</td>
<td></td>
</tr>
<tr>
<td>Self_Eff_7</td>
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<td></td>
<td></td>
<td></td>
<td>.698</td>
<td></td>
</tr>
<tr>
<td>Self_Eff_1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.676</td>
<td>-.304</td>
</tr>
<tr>
<td>Self_Eff_4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.656</td>
<td></td>
</tr>
<tr>
<td>Self_Eff_5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.586</td>
<td></td>
</tr>
<tr>
<td>CQ_Beh_4</td>
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<td></td>
<td></td>
<td>.906</td>
</tr>
<tr>
<td>CQ_Beh_2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.756</td>
</tr>
<tr>
<td>CQ_Beh_1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.752</td>
</tr>
<tr>
<td>CQ_Beh_3</td>
<td></td>
<td></td>
<td></td>
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<td>.575</td>
</tr>
<tr>
<td>CQ_MC_3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.837</td>
</tr>
<tr>
<td>CQ_MC_2</td>
<td></td>
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<td></td>
<td></td>
<td>.826</td>
</tr>
<tr>
<td>CQ_MC_1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.756</td>
</tr>
<tr>
<td>CQ_Mot_5</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>.692</td>
</tr>
<tr>
<td>CQ_Mot_2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.673</td>
</tr>
<tr>
<td>CQ_Mot_4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.653</td>
</tr>
<tr>
<td>CQ_Mot_3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.614</td>
</tr>
</tbody>
</table>

Extraction Method: Maximum Likelihood.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 8 iterations.
Embedded Group Measurements

We tested whether the measures specified in the model were invariant across the samples of team leaders and team members by estimating a hierarchy of multi-group measurement invariance models and testing the baseline model and then testing the model again, constraining the factor loadings to be invariant across groups, with good model fit for both instances. Table C6 provides evidence of invariance by presenting standardized estimates across the two groups tested. These results suggest that comparing model paths across groups is appropriate.

TABLE C6
Evidence of Invariance across Groups

<table>
<thead>
<tr>
<th></th>
<th>Leader Estimate</th>
<th>Leader P</th>
<th>Member Estimate</th>
<th>Member P</th>
<th>z-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD Gap &lt;--- CQ</td>
<td>-0.437</td>
<td>0.021</td>
<td>-0.104</td>
<td>0.243</td>
<td>1.587</td>
</tr>
<tr>
<td>Team Eff &lt;--- TD Gap</td>
<td>-0.185</td>
<td>0.004</td>
<td>-0.176</td>
<td>0.000</td>
<td>0.129</td>
</tr>
<tr>
<td>Team Self Eff &lt;--- Team Eff</td>
<td>1.227</td>
<td>0.000</td>
<td>1.097</td>
<td>0.000</td>
<td>-0.763</td>
</tr>
<tr>
<td>Relative Profitability &lt;--- Team Eff</td>
<td>-3.069</td>
<td>0.017</td>
<td>2.035</td>
<td>0.038</td>
<td>3.154***</td>
</tr>
<tr>
<td>Relative Profitability &lt;--- TD Gap</td>
<td>-1.385</td>
<td>0.000</td>
<td>0.020</td>
<td>0.943</td>
<td>3.513***</td>
</tr>
<tr>
<td>Relative Profitability &lt;--- Team Self Eff</td>
<td>1.506</td>
<td>0.074</td>
<td>-0.396</td>
<td>0.506</td>
<td>-1.844*</td>
</tr>
</tbody>
</table>

Note. *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10

Structural Model

We tested our hypotheses using structural equation modeling (SEM), employing IBM SPSS and AMOS software version 21. We tested mediation by employing two approaches. First, we used the Baron and Kenny (1986) approach to test changes to the direct effect after adding the mediating variable. Second, we conducted bootstrapping using 2,000 bias-corrected resamples. Using this second approach allowed us to determine the strength and significance of the standardized indirect effect of the mediated relationships. This approach is supported by Preacher and Hayes (2004) and by Barron
and Kenny (1986). The means, standard deviations, and correlations of variables and squared multiple correlations are reported in Table C7.

**TABLE C7**
Meanings, Standard Deviation and Correlation Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>CQ</th>
<th>TD_Gap</th>
<th>Team Effectiveness</th>
<th>Team Self-Efficacy</th>
<th>Relative Profitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQ</td>
<td>0.053</td>
<td>0.65384</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TD_Gap</td>
<td>-0.112</td>
<td>0.59251</td>
<td>-0.365</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Effectiveness</td>
<td>0.015</td>
<td>0.23089</td>
<td>0.162</td>
<td>-0.444</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Self-Efficacy</td>
<td>-0.06</td>
<td>0.34904</td>
<td>0.139</td>
<td>-0.381</td>
<td>0.858</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Relative Profitability</td>
<td>-0.343</td>
<td>1.33662</td>
<td>0.212</td>
<td>-0.581</td>
<td>0.064</td>
<td>0.167</td>
<td>1</td>
</tr>
</tbody>
</table>

We had excellent model fit (CMIN/DF = 1.047, CFI = 0.994, NFI = 0.890, RMSEA = 0.014, PCLOSE = 0.965, standardized RMR = .0721, Chi-square = 40.849, degrees of freedom = 39). We found no concerns with validity and reliability of our latent constructs (AVE > 0.50; CR > 0.70; MSV < AVE; and √AVE > inter-construct correlations). Table C8 presents the analysis.

**TABLE C8**
Construct Validity Test

<table>
<thead>
<tr>
<th></th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>ASV</th>
<th>Team Effectiveness</th>
<th>Team Self-Efficacy</th>
<th>CQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Effectiveness</td>
<td>0.884</td>
<td>0.724</td>
<td>0.444</td>
<td>0.236</td>
<td>0.851</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Self-Efficacy</td>
<td>0.872</td>
<td>0.533</td>
<td>0.444</td>
<td>0.235</td>
<td>0.666</td>
<td>0.730</td>
<td></td>
</tr>
<tr>
<td>CQ</td>
<td>0.848</td>
<td>0.651</td>
<td>0.028</td>
<td>0.027</td>
<td>0.167</td>
<td>0.162</td>
<td>0.807</td>
</tr>
</tbody>
</table>

Table C9 presents the squared multiple correlations for team leader and team member analyses. Squared multiple correlations indicate the degree to which the constructs predict the outcomes for combinations in the model—in other words, how likely the model is in predicting a reliable outcome for any mediator or dependent variable. Notable in our model is that Team Self-Efficacy has a high predictive quality at .737 for Team Leader and .506 for Team Member.
**Results and Discussion**

Overall, we had a stronger than typical predictive model of relative profitability performance ($R^2 = .45$) exceeding the most recent prevalent average $R^2$ of other academic works in the last several years, ranging from .07 to .44 (Ali Shah, 2009; Amason et al., 2006; Boone & Hendriks, 2009; Buyl et al., 2011; Carmeli et al., 2012; Gill et al., 2010; Gill & Obradovich, 2012).

The results of our analyses are presented in Figures C2a and C2b and the corresponding Table C10 summary of hypotheses. These representations provide a summary of our findings for each hypothesis tested and for each group in the SEM model.
### TABLE C10
Presentation of Hypotheses, Evidence, and Results for Team Leaders and Team Members

<table>
<thead>
<tr>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1</strong>: Cultural intelligence (CQ) decreases team dynamic gap.</td>
</tr>
<tr>
<td><strong>H2a</strong>: Team dynamic gap is negatively related to team effectiveness.</td>
</tr>
<tr>
<td><strong>H2b</strong>: Team dynamic gap is negatively related to profitability performance.</td>
</tr>
<tr>
<td><strong>H3a</strong>: Team effectiveness has a positive impact on team self-efficacy.</td>
</tr>
<tr>
<td><strong>H3b</strong>: Team effectiveness has a positive impact on profitability performance.</td>
</tr>
<tr>
<td><strong>H3c</strong>: Team self-efficacy has a positive impact on profitability performance.</td>
</tr>
<tr>
<td><strong>H4a</strong>: Team effectiveness mediates the relationship between team dynamic gap and profitability performance.</td>
</tr>
<tr>
<td><strong>H4b</strong>: Team self-efficacy mediates the relationship between team effectiveness and profitability performance.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Team Leader Evidence</th>
<th>Results</th>
<th>Team Member Evidence</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1</strong>: Cultural intelligence (CQ) decreases team dynamic gap.</td>
<td>- .365** Direct</td>
<td>Supported</td>
<td>-.124* Direct</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H2a</strong>: Team dynamic gap is negatively related to team effectiveness.</td>
<td>-.444*** Direct</td>
<td>Supported</td>
<td>-.462*** Direct</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H2b</strong>: Team dynamic gap is negatively related to profitability performance.</td>
<td>-.688*** Direct w. Mediator</td>
<td>Supported</td>
<td>-.082 ns Direct</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>H3a</strong>: Team effectiveness has a positive impact on team self-efficacy.</td>
<td>.858*** Direct</td>
<td>Supported</td>
<td>.711*** Direct</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H3b</strong>: Team effectiveness has a positive impact on profitability performance.</td>
<td>.194 ** Direct</td>
<td>Supported</td>
<td>.273 *** Direct</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H3c</strong>: Team self-efficacy has a positive impact on profitability performance.</td>
<td>.424*** Direct</td>
<td>Supported</td>
<td>-.157 ns Direct</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>H4a</strong>: Team effectiveness mediates the relationship between team dynamic gap and profitability performance.</td>
<td>-.650*** Direct w. Mediator</td>
<td>Supported</td>
<td>-.688*** Direct w. Mediator</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H4b</strong>: Team self-efficacy mediates the relationship between team effectiveness and profitability performance.</td>
<td>.424* Direct w. Mediator</td>
<td>Supported</td>
<td>-.157 ns Direct w. Mediator</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Note. *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10

We tested eight hypotheses in our model, and all eight hypotheses for team leader were supported. For team member, six of the eight hypotheses were supported. As for predicting the dependent variable of profitability performance, all hypotheses directly and indirectly related to profitability performance were statistically significant, and as we expected, the relationship was stronger in the team leader model than in the team member model. A visual representation of the model and the strength of the relationship for both team leader and team member are presented in Figure C2a.
Overall, we found that the model has high statistical significance for all relationships in the team leader model and for most relationships in the team member model. We also found a high predictive quality of the model for both groups with $R^2$ values of .45 and .21 for team leader and team member, respectively.

**Antecedents**

We found an acceptable direct relationship between the individual’s cognitive readiness (Bowers & Cannon-Bowers, 2014) for enhanced team performance as measured by CQ (Earley & Mosakowski, 2004) and team dynamic quality (Lingham, 2005). Since we measured team dynamic gap in our model, we expected this relationship...
to be negative, i.e., the higher the level of CQ, the smaller the team dynamic gap. Based on our finding, we believe that individuals’ ability to distinguish different team cultures, their willingness and motivation to fit into a culture, and behavioral skills they have to alter their behavior appropriately to the team’s culture (or social norms) is an acceptable antecedent to high-performing teams.

The implications for the practitioner is that team members should be screened for CQ and, where appropriate, taught CQ skills, as CQ is something that can be learned (Earley & Mosakowski, 2004).

**Team Dynamic**

Team dynamic, behavioral integration, team interaction quality, intervening processes—these are all terms that have been used by researchers to describe the something that happens among team members that distinguishes high- from low-performing teams. What has been missing in past research is a direct method to measure the team leader’s and team members’ experience of team dynamic quality. What distinguishes this research from others measuring team dynamic is the use of the TLI (Lingham, 2005; Lingham, 2009), a unique and proprietary diagnostic tool that indicates the dynamic health of the team. We believe this tool is superior to other measures of team dynamic that instead employ demographic proxies for a psychological construct. In our study, we determined the health of the team by measuring the gap between current and desired dynamic quality. Our findings show that there is a direct and mediated, statistically significant, and meaningful relationship between this dynamic quality and team effectiveness, team self-efficacy, and, ultimately, profitability performance. When considering the two hypotheses related to the relationship between team dynamic gap and...
(a) team effectiveness and (b) firm profitability, (H2a and H2b) we observe interesting findings when comparing the experience of Team Leaders versus Team Members. When considering the impact of team dynamic quality on team effectiveness, the impact observed for both constituencies (team leaders and team members) is almost identical with $\beta = -0.444 (p > 0.01)$ and $\beta = -0.462 (p > 0.01)$ respectively. (Again, we would expect to see this as a negative relationship as the higher the gap, the lower the dynamic quality, and therefore an inverse relationship to the specified construct.) This indicates that regardless of role in the team (leader or member) the experience of team dynamic is equally important in generating effective teams—defined as the ability to apply skills and generate solutions. However, when examining the relationship between team dynamic quality and corporate financial performance, we find different results based on team role. The model shows that for the Team Leader, the relationship is strong and statistically significant $\beta = -0.688 (p > .01)$ but weak and statistically insignificant for team members at $\beta = -0.082$ (n.s.). We believe this is because of the inherent hierarchical relationship of the TMT, with the CEO/President being the ultimate decision-maker, and team members in supporting roles not directly accountable for firm outcomes. This is evident as in the practitioner’s realm, the CEO directly is typically held directly accountable for financial results, but other TMT members\(^3\) are not often held directly accountable for financial results. Consistent with what we observe in the corporate world, team members have a strong and critical role in generating team outcomes, but a weaker role in directly generating firm outcomes. CEOs/Presidents typically are held accountable for “bottom

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\(^3\) Other than the CFO who, in addition to the CEO, must guarantee the accuracy of firm financial statements based on SOX requirements.
line” performance with their directly reports having direct accountability for the performance of their functional groups.

When considering the relationship between team dynamic gap and corporate financial performance mediated by team effectiveness (or H4a) we see consistent results for team leaders and team members. Our findings show that regardless of role, the impact of team dynamics on corporate financial performance when mediated by team dynamic gap is $\beta = -.650$ ($p > .01$) and $-.688$ ($p > .01$) respectively. This demonstrates the power of team dynamics on the ability of the team to generate appropriate outcomes and the power of those outcomes to generate firm profitability.

Overall, our results support what is implied by team researchers and intuitively believed by corporate executives—that teams with a high-quality dynamic are far better at producing economic value than teams with a poor dynamic (Cannella et al., 2008; Carmeli et al., 2011; Finkelstein et al., 2009; Hackman & Morris, 1974; Hambrick, Cannella, & Pettigrew, 2001; Payne et al., 2009; Simsek et al., 2005). Our results show that the impact of team dynamics can explain as much as 20% of a firm’s profitability which is significantly greater than the impact shown by prior research attributable to any single executive of a mere 5% (Bertrand & Schoar, 2003). Our research shows that TMTs have the potential of out-performing individuals in terms of their impact on profitability by 400%. This team impact finding is consistent with our prior research on Board teams that showed that individual director qualifications only explain 0.5% of firm profitability whereas boards functioning as high dynamic teams explain 4% of firm profitability or an 800% greater impact (Charas, 2014b).
The implication for the practitioner is that team dynamic is critical in driving higher levels of team performance. An assessment of team dynamic should be performed periodically and perhaps even be included as a performance measure in evaluations and linked to incentive compensation.

**Team Effectiveness and Team Self-Efficacy**

Our research shows that there is a positive relationship between team effectiveness and team self-efficacy and that these two constructs have a positive relationship to profitability performance. We had an interesting result in the SEM wherein the mediated relationship between team effectiveness and profitability performance was negative, but upon further examination—namely by understanding the bivariate relationships between these constructs—there was in fact a positive relationship between team effectiveness and profitability performance represented by $\beta = +0.245$, $p < .01$. We also observed a high correlation coefficient between these two constructs (at .858), but they were factorially distinct, as illustrated in the pattern matrix (see Table C5). Based on prior research, we expected to see this high correlation as well as the distinct factors shown in the EFA pattern matrix. Prior research confirms the strong relationship between team effectiveness and team self-efficacy, and also confirms the factorially distinct characteristics of these constructs (Collins & Parker, 2010). We interpret the negative combined impact, but positive individual impact by inferring that team self-efficacy is a strong mediator between team effectiveness and profitability performance and that what impact remains after the strong positive mediation is a negative relationship between team effectiveness and profitability performance ($\beta = -.61$, $p < .05$). In the
absence of team self-efficacy, the relationship is still positive but not as strong, with team self-efficacy drawing all the positive impact from team effectiveness.

Team effectiveness in our model—measured by quality, innovation, and synergy—is an important driver of profitability performance, but in the absence of team self-efficacy is diminished in its impact. Prior research has shown, especially at the upper echelons of the organization, how critical team self-efficacy is (Eby & Dobbins, 1997; Gully et al., 2002; Hmieleski & Ensley, 2007; Tasa et al., 2007; Zhang et al., 2013).

The implications for the practitioner are that team effectiveness and team self-efficacy (team outcomes) are critical mediators in generating economic value and that teams should be evaluated to capture the degree to which they are able to generate these outcomes.

The Critical Role of the CEO

We commenced this inquiry informed by the Stanford University survey findings that highlight the critical role of the CEO as perceived by the board of directors. In our work, we wanted to understand not only if this observation is true but also the magnitude of the impact of CEOs’ perceptions of their team’s dynamic quality. Prior research has also shown that CEOs play a critical role in team and organizational performance as a direct manifestation of their leadership abilities (Peterson et al., 2003; Peterson, Galvin, & Lange, 2012; Waldman, Ramirez, House, & Puranam, 2001; Zhang et al., 2013). Given that we found CEOs’ perceptions of team quality a stronger driver of financial performance than team members’ perceptions of team quality ($R^2$ of .45 compared with
.21, respectively), our work supports the importance of CEOs’ perceptions and leadership attributes.

The implications for the practitioner are that CEOs have a strong driving influence on team dynamic quality. The perception of the gap between the current team dynamic quality and the desired team dynamic quality by the CEO is the critical indicator of team dynamics. It would follow that only when the CEO perceives a gap between the current and desired quality of team dynamic that action should be taken to address the gap. Even if team members perceive dysfunctional dynamics, it is not until the CEO recognizes a problem that action will be taken. Although not tested in this research, we believe that this relationship would hold true for any de facto team leader—and that blind spots to team dynamic quality might account for lower levels of team dynamic quality, and therefore lower levels of team effectiveness, team self-efficacy, and diminished or even negative contribution to corporate financial performance at any level of the organization.

We believe there are several business segments that might benefit from our research findings:

- Boards of directors who want to understand the quality of their TMTs and the fiduciary impact that has on performance. As the board is directly responsible for monitoring the quality of the CEO as well as the named (proxy) executives, and indirectly the entire TMT, they should be very interested in the results of this research as it provides an appropriate way to measure the current and potential impact the TMT has on bottom-line performance—and a possibility of improving corporate performance by up to 20%, based on the quality of team dynamics in the TMT. In addition, the remuneration committee may be interested in better linking subjective performance (e.g., management, leadership, development of individuals) to bottom-line results as a way of determining the size of discretionary compensation to executives.
Newly appointed CEOs/Presidents, who could quickly understand the quality of the existing dynamic of their new teams, thereby shortening the learning curve and leading more effectively, sooner. Researchers have shown that there is a relationship between information asymmetry and early dismissal of CEOs (Zhang, 2008). By reducing information asymmetry at the board and TMT level, there is a greater likelihood that CEOs can demonstrate their leadership potential and avoid the waste of executive talent and the resulting disruption to the firm that occurs with high CEO turnover (Shen, 2003).

CEO/Presidents of firms that under-perform their competitors. By identifying the quality of the TMT dynamic, appropriate action can be taken to improve team dynamic quality, team outcomes, and ultimately corporate financial performance as this research shows a strong relationship between these factors. If the TMT dynamic is healthy, then attention should be given to other business processes, but if the TMT dynamic is characterized by a large gap, then action can be taken to improve the dynamic and potentially lift profitability performance over time by 20%.

Private equity/venture capital/hedge fund professionals who regularly assess and evaluate the individuals of TMT target acquisitions. The power of the model rests in the strength of the team rather than an individual member. Having concluded more than 50 transactions, our observation is that acquiring/investing firms assess the professional capabilities of individual executives, typically by engaging an HR professional/psychologist to perform these assessments. There are two inherent flaws with this approach. By using a human assessor, two forms of bias are introduced. The first is the perspective of the assessor as they have personal filters through which they assess the executive. The second is social desirability bias that shapes the assessed executive’s answers, as they try to position themselves in a positive light, consistent with what they believe the assessor expects. This flawed assessment approach doesn’t provide the acquirer/investor a true picture of the potential of the TMT to generate economic value in the future as my research shows that it isn’t the impact of the individual executive but how the TMT works as an effective team that provides critical information about their future impact on profitability.

Any organization that values team performance, which could include for-profit, non-profit, and higher education organizations. We also see applicability to teams within organizations, such as R&D teams, sales teams, and operations teams as we have shown the diagnostic tool and focused team facilitation has potentially significant and sustainable benefits. Because the investment in the diagnostic tool and subsequent team coaching interventions are highly leveraged to organizational benefits, a small investment yields positive results.
• Equity analysts could potentially be interested in this research as we have demonstrated a way of isolating a significant driver of firm performance. This could be one more tool in analyzing current and future firm potential in creating shareholder value and could add a dimension to the quality and reliability of equity research recommendations.

By using the team dynamic diagnostic tool, the health of the TMT of the target organization can be assessed (at the team and individual level) without introducing individual bias or influencing responses through social desirability bias. Assessments would be more accurate, and based on the model, a stronger predictor of corporate financial performance.

Limitations

Despite the strengths of our study, as with all research, there are some potential limitations and opportunities for future research. The first limitation is generalizability—we based our research on the TMT members of public companies. Despite the variability in company revenues, employee size, and industry, we cannot be certain that these relationships would hold for privately-held, for-profit organizations. In addition, we would have preferred to have a sample size larger than 123 participants. As is common with leadership research that involves the TMT (e.g., CEOs and CFOs), it was somewhat difficult to generate a very large sample. Future research should address sample size and composition of participants to broaden participation.

We also want to acknowledge that the variables used can be operationalized by other specific measures. We selected team effectiveness as measured by innovation, quality, and synergy, but other measures could have been used to determine team output. In addition, there are other scales that could have been used to operationalize team self-efficacy or team potency. In addition, we are not considering other constructs that may
influence corporate financial performance—namely our operationalization of corporate financial performance as relative profitability performance has not been used in prior research (as far as our research on the topic has revealed). Other measures that are traditionally used—ROS, ROA, ROE—could be selected to capture this observed variable. Our research offers a starting point for the exploration of team dynamic that may encourage or discourage TMT influences on corporate financial performance. Not only might there be additional predictors, but additional mediating mechanisms should be explored.

The strong correlation between team effectiveness and team self-efficacy in our findings may also be a limitation. We based our construct selection (and scales) on the most recent work in this area produced by Collins et al. (2010) who highlight that their work is based on specific team capabilities, but "teams in other contexts might have additional team self-efficacy beliefs" (Collins & Parker, 2010: 1020). Relatively little work has been done in the area of TMT and self-efficacy and effectiveness, and that which has been done has been led by Simsek et al. (2005), Barrick, Bradley, Kristof-Brown & Colbert (2007) and Ling, Simsek, Lubatkin & Veiga (2008).

Lastly, although we measured team dynamic, we based this on the perception of the team from one team member or, in some cases, one team member and one team leader from the same organization. The short-coming for this particular study is that we are not analyzing actual team results but the perception of team by individual team members. In our next research study, based on the information we collected, we plan to analyze the results at the team level from the 27 teams for which we collected team-level
data, as well as from the 36 teams from which we have both Board and C-Suite information.

**Conclusions**

Our research shows that there is a strong and statistically significant relationship between individual cognitive readiness for teamwork, the resulting quality of team dynamic, and, ultimately, corporate financial performance, mediated by team effectiveness and team self-efficacy. Our findings had compellingly high $R^2$ value (.45), indicating that the model as stipulated has strong predictive power. It is our hope that the academic and practitioner communities will acknowledge the value and contribution of our research findings and apply this new knowledge appropriately. The academic and practitioner communities alike should be compelled to further explore implications of the exponential differential we found between the impact of individuals (at 5%) and that of teams (at 20%) on corporate financial performance.
Appendix C1
Summary of Literature Review

Please see Appendix E in dissertation.
Appendix C2
Scales Used to Gather Primary Data

**Team Task Performance and Team Potency Questions**
The membership of the TMT can be readily identified
There is a common sense of purpose for TMT executives
Executives are clear about their roles on the TMT
There is effective communication among TMT executives
Individuals are valued as TMT members
The TMT is highly valued by other parts of the organization
Executives feel proud to be a member of the TMT
Morale among TMT members is high
There is effective and appropriate leadership on the TMT
All executives perform to the best of their ability on the TMT
TMT executives have a high level of stakeholder awareness
The TMT has clearly defined who are their stakeholders
There are clearly defined standards for working practices for the TMT executives
Standards are monitored on a regular basis
Feedback on the monitoring of standards is given to TMT executives on a regular basis
There are measurable standards for outcomes, which are monitored
TMT executives are adequately trained and are competent to do the professional aspects of their jobs
TMT executives are adequately trained in the administrative systems and procedures
TMT executives’ training and development needs are systematically identified
Resources are identified and made available for training needs
There is a formal system in place to identify TMT executives’ development and training needs
TMT executives are involved from the outset in new developments related to the company
Innovation is rewarded on the TMT
Problems related to the company’s business are quickly identified
Once identified, the TMT is quick to address the problems
Problem solving is seen as an opportunity for learning and growth
The TMT believes it can become unusually good at producing high-quality work
The TMT expects to be known as a high-performing team
We feel we can solve any problem the TMT executives encounter
The TMT has confidence in itself
The TMT believes it will get a lot done when it works hard
No task is too tough for this TMT
The TMT believes it can be very productive
The TMT expects to have a lot of influence

**Cultural Intelligence Questions**
I am conscious of the cultural knowledge I use when interacting with people from different cultural backgrounds
I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me
I am conscious of the cultural knowledge I apply to cross-cultural interactions
I check the accuracy of my cultural knowledge as I interact with people from different cultures
I enjoy interacting with people from different cultures
I am confident that I can socialize with locals in a culture that is new to me
I vary the rate of my speaking when a cross-cultural situation requires it
I am sure I can deal with the stresses of adjusting to a culture that is new to me
I enjoy living in cultures that are unfamiliar to me
I am confident that I can get accustomed to the shopping conditions in a different culture
I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it
I change my nonverbal behavior when a cross-cultural interaction requires it
I use pause and silence differently to suit different cross-cultural situations
I alter my facial expressions when a cross-cultural interaction requires it
Appendix D

Board Director Selection Evaluation Guide

The evaluation guide describes how the client will evaluate candidates, including rejecting or deferring candidates who are not an immediate fit for board positions. This document includes some sample topics to consider. Please adjust this Evaluation Guide to fit the needs of your particular client and project.

Remember that your candidate learns about the Board and how it functions based on how they are treated in the interview process and how professional the process is. There is only one chance to make a first impression.

**Initial evaluation**

How will XXXX decide who is interviewed? Who makes it to the interview stage? The board will develop a list of candidates and prioritize them based on the answers provided in a brief questionnaire (if appropriate.) If XXXX decides to use a questionnaire, this will have to be created.

Some issues to consider include in the questionnaire and in the screening process:

1. Does the candidate’s experience meet the position requirements as outlined by the Director profile?
2. Does the candidate’s functional expertise match the identified needs of the Board?
3. Does the candidate express passionate interest in serving on the Board?
4. Is the candidate aware of the giving requirements for Directors?

If the candidate meets the criteria, then they should move on to the next stage of the recruitment process.

**Prepping a candidate**

The candidate should be provided information about the Board as well as the formal duties and responsibilities of a XXXX Director. A recruitment process should be standardized and provided to candidates. You will need to determine appropriate materials to distribute to potential directors. This can be a combination of physical materials as well as information posted on your website.

Some materials that can be considered include:

- Board Charter
- Summary of Strategic Plan
- Director position description
- Brief bios of other Board Directors
- List of Advisory Board members
- Brief history of XXXX
- XXXX success stories
- Calendar of Special events, etc.

If the candidate is still interested in a Directorship, then they should be interviewed by a group of current directors of the Nominating Committee.
**Interviewing**

The Nominating committee will need to determine the most appropriate interview approach – group interviews or one-on-one. A standard approach should be developed and used consistently. The interview protocol should include covering topics including:

- Who sets up the interview and is responsible for all logistics around the recruitment process.
- Who is interviewing? It is recommended that a set interview team be established for consistency.
- How is the interview conducted, and where? And how soon after first contact?
- You should consider assigning different aspects of the interview to each interviewer. This is to ensure that a full complement of questions are asked and the candidate isn’t asked the same questions by each interviewer.

There are essentially three areas that need to be explored:

1. Qualifications
2. Commitment
3. Behavioral Profile

Potential questions for each area include:

**Qualifications:**

1. Based on the resume of the candidate, ask questions to elucidate the leadership, problem-solving, strategic experiences that will be valuable to the XXXX board.
2. Have they had prior for- or non-profit board experience? If so, on a one to ten scale, how did they feel about your experience?
3. What would they have done differently if they had the chance to make the board or their experience better?
4. What expectations do they have from the management of organizations on whose boards they serve?
5. On a scale of 1 to 10, what importance to them is social interaction with other board members?
6. What is their opinion about performance evaluations of individual board members and boards as a group?

**Commitment:**

1. How passionate are they about XXXX? Why is this cause important to them? On a one to ten scale, where does this fit for them?
2. The candidate should describe a time when they worked with others to brainstorm ideas and then took those ideas and created an action plan.
3. The candidate should describe the aspects that make them frustrated and unmotivated and what they do to address these situations.
4. The candidate should describe why they want to volunteer in general and what they think they can bring to XXXX.
5. The candidate should be able to articulate how they plan to meet their financial giving obligation either through their personal or professional networks and how they feel about fund-raising in general (level of comfort).
6. How much time can they give to the XXXX board?
7. As they consider the three primary board roles—Ambassador, Advocate, and Asker—in which role(s) do they think they fit best?
8. Thinking ahead one year, how would they define success in terms of their participation on the XXXX board?

Behavioral:
1. How are you most comfortable taking in experiences?
2. Do they prefer to learn from specific experiences and speaking to people about their experiences? Or do they prefer reading about someone’s experiences?
3. When processing new concepts, do they prefer to experience them personally through experimentation or do they feel they can understand an experience from thinking through the experience logically?
4. How are they most comfortable dealing with experiences?
5. Do they prefer to take action to learn something?
6. Are they more comfortable observing something carefully before making conclusions or do they feel that they are more intuitive and can make conclusions about something quickly and with little detailed information?
7. Are they more comfortable viewing situations from many different angles and perspectives and looking for the meaning of events or are they comfortable making conclusions quickly and perhaps with consequences if they are wrong.

Summary: A summary of the candidate should be created based on the input from all directors involved in the interview process. This summary will be shared with the full board if the candidate is put forward for board acceptance. The four fundamental questions that should be addressed are:
1. Does the candidate appear to be committed to the mission and philosophy of the organization?
2. Can the candidate contribute the time necessary to be an effective board member?
3. Does the candidate possess some of the key skills, knowledge and other assets that match the board recruiting priorities and complement the existing learning style and functional expertise?
4. Does it appear that the candidate can place the organization’s purposes and interests above their own professional and personal interests when making decisions as a board member?

**Evaluating the Candidates and Next Steps**

During the interview process, the interviewers should take notes on their area of questioning. After the interviews have been completed, the interview team should discuss the candidate and their evaluation of the candidate on the above areas. If there are doubts or questions, then that candidate should be warehoused until the end of the
candidate screening process. If there is agreement, then the Nominating committee can recommend the candidate for a Director appointment.

The full board should vote on the candidate director, and appropriate action taken.

- A standard approach (letter or phone call) should be established to inform the candidate if they have been accepted as a Director.
- For candidates accepted, they should be sent the on-boarding binder.
- For candidates that have not been accepted, they should be sent a formal note of appreciation for their interest.
### Appendix E: Review of Articles and Book Chapters

<table>
<thead>
<tr>
<th>No.</th>
<th>Stream</th>
<th>Author (Year)</th>
<th>Title of Work</th>
<th>Unit of Analysis/Focus</th>
<th>Type of Research</th>
<th>Theory(ies)</th>
<th>Independent Variable(s)</th>
<th>Dependent Variable(s)</th>
<th>Finding(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boards</td>
<td>Neill and Dulewicz (2010)</td>
<td>Inside the &quot;black box&quot;: The performance of boards of directors of unlisted companies</td>
<td>Team processes Group dynamics</td>
<td>Quantitative</td>
<td>Group process theory Agency theory</td>
<td>Quality of personal relationships Process quality Leadership style Board composition Board size</td>
<td>Board effectiveness</td>
<td>Quality of teams is the main cause of loss. Size of board matters.</td>
</tr>
<tr>
<td>2</td>
<td>Boards</td>
<td>Boxer, Perren, &amp; Berry (2013)</td>
<td>Small- and Mid-Size Enterprise (SME) top management team and non-executive director cohesion: Precarious equilibrium through information Asymmetry</td>
<td>Individually Qualitative/Case study</td>
<td>Complexity theory Upper echelon Johari Window Set theory</td>
<td>Board demographics Information sharing</td>
<td>Effective decision making</td>
<td>Information sharing Highlights importance of relationships on SME boards.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Boards</td>
<td>Conger and Lawler (2009)</td>
<td>Sharing leadership on corporate boards: A critical requirement for teamwork at the top</td>
<td>Individuals Commentary</td>
<td></td>
<td></td>
<td></td>
<td>Shared leadership</td>
<td>&quot;A critical attribute of a high performing corporate board is its ability to act as a team.&quot;</td>
</tr>
<tr>
<td>4</td>
<td>Boards</td>
<td>Gabrielsson, Huse and Minicilli (2007)</td>
<td>Understanding the leadership role of the board chairperson through a team production approach</td>
<td>Team Chairman Empirical/Meta-analysis</td>
<td>Team production approach Stewardship theory Theory of the firm</td>
<td>Cohesiveness Creativity Openness and generosity Criticality Preparedness and commitment Firm size Industry Board size Leadership</td>
<td>Team production culture</td>
<td>Performance driven by directors actively sharing their knowledge. Value creation contingent on competencies and behaviors of the board directors.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Boards</td>
<td>Machold, Huse, Minicilli and Nordqvist (2011)</td>
<td>Board leadership and strategy involvement in small firms: A team production approach</td>
<td>Leadership Quantitative</td>
<td>Team production</td>
<td>Director knowledge Board development Chairperson leadership CEO duality Board composition changes</td>
<td>Board strategy involvement Firm performance</td>
<td>Behaviors and processes of leaders have greater impact on strategic involvement than structural reporting relationships.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Boards</td>
<td>McIntyre, Murphy, &amp; Mitchell (2007)</td>
<td>The top team: Examining board composition and firm performance</td>
<td>Board composition Quantitative/Meta-analysis</td>
<td>Group dynamics Behavioral theory</td>
<td>Director demographics Board size Average board tenure Director experience</td>
<td>Firm performance (Tobin’s q)</td>
<td>Firm performance correlated to level of experience, team size, member age and team tenure.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Boards</td>
<td>McNulty, Pettigrew, Jobone and Morris (2011)</td>
<td>The role, power and influence of company chairs</td>
<td>Board composition Chairmen</td>
<td>Empirical/Meta-analysis</td>
<td>Theories of power and influence Chair power types (strucural power, ownership power, expert power, prestige power)</td>
<td>Board effectiveness (service, control, resourcing)</td>
<td>Chair influence impact board structure, process and influence. Full-time/part-time role has an impact on influence.</td>
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<tr>
<td>8</td>
<td>Boards</td>
<td>Murphy and McIntyre (2007)</td>
<td>Board of director performance: A group dynamics perspective</td>
<td>Team</td>
<td>Theory of the firm</td>
<td>Director characteristics</td>
<td>Board performance (scanning, monitoring, advising, providing feedback)</td>
<td>Dynamic between director characteristics and role on board studied.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Boards</td>
<td>Rutherford (2007)</td>
<td>Investigating the relationship between board characteristics and board information</td>
<td>Directors Board vigilance</td>
<td>Quantitative</td>
<td>Agency theory Information asymmetry</td>
<td>Director characteristics</td>
<td>Quality of information gathered Frequency of board interaction</td>
<td>Influence of director independence to frequency of information exchange and board performance. “Vigilant boards are likely to take actions aimed at reducing the level of information asymmetry between themselves and their CEOs.”</td>
</tr>
<tr>
<td>12</td>
<td>Boards</td>
<td>Smerdon (2004)</td>
<td>A practical guide to corporate governance</td>
<td>Directors Governance Quality evaluation</td>
<td>Qualitative</td>
<td>N/A</td>
<td>N/A</td>
<td>Governance practice more important than governance structure and information exchange. Review of performance appraisal approach, suggesting more time is required by board chairs on performance reviews.</td>
<td></td>
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<td>No.</td>
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<td>15</td>
<td>Boards</td>
<td>Van Ees, Gabrielsson and Huse (2009)</td>
<td>Toward a behavioral theory of boards and corporate governance</td>
<td>Directors (1) interactions and processes inside and outside the boardroom; (2) collaborative decision-making as a function of political bargaining (3) conflicting and cooperating interests are parts of the decision making process.</td>
<td>Qualitative</td>
<td>Behavioral theory of the firm</td>
<td>Bounded rationality Satisficing behavior Problem solving Objective setting</td>
<td>Corporate governance quality</td>
<td>New research agenda proposed for boards and corporate governance, focusing on actual rather than stylized descriptions of board behavior.</td>
</tr>
<tr>
<td>16</td>
<td>Boards</td>
<td>Vandewaerde, Voordeckers, Lambrechts and Bammens (2012)</td>
<td>The board of directors as a team: Getting inside the black box</td>
<td>Boards as teams Internal functioning</td>
<td>Qualitative</td>
<td>Complexity theory Team theory Input-mediator-output-input (IMO)</td>
<td>Board members Individual characteristics Environmental context</td>
<td>Board task performance Soft team outcomes (satisfaction, etc.)</td>
<td>Article calls for a focus on actual human behaviors and the use of quantitative approaches to understand boards and their outcomes.</td>
</tr>
<tr>
<td>17</td>
<td>Boards</td>
<td>Westphal and Stern (2008)</td>
<td>The other pathway to the boardroom: Interpersonal influence behavior as a substitute for elite credentials and majority status in obtaining board appointments</td>
<td>Individual Demographic homogeneity</td>
<td>Quantitative</td>
<td>Pluralistic ignorance</td>
<td>Firm performance Director engagement (pluralistic ignorance)</td>
<td>Findings suggest that relationships rather than qualifications are strong drivers of board recruiting criteria. Supports existence of pluralistic ignorance on corporate boards</td>
<td></td>
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<tr>
<td>18</td>
<td>Boards</td>
<td>Westphal and Stern (2007)</td>
<td>Flattery will get you everywhere (especially if you are a male Caucasian): How ingratiating, boardroom behavior, and demographic minority status affect additional board appointments</td>
<td>Individual directors Board appointments</td>
<td>Quantitative</td>
<td>Agency Self-categorization Advice-giving Ingratiating behavior Demographics</td>
<td>Appointments to additional boards</td>
<td>Ingratiating behavior and being in the “in-group” drives additional appointments to other boards rather than the quality of actual board service.</td>
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<tr>
<td>19</td>
<td>Boards</td>
<td>Yermack (1996)</td>
<td>Higher market valuation of companies with a small board of directors</td>
<td>Board size, Director characteristics, Firm valuation</td>
<td>Quantitative</td>
<td>Agency theory</td>
<td>Composition, Turnover, Governance characteristics</td>
<td>Tobin’s q, ROA</td>
<td>Findings show an inverse relationship between board size and firm value.</td>
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<tr>
<td>20</td>
<td>Boards</td>
<td>Zahra and Pearce (1989)</td>
<td>Boards of directors and corporate financial performance: A review and integrative model</td>
<td>Board of directors characteristics, Corporate financial performance impact</td>
<td>Qualitative</td>
<td>Agency, Resource dependence, Legalistic theories</td>
<td>Compositions, Characteristic Process Structure</td>
<td>Firm performance</td>
<td>The results of this study were inconclusive.</td>
</tr>
<tr>
<td>21</td>
<td>Boards and TMT</td>
<td>Finkelstein, Hambrick and Cannella (2009)</td>
<td>Strategic leadership: Theory and research on executives, top management teams, and boards</td>
<td>Teams</td>
<td>Theoretical</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>This book integrates and assesses the vast and rapidly growing literature on strategic leadership, which is the study of top executives and their effects on organizations. The basic premise is that in order to understand why organizations do the things they do.</td>
</tr>
<tr>
<td>22</td>
<td>Boards and TMT</td>
<td>Bailey and Peck (2011)</td>
<td>Board processes, climate and the impact on board task performance</td>
<td>Individual</td>
<td>Quantitative</td>
<td>Agency theory</td>
<td>Effort norms, Diversity, Cognitive conflict, TMT and Board collaboration, Respect, Director knowledge/skill</td>
<td>Board task performance, Strategic decision making</td>
<td>Respect within the boardroom and with TMT are positively related to “effort norms” and “cognitive conflict” processes. Climate related to strategic decision making effectiveness.</td>
</tr>
<tr>
<td>23</td>
<td>Boards and TMT</td>
<td>Buchholz, Amason and Rutherford (2005)</td>
<td>The impact of board monitoring and involvement on top management team affective conflict</td>
<td>Team</td>
<td>Affect control theory</td>
<td>Affective conflict of TMT</td>
<td>TMT effectiveness influenced by level of board monitoring and involvement.</td>
<td></td>
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<tr>
<td>24</td>
<td>Boards and TMT</td>
<td>Gonan Bozac, Dragas and Dragas (2011)</td>
<td>Responsibility of board of directors and top management team in crafting and implementing strategy</td>
<td>Individual roles/duties</td>
<td>N/A</td>
<td>N/A</td>
<td>Responsibilities of board/TMT in the strategy formulation</td>
<td>TMTs have more information than boards. As a strategic leader, the board's responsibility is to provide an infrastructure which would allow the flow of</td>
<td></td>
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</table>

4 “…the norms of behavior in most boardrooms are dysfunctional,” because directors rarely criticize the policies of top managers or hold candid discussions about corporate performance.

5 Tobin’s q = Market value of assets
Replacement cost of assets
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<thead>
<tr>
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<tr>
<td>203</td>
<td>Team</td>
<td>Basadur and Head (2001)</td>
<td>Team performance and satisfaction: A link to cognitive style within a process framework</td>
<td>Non-executive teams</td>
<td>Quantitative</td>
<td>Group think</td>
<td>Diversity</td>
<td>Problem solving Team satisfaction</td>
<td>Groups with a heterogeneous styles outperformed groups with completely or partially homogeneous styles. Member satisfaction inversely related to team heterogeneity.</td>
</tr>
<tr>
<td>26</td>
<td>Teams</td>
<td>Carson, Testa, and Marrone (2007)</td>
<td>Shared leadership in teams: An investigation of antecedent conditions and performance</td>
<td>Team Shared leadership</td>
<td>Quantitative</td>
<td>Leadership distributed and focused Social network theory</td>
<td>Internal team environment External team coaching Team performance</td>
<td>Shared leadership</td>
<td>Both internal team environment and external coaching were antecedents of shared leadership emergence.</td>
</tr>
<tr>
<td>27</td>
<td>Teams</td>
<td>Collins and Parker (2010)</td>
<td>Team capability beliefs over time: Distinguishing between team potency, team outcome efficacy, and team process efficacy</td>
<td>Team</td>
<td>Quantitative</td>
<td>Social cognitive theory Personality theory</td>
<td>Team potency Team outcome efficacy Team process efficacy</td>
<td>Team effectiveness Team performance Team citizenship behavior</td>
<td>Team outcome efficacy was strongest predictor of team performance, whereas team process efficacy was the best predictor of citizenship behaviors. Findings present a more fine-grained approach to teams' capability beliefs.</td>
</tr>
<tr>
<td>28</td>
<td>TMT</td>
<td>Boone and Hendriks (2009)</td>
<td>Top management team diversity and firm performance: Moderators of functional-background and locus-of-control diversity</td>
<td>Individual characteristics</td>
<td>Quantitative</td>
<td>Upper echelon Information exchange Locus of control Team collaborative behavior</td>
<td>Functional diversity Locus of control diversity Collaborative behavior Accurate information exchange Decentralized decision making</td>
<td>Firm performance (IT firms)</td>
<td>Diversity can only be harnessed if TMT's work as a collaborative team.</td>
</tr>
<tr>
<td>29</td>
<td>TMT</td>
<td>Edmonson, Roberti, and Watkins (2003)</td>
<td>A dynamic model of top management team effectiveness: Managing unstructured task streams</td>
<td>Team Information sharing Composition Dynamic relationships</td>
<td>Qualitative</td>
<td>Upper echelon Leadership behavior Information exchange Information asymmetry Team effectiveness theory</td>
<td>Information asymmetry Power centralization Psychological safety Process control</td>
<td>TMT effectiveness</td>
<td>The results of this study were mixed.</td>
</tr>
<tr>
<td>30</td>
<td>TMT</td>
<td>Halebian and Finkelstein (1993)</td>
<td>Top management team size, CEO dominance, and firm performance: The moderating roles of environmental turbulence and discretion</td>
<td>Demographics CEO Group size</td>
<td>Quantitative</td>
<td>Upper echelon</td>
<td>Team size CEO dominance</td>
<td>Firm performance (ROA, ROS, ROE)</td>
<td>CEO performance impacted by nature of business environment (turbulent versus stable). In addition, their research showed a relationship between CEO dominance and</td>
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<td>31</td>
<td>TMT</td>
<td>Amason, Shrader, and Tompson (2006)</td>
<td>Newness and novelty: Relating top management team composition to new venture performance</td>
<td>New teams</td>
<td>Quantitative</td>
<td>Information processing, Strategic management</td>
<td>TMT demographics, Novelty, TMT size, TMT heterogeneity</td>
<td>New venture performance (sales growth, profitability, and stock market returns)</td>
<td>Team characteristics influence information processing abilities and at least partially reflect the level of novelty and innovation.</td>
</tr>
<tr>
<td>33</td>
<td>TMT</td>
<td>Cannella, Park, and Lee (2008)</td>
<td>Top management team functional background diversity and firm performance: Examining the roles of team member colocation and environmental uncertainty</td>
<td>Individual, Functional diversity</td>
<td>Quantitative</td>
<td>Diversity</td>
<td>Team theory</td>
<td>Colocation of TMT members, Environmental uncertainty, TMT intrapersonal functional diversity</td>
<td>Firm performance (ROA minus net income divided by assets averaged over times T_1 and T_2)</td>
</tr>
<tr>
<td>34</td>
<td>TMT</td>
<td>Carmeli, Tishler, and Edmondson (2012)</td>
<td>CEO relational leadership and strategic decision quality in top management teams: The role of team trust and learning from failure</td>
<td>CEO leadership</td>
<td>Quantitative</td>
<td>Upper echelon</td>
<td>Team learning theory, CEO relational leadership TMT trust, TMT learning from failure</td>
<td>Strategic decision making</td>
<td>Relational context engendering trust and learning promoted by CEOs can improve the quality of strategic decisions.</td>
</tr>
<tr>
<td>35</td>
<td>TMT</td>
<td>Carmeli and Schaubroeck (2006)</td>
<td>Top management team behavioral integration, decision quality, and organizational decline</td>
<td>Team, Behavioral integration</td>
<td>Quantitative</td>
<td>Shared leadership</td>
<td>Perceived quality of decision making, TMT behavioral integration, Industry conditions, Organization characteristics</td>
<td>Organizational decline</td>
<td>Higher behavioral integration reported by TMT members were correlated to better quality strategic decisions. Behavioral integration was negatively related to firm underperformance.</td>
</tr>
<tr>
<td>36</td>
<td>TMT</td>
<td>Certo, Lester, Dalton, and Dalton (2006)</td>
<td>Top management teams, strategy and financial performance: A meta-analytic examination</td>
<td>Individual characteristics</td>
<td>Empirical/ Meta-analysis</td>
<td>Upper echelon</td>
<td>TMT size, TMT heterogeneity</td>
<td>Firm performance (ROA)</td>
<td>Larger and more heterogeneous TMTs provide the firm with more access to information.</td>
</tr>
<tr>
<td>37</td>
<td>TMT</td>
<td>Kilduff, Angelmar, and Mehra (2000)</td>
<td>Top management team diversity and firm performance: Examining the role of cognitions</td>
<td>Individual diversity</td>
<td>Quantitative</td>
<td>Sense making</td>
<td>Demographic diversity, Interpretive ambiguity, Level of disagreement</td>
<td>Cognitive diversity Performance of MARKSTRAT game</td>
<td>Members of high-performing teams moved toward greater clarity near the end of the life cycle. TMT</td>
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<td>TMT</td>
<td>Pitcher and Smith (2001)</td>
<td>Top management team heterogeneity: Personality, power, and proxies</td>
<td>Cognitive diversity</td>
<td>Qualitative/Longitudinal</td>
<td>Upper echelon</td>
<td>Age, Team tenure, Industry experience, Functional background heterogeneity, Cognitive diversity</td>
<td>Team effectiveness, Innovation</td>
<td>Linking the cognitive diversity of TMTs to strategic outcomes has proven problematic; statistical results have often been non-significant, weak, or inconsistent with previous work.</td>
</tr>
<tr>
<td>40</td>
<td>TMT</td>
<td>Wei and Lau (2012)</td>
<td>Effective teamwork at the top: The evidence from China</td>
<td>TMT’s effective teamwork</td>
<td>Quantitative</td>
<td>Upper echelon</td>
<td>TMT diversity</td>
<td>TMT effectiveness, Innovation of organizations</td>
<td>Functional team dynamics strengthen the positive effects of network diversity on firm innovation.</td>
</tr>
<tr>
<td>41</td>
<td>TMT</td>
<td>Zhang, Li, Ulrich, and van Dick (2013)</td>
<td>Getting everyone on board: The effect of differentiated transformational leadership by CEOs on top management team effectiveness and leader-rated firm performance</td>
<td>TMT</td>
<td>Quantitative</td>
<td>Upper echelon</td>
<td>Team leadership</td>
<td>CEO transformational leadership focused evenly</td>
<td>Team effectiveness, Firm performance</td>
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</table>
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