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Towards an Organizational Strategic Vitality Theory: A Study of a Public Sector Board of Directors

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A STUDY OF A PUBLIC SECTOR BOARD OF DIRECTORS

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ABSTRACT

TOWARDS AN ORGANIZATIONAL STRATEGIC VITALITY THEORY: A STUDY OF A PUBLIC SECTOR BOARD OF DIRECTORS

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Boards of directors govern practically all organizations of significant size in the public and private sector. Improving the understanding of how boards function is critical because when boards fail, the results can be devastating. Little is understood about the functioning of boards of directors in the public sector, which accounts for a significant amount of the gross national product of the world's economy. The author observed a public sector board of directors for one year. Using the grounded theory research method to analyze the observations, he generated a theory of organizational strategic vitality that describes how a board of directors that is motivated to sustain its organization's strategic vitality will undertake actions to increase the board's effectiveness; strengthen relationships with customers, stakeholders, and partners; create an effective strategy; infuse the strategy throughout its organization; and evaluate and foster strategic performance. In addition, this study found that this public sector board's motivation was self-determined, that motivation affected the selection of the board's primary role, and that the other major roles of a board can become subservient to the primary role once chosen. In addition to these findings, organizational classism was identified as a major impediment to strategic implementation.

This dissertation is dedicated to my family.

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CHAPTER I

INTRODUCTION

Boards of Directors

Boards of directors govern practically all organizations of significant size. A board of directors is the common apex of an organization's decision control system, monitoring every important decision (Hinna, De Nito, and Mangia, 2010). Boards of directors are distinguished from other management in their organizations because they have the power to monitor, hire, fire, and compensate all other managers as well as to set strategic direction (Fama and Jensen, 1983; Forbes and Milliken, 1999; Farrell, 2005; Dunn and Legge, 2002). Boards of directors are important because when they fail, the consequences can be devastating (Adams, Hermalin, and Weisbach, 2010; Leblanc and Gillies, 2005). Scholars try to conduct research on boards to help determine ways for improvement, but boards are notoriously difficult to study. "Few senior executives…have much tolerance for academic deconstruction, which is often seen as a form of irritating self-abuse" (Pettigrew, Thomas, and Whittington, 2002, p. 11). Due to this, there is still very little known about how boards actually operate (Adams et al., 2010; Calabro, Mussolino, and M. Huse, 2009; Leblanc and Gillies, 2005). While scholars are making efforts to study boards of directors in the private sector, there are proportionally far fewer studies of boards in the public sector (Hinna et al., 2010, p. 133).

The public sector is the part of the economy, controlled by government, which provides basic goods and services that are either not, or cannot be, provided by the private sector (BusinessDictionary.com, 2010). Boyne describes the differences between the public and private sector this way:

> The main conventional distinction between public and private organizations is their ownership (Rainey, Backoff, and Levine, 1976). Whereas private firms are owned by entrepreneurs or shareholders, public agencies are owned collectively by members of political communities. This distinction is associated with two further public/private contrasts. First, unlike their private counterparts, public agencies are funded largely by taxation rather than fees paid directly by customers (Niskanen, 1971; Walmsley and Zald, 1973). Secondly, public sector organizations are controlled predominantly by political forces, not market forces. In other words, the primary constraints are imposed by the political system rather than the economic system (Dahl Robert and Lindblom Charles, 1953).
>
> (Boyne, 2002)

Even though the public sector accounts for 35 percent of the world's gross national product, it is "virtually ignored" by business schools (Pettigrew et al., 2002, p. 24). The reason for this may be attributed to how small the public sector is in the United States (Ferlie, 2002, p. 280). In the late 1980s and into the 1990s, public sector organizations began to move away from traditional bureaucracies to board control, from government to governance (Rhodes, 1999). This increasing nature of board control in the public sector requires that scholars conduct more in-depth research to develop a greater understanding of these boards (Hodges, Wright, and Keasey, 1996; Cornforth and Edwards, 1999; Farrell, 2005; Skelcher and Davis, 1998). Scholars identify study of governance in the public sector as "an area wide open for intellectual leadership for a new generation of scholars" (Pettigrew et al., 2002, p. 24).

Three of the primary categories into which scholars classify studies of boards of directors (whether private or public) are roles, mechanics, and motivation (Adams et al., 2010). Scholars of the roles of public and private sector boards of directors identify three primary roles for a board of directors: performance management, network governance, and strategic leadership (Hinna et al., 2010, p. 146). In the performance management role, a board of director's primary responsibility is to ensure compliance and conformance through supervision of its organization's managers. In the network governance role, a board's primary responsibility is to develop partnerships on behalf of its organization. In the strategic leadership role, a board's primary responsibility is the strategic management of its organization: to set strategic direction and evaluate the organization's performance. As discussed in the next chapter, several studies address the roles of public and private sector boards of directors. The reason that studies of board roles are prevalent is because they can be investigated using secondary data. While studies of board roles exist, scholars still believe that current literature and theories are inadequately addressing the roles of boards of directors in the private sector (Old, 2009) or the public sector (Rochester and Cornforth, 2003).

Less prevalent are studies of boards of directors that concentrate on mechanics: how a board performs its functions. These studies, which concentrate on board processes, decision-making, and interactions, are rare due to the secrecy boards try to keep concerning their internal workings (Adams et al., 2010, p. 32). A small number of studies of the mechanics of private sector boards of directors provide rich detailed descriptions of how boards perform their jobs. In the public sector through, the vast majority of studies have addressed board mechanics in such a general manner as to provide no real contribution to the body of knowledge (M. Huse, 2007). Although understanding how boards function has long been acknowledged as critical to organizational governance research (Lorsch and MacIver, 1989; Roberts and Stiles, 1999; Westphal, 1998; Westphal, 1999), little is known still about how they operate (Maitlis, 2004).

Motivation is another category that scholars use to classify studies of boards of directors. Motivational studies explore the driving force behind the actions of a board of directors. Studies of boards of directors in the private sector have concentrated on the board's motivation by testing preexisting motivational theories or by conducting studies of the effects of identified motivators such as compensation and reputation (Adams et al., 2010). For public sector boards of directors though, surveys of literature indicate a complete absence of motivation as a specific focus of studies (Hinna et al., 2010). Boyne in his discussions about the difference between the public and private sector implied that motivation was forced upon public sector managers by their multiple stakeholders (Boyne, 2002). The author also cited arguments that public sector leaders were more motivated by a desire to serve the public as opposed to their private sector counterparts who were more motivated by financial rewards or organizational devotion. The author went on to discuss the difficulties of applying theories developed for private sector governance to the public sector. He concluded that qualitative research should be undertaken to better explain the why and how of public sector board functioning.

Problem and Purpose

The previous section helps to establish the problem this study addresses. Leblanc and Gillies describe the problem this way:

> …actual knowledge of how boards work has increased hardly at all. The reason for this is that boards are notoriously difficult to study. Of all the major institutions in society, it is probably the most closed. Few board meetings, if any, are ever open to the public and it is seldom that outsiders are invited to attend. Hence, little is really known about how and why boards make decisions. Most of the writing about boards, and in recent years, has been voluminous, has been limited to analyzing information that is publically available through annual reports, regulatory filings, and corporate releases. As a result, most writing is largely about various aspects of board structure and composition…
>
> (Leblanc and Gillies, 2005, pp. 1–2).

Stated generally, there is a lack of empirical knowledge of how boards of directors function. Specifically, there is a lack of understanding of the interactions between the roles, mechanics, and motivation of public sector boards of directors. As discussed in the next chapter, the existing literature builds a picture of the functioning of public sector boards of directors, albeit an incomplete one. These studies fail to provide sufficient details that are grounded in empirical data about how these boards operate. Without such data, conclusions about whether more efficient and appropriate measures could be instituted are premature. Therefore, the purpose of this study is to help them improve by filling in some significant gaps in the understanding of how these boards function. The primary question that this study seeks to address is how the roles, mechanics, and motivation of public sector boards of directors interact? By addressing this question, insight will be gained about how public sector boards are motivated and how motivation affects a board's roles and mechanics. The results of an exploratory study of this nature can be used to identify problems stemming from previous universalistic approaches and general theorizing of research on the functioning of public sector boards (Gabrielson and Huse, 2004). As stated by Hinna et al. (2010), "The area of corporate governance in the public sector should be examined to explore the extent to which private sector approaches might be legitimately adopted in public sector organizations." Results that allow better application of existing governance theories can aid in the improvement of board performance (M. Huse, Hoskisson, Zattoni, and Viganò, 2009).

Summary

Boards are extremely important yet difficult to study. While there is little empirical knowledge of the roles, mechanics, and motivations of boards of directors in the private sector, scholars state that there is an even greater lack of this kind of knowledge for public sector boards of directors. Research into these areas will provide insight into these aspects of public sector boards of directors with the hope that this knowledge can be used to improve the performance of these boards and decrease the inadequacies of existing theories of corporate governance.

The next chapter discusses the current body of knowledge as it relates to the research, theories, and concepts regarding public sector boards of directors

CHAPTER II

LITERATURE REVIEW

Introduction

Limited literature has been produced about public sector boards of directors. This study takes advantage of the work done by Hinna et al. (Hinna et al., 2010), who produced a survey of international literature pertinent to the study of public sector boards of directors at the organizational level as opposed to the state or societal level. The sources for their survey were 12 of the most relevant (determined by the number of citations) journals of public sector and governance studies. In addition to the literature identified by this survey, several other studies, theses, and dissertations were reviewed.

This review uses the framework provided by Adams et al. (Adams et al., 2010), who classified studies of private sector boards of directors as research of roles, mechanics, and motivation. This review discusses what, if any, theoretical perspectives the authors used for their studies and assesses the literature for its contribution to the understanding of the motivations, roles, and mechanics of public sector boards. Therefore, when selecting literature for review, criteria were set that the literature must address the motivations, roles, and/or mechanics of public sector boards of directors. The following section provides a review of all pertinent literature.

Studies of Public Sector Boards of Directors

Addressing Public Sector Board Roles

Scholarly literature dedicated to developing an understanding of public sector boards of directors begins in the late 1990s after a decade of a push to adopt private sector governance models to the public sector (Hinna et al., 2010). Establishing boards of directors was one of the initiatives that the public sector adopted readily. As Ashburner et al. (Ashburner, Ferlie, and FitzGerald, 1996) discussed in their study of organization transformation in the public sector, "Gone is the … system with bodies of … non-executives…in its place is a model based upon private sector boards…" Their study, one of the very few based on direct observations of public sector boards, discusses the emerging roles (i.e., performance management, strategic leadership, and network governance) of these new public boards. Jorgensen (Jørgensen, 1999), in a study concerning public sector values, briefly discussed the introduction of boards and their roles in the Danish public sector. The author stated, after reviewing literature, that the roles of public sector boards are the formulation of long-term missions, i.e., strategic leadership. This study does not discuss how motivation affected board roles or mechanics. An empirical study conducted by Dopson et al. (Dopson, Stewart, and Locock, 1999) on the United Kingdom's Nation Health Services attempted to trace the changes of board roles through a major organizational transition. Data collection for this study included interviews and observations but, due to a lack of access, not document analysis. The study stated that these boards had two primary tasks: strategic leadership and performance management. What these boards did was discussed, but not how they did it, and board motivation was not addressed. In a study of the use of contracts in the public sector, Considine (Considine, 2000) implied that the primary role of public boards was examining operational commitments (i.e., performance management), but no discussion occurred of board motivations or how boards function.

In an empirical study of literature concerning board members in local public spending bodies, Greer and Hoggett (Greer and Hoggett, 2000) stated that these board members saw their primary role as that of strategic leadership but that they could not be successful in that role if they did not also involve themselves in day-to-day operations, i.e., performance management. This study did discuss, in general, models concerning board committees, meetings, and decision-making but did not mention how boards are motivated. This study recommended that public boards would benefit from adoption of the stakeholder model. Under the stakeholder model, a board's primary roles should be to negotiate and resolve potential conflicts among different stakeholders, set strategy, and control management (Hinna et al., 2010; Donaldson and Preston, 1995).

In discussing the transfer of private sector governance models to the public sector, Clatworthy et al. (Clatworthy, Mellett, and Peel, 2000) stated that the primary role of boards for the UK's National Health System is to determine strategic direction and monitor performance. The study concluded that, because of the differences between the two sectors, the application to the public sector of governance theories developed for the private sector is problematic at best. The study suggested that new governance models must be developed for the public sector. The study did not delve into board motivations or mechanics but concluded that the debate requires more empirical research that would focus on whether more efficient and appropriate measures could be instituted for public sector board practices.

In their study of the growth of regulation in the UK government systems, Hood et al. (Hood, James, and Scott, 2000) found that the primary role of the public sector boards involved with regulation is performance management, and no discussion of board motivation or of a detailed description of how the board carried out their duties had occurred. In a study of the Merit Systems Protection Board, conducted using interviews and literature reviews, West and Durant (West and Durant, 2000) found that the main role of this board is to maintain consistency in the administration of civil service laws, i.e., performance management. This study discussed some of the board's processes but did not discuss what motivated the board.

By interviewing the chief executives of public sector organization in North Ireland, Hyndman and Eden (Hyndman and Eden, 2001) collected perceptions of the use of the rational management model in the public sector organizations. The study limited its focus on the processes of these executives concerning how they developed and used mission statements, objectives, targets, and performance measures; in other words, how they implemented strategic planning. The findings were that the rational management model was a poor fit and suggest that logical incrementalism was a better fit. Logical incrementalism states that leaders cannot plan for every option, therefore decisions must "emerge through a constant process of analysis, re-analysis, and modification throughout the development and implementation of the strategy in order to keep in line with the environment" (Hyndman and Eden, 2001, p. 595) as opposed to emerging through the linear process required by rational management. The study stated that strategic leadership and performance management are a public sector board's primary roles and implied that these roles are motivated by stakeholder emphasis on performance improvement of public sector organizations.

Gabris et al. (Gabris, Golembiewski, and Ihrke, 2001), in a survey they conducted to explore the association between public leadership, board behaviors, and innovation, discussed in general terms the importance of some board processes such as team building, communications, and developing openness, thus, implying that the primary role of boards is network governance. This study is significant because it tests and describes the inadequacies of adopting private sector governance models, performance measures, and values to the public sector. The study does not discuss motivation for board actions nor give a detailed description of how these actions are being performed. In a study of the failures of the Scottish Qualifications Agency, Clarence (Clarence, 2002) stated that because of government rules, the role of public sector executives was ill defined and that it could not be said what role they were expected to play in the strategic leadership or performance management of their organizations. The study made the claim that the problems the executives faced were caused by a lack of accountability in a system trying to implement a model based on agency theory. In agency theory, the main function of boards is the supervision of management activities (Hinna et al., 2010); therefore, a system trying to implement this approach, which lacks an accountability structure, would fail. This study did not discuss board motivation.

In a study of the UK public sector, Davies (Davies, 2002) argued that the primary role of public sector boards is becoming network governance and discussed some of the problems this might entail. Motivation and board mechanics were not addressed. In their study, Lowndes and Wilson (Lowndes and Wilson, 2003) implied that public sector boards of local governments in the UK had the role of performance management thrust upon them by their political stakeholders, but they did not address how this effected the boards' functioning. In a survey on the public's involvement with public sector boards, Barnes et al. (Barnes, Newman, Knops, and Sullivan, 2003) discussed, in very general terms, the operation of some boards in small UK municipalities and the primary role of network governance by mediation. In their study of the UK standards board, Kirkbride and Letza (Kirkbride and Letza, 2003) demonstrated that the primary role of this particular board was performance management and cited that the primary roles of any public sector board should be performance management and strategic leadership. They also claimed that these two roles naturally conflict with one another. This study does not discuss board motivation or mechanics. In a statistical analysis of Belgian senior civil servants, Dierickx (Dierickx, 2003) stated that these civil servants (who can be equated to board-level civil servants) saw their role as implementers of strategy (i.e., performance management), not developers of strategy, which they saw as the role of politicians. While the study discussed the values of these civil servants (materialism versus egalitarianism), no connection was made among motivation, roles, or mechanics. In a review of public, quasi-autonomous public organizations in the UK, Flinders (Flinders, 2004) discussed the conflict between the strategic leadership role and performance management role for the leaders of these organizations. The study described what these boards do, but not how they do it, and motivation was only implied.

By conducting interviews with board members of the UK education system, Farrell (Farrell, 2005) tried to determine the degree to which board members were involved in strategic leadership. Farrell immediately defined the role for public sector boards as strategic leadership but discovered that education boards were less involved in this activity than the author assumed. In the study, the author also claimed that, despite differences, the application of theoretical governance models developed for the private sector were applicable to the public sector, an opinion not shared by many other scholars of public sector boards, as evidenced by this literature review. Because strategic leadership was not the primary role of the educational governing boards, the author concluded that these boards should not be treated as boards of directors. Had the author conducted the study with a more investigative approach, with fewer assumptions of board roles at the beginning, her conclusions may have been different. The motivation and mechanics of these educational boards were not addressed.

In their study of the institutional design of partnership governance, Skelcher et al. (Skelcher, Mathur, and Smith, 2005) implied that the predominate role of public sector boards, especially when they collaborate with other entities, is performance management. This study did not delve into how or why these boards functioned. In a study of the Asian regimes considering decentralization programs, Guess (Guess, 2005) discussed the introduction of boards to the public sector of some Asian countries and how they were being used to take power away from politicians and put it back into the hands of the citizenry, with the boards' primary role being performance management. In a study of the quasi-public European teleconference industry, Nestor (Nestor, 2005) makes several conclusions of what these boards should be doing, like building cohesion and culture (network governance), strategic leadership, and conducting evaluations (performance management). In another study of UK partnership governance, Smith et al. (Smith, Mathur, and Skelcher, 2006) interviews with board members indicated that they felt their primary role was network governance, to seek opportunities to collaborate with other organizations. In a study of the impact of gender to the performance of public organizations, Meier et al. (Meier, O'Toole Jr, and Goerdel, 2006) stated that the primary role of public managers is to develop relationships with other organizations (i.e., network governance) and to manage up (to stakeholders), down (to employees), and out (to other organizations). In a study of reforms to the UK's National Health Service, Morrell (Morrell, 2006) indicated that the primary roles of trust boards in the public health sector is to monitor performance (performance management) and build collaborative relationships with other organizations (network governance).

In a study of reforms in Quebec's public services, Mazouz and Tremblay (Mazouz and Tremblay, 2006) stated that the new focus of public sector managers is to improve public service (performance management) and that their strategic plans and networking task should support this focus. In a survey of the governance practices of French hospital agencies, Minvielle (Minvielle, 2006) found that boards were being implemented to help decentralize government control. He goes on to describe some of the tasks of these boards that could be categorized under the three primary roles of boards. Using a descriptive case study method with data collected from observations, interviews, and documentation, Dorsett (Dorsett, 2007) studied strategy formation in a public healthcare organization and found that the observed boards were more interested in performance management than strategic leadership. In a study of public authorities, Bourdeaux (Bourdeaux, 2007) described the role of these public leaders as one to buffer decisions from political influences; in other words, to serve the public interest by making the best decisions possible. This role obviously would involve performance management and strategic leadership tasks, and the need to influence elected officials implies network governance tasks. In their study of reforms of UK Civil Service Boards, Bovaird and Russell (Bovaird and Russell, 2007) discussed how reforms were pushing public sector boards to take on a more strategic leadership role, implying that the main role of the boards is performance management. In a study to determine the compatibility of democracy and network governance, Klijn and Skelcher (Klijn and Skelcher, 2007) discussed public sector boards' role in network governance. The authors also discussed findings that efficiencies were gained by having public boards set and implement detailed policies while politicians steer the overall direction of system change.

In summary, the findings of this section on boards of directors in the public sector indicate three primary roles: strategic leadership, performance management, and network governance. In many cases, authors defined a board of directors by only one of the primary roles. This caused great consternation when their findings indicated that a particular board that they examined was performing a different role from what was expected. In addition, some authors stated that they believe the three roles naturally conflict with one another. Many of the studies cited in this review used theories of governance from private industry to explore public sector roles. This approach often was shown to be limiting, at best, and counterproductive at worst. Data collection for these studies used either cross-sectional techniques, such as interviews, or secondary material. Neither of these data gathering methods allows for the development of longitudinal, in-depth understanding of how these boards function. Therefore, while these studies explored what public sector boards do, they could not make a connection to why they do it or describe how they do it.

Describing Public Sector Board Mechanics

Due to a lack of access, there are few studies describing the mechanics (how they do things) of public sector boards of directors. Huxham and Vangen (Huxham and Vangen, 2000) studied the processes (narrowly defined as the formal and informal instruments of communication such as committees, workshops, seminars, and telephone, fax, and email use) that boards used to establish collaborations with other organizations, implying that the primary role of boards is building relationships, i.e., network governance. The study does not address board motivation. The authors conducted this study using an action research method where they intervened, usually as consultants or facilitators, with the boards they were studying, meaning that they were conscientiously and purposely affecting what they were observing.

In a description of board failure, Siciliano (Siciliano, 2002) discussed his activities as a member of the Nixon Pay Board. While this is a detailed description of what this board did and the reasons it failed, it is based on the author's memories and perceptions and therefore appears to lack any scientific rigor.

In an observational study conducted on two public symphony boards, Maitlis (Maitlis, 2004) described the relationship between the chief executive officer (CEO) and the board. This study focused solely on how CEOs influence their boards, but, in so doing, Maitlis did provide some insights into how boards function. The study stated that strategic leadership was a public sector board's primary role.

Lack of access explains why there are few detailed descriptions of how public sector boards function. Of the three studies discovered, one has the researchers actively engaging and influencing their participants; one is based on memories, perspectives, and opinions; and one is focused on the actions of the leader of the board rather than on the board itself. None of these studies connects the observed functions to how they were influenced or influenced the boards' roles and motivations.

Addressing Public Sector Board Motivations

In their study of the effect of importing private sector ethics to public sector governance, Brereton and Temple (Brereton and Temple, 1999) discussed the opinions of Pratchett and Wingfield (Pratchett and Wingfield, 1994), who believed that, before the introduction of private sector ethics, local bureaucrats were driven by altruistic motivation, simply wanting to do good for their community, profession, and organization. Brereton and Temple considered this a rather idealistic view of public sector leadership motivation. Brereton and Temple went on to discuss Hood's (Hood, 1991) study in which he offered the opinion that after the introduction of private sector ethics, the motivation for public servants had changed to the lean and efficient running of their organizations, in other words: their bottom line, implying that the primary role of public sector boards would be performance management. Brereton and Temple argued that the truth of motivation would lie in between these two motivational extremes. This study did not address the effect of motivation on the roles or the mechanisms of public sector boards of directors.

In a study of accountability in the public sector, Mulgan (Mulgan, 2000) identified that public officials may be motivated by the fear of being called to account and face scrutiny and possible penalty. The study also indicated that public leaders might be motivated by deferment to political superiors out of democratic conviction or in hope of personal advancement. This implies a democratic model (Hinna et al., 2010) where a board's role is to choose the appropriate policy to balance the interests of various stakeholders (i.e., network governance). This study did not address public sector boards specifically so no direct link could be made to board motivations or goals.

In their study of the succession of executives in the public sector, Boyne and Dahya (Boyne and Dahya, 2002) stated that theories of public leadership could be strengthened if they were empirically based. Through a literature review, they derived that public sector executives were driven by a mixture of three types of motivation. The first was a pragmatic motivation, where executives are driven simply to serve their political superiors, which could imply a role of networking governance. The next was altruistic motivation where executives are driven by a desire to provide services that benefited the public. The emphasis the authors argue for these managers would be performance management. The third motive was egotistic where public officials attempt to bias public policies towards their own interests, which could imply that their primary role would be network governance. While the authors stated that motivation should affect board roles, they also stated that executive roles in the public sector are frequently vague. In addition, they also imply that the roles of public executives are more self-determined than imposed upon them. The study discusses some of the general tasks of public sector leaders but does not delve into the mechanics of these tasks.

Based on analysis of secondary documents and interviews, Parkinson (Parkinson, 2004) explored why senior public servants were using the deliberative process (i.e., bringing in and giving the public a weighted say) in their decision-making processes. Parkinson found that these boards were pursuing input from the public because they distrusted the information they were getting from special interests groups. While the reasons given do link senior civil servants' reasons to the use of this particular process, it is but an explanation of the motivations for a single board decision and does not address the board's motivation for any other specific mechanics.

In summary of this section, there is no study where the general motivation of public sector boards of directors is the primary focus. Board motivation is normatively implied rather than empirically discovered.

Summary

The existing literature builds a picture of the functioning of public sector boards of directors, albeit an incomplete one. The vast majority of these studies fail to provide sufficient details about how these boards operate and are not grounded by actual data obtained through firsthand observation. Without such data, conclusions about whether more efficient and appropriate measures could be instituted are premature. This study will contribute to the body of literature by giving a detailed account of how this board operates and, by so doing, produce a theory explaining the interaction between public sector board motivations, roles, and mechanics.

The next section justifies the research method chosen for this study and outlines the process the study followed.

CHAPTER III

METHODOLOGY

Studying How Boards Function

Conducting a study of the internal workings of boards of directors and how they function is notoriously difficult. Researchers are normally restricted to data that is publically available or secondary, archival, and even hearsay. This type of information provides little insight to the inner working of boards (Leblanc and Schwartz, 2007; Stiles, 2001, p. 631). Historically, there has been a distinct prejudice in management research towards cross-sectional and away from longitudinal studies that has left "little empirical work to substantiate critical assessments of mainstream work, or any new empirical possibilities" (Pettigrew et al., 2002, p. 14). To further the understanding of how boards function, studies "must focus not only on a single decision but also on the patterns of decisions and actions that accumulate over time" (Chakravarthy and White, 2002, p. 183). Scholars also point out the need for new studies using a wider variety of research methods relying more in primary empirical data rather than secondary data to fill the empirical gaps (Ferlie, 2002, p. 295).

In addition, most research on boards is conducted by applying preexisting governance theories developed for studying the private sector (e.g., Agency Theory, Team Theory, etc.) to this secondary data in an attempt to make the predictions of how boards function. These predictions have proven very inadequate (Adams et al., 2010, p. 32). Research of boards is usually conducted from a distance—by counting structures and regressing them on performance—rather than by understanding the structure from the inside (Whittington, 2002, p. 130).

What scholars are calling for to increase the body of knowledge of public sectors boards are rich, detailed studies of how these boards function that will create insight and develop a range of hypotheses for future research (Pettigrew et al., 2002, pp. 26–27). There is also an identified need for better modeling of boards and their functions (Guerra, Fischmann, and Machado, 2009, p. 200; Hermalin and Weisbach, 2003). Therefore, to truly understand how boards function requires longitudinal, direct observation (Ong and Wan, 2009; Petrovic, 2008; Finkelstein and Mooney, 2003; Daily, Dalton, and Cannella Jr, 2003; Forbes and Milliken, 1999; Morten Huse, 1998). Direct observational studies produce diverse empirical results. These findings can be explicitly incorporated into existing theoretical models (Huse, 2009).

To conduct this research, a one-year study was negotiated with a public sector board of directors. The board agreed to allow complete and unfettered access to its meetings, conversations, and the documentation it produced pertaining to the governance of its organization. This allowed the opportunity for an in-depth, longitudinal study to be conducted. This study is a rare opportunity to gain first-hand insights into how and why a public sector board of directors functions.

Criteria for Choosing a Research Methodology

The research methodology chosen to conduct this study would have to meet several criteria. First, the methodology would have to be exploratory and longitudinal to allow for an empirical investigation of the research elements (i.e., public sector board roles, mechanics, and motivations). As previously noted, researchers of boards of directors state that research that creates a cross-sectional "snapshot" cannot answer a question like "how" or "why" a board is functioning. Based on this reasoning, an empirical, inductive research methodology was chosen to conduct this study. Researchers created inductive methods for answering the questions of "how" and "why" phenomena are occurring. Having established the need for an inductive research methodology, a research method could be selected.

The Grounded Theory Research Method

This study followed the grounded theory process as described in "Doing Grounded Theory: Issues and Discussions" (Glaser, 1998). The goals and methods of grounded theory made it an ideal choice for this study. First, like an exploratory case study, grounded theory captures and describes the how and why of what participants are doing. Unlike an exploratory case study, grounded theory produces a categorized explanation, not just a descriptive account, of the major constructs, their relationships, and the context and processes of the observed participants' actions and behaviors (Morse and Richards, 2002; Becker, 1993). Grounded theory facilitates relating new findings to existing theories within the field of study (Laws and McLeod, 2004). One of the primary goals of a grounded theory study is to identify what is referred to as a "core concept": a concept that can explain the reason for all observed actions. In this case, the core concept would be the motivation of the observed board of directors, what was the driving force behind their actions. In grounded theory, although the participants are observed, the incidents (i.e., the events, actions, and interactions of the participants) are the actual units of analysis. Another aspect of grounded theory that made it ideal for this study was that participant observation is considered the ideal data gathering method (Locke, 2001, p.

24). The data collection processes in grounded theory assure that data are gathered carefully, "thoroughly, and in a way that is understandable to others, and that procedures are used that can be replicated by other researchers even though the field situation may change" (LeCompte, 1999, p. 2). While field notes are the primary source of data, a researcher may also collect data from other sources like documentation.

Research Approach

Fieldwork

This study commenced on July 7, 2008 when the board granted permission for this study to begin and ended one year later in July 2009. The board agreed to allow the author to attend all board of directors meetings with corresponding access to the participants and documentation. Data collection and analysis began immediately. Fieldwork for this study took place during events where members of the board of directors were conducting meetings either with themselves or with employees. Field notes captured at minimum the following data:

- the name and date of the event being observed;
- the topic of the event;
- observations of the actions/interactions occurring at the event;
- name of the participant responsible for the action/interaction;
- memos of how these observations may relate to other collected observations.

Although the participants are not the unit of analysis, the author of each incident was recorded in case an interview was required at some later point to clarify an issue. Interviews would be held only after the observation period had ended to reduce biasing effects. However, no issue arose that warranted clarifying interviews with the participants. In addition to field notes, all material produced by the board was collected and analyzed although not coded. This material was used as a two-point triangulation of evidence to strengthen the findings of this study.

Coding Data

As board activities were observed and recorded, they had to be coded. There are many established families of theoretical codes (Glaser, 1978, pp. 73–82; Glaser, 1998, pp. 170–175), and, in grounded theory, a researcher is free to use or modify an existing one or create an entirely new family. Different established and custom theoretical coding families were tested and, eventually, the choice was narrowed to three candidate families.

The first two were the Process Family (Stage, Staging, Phases, Phasing, Progressions, Passages, Gradation, Transitions, Steps, Ranks, Careers, Ordering, Trajectories, Chains, Sequencing, Temporaling, Shaping, and Cycling) and the Strategy Family (Strategies, Tactics, Mechanisms, Managed, Way, Manipulation, Maneuvering, Dealing with, Handling, Techniques, Ploys, Means, Goal, Arrangements, Dominating, and Positioning). Both of these families appeared promising at first, but as analysis continued, it became apparent that the data being collected did not fit into these theoretical codes.

The third choice of theoretical coding family turned out to be the correct one for this study. The Means-Goals Family is a simplification of the Process Family. When applied to this family, the fit of the data became evident. The elements of this family used for this study are activities, goals, products, and anticipated consequences. Activities describe what the board is doing. Goals are what the board of directors was trying to achieve by conducting the activity. Products were items produced by the board's activities. The final coding element for the data was anticipated consequence, a desirable outcome the board expected if it achieved a goal. As board activities (events, actions, and interactions) were observed, the goals, products, and anticipated consequences of each activity were captured and coded. As the data set of coded observations grew, categorization could begin.

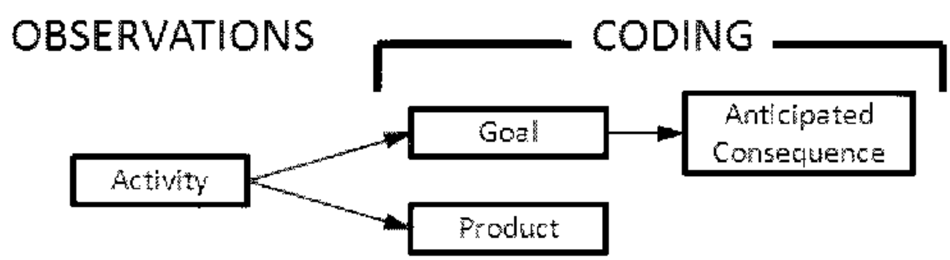

Figure 1. Observation and Coding of Data

Categorization

As data were collected and analyzed, patterns began to emerge that allowed for categorization. The goals determined the categories for this study. For some of the primary goals of this board of directors, the analyses identified supporting goals. Within every goal category, there are descriptions of the activities, products, and anticipated consequences linked to the goal. Once all the data had been captured, coded, and categorized, it could be analyzed in an integrated fashion. Doing so produced a theory of how this board of directors functioned and their motivations for doing so.

- Goal A
    - Activities
    - Products
    - Anticipated Consequences
- Goal B
    - Activities
    - Products
    - Anticipated Consequences
- Goal C
    - Activities
    - Products
    - Anticipated Consequences

Figure 2. Categorization of Data

Research Sample

The sample for this study was the board of directors of a public sector engineering organization dedicated to technology research and development. The organization employed approximately 5000 civil servants and contractors and had an approximate annual budget of one billion dollars. The board of directors consisted of 24 senior federal executives.

To help establish the context of this study, the next section describes the recent history of this organization.

Contextual Setting

The following history was provided by the observed board of directors to help set the contextual setting for this study. Four years prior to this study, this organization faced a crisis due to a major shift in stakeholder policy. The organization was facing a potential (and seemingly likely) major reduction of its contractor and civil servant workforce (large civil servant reductions being a very rare event). Blindsided, the board of directors began grimly planning for this reduction, potentially even for closure of their organization. Unexpectedly, the major stakeholder whose policy had caused so much harm vacated their position and was replaced. This new stakeholder's policy would not require any reduction of force to the observed board of director's organization. Although saved from possible extinction, the board of directors and its organization still faced many problems.

The board and its organization were in a state of trauma from what it now referred to as the "near-death experience" and went into survival mode. The board conducted a root cause analysis and determined that its lack of integration and strategic management was the primary culprit. The board at this point dedicated itself to increasing its cohesion and managing by strategy. Several strategic teams were formed to determine how the organization could strengthen itself for the future. From the results of these teams' work, the board concluded that its organization was not structured correctly to meet the challenges of the future. Thus, the board began to restructure their organization and its workforce to be more competitive for future work opportunities. Implementing this transition was a source of high frustration and anxiety for managers and the workforce alike.

After the reorganization was completed, the board began to develop a new strategy. Through much discussion and down selection, the board reached consensus on the preliminary strategic objectives and initiatives. The board then briefed its organization's line managers and project leaders to receive feedback on this new strategy.

The board used this feedback to prioritize the strategic initiatives. Once the first strategic initiatives were ready to be implemented, the board appointed members of the board, as opposed to line managers, responsibility for implementing the initiatives. In this way, the board felt it could prove its dedication to managing by strategy to its workforce.

Next, the board of directors attended their first strategic leadership retreat to reaffirm commitment to managing by strategy. At this meeting, the board presented its initial strategic initiatives with corresponding metric targets. The board reexamined its governance and decision-making models to ensure that they were strategically focused and viable. The board also discussed and created plans about how to communicate strategic issues to the workforce.

Within six months, the board held another strategic leadership retreat. During this meeting, the board assessed the strategy in terms of the internal and external environment. The board also discussed its operational models and changes that might still be required in the organization's structure to meet strategic goals. The board assessed and validated the current strategic objectives. The board removed from the strategy objectives that were no longer considered valid and developed new objectives to take their place. Another goal of the board during this retreat was to evaluate the strategy's implementation approach and develop flexible operational models for a 5–15 year timeframe.

The observations for this study began with the board's third leadership retreat. The primary source of data for this study was observations taken during the board of director's weekly strategic meeting. These meetings, dedicated to the discussion of strategic issues, took place almost every Monday afternoon and lasted an average of four and a half hours. While many other board meetings took place and were observed, this weekly strategic meeting was the ideal venue for capturing observations. All plans and issues that the board considered important would eventually be discussed at these meetings.

Summary

A grounded study based upon direct observations of a public sector board of directors will produce what scholars have indicated is needed: a detailed description and new findings that will help to explain how and why these boards function. The next chapter discusses the results of this study.

CHAPTER IV

RESULTS

The following presents a categorized explanation of how this public sector board of directors functioned: what it did, how it did it, and why it did it. The analysis of the data identified that the core motivation, the primary reason for all observed events, activities, and interactions, for this board of directors was to sustain their organization's strategic vitality: to become and remain successful far into the future. With this as its motivation, the board then determined that its primary role was strategic management. The following sections describe the five primary goals driven by the board's motivation to sustain the strategic vitality of its organization. Some of these primary goals have supporting goals. Each section describes in detail how the board tried to achieve these goals. These descriptions also capture what the board expected to occur if it achieved its goals, the anticipated consequences.

Descriptive Statistics

The board allowed one full year of unfettered access to their meetings and documentation. During this time, 115 strategic meetings were observed, equating to 353 hours of observation. This allowed for the capture of 1576 discrete board activities. These activities mapped to five primary goals.

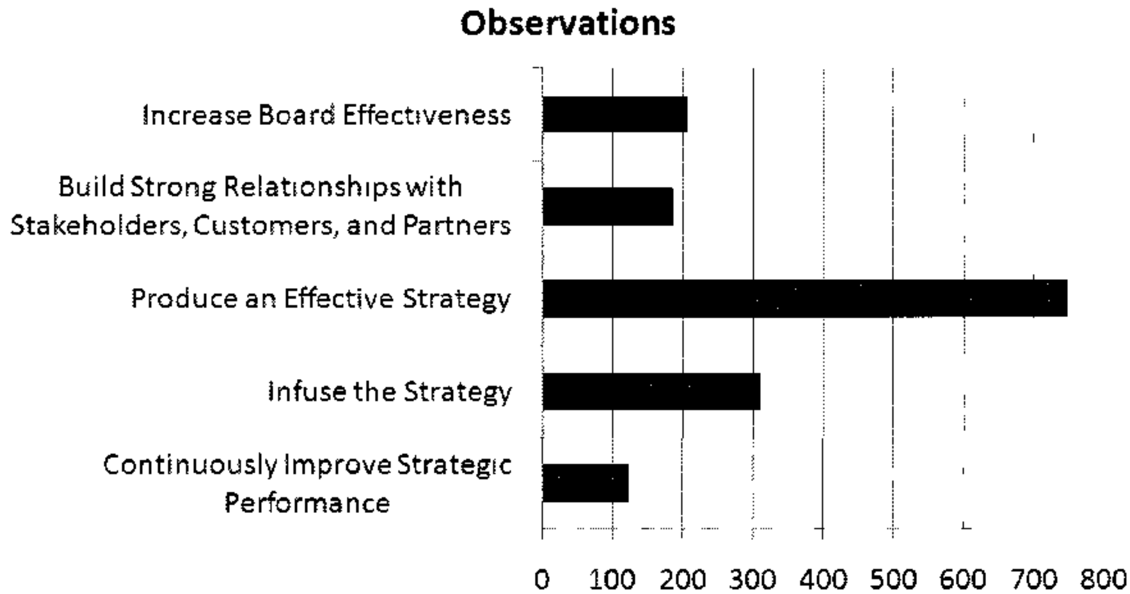

Figure 3. Observations Per Goal

The following sections provide a detailed description of the observed board's activities pertaining to these goals.

Primary Goal: Increased Board Effectiveness

The first primary goal of the observed board of directors was to increase their effectiveness: to develop as a team and to develop practices that would help them to be successful. This primary goal has two supporting goals: build board cohesion and establish efficient and effective strategic management practices. The following sections describe how the board tried to achieve these two supporting goals.

Supporting Goal: Build Board Cohesion

To increase its ability to create and implement strategy, the observed board of directors attempted to increase its cohesion. First, to develop shared understanding the board members interacted frequently. For example, during the one-year observation period of this study, every Monday afternoon the board met for its primary strategic meeting (except for the third Monday of every month, which was dedicated to reviewing the status of product and service development and delivery). These weekly strategic meetings lasted an average of four and a half hours and allowed for in-depth discussions about strategic matters. When attending these meetings, the board members were reminded constantly that as this federal research organization's board of directors, it should make decisions based upon what was best for the organization as a whole, not what was necessarily best for the particular subdivision a member represented. In addition to these intense weekly strategic meetings, the board members met separately with each other throughout the week to discuss issues. The board also occasionally held retreats where they could meet away from the work environment and work on building cohesion. To aid its internal communications and build cohesion, the board used electronic communications (e.g., e-mail, document repositories, and Web sites) to build its shared understanding and increase its cohesiveness. At times, this included experimenting with newer forms of electronic communication (e.g., wikis and blogs).

The observed board believed that it must develop an environment where each board member felt free and was encouraged to share his or her opinions without fear of attack. It strove to make constructive negative feedback as appreciated as positive feedback. The board recognized that many of its members were conflict-adverse so it strove to make passionate but polite dissent and debate a positive part of its culture. In addition, the board attempted to create an environment that embraced ambiguity and "messy discussions," where members would be free to challenge one another without fear of blame or embarrassment. The board of directors often used team-building exercises and professional facilitation to open up its lines of communication with each other and broach subjects members might have not otherwise discussed.

By attempting to develop a shared understanding, the board produced products. First, the board produced standardized terminologies and assumptions. This was important because terms and assumptions not agreed upon caused misunderstandings, frustration, and rework, as was often observed during this study. Terminology refers to the words and phrases used by the board as sharing the same definition for each team member. The following were some examples of terms that the board spent considerable time trying to define:

- Research
- Development
- Long/short term
- Balance
- Growth
- Mission
- Creativity and innovation
- Success (What does it mean and look like when we win?)
- Leader
- Transparency

For example, the board believed that it and the workforce should have the same understanding of what it meant for the organization to succeed. Depending on the situation though, success may be defined as beating the competition or as just surviving an economic downturn. The board felt that whatever the definition of success was, everybody in the organization should understand it so that they would work harder to obtain it.

Similar to terminology, assumptions used when making projections (predictions of the future based on past trends and current information) were a major source of problems for the observed board as well. This problem can best be described with an example from the observations. Members of the board of directors had to produce employee growth projections for their subdivisions. At a later meeting when these board members presented their growth projections, it became clear that the projections had been based upon different assumptions. Some board members had assumed that projections only had to pertain to the number of civil servants (those employed directly by the federal government) and only accounted for these employees in their projections. Other board members had added their organization's contractor workforce along with their civil servants when making projections. Others added their contractors, civil servants, and visiting students and professors to their projections as well. Due to this lack of integration, board members had to rework the projections. It had to take additional time to meet with one another and work out an agreement on the assumptions it would use.

Another product of trying to build cohesion was an agreed upon definition of the purpose and priority of the board's management: What was the board's primary role and how would the activities supporting this goal be prioritized? The answers to these questions greatly affected the resources invested into these activities that, in turn, helped determine how activities would be executed. In this case, the board determined that its purpose was to ensure the strategic vitality of its organization; therefore, the board determined that strategic leadership was its primary role and the activities that supported this were prioritized.

The following quotations were examples of how the board defined the need for strategic management and its role practicing it:

- "The strategy is there to keep our organization vital."
- "The strategy is for the organization, not for the leadership. If any member of the [board] leaves, it doesn't die."
- "Strategy is more than the numbers, it's about the ideas, it's about the culture."
- "The strategy is there to make sure that the organization is being proactive instead of reactive to its situation."
- "Strategy is about framing decisions in a context: not just time but what's the big picture."
- "We are not predictors of the future but the integrating function for the strategy."
- "The strategy should be seen as a means to an end, not the end itself."

The purpose can be readdressed and revised as the situation warrants. The board prioritized strategic activities and ensured that these activities were given the resources (e.g., time, money, and personnel) required to be effective. As will be discussed in a later section, to foster strategic performance the board evaluated its own performance. These evaluations acted as a feedback mechanism to the activities supporting this goal.

The board believed that by developing a shared understanding and constantly working to remove ambiguity from its purpose, terminology, and projections, the board's cohesion would grow. The board believed that the more cohesive members were and the more they grew together as an integrated team, the better able the board would be to design and execute a strategy. As stated, the efforts of this activity greatly affected the activities supporting the next goal.

Supporting Goal: Establish Efficient and Effective Strategic Management Practices

In addition to building board cohesion, the board of directors, having decided that strategic leadership was its primary responsibility, decided how it would practice strategic management: how it would go about creating, implementing, evaluating, and changing its organization's strategy. The purpose and priority that the board set for its strategic management greatly influenced the amount of resources allocated for these efforts. One of the major practices the board developed was its strategic meetings: how it would interact to discuss strategic matters. Examples of some of the parameters the observed board considered about its strategic meetings were frequency, length of time, purpose, participants, and desired outcomes. As was stated in the previous section, the board dedicated approximately four and a half hours every Monday afternoon to strategic management issues. The board also decided that it would have a facilitated, multi-day, strategic offsite meeting every year dedicated to a holistic review of its strategic progress. The board decided that this offsite meeting would be followed by a meeting with all of the organization's line managers, followed by a town hall style meeting with all employees, to discuss the strategy and related issues. Board members also arranged other strategic meetings as necessary.

Another practice the board of directors determined was the process for analyzing and discussing strategic information. For example, the board implemented a policy that presentations for its strategic meetings would be made accessible to the board ahead of time for review. In this way, the board thought, it could spend less time reviewing data during a meeting and more time discussing and making decisions. In addition to analysis, the board determined how strategic progress would be evaluated and over what period. The board also determined how it would decide if the strategy was succeeding or failing. As one board member asked, "What does it mean to win?" Finally, while analysis was important, the board had to determine when to halt analysis. The board worried about "analysis-paralysis" and knew it must set limits to the amount of analysis it conducts; then they must stop and take action, and respond to the results. Another important decision concerned how and how much input to gather from employees. As will be demonstrated in multiple examples throughout these results, the board considered soliciting and capturing employee input vital to the creation and implementation of the strategy.

Another product the board produced when developing its strategic practices was accountability, assignments of responsibility to individual board members. Board members instructed each other to take a corporate view: to think and act upon what was best for the long-term interests of the whole organization, not what was best for its own particular function or subdivision. The board chose individual board members to be the "champions" or "owners" of certain strategic objectives (strategic objectives will be discussed in a later category). These board members were responsible for stewarding and reporting on the progress of the strategic objective assigned to them. Board members received similar assignments concerning measuring strategic progress and implementing strategic actions. The board also believed that holding themselves accountable for the strategy would have a positive effect on the strategy's fidelity.

The board felt that as its strategic practices grew more efficient and effective, it would enhance its ability to create and implement strategy. In a later activity, the board collected and evaluated feedback on its strategic practices. The board used these evaluations to increase the efficiency and effectiveness of its strategic practices.

The activities and products used to achieve this goal greatly influenced how the board practiced all the activities discussed in the following categories of goals. The next category discusses the goal of building relationships with stakeholders, customers, and partners, and the activities the board would undertake to achieve this.

Primary Goal: Build Strong Relationships with Stakeholders, Customers, and Partners

The next primary goal of the observed board of directors was to build strong relationships with stakeholders, customers, and partners. This primary goal has three supporting goals: develop influential relationships with stakeholders and influencers, develop relationships with potential customers and partners, and strengthen relationships with current customers and partners. Before describing how the board tried to achieve these three supporting goals, some further explanation is necessary.

To stay strategically vital and to have better access to strategic information, the board believed that its organization must have strong relationships with its stakeholders, customers, and partners. For a public sector organization, a stakeholder is an entity that can set or influence the policies and regulations governing the organization. In other words, stakeholders have great influence on what an organization can do and how it can do it. Examples of stakeholders of American public sector organizations include the President of the United States, the Congress, and the politically appointed administrators of the various federal agencies. An important subset of stakeholders is an influencer; a person or group that does not set the policies of an organization but can exert great influence on the stakeholders who do. For example, a stakeholder, like a member of Congress, can be influenced by his or her constituency, the media, and lobbyists. A customer is defined as the direct recipients or beneficiaries of products or services. Finally, partners are any entity that can add capability to an organization's complement, allowing it to increase its ability to deliver products and services. Partners share an interest in working with an organization to achieve a common goal. As an example, the observed board often sought to collaborate with other federal research organizations, contracting companies, and universities to augment its own organization's capabilities. The unifying anticipated consequence of all the activities in this category is the increased availability and quality of strategic information from customers, stakeholders, and partners. The observed board considered this information critical for the development of strategy.

The supporting goals of developing influential relationships with stakeholders, influencers, potential customers, and partners involved primarily marketing and networking efforts. Marketing is the promotion of products, capabilities, and services an organization can provide. Networking is the development of relationships with people and organizations whose support could lead to new business information and opportunities. Although the board of directors approached marketing and networking to stakeholders, influencers, customers, and partners differently, certain aspects of its activities were common. First, the board ensured that material for marketing efforts was produced and available. For example, the board sought to develop a clear and common message of its organization's capabilities and goals. The board's message delivered the reasons why stakeholders, customers, or partners would want to support, do business with, or collaborate with its organization, respectively. The board also strove to make its marketing messages flexible enough so that it could adjust them for the target audience. As another example, the board of directors worked on developing an "elevator speech," a short persuasive speech given to stakeholders and customers during a time-limited opportunity to peak their interests quickly. To aid with marketing, the board of directors considered branding its organization: defining and advertising what made its organization unique. As stated previously, the participant organization was large and diversified, making it difficult to brand because it supported the missions of different stakeholders at various technology levels (e.g., basic research, applied research, product demonstrations). Therefore, the observed board discussed the possibility of using professional assistance in developing a brand for the organization.

At the same time it was developing communication material for marketing, the board also considered the development of its marketers. The observed board of directors strove to remain cognizant of the people who were representing and marketing on behalf of the organization, regardless of whether that person was a member of the board or an employee. The board trained those tasked with promoting the organization to enable them to market and build networks effectively. Because of the size and diversification of the organization, the board dedicated resources to make certain that marketers developed an understanding of the organization's capabilities. These efforts included informational briefings and tours of the organization's installations. The board also ensured that its marketers learned how to communicate effectively information about the organization such as the specialized skills and services offered by its workforce, the capabilities of its facilities, and what made the organization unique and special in general.

The board took steps to ensure that its organization was constantly reaching out to stakeholders and potential customers and partners instead of waiting for them to make contact. The board made certain that it (or its chosen representatives) was frequently visiting the organizations of its stakeholders, customers, and partners. The board of directors often proactively invited stakeholders, customers, and partners to visit and meet with employees and tour facilities. These visits gave visitors a first-hand experience as to what capabilities the organization had to offer. The board also encouraged employees to take temporary development positions in stakeholders', customers', and partners' organizations whenever practical and possible. The board felt that these temporary assignments could be major relationship builders and conduits for strategic information. Another opportunity the board used to build networks was at conferences. The board felt that these face-to-face networking events were crucial to the development of good relationships and supported the workforce's involvement as much as possible. Employee attendance at conferences, especially if invited to speak, was greatly encouraged. The board also encouraged employees to submit articles to scientific news outlets, peer-reviewed journals, and to serve as fellows on the councils of professional societies. Thanks to advances in communications technology, virtual networking was also a viable option, and as the board discovered, sometimes it might be the only option. During this study, the funding used to host or attend conferences was greatly reduced. With this restriction, the board sought ways to maintain levels of networking through virtual means such as teleconferencing. With geographically distributed organizations, teleconferencing has become the norm for keeping informed of the plans and needs of stakeholders, customers, and partners.

The following two sections describe the supporting goals that the board's marketing and networking efforts supported.

Supporting Goal: Develop Influential Relationships with Stakeholders and Influencers

The observed board of directors attempted, through marketing and networking, to build influential relationships with its stakeholders and influencers. To achieve this, the board of directors first needed to identify who its organization's stakeholders were. Primarily, this meant identifying the correct points-of-contact within the stakeholder's organization (when applicable) with whom the board or its delegated representatives should be communicating. Once the board knew who its primary stakeholders were, it also tried to identify the major influencers of those stakeholders. Marketing to these influencers was a way to indirectly market to stakeholders. Although influencers cannot directly set budgets or policies, they can influence the stakeholders who do. This helps to explain why the observed board of directors met with the public, the media, and local and state government officials very often. Assessments of the external environment, a product the board developed discussed later, assisted the board in prioritizing the stakeholders and influencers to contact. The board focused its marketing and networking efforts towards these prioritized stakeholders and influencers.

Once it identified and prioritized stakeholders and influencers, the board tried to establish contact and communicate how the organization contributed to their interests.

The board believed in continuously reminding stakeholders why it was in their best interests to support the organization and to supply them with an incentive to provide advocacy and funding. For example, if talking with a politician, the board attempted to communicate why supporting the organization was important to his or her policies, interests, or constituency. When talking with the public, the board conveyed how technologies developed by the organization have had a positive impact on their lives. For example, at some public outings members of the board touted various technologies with medical applications developed by its organization.

The observed board wanted its marketing and networking efforts to lead to a relationship with the stakeholder, one in which there was a continual dialog and exchange of information. In addition, the board wanted its stakeholders to appreciate its organization's abilities and contributions. The board anticipated certain consequences for when it was able to meet its goal of developing good relationships with stakeholders. First, the board hoped that it would be more able to influence the decisions and policies of its stakeholders. Often a stakeholder may establish policies for an organization that hamper its abilities to achieve its strategic goals. The board thought that the more a stakeholder valued the organization, the more able the board would be to influence stakeholder policies that affected its organization. Another related consequence the board expected from developing influential relationships with stakeholders was advocacy. A stakeholder that advocates on behalf of an organization can be a major marketing tool for the development of new business. For example, this public sector board of directors would have very much liked to have powerful stakeholders like Congressional members advocating on its behalf because that could potentially open the lines of communication with many potential customers and partners. Finally, the board expected that, as it built influential relationships with its stakeholders, high quality strategic information would become more available. This type of information will be shown to be vital when the board develops a strategy.

In conjunction with building relationships with stakeholders, the observed board of directors also led efforts to build new relationships with potential customers and partners. As with stakeholders, the board conducted this activity with the hopes that it would lead to new business opportunities and better strategic information.

Supporting Goal: Develop Relationships with Potential Customers and Partners

The observed board of directors attempted, through marketing and networking, to build relationships with potential customers and partners. A potential customer is an entity to which the organization could provide its products and services. A potential partner is an entity with which the organization could collaborate to increase its ability to deliver products or services to customers. The board treated existing customers as potential customers when it wanted to convey a new or existing capability of which the customer was not aware but may need. The results of one study the board conducted indicated that even customers who had worked with the organization continuously for years had extremely limited knowledge of the organization's capabilities. The board of directors also realized that even current competitors could be potential customers or partners. The board took care not to publically "badmouth" its competition as this could hamper possible future business opportunities. The board members warned employees and each other about this on many occasions. The board instigated dialog with potential rivals to determine if there was a way to collaborate on, as opposed to compete for, new business opportunities. As an example, the board on several occasions approached other federal research organizations and discussed how together, by sharing resources, they stood a better chance of winning proposals for new work than when competing against each other.

The marketing and networking activities of the board to potential customers and partners had three primary focuses. First, the board wanted to identify its potential customers and partners. As with the identification of stakeholders discussed in the previous activity, the primary sources of information the board of directors used for identification of these entities were external assessments, a product discussed later. For example, external assessments on several occasions indicated that the board could and should be pursuing certain types of work outside its current customer base. Once the board identified potential customers and partners to pursue, it would attempt to establish contact so that it could convey its organization's capabilities: what it had to offer that was unique, and how it might contribute to the plans of these customers and partners. The board wanted to convey to potential customers and partners the potential return-on-investment for doing business with the organization. When trying to fill a capability need, the board identified potential partners based upon the unique capabilities they could bring to assist the organization's efforts. Here, needs are the capabilities a partner possesses that the board's organization requires to develop and deliver products and/or services. When being approached by a potential partner, the board determined if the collaboration would be in the best interests of its organization: would the partner contribute to the achievement of the board's goals for its organization. The goal of the board for these marketing and networking efforts was to build relationships with these potential customers. Building relationships required an investment of time and necessitated that continuous communications were established.

The observed board believed that if it were successful with the goals of these activities, the results would be new business opportunities and strategic information. The board believed that constant development of new business opportunities was important for the long-term vitality of any organization. Information from potential customers and partners can help the board understand what the future business environment might look like. This information becomes critical when the board develops a strategy.

The next goal deals with growing loyal and trusting relationships with current customers and partners: those with whom the organization was already conducting business.

Supporting Goal: Strengthen Relationships with Current Customers and Partners

The observed board of directors strove to strengthen its organization's relationships with its current customers and partners. The board considered building and maintaining strong strategic relationships with customers and partners was critical to strategic vitality. The following sections discuss the three activities supporting this goal in further detail.

Activity: Ensuring Consistently Successful Product Delivery

This activity describes what the observed board did to ensure that its organization was delivering to its customers what it was contractually obligated to deliver. As one board member stated, "We want to excel at execution." The board believed that a vital organization was one that consistently meets or exceeds the expectations of its customers. At minimum, the board felt it must ensure that its organization delivered products and services when expected, within budget, and with the expected quality. In other words, the board (or select members of the board) provided oversight of the project management of its organization's products and services. As mentioned previously, this board of directors held a meeting on the third Monday of every month dedicated to reviewing the status of all the major projects the organization was leading or supporting. The board expected a majority of its members to attend these meetings so that if a problem arose with the cost, schedule, or quality of a deliverable, an integrated resource and knowledge response was available to mitigate the risk. If the organization failed to meet the cost, schedule, or quality requirement, the board ordered investigations to determine the root cause of the problem. These investigations typically increased the board's understanding of potential culture, process, skill, or capability deficiencies within the organization. Typically leading up to the monthly project review meeting, several lower-level project review meetings among board members and project managers also occurred. Not only did these reviews cover current projects but also the proposals for new projects. The board strove to ensure that estimates for work the organization gave to customers were realistic, as it did not want customers to think of them as disingenuous. The board also felt that to secure loyalty and trust, it should ensure that its organization stood by its products, even after delivery.

Activity: Making Doing Business a Pleasurable Experience

The observed public sector board of directors believed that successful delivery of products and services was not enough to build or guarantee the loyalty of customers or partners; customers and partners must also find working with the organization to be a pleasurable experience. The board of directors used a restaurant analogy to describe this concept. To have a restaurant to which customers are loyal, it was not enough just to have world-renowned chefs in the kitchen inventing and preparing new menu items (i.e., chefs here equating to the organization's scientists and engineers). A restaurant must also be neat and clean and make customers feel welcomed and comfortable. The wait staff (i.e., those who interface directly with customers and partners) should be friendly and helpful and be ready to make recommendations. Finally, the menu and prices for items and services should be understandable and reasonable.

The board was devoted to developing a customer-oriented culture within its organization. It felt that the soft skills of relationship building should be appreciated as much as the hard, technical skills its workforce possessed. The board of directors took many actions to ensure that customers enjoyed the experience of working with the organization. The board developed employees to be professional partners: organizational points-of-contacts (POCs) trained to effectively obtain and sustain partnerships. The board saw this as key to developing good working relationships with customers and partners. To accomplish this, first the board chose employees whom it believed would be able to effectively engage and build relationships. These employees learned how to work with different organizational cultures, management styles, and personalities. The board wanted these POCs to be capable of developing relationships where they could influence what customers wanted instead of just simply taking its orders. POCs also had to be educated on the various capabilities that their organization had to offer so that they would be able to make recommendations.

Customers and partners though do not only interface with an organization's people but also with its processes and facilities. Therefore, along with developing customer POCs, the board continuously examined its organization's processes and facilities to determine how adaptable they were to the needs of customers. For example, the board was receiving complaints from customers and partners that its organization's process for allowing foreign national visitors to visit the organization was too long and convoluted. Therefore, the board convened a group to study the process and determine if there were ways to make it more efficient. The board believed that collecting and acting on feedback from customers was the key to being able to provide them with a pleasurable experience.

The board of directors believed that customers and partners want to work with responsive organizations. In the words of one board member, to ensure the vitality of these relationships, an organization should always be asking itself, "What can we and what should we be doing for our customers and partners?" To know this requires feedback from customers and stakeholders. The board used different methods to obtain this information. It inquired if customers found the people with whom they interfaced helpful and professional. The board sought feedback on product and service satisfaction (i.e., were products/services delivered that met or exceeded budget, schedule, and quality expectations). The board also tried to discern if customers felt that its organization's processes were flexible enough to accommodate its requests. Whenever possible, the board strove to investigate and correct identified deficiencies or problems. When the board took corrective action based on customer feedback, it made sure to communicate this to the customer who had provided the feedback. In this way, the board demonstrated to the customer the value of his or her input. In the same way, the board discussed reopening lines of communication with customers its organization may have lost in the past because of poor performance to determine what it could do, if anything, to regain these lost customers' trust. The board constantly assessed the current state of its relationships with its customers and partners.

Activity: Fostering Creativity and Innovation

The observed board of directors encouraged creativity and innovation in its organization to help strengthen relationships with current customers and partners. The board believed that an organization that wishes to remain vital must view creativity and innovation as integral to strategic success and develop a culture where it was "pursued passionately." While inspiring and supporting an organization's creativity and innovation were important, the board also ensured that this activity never overrode the delivery of products and services to the customer and/or partners. The board believed that creativity and innovation at its best should help an organization exceed the expectations of its customers and partners: it should set the organization apart from its competitors.

To begin fostering a culture of creativity and innovation, the board of directors demonstrated its support for it. One of the best ways the board felt it could accomplish this was by demonstrating creativity and innovation themselves. For example, the board often held brainstorming and "what if" sessions with employees to develop new ideas. The board also demonstrated and built its own creativity by visiting organizations it considered the best at creativity and innovation. Members of the board visited companies like W.L. Gore, Play Incorporated, and IBM to gain knowledge about how to build a creative and innovative culture. The board believed that creative and innovative thinking was for everybody, not just the scientists and engineers. It wanted everyone working in the organization to feel the need to be creative and innovative. The board held many discussions about what creativity and innovation meant to engineering and non-engineering employees (i.e., managers, administrative professionals, and business analysts) and the ways they could be inspired.

To foster an innovative and creative culture, the board gave its employees the resources (i.e., time, money, support) they needed to be creative and innovative. For example, the board of directors discussed ways in which it could give its employees "whitespace" so that they could think and work on ideas that may or may not be applicable to their current assignments (but would still relate to the organization's overall mission). Giving employees this kind of flexibility, the board felt, demonstrated its trust in employees and that the board wanted them to be creative and innovative. As one board member stated, these actions showed that the board respected "idea makers." The board felt that resources alone were not enough to ensure creativity; employees must also be motivated with recognition and reward. For example, the organization gave a special award each year to technologists who had created something so useful and usable that the private sector licensed and commercialized it. The board also discussed the possibility of rewarding attempts at high-risk innovation that failed. The board believed that creativity and innovation could not reside within a culture that was risk adverse. Therefore, the board took actions like this to ensure that the workforce felt free to creatively experiment and fail without risk to career or reputation. The board sought the input of employees to help them identify and overcome the barriers that prevented the implementation of this activity.

The observed board believed that a creative and innovative organization cannot be insular; it must ensure that new ideas from diverse sources are constantly flowing into its organization. One way the board accomplished this was by encouraging employees to take advantage of professional training and educational development opportunities to increase the breadth and depth of their experience. The board very often facilitated getting its employees into training or temporary positions in other organizations. Another way to increase the flow of ideas was for the board to encourage the bringing of people from the outside into the organization temporarily. A federal research institution has the opportunity to bring in talent from industry and academia as well as other government agencies. Therefore, the board of directors established pipelines to academia and industry so that employees were constantly working alongside new people with new ideas. The board felt that this constant influx of fresh people interacting with employees was an ideal way to foster new ideas.

The board believed fostering its organization's creativity and innovation would help them gain the trust and loyalty of customers and partners by exceeding expectations, reducing risks, and helping their bottom line (i.e. cost, schedule, and quality). The board wanted its customers and partners to view the organization as creative and innovative. Therefore, the board quickly communicated the return-on-investment whenever a creative idea or innovative solution benefited a customer. In addition, the board also realized that failure when attempting to do creative and innovative work was not a bad thing as long as something was learned from the failure. By fostering creativity and innovation, the board expected it would inspire the workforce to create new or improved products and services.

The board considered customer and partner feedback of its organization's performance a crucial source of information. It was imperative to the board to know whether customers and partners were satisfied with the delivery of products; enjoyed interfacing with the organization's personnel, processes, and facilities; and viewed the organization as creative and innovative. The board discussed different approaches it could take to get meaningful feedback from customers and partners such as having face-to-face meetings and conducting surveys.

For all the activities discussed, the board produced evaluations of how the organization was performing. Evaluations for the activity of ensuring successful product and service delivery determined if the organization was meeting the requirements of its customers and partners within schedule, cost, and quality constraints. Evaluations for the activity of increasing the pleasure of doing business measured how much customers and partners enjoyed the experience of working with the organization. Evaluations for fostering creativity and innovation captured when the organization provided innovative solutions that benefitted product and service delivery. These particular evaluations also captured information from employees about what to do to improve facilitation of a culture of creativity and innovation. All of these evaluations provided input for the board when it produced internal assessments, a product discussed later, because these evaluations could identify organizational deficiencies in areas such as workforce skills, inefficient processes, or overall flexibility. The board used these evaluations to make changes to the organization to achieve the goal. If through these evaluations the board determined that a customer or partner relationship was at risk, it would take actions to mitigate the problem. The board believed that the robustness of its organization's relationships with its current customers and partners increased its ability to withstand losses of revenue.

The board believed that the activities discussed in this section would help them gain the trust and loyalty of customers and partners, thus strengthening the relationships. If the board achieved this goal, it expected certain positive results. First, the board expected that trusting and loyal customers and partners would boost the reputation of the organization. This meant that it would spread the idea that the board's organization was trustworthy to deliver on its obligations, was a pleasure with which to do business, and used creative thinking to mitigate risks and exceed expectations, as will be discussed. The board believed that the spreading of this type of reputation would increase new business opportunities, thus, sustaining the vitality of the organization.

Another expectation of the board as it built trust was that it would receive repeat and non-competed business from customers. Concerning the importance of repeat business, one board member stated, "repeat business is the only [strategic] metric that counts." The board's actions in this category attempted to turn mere customers into clients: customers who direct work to the board's organization as opposed to making them compete for it with other organizations. Having to compete for work can greatly drain an organization's resources, which was why directed work was so preferable. Competition also carries with it the potential to turn allies into rivals. The board showed concern on several occasions that competition for work may negatively affect its relationship with another organization. This was another reason why non-competed work was so preferable.

In addition to repeat and non-competed business, the board anticipated that achieving the goal of building trusting and loyal relationships with its customers and partners would translate into more and higher fidelity strategic information from these sources: information such as upcoming work and budget projections. As has been stated previously, this information was vital to the board as it tried to produce a strategy.

The board spent a lot of time and resources attempting to build strong, strategic relationships with its stakeholders, customers, and partners. The board expected that good relationships would lead to a good flow of strategic information: information about future business trends and opportunities that could affect the organization. This information was crucial to the activities of the next goal: producing an effective strategy.

Primary Goal: Produce an Effective Strategy

The next primary goal of the observed board of directors was to produce an effective strategy: a strategy that would keep its organization vital into the future. This primary goal has six supporting goals: sustain external knowledge, sustain internal knowledge, increase the robustness of the strategy, establish worthy strategic goals, identify and understand strategic gaps, and select and develop the best approaches for achieving strategic goals. The following sections describe how the board tried to achieve these six supporting goals.

Supporting Goal: Sustain External Knowledge

In order to produce an effective strategy, the observed public sector board of directors developed and maintained an understanding of the external environment that affected its organization. The board of directors used a variety of sources to collect external information such as feedback from employees, marketing and networking reports, and the news media. The external information collection efforts of the board of directors could be classified as either information about stakeholders, customers, and partners, or as information about the world beyond these entities. The following sections discuss how the board collected information from these two external perspectives.

Information about Stakeholders, Customers, and Partners

As shown in the previous category, an anticipated consequence of the board as it built relationships was an increase in the availability and quality of strategic information from stakeholders, customers, and partners. While the board believed that this information was vital to its ability to develop an effective strategy, it also identified collecting this information as one of its primary challenges. There were multiple ways the board tried to collect this information. The board of directors believed that face-to-face contact was the best way to build relationships and collect information from customers, partners, and stakeholders. The board often either travelled to visit these entities or invited them to visit. In addition to face-to-face meetings, the board collected information about these entities using other methods. Sometimes, stakeholders, customers, and partners simply released information for public consumption. For example, some of the board members collected and used various research and development plans released by other federal organizations. Some of these plans provided good insights into the priorities of various executive and legislative stakeholders. Conducting surveys was another method that the board used to understand how to create value for its customers. The board discovered that developing survey questions that actually obtained meaningful feedback was difficult. For instance, board members were concerned that surveys were only inquiring whether customers thought the organization was doing a good job delivering products and services. The board discussed that a better approach may be to ask customers what they want the organization to be doing for them. As seen in other activities, the board relied heavily upon input from employees when making external assessments. Often the board would try to collect information by debriefing employees who had taken temporary assignments, also known as details, with stakeholders, customers, or partners. The board placed high value on these types of details not only because they promoted the professional development of employees but also because they created potential sources of high-quality strategic information. The board also communicated with former employees who were now in the employ of other organizations, especially stakeholder, customer, and partner organizations. As it collected data from these efforts, the board produced marketing and networking reports. These reports often identified stakeholders, customers, and partners to contact to build new business opportunities.

Having established that the board captured information about stakeholders, customers, and partners, the next question was what type of information was the board trying to collect from these entities. To begin with, the observed board of directors attempted to identify exactly who these entities were and, if dealing with organizations, the proper points of contact within these organizations. For example, while a congressperson may be the actual stakeholder, someone on his or her staff (i.e., a staffer) may be the actual point-of-contact. Large organizations are diverse, and there may be several points of contact for these various divisions. The board tried to keep point-of-contact lists updated as people came and left organizations. For instance, during this study, a major stakeholder was replaced and the board took immediate action to discover and capture the names of the POCs for the new stakeholder. Other data the board tried to collect concerned the culture and internal workings of stakeholders, customers, and partners. Another example of information the board tried to collect was what technology trends its partners, customers, and stakeholders found of interest. The board received information that a potential customer had a high degree of interest in a particular technology that the organization had expertise in developing. Upon receiving this information, the board began developing plans for pursuing and executing this potential new work.

Specifically for stakeholders, the board wanted to know information such as does the stakeholder trust and value the organization. The board of directors got a briefing from an employee who had been recently attended a meeting with congressional staff members about what Congress generally felt about the organization in terms of trust and value. In addition, the board sought to understand its stakeholders' policies, regulations, concerns, and initiatives. During this study, the American presidency changed, so the board actively sought information on the kinds of issues and policies it could expect from the new administration. The board also tried to ascertain its stakeholders' metrics: the measures stakeholders used to rate performance. The board also tried to gain understanding about how much (or little) influence it had with stakeholders. Did the board have the ability to influence, in its favor, a stakeholder's policies? Finally, the board wanted to know about and understand the relationships between its stakeholders, customers, and partners. How could a change of stakeholder (or their policies) affect relations with customers and partners? This information greatly influenced the board as to what potential customers and partners it pursued for business.

Specifically for customers and partners, the board of directors kept constant track of the current and forecasted demands placed upon its workforce and facilities. The board attempted to capture and understand what work opportunities its customers and partners foresaw in the future and then tried to collect the budget projections for these efforts. With this information, the board could identify potential new markets for its organization's products and services. The board also tried to ascertain how customers and partners viewed the ability of the organization to deliver products and services. In addition, the board also thought that it should collect information about the risk posture of customers and partners: how much risk were they willing to accept? The board of directors also kept track of the past financial trends of customers and partners and tried to collect information to determine the current and future financial health of those organizations. Another piece of critical information the board tried to capture was what did customers and partners know about the organization's capabilities. As mentioned previously, after conducting a customer survey, the board was shocked to discover that even long-time customers had very limited knowledge of the organization's capabilities. Concerning partners, the board was constantly discussing potential partners and what contributions they could offer to increase capabilities for meeting customer requirements.

In addition, the board tried to collect information from current customers and partners about how they evaluated the organization. Was the organization delivering promised products and services within budget, schedule, and quality constraints? Did customers or partners enjoy interfacing with the organization's personnel, processes, and facilities? The board also wanted to know if its customers and partners viewed the organization as creative and innovative: did they think the organization's efforts at creativity benefited their products and/or mitigated their risks. As stated in the previous category, the board of directors expected these last three items to have a great effect on its organization's reputation and its standing among peer organizations.

Information about the World beyond Stakeholders, Customers, and Partners

To build a more complete strategic knowledge of the external environment, the board of directors tried to stay cognizant of the world beyond its own sphere of influence and that of its stakeholders, customers, and partners. The board felt that it needed to pay attention to what was happening in the world at large because political, social, economic, and technological events could greatly affect the future of its organization. This type of information helped the board of directors understand how its organization fit into greater systems. Collecting this type of information is referred to as environmental scanning: to identify opportunities and threats by gathering information from the world beyond customers, stakeholders, and partners. As an example, the board kept apprised of new information and communication technologies, such as Web 2.0. The board also used environmental scans of the economy to help predict hiring and retirement trends. For instance, the board predicted that the economic recession that started in 2008 would reduce the number of expected retirees for the organization, which in turn made the board alter hiring plans.

The board also expanded its external knowledge by conducting narrowly focused environmental scans. Benchmarking studies are perhaps the best-known example of narrowly focused environmental scans. Benchmarking is the act of collecting information about organizations considered best in their field. When the board of directors could ascertain what organizations its stakeholders and customers consider exceptional, these organizations became prime candidates for benchmarking. For instance, the board discussed benchmarking the U.S. Government Accountability Office (GAO) because it was considered to have an excellent working relationship with Congress, something any federal organization would like to have. Another example of a narrowly focused environmental scan would be for the board to meet with representatives from organizations outside its current or even potential customer base. For example, while the board or its organization had no experience or real interest in a particular field of research, they invited and met with representatives from that field just for the sake of understanding the issues they were facing. Activities such as these increased the board's understanding of the outside environment and could have uncovered business opportunities.

Disseminating External Information

Although collecting all this external information was the important first step, it was meaningless unless the board of directors could use it. As information about the external environment became available, the board tried to capture and disseminate it as quickly as possible. The board of directors often discussed this type of information at its weekly meetings and soon discovered that the amount of data could become overwhelming. Therefore, the board established databases to capture, order, track, and disseminate the information quickly and efficiently. Then at board meetings, only the most urgent interaction information was shared and discussed. The board also experimented with newer communication technologies such as blogs (aka weblog): an on-line journal that can be frequently updated and accessed. The board had a blog developed where board members and employees could post and read about interactions with current and potential customers, stakeholders, and partners. By using blogs, the board felt it was taking a critical, positive, strategic step towards being able to capture and communicate this information in real-time to the entire workforce. The board tried to engrain the desire to capture and share strategic information into the workforce's culture. It also allocated resources to collect, disseminate, analyze, and discuss the information from these scans. For example, during this study, major weekly board meetings began with a short report on national and world events that could potentially affect the organization. Environmental scans did not have to be formal or officially sanctioned. For instance, the board had a blog developed for employees to share information from trade shows or conferences they had attended.

Developing External Assessments

Information from customers, stakeholders, partners, and environmental scans was critical to the board of director's efforts to create strategy. The board of directors collected and discussed this information to develop and maintain its awareness and understanding of the outside world. Doing so allowed the board to create assessments of the current state of the external environment. In activities discussed later, the board used these assessments to make predictions for what this environment may look like in the future. As discussed previously, board cohesion plays a major role in the development of useful and usable assessments. One example of assessments the board produced from its external information was recommendations about which stakeholders, customers, and partners with whom it would be most beneficial to build relationships. These assessments drove the marketing and networking efforts discussed in the previous category. Another assessment of external information helped to map out the markets where the organization currently competed and new markets where it could potentially compete. These types of assessments about the external environment assisted the board in deciding which business opportunities to pursue and which to avoid.

While understanding the external environment was important to this board of directors as it attempted to create strategy, of equal importance was the understanding the board felt it should have of its own organization.

Supporting Goal: Sustain Internal Knowledge

To help it produce an effective strategy, the observed board of directors developed and maintained a high level of awareness and understanding of its organization. The board believed that the better it understood its organization, the better it would be able to guide it towards success in the future. To achieve this, the board constantly collected information and assessed the organization. Internal assessments may take all kinds of forms and cover several different organizational aspects. The board used a variety of information sources and collection techniques to form internal assessments.

An important part of organizational assessments came from soliciting information from employees. The board of directors felt that this was one of the most important sources for internal information. When soliciting for employee input, the board very much wanted honesty and strove to make the environment one that appreciated dissent with no threat of retribution. The board collected employee input using a variety of methods. One method of collecting data from employees was with surveys. Examples of questions the board asked employees were "Are you satisfied with your work?" and

"How well balanced is your home life with your work life?" Surveying the workforce helped the board determine the attitudes of its employees. The board wanted to identify positive and negative attitudes that may affect its attempts to implement strategy. The board believed that the better the survey it developed, the more it would understand the reasoning behind those attitudes. The board also increased its strategic knowledge by openly engaging with and listening to its employees. Very often, the board invited employees to come give their perspectives. When making these invitations, the board sought a diversity of opinions. For example, on many occasions the board of directors invited groups of the organization's youngest and newest employees to come and share their perspectives with the board. The board wanted to understand the issues that were important to this next generation of employees and how best to engage them. The board also proactively interacted with employees to make assessments. Some board members practiced "walk-around management": just walking around facilities and talking to employees as they were engaged in work. Board members gained a great deal of internal information by doing this, not only about employees but also about the state of the facilities. For example, board members identified several redundant computer clusters that if consolidated would result in a significant cost savings.

Besides employee input, the board used many other sources of information as input to make internal assessments. For instance, the board used the evaluations of product and service delivery to customers and partners discussed earlier and, by doing so, incorporated customer and partner feedback into the internal assessments. As discussed later, the board produced evaluations of the organization's strategic progress: how well the organization was implementing the strategy. These evaluations provided a feedback mechanism into the discussions the board had to create dependable internal assessments. Another source of information the board used for internal assessment was "lessons learned." "Lessons learned" were produced by either board members or employees and described how the organization performed or reacted during a situation: what it did right and what it did wrong. "Lessons Learned" were useful for identifying strengths and weaknesses in an organization. For example, one lesson learned used by the board described a success in landing a major mission role, describing what had been done correctly for this to occur. Finally, a source of information for internal assessments also came from external assessments and audits. For example, the board contracted to have an outside group conduct a study on the organization's culture. Another external audit examined internal processes. The board felt that these disinterested, third-party observations provided an unbiased perspective of the organization.

The types of information the board collected about its organization was as varied as the ways it went about trying to collect that information. First, the board wanted a deeper understanding of its workforce and its culture: its identity, values, and norms. The board invested time and effort to understand the organization's demographics, cultures, sub-cultures, and attitudes. For instance, the board wanted to understand what motivated its workforce and gave them job satisfaction. It wanted to understand how employees responded to change, whether from the board or from the environment: was it "adaptable" and "flexible." For instance, the board wanted to understand how the workforce would respond to a substantial work surge. As another example, the board wanted to understand its organization's aversion to risk knowing that if this factor was too high it could stifle creativity and innovation. The board also expended a great deal of effort to understanding the attitudes of employees towards safety, as safety was a paramount concern of the agency. As one board member stated, "If we don't have a safe environment, it will cost us dearly." In addition to its culture, the board also strove to understand the technical skills its employees possessed: their areas of expertise and their core competencies. It wanted to understand employee attitudes about gaining new skills through training. Were employees informed about and taking advantage of training opportunities? In one assessment, the board discovered that even though the organization's workforce had some incredible opportunities for development through fellowships with other institutions, very few employees applied. The board wanted to understand why this was the case.

The board was also interested in the "soft" skills possessed by the workforce. The board believed these skills were critical to good management and customer relations. The board also wanted to understand how employees felt about their work-life balance (i.e., how well they were balancing work demands with the other demands in their lives). Knowing this information would give the board a good understanding of the demands placed on its workforce (the intensity of the work and the work environment) and how the workforce responded to those demands. For instance, if data showed that there was a trend of increasing sick leave usage, this could be indicative that the workforce was being overworked or overstressed. In addition, understanding the demands placed on its workforce helped the board develop an understanding of the organization's work portfolio diversity: the types of work currently supported. Finally, the board wanted to understand how its employees felt about them. Did the workforce understand the purpose of the board and trust the board? Ultimately, the board wanted to integrate this information to develop an understanding of its organization's identity.

Beyond the workforce, the board also wanted to have a full assessment of its organization's infrastructure: organization, processes, and facilities. The board wanted to have a complete understanding of the organization's structure and the rationale behind it. In addition, the board sought to understand the hierarchy: the leaders in its organization at all levels and the lines of accountability. The board also developed an understanding of the major processes used by its organization. The board attempted to understand the maturity of its organization's processes: were processes helping the organization or overburdening it. For instance, the board studied its process for hiring new employees: its workforce pipeline. It sought to understand how new employees were identified, hired, and developed. Another important assessment the board made was on the state of its facilities. It collected data on the types and capabilities of facilities (e.g., offices, research labs, computer clusters), the condition of the facilities, and the current and projected use of these facilities.

The board of directors felt that understanding its organization was just as important as understanding the external environment. Because of this, it dedicated a great deal of time and resources towards creating internal assessments. It believed that the better it understood its organization, the more effective a strategy it could develop for it. As the board developed a better understanding of its organization, it hoped that it would be more able to predict the trajectory the organization would take in the future.

As will be discussed, the board used the external and internal assessments it produced to create strategic projections of the future. If the board made strategic projections based solely on these assessments, the projections would be very probabilistic in nature, completely based on past trends and current information. The board believed that it could not perfectly control or predict the future. Because of this, the board decided to attempt to project beyond the predictable, and as much as possible and practical, try to account for the unpredictable, the possibilistic. The board believed this was necessary to increase the robustness of their strategy.

Supporting Goal: Increase Robustness of the Strategy

The observed board produced external and internal assessments based upon the best current information they collected. This type of information could allow the board to predict probabilistic future states of the organization and its environment. The board believed that if it only used collectable information about the internal and external environment to make projections, it would be admitting to a belief that it could predict and control the future with a high degree of certainty. The observed board believed that information about the current environment was inadequate for making strategic projections and, therefore, made an effort to take into account the possibilistic. It believed that possibilistic scenarios would help increase the robustness of its strategy thereby rendering it more effective. Developing possibilistic scenarios required the board to use its experience and creativity to deal with the unpredictable.

Developing possibilistic scenarios requires using creative techniques: tools used to help think "outside the box." One such technique the board used was holding what-if discussions. A what-if discussion is a type of sensitivity analysis that, as one board member put it, "…allows you to see what will happen when certain threads are pulled." What-if discussions helped the board determine what the organization could and should look like in different scenarios. The board used another creative technique known as brainstorming to enhance what-if discussions. Brainstorming is the act of generating a large number of ideas to help resolve a situation or problem. When brainstorming, participants share ideas openly without regard for the contextual barriers that exist. During the brainstorming sessions that the board held, participants were encouraged to make projections as if the current rules and boundaries did not exist. The board often brought in facilitators to lead such activities. The board occasionally used facilitation to enhance what-if and brainstorming discussions. A skilled facilitator can guide people to think outside their bounds.

When dealing with a possibilistic future, the board primarily developed four types of scenarios: best-case; worst-case; unexpected event; and paradigm shift. As an example of a best-case scenario, the board sometimes projected towards the ideal: what would its organization and its workforce ideally look like? As discussed later, the board used idealistic possibilistic scenarios to develop strategic goals. An example of a worse-case scenario the board developed was the complete loss of revenue from a primary customer, determining what would be the impacts and how to respond to this dilemma. Many of the possibilistic scenario generating sessions dealt with the possibilities surrounding unexpected events. For example, during one brainstorming session the board generated ideas about what to do if an unexpected influx of funding was suddenly received. Finally, the board created some scenarios that excluded current paradigms. For example, it would hold sessions discussing the possibilities if they could change current rules or situations. For instance, stakeholders placed a restriction on the number of civil servants that could be employed. The board held a scenario building session that focused on what could be done if that regulation did not exist.

As one board member stated, "strategy requires out of the box thinking." To increase the robustness of their strategy, the board used this thinking and created ideas about the future outside of the current rules and paradigms. The board used the information garnered from the external and internal assessments to ground its possibilistic projections in reality. The board of directors drew upon its own experience and creativity to create useful possibilistic scenarios. The board also drew upon the experience and creativity of its employees. The board often invited employees to attend what-if and brainstorming sessions. At times, the board even brought in customers, stakeholders, partners, and even disinterested third parties.

The goal of the board as it developed possibilistic scenarios was to increase the robustness of the strategy. It felt that robustness, the ability to adapt quickly in a changing environment, would add to the effectiveness of its strategy. This was why the board felt that it had to add a possibilistic component to its projections along with the probabilistic predictions it could make using collected information alone. Without this possibilistic component, the board believed that strategy development tends to become a mathematical exercise driven by linear processes. Board members warned each other that, "Developing a strategy is not a linear, mathematical exercise."

As the board increased its understanding of its organization's current situation internally and externally; made probabilistic predictions about what the future could look like based on the best current information; and thought about possibilities beyond this data, it was able to begin developing strategic goals.

Supporting Goal: Establish Worthy Strategic Goals

The board created strategic goals and projections by discussing, combining, and compromising between what the board thought the future would be and what it wanted it to be. Strategic projections are forecasts about what the future will look like. The board used strategic projections to establish strategic goals. Strategic goals are general statements about what the board wants its organization to achieve, what it wants its organization to be in the future. Strategic goals are the keystone of an organization's strategy. The board generates projections and goals by discussing the internal assessments, external assessments, and the possibilistic scenarios it has produced. The board produced goals and projections by, as best it could, balancing between the present and forecasted; the idealistic and realistic; and the probabilistic and possibilistic. The board took great caution when formulating these products. As discussed previously, the board tried to establish the ground rules and assumptions it would use because failure to do so would lead to frustration and rework. In addition, the board took precautions to limit projections solely based on the organizational heritage, as the board felt organizations did frequently. As one board member stated, "Heritage is too backwards looking."

Activity: Developing Strategic Projections

When making strategic projections, the board forecasted what it thought the future would look like. The primary type of strategic projections the board created concerned business: what types of new work and income sources would exist in the future? When projecting types of work the organization could pursue in the future, the board also included budget projections. For instance, the board had noticed a consistent annual 5 percent reduction in funding from one particular income source over the previous ten years so the board considered this information when making projections. Once the board created business projections, it used its knowledge of the internal and external environment to discuss which work to pursue. The board had to determine the strategic value and consequences of either pursuing or discontinuing lines of business. For example, if the board decided that the organization would cease supporting a certain business, how would its customers react? How would the board transition personnel who currently supported that work? If the board decided to pursue a new line of business, it might try to determine if its stakeholders would approve and who its competition would be. Other factors the board took into consideration were growth and customer diversification. The board understood that while growth and customer diversification can increase the robustness of income streams, allowing the organization to better weather economic hardships, it also could strain the workforce and relationships with customers. It was the board's responsibility to determine the correct balance for its organization. When the board came to agreement on the work to pursue in the future, it then projected the skills and facilities required to support that work. With all projections, the board understood that it could not perfectly predict or control the future. An example of how it demonstrated this was with its new business projections. When projecting potential new work to pursue, the board assigned a probability range indicating how certain it was that the organization could capture this new business.

There were many other types of strategic projections made in addition to business projections. For example, the board attempted to forecast effects the world and national economies would have on the organization. This study took place during an economic downturn and board members often projected the possible effects of the economy becoming worse, remaining stagnant, or improving. As mentioned previously, one prediction the board made based on economic projections was that the retirement rate of employees would sharply decline due to the negative effect the economy was having on retirement accounts. This reduced retirement rate, in conjunction with the cap placed on the number of civil servants the organization could employ, would have major implications on the ability to hire new employees. The board also studied and tried to predict the effects of technology trends. For example, the board discussed the possibilities some new web communication technologies might have for increasing the effectiveness of communications with stakeholders, customers, partners, employees, and the public. A final example of projections the board made involved the utility usage. Some facilities consumed a great deal of power, and the board had noticed a trend in the increasing price of electricity. The board tried to determine the effects varying energy costs would have on these facilities. If energy prices increased, would forecasted customers still be able to afford testing in these facilities? In contrast, the board tried to determine the possibilities of electricity prices approaching zero.

The strategic projections the board created affected the decisions it made as it continued to develop a strategy. As the board of directors developed its strategic projections, it set strategic goals.

Activity: Developing Strategic Goals

While strategic projections may be, as one board member stated, "More about the numbers," the board used broad outcomes and concepts to articulate strategic goals. To ensure easy communication, the board tried to develop goals that were simple yet profound. The development of strategic goals may lead to the development of a vision statement: a declaration of how the board wants its organization to be in the future. Development of a vision statement though is not mandatory for developing a strategy if the organization in question has a parent organization. During this study, the observed board used the vision statement of its parent organization as its own vision statement. It may be worth noting though that not long after the observation portion of this study was completed, the observed board did develop a unique vision statement for its organization. Development of strategic goals may also lead to the development of a mission statement meant to communicate the purpose of the organization. As discussed later, once the board implements the strategy, it begins conducting evaluations of the validity of the strategy. These evaluations become a feedback mechanism to this activity so the board can determine if its strategic goals remain valid.

Having predicted what the future might look like and established the goals for its organization in this future, the board now started to determine what it would take to get there. To begin with, the board had to determine and understand the difference between the current state of its organization and the state into which it would need to transform in order to achieve the strategic goals.

Supporting Goal: Identify and Understand Strategic Gaps

One member of the observed board stated, "The more you learn about it [your strategic situation], the more gaps you identify." A strategic gap is a disparity between how an organization is currently and how it strategically should be in the future. The observed board identified strategic gaps by comparing its internal assessments to the strategic projections it produced in the previous activity. The board believed that the higher fidelity assessments and projections it produced, the better it would be at pinpointing the gaps in its organization that would keep it from reaching its strategic goals.

To begin with, the board assessed the relational gaps of its organization. That is, the difference between the relationship the organization had with its stakeholders, customers, and partners and the relationship the board desired. The board used gap analysis to identify relationships that they would have to develop to secure future work. Through gap analysis, the board identified several important stakeholders that the organization should have relationships with but currently did not. As part of this, the board also examined if there was a discrepancy between how they wanted the outside world to perceive the organization and how it actually was perceived. For example, the board identified a gap because external assessments indicated that potential customers did not perceive the organization to be as creative or innovative as the board wanted. The board also chose to examine if the current nature of relationships needed to change based on its strategic projections and goals. For example, the board analyzed relational gaps with its partners to determine if changing the nature of these relationships would be advantageous for future business opportunities. Another type of relational gap the board assessed was its relevancy to stakeholders, customers, and partners. The board wanted to understand how its organization fit into the plans of these entities. For instance, the board believed that advocacy was a good indication that an organization is vital to a stakeholder. The board studied the gap between how much it wanted stakeholders to advocate on its behalf and how much advocacy was actually occurring. In addition, with regard to relational gaps, the board also wanted to determine if its organization had the marketing and communication capabilities required to develop good connections with its customers, stakeholders, and partners.

The board also assessed the potential strategic gaps within its workforce. The board assessed two major areas of strategic gaps: capabilities and culture. To begin with, as the board compared projections and assessments, it had to determine if its workforce had the capabilities required for the projected future work. The board performed a gap analysis of its workforce's technical capabilities to determine if it had the skills, experience, and an adequate number of people to support work projections. The board sought to determine if the balance and diversity of the workforce's skills would meet current and potential future work requirements. For example, if the board projected having to provide major support to a new program, it needed to understand if the organization had enough personnel available with the correct skills. Sometimes this analysis identified the opposite problem, that there would not be enough work in the future to sustain the current workforce. Along with determining technical capability gaps, the board also assessed gaps in the non-technical or "soft skills" capabilities of its workforce. An example of this was time management. The board assessed gaps in the time management skills of its employees, believing that due to the increasing responsibilities placed upon them, having good time management skills would be crucial to strategic success. The board also assessed gaps in its organization's leadership. The types of gap assessments the board made for technical and soft skill capabilities of employees also applied to its assessment of leadership. The board assessed if the organization's leadership possessed the correct skills to take the organization successfully into the future. The board tried to determine if there were enough experienced leaders. It also wanted to make sure that new and experienced leaders were receiving the training they would need to lead successfully in the future.

The other aspect of workforce gap analysis concerned culture. The board chose to invest a great deal of time and energy to assess possible deficiencies in the workforce's culture. It wanted to discover, as one board member asked, "What are the cultural norms that are impeding strategic progress?" The board compared the current assessed values of its organization to the values required in the future. The board tried to determine if the workforce would be willing to change its attitudes, perceptions, and paradigms to achieve strategic goals. For instance, strategic projections showed that changes would become more frequent and chaotic in the future. Therefore, the board compared how resistant to change its employees were to how flexible the board thought they would need to be. As another example, after projecting a future environment where creativity and innovation would be the keys to achieving strategic success, the board decided to assess the risk tolerance of its workforce and management. A final example of a cultural gap analysis the board conducted concerned the respect employees were showing to one another. This analysis led to the uncovering of an insight about how organizational classism and parochialism affects strategic implementation. The study addresses these specific problems in more detail later.

The third major type of gap analysis the board performed concerned the organization's infrastructure. The three major facets of infrastructure the board analyzed were the organization's structure, its policies and processes, and its facilities and equipment. The board tried to determine if the organization's structure would efficiently support the future requirements of stakeholders and customers. A strategic gap in organizational structure may require a reorganization to correct. The board wanted to arrange the organization's structure to align it to support strategic work projections and to increase integration or efficiency. The board also revisited the structure of its organization every time there was a major change to the strategy. In conjunction with the structure, the board also tried to determine if the organization was the right size, not so big that it had huge overhead costs but large enough so that it could be flexible and make long-term investments. It wanted to understand how flexible the organization was: how quickly it could respond to increasing or decreasing work demands. Another infrastructure gap the board investigated was of its organization's policy and procedures. The board wanted to determine if the current policies and procedures of its organization were too outdated, inflexible, or cumbersome to support projected future work. Through analysis, the board determined that certain processes were impeding scientists and engineers from conducting technical work. As another example, the board uncovered a gap in the hiring process. As one board member stated, "We have no flexibility in the current process to make new hires." The board saw this gap as a major impediment to implementing a successful strategy. The board also had to determine whether current facilities and equipment had the capabilities to meet future customer demands. In addition, it also looked at the viability of its facilities based on projected trends. For example, the board projected that energy costs would increase. Therefore, it tried to determine what actions it could take to increase building energy efficiency.

The observed board believed that the identification of strategic gaps was crucial to its efforts to develop an effective strategy. It felt that the more time and effort it put into developing internal and external assessments and strategic projections, the better it would be able to identify these gaps. Once the board began to identify and understand strategic deficiencies, it could begin discussions on how to narrow these gaps so that the workforce could progress towards achieving the strategic goals.

Supporting Goal: Select and Develop Best Approaches for Achieving Strategic Goals

Once the observed board determined the strategic goals for its organization and understood its strategic gaps, it began producing a strategy: a plan for achieving those strategic goals. By debating how to achieve strategic goals, the board produced three more types of strategic products: objectives, metrics, and actions. Strategic objectives are specific statements of how to achieve the strategic goals. Derived from the strategic objectives, the board developed and used strategic metrics to measure the progress made towards achieving the objectives. Finally, to move the metrics toward achieving the objectives, the board developed strategic actions.

To produce a strategy, the board worked closely together, developing and debating the multiple paths the organization could take towards strategic success. The board believed that the effectiveness of these debates relied heavily on the board's cohesion, as discussed previously. The board believed that if it has not created an open and honest environment where members could discuss issues without fear of reprisal, the integrity of the strategy would suffer. In addition, the board believed that if it had not properly prioritized its strategic efforts (i.e., given it the proper attention and resources to be developed), the fidelity of the strategy would suffer. The board also strove to make the terminology it used in the strategy consistent and unambiguous. What a term means to one person in the organization may have a very different meaning to another person. Therefore, knowing that developing and writing a clear, concise, meaningful strategy was very difficult, the board devoted a great deal of time to the discussion of ideas and wordsmithing. In addition, the board saw its own accountability to the strategy as critical to successful strategic implementation. Therefore, for each strategic product the board produced (i.e., objective, metric, or activity), one or more board members were assigned responsibility. Board members constantly reminded each other to act as "stewards" of the strategy.

The following discussions about products will follow the order in which the board produced them: first objectives from which metrics are derived from which flow strategic actions.

Product: Objectives

The board believed that effective, high-quality objectives had several characteristics. First, objectives must be derived from and support the strategic goals. There should also exist interconnectedness among all objectives, no objective should stand alone from the other objectives. The board felt that a lack of integration among objectives would greatly reduce the effectiveness of the overall strategy. The board also believed that there should be as few objectives as possible or as it stated "objectives should be lean." It thought that too many objectives would cause employees to lose focus. Therefore, the board filtered and prioritized its objectives using a variety of tools such as the critical path method and impact maps. The board was also careful to ensure that the objectives it developed were realistic. The board felt that objectives that were too idealistic, "Pollyannaish," or just unreachable would not be taken seriously by the workforce. For instance, the board had to determine if it was realistic that the organization could and would change to meet the objectives. As one board member stated, "If the organization cannot adjust to change then the strategic plan is not working." While strategic objectives should be realistic, the board also wanted them to be challenging. The board felt that effective objectives would require the organization to develop or "stretch" to be achieved. If objectives were not challenging, employees would quickly lose interest. For example, on one occasion the board rejected one member's business objective because they felt it would not require much of an effort to accomplish. The board also believed that objectives should be adaptable, that they must be capable of changing to fit the situation. The board understood that each of its decisions, along with constant changes in the internal and external environment of its organization, would affect the strategy. The board believed that in an environment such as this, inflexible objectives quickly lose their relevance, causing the workforce to stop striving to achieve them. The board believed that, above all, strategic objectives should be humane, that the board must develop objectives with attention to the effect they would have on people. The board stated that leaders of successful organizations value their human assets most of all. It also stated that employees should be valued as individuals and never treated like "faceless blobs." The board realized that its decisions influenced the lives of people and their families and believed that effective objectives never diminish the morale, safety, or well-being of employees. Finally, the board believed that strategic objectives should be measurable and that metrics must track the progress made towards achieving the objectives.

Product: Metrics

The board derives its strategic metrics directly from the strategic objectives. The board knew not to make the mistake of deriving metrics from the next product discussed, strategic actions. Metrics derived from strategic actions would only measure the progress of an initiative, not the progress towards the overall objective and, therefore, would not provide insight to the progress made towards the strategic goals. The board took great care to define proper metrics. They knew that selecting and tracking good metrics over time could expose deficiencies in the organization, allowing the board to take action and make changes. As one board member stated, "The right metrics will allow us to understand when we are off course." As with objectives, the board invested a considerable amount of time discussing and selecting its metrics. In addition, the board worked with its employees to develop the proper metrics.

The board realized that the strategic metrics it selected would greatly influence employee behavior. For example, the board wanted to measure its workforce's creativity and innovation. One proposed way to accomplish this was to measure the amount of patents the organization produced. From experience though, the board recognized that this might not be an appropriate measure. If the workforce understood that the number of patents it produced was considered important and being monitored, then they would be more likely to submit patent requests on everything they develop, regardless of technical merit. This response to the metric would not only overwhelm the organization's resources to patent technologies, it also would not produce the desired effect of developing a creative and innovative workforce. Instead, the board thought that a better metric might be measuring the number of licensed technologies. When a patented technology is licensed, it means that a private company is willing to buy the rights to use it. The board thought this was a better metric because if a technology was worthy of being licensed, then it must have been developed using creativity and innovation.

There were several other factors the board considered when selecting metrics. An organization will have to expend valuable resources to monitor and collect metric information. Therefore, the board tried to ensure that the data it received from a metric justified the cost required to collect, analyze, and report it. It was observed that on occasion, the board stopped tracking certain metrics, not because the metric did not provided valuable information, but because it was considered too resource intensive to track. In addition, the board only considered metrics they could measure at regular intervals. If the board could not collect the metric data regularly, then the board would not be able to develop and track trends determining the progress made towards the objectives. Finally, well-chosen metrics allowed the board to determine what actions it could take to make progress towards the strategic objectives, the subject of the next section.

Product: Actions

After developing objectives and metrics, the board produced strategic actions: the initiatives to implement to achieve the strategic objectives. The board understood the significance of strategic actions: once implemented, they were mostly irreversible and affected people's lives. When proposing actions, the board members would have to defend how the action related to and might affect the strategy. The board could propose short or long-term actions as long as they could demonstrate how the action would move the metric towards its target. For the board to consider them valid, strategic actions had to have a beginning, middle, and end. In fact, the board treated strategic actions like projects. It allocated resources and developed schedules with milestones to track and report. Treating actions like projects also allowed the board to identify and assess strategic risks. As mentioned before, for every strategic product, including actions, the board assigned responsibility to a member. The board warned one another, though, not to become parochial over the strategic actions for which each had accountability. This could occur if the owner of a strategic action focused on the successful completion of that task and forgot about "the bigger picture"—that the ultimate task was to achieve the strategic goals set by the board to ensure the organization's vitality.

The board of directors developed two primary types of strategic actions: changes and investments. Changes were actions the board would take to transform something that currently existed in the organization to something more conducive to strategic success. Strategic action changes implemented by the board covered four major aspects: business, governance, organization, and culture. Business changes dealt with what businesses the organization should be in and which partners to pursue. With respect to actions concerning governance, the board deliberated changes to the organization's decision-making authority. For the board, this often meant deciding who could make decisions and at what level within the organization the authority should reside. As one board member stated, "How far down can we push decisions?" Organization change actions typically involved modification of the organization's structure or processes. The board often assessed the organization's various subdivisions to determine if their current structure would meet strategic needs. Process actions, on the other hand, concerned changing or eliminating organizational processes that had become obsolete or cumbersome. As describe in the section on strategic gaps, the board identified problems with the organization's hiring processes and attempted to correct this process with a strategic action. Finally, the board would implement actions to close the strategic gaps that had been identified in its organization's culture. The board considered these the hardest actions because of the difficulties inherent in trying to change an organization's culture and track those changes over time.

In addition to changes to the current organization, the board also made investments to develop new capabilities it believed would be required for future strategic success. To begin with, the board decided how to invest in developing the skills of its workforce and leaders. These types of investments determined what technical and soft skills training to make available. The board also decided how to invest in its organization's infrastructure: whether to build, upgrade, or demolish facilities. Another investment the board made concerned pilot programs (the observed board also referred to them as "Proof-of-Concept" activities). Pilot programs tested new ideas in a small section of the organization to help the board determine whether to apply the ideas to the rest of the organization. Some examples of pilot programs the board instigated during this study included testing new telecommuting and data-gathering systems.

Along with the strategic goals, the products of this activity (objectives, metrics, and actions) make up an organization's strategy. Before the board could start implementing the strategy though, they wanted employees to understand and accept it as their own.

Primary Goal: Infuse the Strategy

Once the observed board of directors had developed its strategy, their next primary goal was to infuse it into the organization, believing that the more a part of the organization the strategy becomes, the greater the chance of successful implementation. While there are no supporting goals, there were two primary activities observed that the board undertook to infuse strategy. First, it developed and delivered its strategic messages through communication. The second action the board took was to cascade its strategy, meaning it took action to connect the strategy to every part of its organization. The board believed that having a well-developed strategy, one that time and effort has been invested in developing, would greatly aid it in executing these activities. Ultimately, the board wanted to make implementation of the strategy the top priority of the organization's employees.

Activity: Communicating with Employees

The board believed that its communication efforts must involve far more than just relaying the plans the board had developed. The efforts involved building relationships with employees and bringing them in as much as possible to be part of the strategy-making process so that the employees could understand the rationale behind the strategy and know how and why they should contribute. The board also believed that communication should build cohesiveness across the entire organization. Employees should not only understand their contributions to the strategic success of its organization but also understand and appreciate the contributions of all other employees. The board felt that communication that achieves these goals greatly increased the probability of the successful implementation of the strategy.

The board of directors especially wanted to communicate to the workforce the responsibilities of the board. As one board member lamented, "The next level down doesn't understand what we do." The board of directors communicated that its job was to develop the strategy and evaluate the organization's performance. The board also communicated its vision of the future. When doing this, the board felt that its vision would be more powerfully communicated if told as a story, "Where have we been, where are we, where are we going, and why." The board strove to educate its workforce about the strategy, including its formation and rationale. To help employees understand how the strategy was formed, the board shared with them information garnered from its internal and external assessments. The board also shared information about the processes it used to develop strategic projections and, finally, the strategy.

The board felt that for successful strategic implementation, every employee should appreciate the strategy and the role they played in the organization's strategic success. In addition, the board wanted employees to understand how they would benefit directly or indirectly from the achievement of the strategic goals. As one board member said, "People want to know why it should pay attention to the strategy. What is in it for them? Why is it more than just a management exercise?" The board knew that it might be difficult to convince employees that a strategic change was necessary, especially if the workforce currently perceived the organization as successful. An analogy the board used to explain this was comparing their transformational actions to the actions that championship golfer Tiger Woods was undertaking. At the time of this study, Tiger Woods was the top golfer in the world, winning tournament after tournament. Even with this success though, Tiger Woods was working to change his swing because he knew as he aged, his body would change and, therefore, his swing would need to change too if he was to remain competitive. As stated by one board member, "Even though we're doing good, we could and have to do even better."

The board also believed that communicating the strategy included informing employees about the opportunities and threats facing the organization. For example, the board took steps to ensure that employees knew the issues and concerns of the organization's stakeholders and customers. In addition, board members shared their own concerns with employees. Once employees had this information, the board of directors would communicate how individuals could contribute. The board felt that communications to and from employees should be solutions-based. The communication of a problem should be accompanied by ideas to solve it. For example, the board informed employees about the types of work the organization could expect in the future. The board followed this information with a list of the skills it thought would be required for this new work so that employees could start preparing themselves. In addition, the board ensured that the employees knew about the development opportunities that were available to help them acquire these new skills.

The board felt that how it communicated with the workforce was just as important as what it communicated. To aid with its communications, the board used strategy maps. These maps helped convey to employees the strategic objectives and initiatives as well as the board members responsible for their implementation and success. The board felt that to be effective, strategic communication must be accessible, continual, and consistent. Therefore, the board was continually in contact with employees using a variety of mediums such as face-to-face meetings, presentations, documentation, and the internet. One example of the board trying to make communications timely and accessible was by developing a message board on the organization's intranet. As another example, some board members sent out monthly reports to the workforce to let them know about potential new work, issues, and challenges. The board, through its external assessments, kept track of the latest communication technology trends. Occasionally, it would test one (e.g., Twitter) to determine if it could increase the effectiveness of its communications.

When communicating with employees, the board felt that its messages to the workforce should be realistic, but also hopeful, optimistic, and inspiring. As an example, during a communication event with employees, one board member stated, "Even though the future will be challenging, we will be ready for it." To ensure realism and increase employee confidence, the board tried to back up its communications with as many facts as possible. The board also believed that for communications to be made more effective, they should be audience focused and personalized as much as possible because "…employees are not interested in the same things as management." For example, the board made it a point to gather small groups of newly hired employees and discuss how the organization's strategy applied to them.

Along with understanding, another goal the board of directors communicated with its workforce was that employees should accept the strategy as their own. The board wanted to create an environment where employees were constantly asking themselves, "What can I do to help the organization achieve strategic success?" If employees started asking themselves this question, the board knew it was reaching its goal of getting employees to accept, even embrace, the strategy. The attitude of an organization's subdivision's leaders and employees may be the greatest determining factor of how quickly the strategy will be accepted and integrated.

Product: Employee Feedback

The board believed that one of the primary products produced by communicating with employees should be feedback. The board believed it imperative to collect and analyze employees' perspectives and opinions continuously. The board understood that getting meaningful feedback would not be easy if employees did not trust the board. The board felt that the more trust employees had in them, the better feedback it would receive. The board discovered that building trust was no easy matter. For instance, while it wanted to be as open and honest as possible, the board struggled with the issue of "transparency." Some board members felt that the more open and accessible its meetings were; the more trust it could build with employees. Determining the proper level of transparency though proved difficult. At one board meeting, there was a debate over a suggestion to televise the board's weekly strategy meeting. Some board members felt that televising board meetings would prevent them at times from discussing serious, controversial issues. As one board member stated, "I will not be as candid." Others on the board felt that televising board meetings would be overkill; that few employees would bother to watch, at least after the first couple of airings.

Another problematic trust issue that the board dealt with was how to persuade employees to share opposing viewpoints. The board felt that inviting argumentative and opinionated employees to board meetings to gain their perspective could potentially add great fidelity to the strategy. The problem for the board was that employees seemed to fear that there would be some sort of retribution for voicing opposition to the board. The board hoped that it could build enough trust so that employees would be willing to share opposing viewpoints openly and honestly.

Concerning building trust, the board believed that the best way it could do so was by setting the example: to model the behaviors, values, and attitudes it wanted from its employees. For example, to demonstrate its support for creativity and innovation, board members held and invited employees to their brainstorming sessions. Since the board wanted employees to feel supported and trusted, it took action to push decision-making authority as far down the organization as possible. In these ways, the board backed their ideas and words with actions. The board was attempting to build trust with employees while at the same time communicating strategic messages.

Once employees were encouraged to share their opinions, the board had to ensure they had the opportunity to do so. For instance, one venue employees had for sharing opinions was at all-hands briefings where the board would discuss strategic issues. At these briefings, the board relayed information about the strategy and the rationale behind it, and employees were encouraged to ask questions. Some board members also held "open door" sessions where employees could come and discuss issues that were concerning them. Some board members also practiced "management-by-walking-around" where they would visit employees where they worked, as they worked, to hear their issues and concerns. The board also used on-line surveys to collect information about how the workforce felt about certain issues. As board members interacted with employees, they attempted to capture and disseminate this information to the rest of the board. If the board took corrective actions based upon the issues and concerns of employees, it would communicate this back to employees so that they would know the board listened and valued their input. As shown by the importance it placed on employee input, the board demonstrated its belief that feedback was essential to continuous improvement. The board felt that when strategic communication was successful, it not only made employees feel that they were important to strategic success, it also helped them to understand and appreciate the contribution of every other employee in the organization.

Activity: Cascading the Strategy

For infusing a strategy into an organization, cascading is the sister activity to communication. While the board of directors primarily used communication to get employees to understand and accept the strategy, cascading backed it up with accountability. Through cascading, the board set employees' roles and responsibilities with respect to the strategy. Cascading ensured a linkage from the strategic goals and objectives the board set, through all of the organization's subdivisions, down to the individual employee level. If a strategy is fully cascaded within an organization, every measure used to rate an employee's performance would be traceable to the organization's strategic goals. The board believed that holding employees accountable to the strategy would provide incentive for them to accept and implement the strategy. The board understood though that while cascading was important, it would also have to work through communication to get employees to accept the strategy. As one board member stated, "[Employees] have to believe [the strategy] is the way to go, it cannot just be assigned."

The board cascaded its strategy throughout the organization to facilitate its implementation. When cascading, the board first met separately with the leaders of the organization's major subdivisions, the leadership level just below the board. The board explained the strategy to this group and then explained the goals and the process of cascading. In addition, the board ensured that subdivision leaders understood their own roles and responsibilities with respect to the strategy. The board then instructed these leaders to develop a strategy for their subdivisions, in effect, becoming a second-level board of directors. There was one caveat to this instruction: these subdivision leaders would have to demonstrate how every part of their strategy traced back to and supported the board's strategy. Once the subdivision leaders returned with a strategy that demonstrated traceability and supportability to the board's strategy, the board directed them to cascade the strategy down to the next layer of their organization. This process continued all the way to the individual employee level. When fully cascaded, employees could trace each objective of their performance evaluation (referred to as a performance appraisal by the observed board) back to the strategic objectives of the organization. Employees could trace their own objectives to their subdivision's objectives, back to the organization's objectives, all the way to the strategic objectives of the parent organization. To achieve this meant that every employee had to think about strategy to some degree. This is one of the most important aspects of cascading. If implemented correctly, cascading has the effect of transforming every employee into a strategist. The board believed that if all employees were thinking about the strategy and their feedback was being collected and used (as discussed earlier), this would help the board to increase the fidelity of the strategy. The board used communication and cascading to overcome what it saw as the greatest impediments to implementation of the strategy: organizational inertia, parochialism, and classism. The board primarily used cascading to overcome the problems of organizational inertia and parochialism. The board defined organizational inertia as a barrier to acceptance of the changes required to implement strategy. The board felt that inertia increased when line managers and employees did not understand or just refused to accept the strategy developed by the board. The board discovered that very often, the first opposition to strategic change was the layer of leaders just below them. These leaders were the first asked to place trust in a new strategy and to begin implementing it. The board also felt that employees who perceive that their managers were not interested in strategy were likely to adopt the same attitude. The board felt that overcoming this "keep the status quo" attitude was a key to successful strategic implementation but because of the strength and heritage of the organization's culture, it would take tremendous effort to overcome. The board believed that organizational inertia could be a symptom of another problem that would impede implementation of the strategy: parochialism. Parochialism occurs when an organization's subdivisions or employees plan and execute activities only for their own good and with no regard for the overall strategy set by the board. Parochial employees often feel and act as if they own their organization. For instance, researchers may decide to conduct research on subjects that are only of interest to them and do not in any way support the strategic goals of the organization. Parochialism can also occur when employees consciously decide to concentrate more on the day-to-day or operational needs of its own subdivision and ignore the longer-term strategic mandates from their leaders. The board believed that whenever subdivisions or employees act in a parochial manner that it greatly reduced the strategy's overall effectiveness, also known as sub-optimization.

The board used cascading to overcome the problems of inertia and parochialism by making subdivisions and employees responsible for implementing strategic changes. The board believed that holding subdivisions and employees accountable to the strategy through their performance evaluation criteria would make it much harder for these problems to fester within the organization. The board felt that cascading in conjunction with communication could instill employees with an attitude of stewardship, where they accept and treat the strategic priorities of the board as their own.

The board identified what it believed to be another major obstacle to strategic success: organizational classism. The board believed that the cohesiveness of its organization was a major factor to the successful implementation of the strategy. It thought that the more employees were interacting with each other and showing respect and appreciation for each other's contributions, the more they would work together to achieve strategic goals. Understanding and admiration of other employees' work by employees was not what the board was seeing in all cases. Classism, the board believed, occurred when individual employees or organizational units felt that their contribution to the organization's overall strategic success was either more or less valuable than the contributions of others. In other words, employees were expressing elitist attitudes. Some examples of the different classes the board of directors identified included:

- Researchers/Scientists
- Developers/Engineers
- Facilities Engineers and Operators
- Managers/Supervisors
- Administrative Support Personnel
- Technicians
- Civil Servants
- Contractors

The board voiced a great deal of concern regarding classism at the organization because it felt it was one of the strongest barriers to successful strategy implementation. Board members cited examples of elitist feelings such as researchers and scientists over engineers, engineers over technicians, and civil servants over contractor employees. The board expressed concern that some employees acted like the organization was a technocracy (i.e., when scientists/technologists are premier). The board felt that in successful organizations, employees feel respected by their leaders and fellow employees for the contributions they make to strategic success. The board used communication to try to diminish the problem of classism.

To help employees rise above classism, the board worked to educate employees of the work other employees did and point out the work's value to the strategic success of the organization. The board started initiatives to get various, disparate subdivisions together to share information and discuss their work. To increase understanding and integration, the board set up a number of tours, inviting all employees who wanted to attend to come learn about the various facilities and work performed around the organization. Multiple awards ceremonies were held to communicate to employees, "…the great things its organization was doing and why." When the board was deciding upon awards, it worked to make sure that all employees who contributed were recognized, not just the civil servant technologists. As one board member stated, "We should value and reward excellence regardless of [whom] it comes from." The board made all these efforts to reduce classism and increase the organization's ability to implement the strategy. As stated by another board member, "Let [employees] know that the future is what we make of it, and that requires everyone."

Through communication and cascading, the board tried to infuse the strategy throughout the organization. If the board were successful, it could expect that it could anticipate that employees would implement the strategy more quickly and successfully. The board knew though that communication and cascading alone could not improve strategic performance. To accomplish that, the board would have to back these activities with evaluations and initiatives to reward or correct performance.

Primary Goal: Continuously Improve Strategic Performance

The final primary goal of the observed board of directors was to improve the strategic performance of their organization continuously. While there are no supporting goals, two general actions the board took to achieve the primary goal were conducting strategic evaluations and taking actions to foster strategic performance.

Activity: Conducting Strategic Evaluations

To reach the goal of constant strategic performance improvement, the observed board of directors took action to evaluate strategic performance. Observations of this board of directors identified that the primary evaluations it conducted were of its own performance, how it practiced strategic management, the validity of the strategy, and the progress the workforce was making towards the strategic objectives. These evaluations produced feedback loops to several of the activities discussed previously. As one board member stated, "Reviews should help inform the strategy of the future." The board believed that it could improve overall strategic performance though constant evaluation of itself, its practices, the strategy, and the strategic progress its organization made towards the strategic objectives.

Product: Evaluation of the Board and its Practices

The board evaluated its own performance to increase its effectiveness. To conduct these evaluations, the board collected information from a variety of sources:

feedback from employees, appraisals by outside entities, independent evaluators, and from the board members themselves. The board appraised its working relationships with each other to determine if it was functioning as a cohesive team. It assessed several aspects of its working relationship to determine how well the board was functioning. To begin with, the board wanted to understand if it had created an open and honest environment. It assessed whether board members were talking, debating, and working together on problems or attacking and blaming one another. The board assessed whether it was taking action when employees brought bad news or blaming others and punishing the messenger. The board also wanted to understand if it was dealing with "data poverty," not collecting or sharing enough information with each other to make informed decisions. The board also wanted to determine if it suffered from "perfectionism" and/or "analysis-paralysis" where it spent too much time analyzing issues to make effective decisions. Some members of the board believed this to be the case. As one board member chastised, "We over-analyze everything. Sometimes we just need to act and see what happens." Conversely, the board also assessed whether it was becoming "action addicted," sometimes taking imprudent actions just to be doing something. The board also worried about "executive infallibility," acting as if it did not believe itself capable of making mistakes. The board also evaluated its attitude towards risk; was it being too risk-tolerant or risk-adverse based on the situation it faced. The board also wanted to make sure that it was holding its members accountable to their strategic obligations. The board evaluated members based on the progress of their assigned strategic objectives, metrics, and actions. In addition, board members constantly evaluated each other to ensure that they were not displaying parochial attitudes, reminding each other that the job of the board was to plan for the good of the entire organization.

Tied closely with the evaluations of the board were the evaluations of the strategic practices it was using. The board thought that how it practiced strategic management should improve over time and change as needed. Therefore, it constantly evaluated the effectiveness of its strategic practices. For instance, the board evaluated its strategic meetings to determine their efficiency and if they were accomplishing what the board expected. For example, the board did determine that its primary strategic meetings were too inefficient. The board determined that it was spending too much time analyzing data and not enough time on debate and decision-making. Therefore, the board created a new meeting rule that, prior to board meetings, all data would be posted to a central file server so that the board members could analyze the data before the meetings. Board members could only present data if there was an issue that they could not address without it. Another example of inefficiency that the board identified involved breaks during meetings. The typical weekly board meeting lasted from 3 to 5 hours with no scheduled breaks. The board determined that members lost interest when presentations and discussions ran too long. Therefore, a 10-minute break was scheduled and enforced after every 50 minutes of meeting. Board members agreed that this one small change had a very noticeable and positive effect on meeting efficiency.

There were many more evaluations the board made of its strategic meetings. The board evaluated the time and frequency of its strategic meetings to determine if it was spending enough or too much time on strategic issues. The board knew that it took a considerable amount of time to develop, implement, and evaluate a strategy but that it needed to balance that with the requirements of day-to-day operations. Some members of the board felt the pressure of trying to dedicate the proper amount of time to strategic issues. As one board member lamented, "There's just not enough time to do strategic things." The board also assessed if the proper people were attending its strategic meetings. For example, the board judged that it was inviting too many people to attend board meetings, causing a loss of coherence. The board felt that it should only allow those employees who could provide information the board required to make decisions to attend its meetings. Therefore, the board directed members to invite only people who were relevant and could add value to the meetings.

In addition to evaluating its meetings, the board examined many more of its strategic practices. For instance, time is not the only resource required to develop and implement strategy. Implementation requires funding, materials, and people. The board assessed whether it was providing the correct number of resources for its strategic efforts given the priority level it had given to its strategy. In addition, the board assessed how it was doing strengthening ties to existing customers, stakeholders, and partners. It reviewed whether its monitoring was helping to make deliveries on time, within budget constraints, and at an acceptable level of quality to customers and partners. It also evaluated if its efforts were influencing stakeholders to value and advocate on behalf of its organization. The board also judged its efforts to identify and connect with potential customers and partners. As one board member questioned, "How many leads turned into business?" In addition, the board also evaluated the effectiveness of its communication to employees. The board based this evaluation on whether employees understood and accepted the strategy as their own. The board also assessed if its communication efforts were having any effect on classism. In addition, the board used the quality and quantity of feedback it was gaining from employees as a measure of the amount of trust it had with its employees. For instance, the board tried to determine if the workforce was conveying back to the board what aspects of the strategy were worrisome to them and the reasons why. Finally, the board evaluated its cascading efforts. The board judged cascading efforts by determining how closely employees' performance criteria were coupled to the strategic objectives set by the board. The board also tried to determine if cascading was having a diminishing effect on organizational inertia and parochial attitudes. Evaluations the board conducted of itself and its practices provided feedback to several of the activities in this taxonomy.

Product: Evaluation of the Strategy and Strategic Progress

The board constantly reviewed the progress the organization was making towards the set strategic goals while at the same time, scrutinizing the validity of the strategy. To begin with, the board kept a constant vigil on how strategic actions (the organizational changes, investments, and pilot programs it had implemented) were affecting the strategic metrics. The board required those implementing the actions to produce progress reports that the board reviewed constantly. The board determined the validity of strategic actions by the effect they had on the metrics. As one board member commented concerning the validity of actions, "We may do all the things right but did we do the right things?" As discussed previously, the board treated strategic actions like projects. Therefore, it spent time reviewing the progress the action had made towards its milestones. The board evaluated whether its strategic actions were addressing its strategic needs quickly enough. If not, then perhaps this was an indication that the board had not set the proper levels of priority or invested the proper resources for the action to be successful. If an action was producing results but not affecting its intended metrics, it probably was an invalid strategic action, at least concerning those metrics. In addition, if an action affected its intended metrics but in the opposite manner expected, then the board would have to determine why this was the case. The board occasionally had to conduct investigations into why actions were negatively influencing their metrics. Often it discovered that an action might negatively affect metrics in the short-term, but if allowed to continue to fruition, it would eventually positively affect the metrics.

As the board collected reports of strategic action progress, they integrated these reports along with other data to produce reports about the progress of the strategic metrics. The board considered reviewing metric progress a high priority and convened special meetings just to do so. As one board member stated concerning the importance of reviewing metrics, "The organization needs to know when it's off course and why." Strategic metrics must accurately measure the progress made towards the strategic objectives. If the board judged that a metric did accurately measure progress, collection of that data would immediately cease and the board would have to identify a new metric. Even if the board determined that the metric did measure the progress made towards strategic objectives, it continued to assess if collecting the metric was worth the return-on-investment: was the information gained from the metric worth the cost it took to collect, analyze, and report it. The board spent a considerable amount of time determining if it was collecting the correct number of metrics, often deciding that it was collecting too many. Reviewing metrics gave the board a good indication of the progress the workforce was making towards the strategic goals and objectives, but the board still had to determine whether the goals and objectives remained correct for its organization.

The board believed that to ensure its relevance, goals and objectives had to be compared and validated constantly to the situation the organization was facing. As one board member stated, "There must be constant comparison between the situation and the objectives." When conducting these assessments, the board wanted to determine if the current strategic goals and objectives would still lead its organization towards success in the future. The board might have determined that a change of customer or stakeholder requirements required a change to the strategy. As one board member stated, "[The strategy] needs to be checked often to make sure you're on the right path." Referring back to some of the characteristics the board thought proper strategic goals and objectives should have, it would assess aspects such as were the goals and objectives:

- too numerous;
- too easy or too challenging;
- easily communicated to the workforce;
- written too specifically or too generally;
- too idealistic;
- too rigid or too adaptable;
- humane or taxing the workforce too much?

In addition, the board would assess the measurability of objectives. If the metrics produced to track the progress of the objective were incapable of doing so, perhaps the board had developed an invalid objective.

All of these evaluations of the strategic objectives, metrics, and actions provided feedback to the board's strategy development activities. The board of directors also used these evaluations of organizational performance to ensure that the organization stayed on the path towards the strategic objectives.

Activity: Fostering Strategic Performance

To improve the strategic performance of its organization, the observed board of directors used the evaluations of strategic progress it produced to encourage the behavior it wanted from subdivisions and employees. By rewarding and correcting the strategic performance of the subdivisions and employees in its organization, the board reinforced the behaviors it desired while discouraging those it did not. This action assisted with the communication efforts of the board of directors to set the example for the rest of the organization. The board expected that as the strategic behavior of its organization improved, so would its strategic performance.

The board believed that good evaluations of organizational performance were critical for achieving the goal of improving strategic performance. Starting with the evaluations of strategic action and metrics, the board began to identify the subdivisions and employees it wanted to recognize. If the strategy has been properly cascaded throughout the organization, the board of directors will have a much easier time evaluating the subdivision's contribution to strategic success. While the board of directors was only able to evaluate directly the performance of the leadership level directly below them, these subdivision leaders, if they had successfully cascaded the strategy as ordered by the board, would have been able to provide evaluations of each subdivision's strategic performance.

The board recognized and rewarded good strategic performance in many different ways. To begin with, the board believed in celebrating and communicating strategic successes. It believed that an organization should celebrate its successes and sometimes its failures if they occurred for the right reason (like the organization attempting something very high risk that had a high probability of failure but was a valued learning experience). It wanted to recognize publically strategic performance and behaviors it considered exemplary to send a message and increase the probability of employees repeating that behavior. Examples of behaviors the board wanted to recognize included integration, collaboration, creativity, and inclusiveness. One dilemma the board faced concerned the rewarding of taking risks for the sake of creativity and innovation. While it may be easy to celebrate successes, the board debated how to handle failures that occurred because employees were trying to be creative and innovative. Some board members thought that the board should reward employees for failures when attempting something new in the name of creativity and innovation just as much as successes. Other board members wondered how one separated failure caused by taking high risks for the sake of creativity from failures caused by poor performance.

The board thought that through public acknowledgement, not only could it reinforce good strategic behaviors, it could also help to increase organizational cohesiveness. As stated previously, the board felt that organizational classism and parochialism were major impediments to strategic implementation. The board thought that these public celebrations could help bring the workforce closer together and make subdivisions and employees care more about the achievements of other subdivisions and employees. The board thought that it was important for them to express gratitude to employees. In addition to its own gratitude, the board made sure to communicate to employees any appreciation received from stakeholders, customers, and partners. The board felt that they did not do this often enough, or as one board member stated, "We don't celebrate how far we've come."

Fostering strategic performance also required the board of directors to take action to rectify poor strategic behavior or performance. The board felt that if it did not take action to correct poor strategic performance, then it would demoralize employees who were working to achieve strategic success. For example, the board determined that some of its subdivisions leaders were acting parochially, demonstrating that they only cared about their own needs, not those of the organization. The board discussed actions it could take to modify the behavior of these leaders. The board planned to conduct similar interventions with employees who were acting in an elitist fashion, increasing classism. For example, at one meeting between employees and the board, an employee while asking a question made a statement that one class of people in the organization should not forget their place. The board immediately stated that it found that employee's comments insulting. Through acts of correction like this, the board let the entire workforce know that it would not tolerate classism.

Through evaluation and the fostering of good strategic behaviors, the board expected that it could achieve its goal of continuous strategic improvement. The board believed that continuous strategic improvement would lead to sustained organizational vitality: that its organization would remain vital to the nation and the world far into the future.

Summary

From the identification and analysis of the observations of this study, the following theory can be stated:

> **Strategic Vitality Theory:** A board of directors motivated to sustain their organization's strategic vitality will undertake actions to increase the board's effectiveness; strengthen relationships with customers, stakeholders, and partners; develop an effective strategy; infuse the strategy throughout their organization; and constantly try to improve their organization's strategic performance.

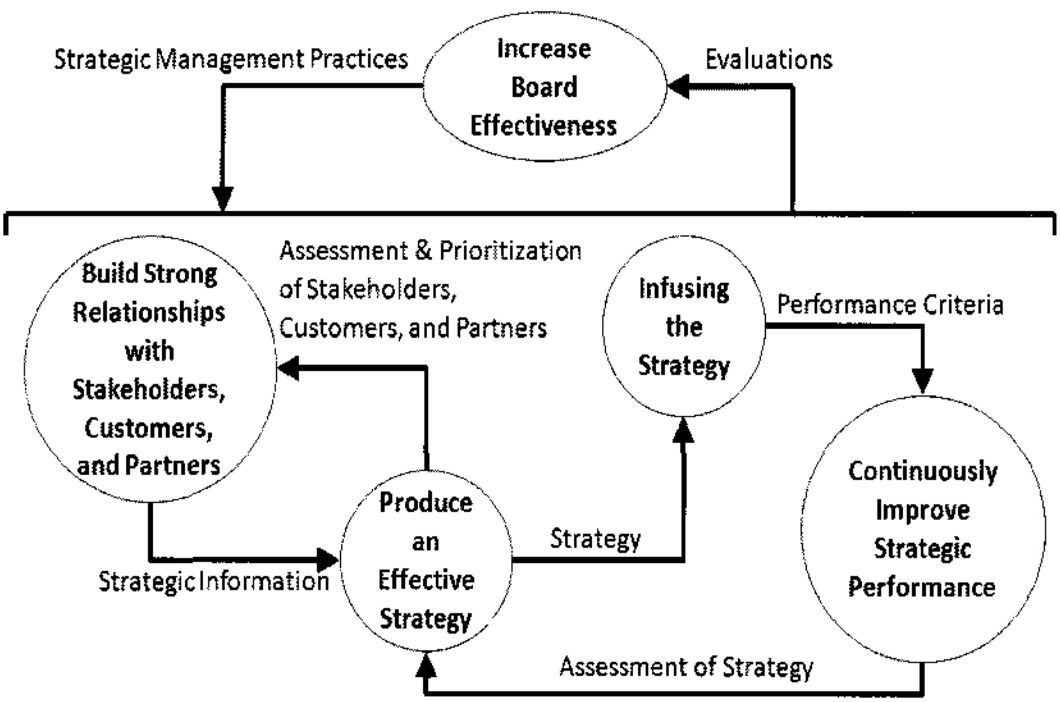

Figure 4. Relationship between Primary Goals

CHAPTER V

CONCLUSION

Theoretical Implications

This study has presented a categorized explanation and detailed description of the functioning of a public sector board of directors. The findings of this study support the trend that other studies demonstrate, that the role of strategic leadership is emerging as a primary responsibility of public sector boards of directors (Hinna et al., 2010, p. 146). What sets this study apart is that it demonstrates how the motivations of a public sector board of directors affect its roles and mechanics. The primary motivation for this board of directors was sustaining its organization's strategic vitality. This motivation was self-determined; it was not imposed on the board by outside influences but chosen by the board. This motivation is what drove this board to choose strategic leadership as its primary role. This board of directors was involved with every aspect of strategic development and implementation. The empirical evidence of this study supports the findings made of private sector boards that, "board members are capable of shaping both the ideas that form corporate strategy as well as the methodologies and processes through which those ideas evolve" (McNulty and Pettigrew, 1999, p. 66). While Kirkbride and Letza (2003) and Flinders (2004) claimed that the different roles of public sector boards conflict with one another, this study found that when the board chose strategic leadership as its primary role, the other potential primary board roles of performance management and network governance became subservient to the primary role. There was no conflict because management of performance (i.e., ensuring successful product delivery, making doing business a pleasure, conducting evaluations) and network building with stakeholders, customers, and partners were done by the board to make the organization more strategically successful. Because the motivation of this board directly affected its primary role, motivation also directly affected the mechanics of how the board functioned. All of the board's actions were executed ultimately to ensure the organization's strategic future.

Contributions

In addition to its findings about public sector board functioning, this study produced two major contributions. First, through the utilization of the grounded theory method, a unique and straightforward taxonomy of an actual strategic management methodology used by a public sector board of directors was produced. A taxonomy is the ordering and classifying of phenomena (Bowman, Singh, and Thomas, 2002, p. 44; Blalock, 1971). Strategic management scholars note the need to develop new taxonomies of strategic management. "The benefit in using a taxonomic approach in strategic management is the opportunity to collapse large amounts of information into convenient and parsimonious categories (Carper and Snizek, 1980), which can be used for testing hypotheses and examining relationships" (Bowman et al., 2002, p. 44). In addition, scholars suggest that these taxonomies must be developed using observations of strategists as they practice because of the notable difference between reality and existing strategic management theories (Bowman et al., 2002, p. 44; Whittington, 2002, p. 128; Lewin and Stephens, 1993). New taxonomies based upon longitudinal observation help scholars and practitioners gain a better understanding of how strategies are formed, implemented, and changed (Chakravarthy and White, 2002, p. 182). This study clearly represents the complex nature of strategy formation as Tsoukas and Knudsen describe it.

> …it has been increasingly realized that the formation of strategy is a primarily social process whose outcome should ideally be a novel one; that the future is not out there to be discovered but is rather invented; that strategy is not plucked out of the tree of some already available strategies but is painstakingly developed to suit a firm's unique profile and circumstances.
>
> (Tsoukas and Knudsen, 2002, p. 428)

The second major contribution of this study is the identification of organizational classism as a potential major barrier to strategic implementation within organizations. A thorough review of strategic management literature found no reference to this phenomenon in this context.

In conclusion, perhaps the greatest contribution to the study of boards of directors is simply that this study was permitted to take place. As stated in "The Black Box of Board Process: Gaining Access to a Difficult Subject":

> Finally, getting inside boardrooms and how this study was accomplished might be an important contribution of this study, but a more significant contribution might be more general in nature. This contribution is the proof that data can be gathered from difficult sources, with the right method.
>
> (Leblanc and Schwartz, 2007, p. 850)

As more and more of these types of studies are allowed to be conducted, their results may become more useful to boards of directors, helping them to be more effective. Therefore, an increasing number of boards of directors may be willing to open up and allow direct access by the research community.

Recommendations for Future Studies

This study can act as the impetus for future studies. When describing the benefit of longitudinal, observational studies like this one, Bowman et.al., states, "The rich body of results and tentative propositions developed from such a study can be subsequently tested and refined by other researchers adopting different methodologies" (Bowman et al., 2002, p. 44). While this study is empirically valid, it is but a single study. To produce a more general theory of how public sector boards of directors function, the study needs to be replicated under different conditions. Although access to boards of directors is limited, perhaps this study can be used as a wedge to get more boards to open up to academic analysis. If so, more studies like this can be produced, leading to the development of a formal theory of public sector board functioning based upon observations.

In addition, the phenomenon of organizational classism or elitism and its effects on strategy implementation should be further studied. In particular for engineering organizations, technocracy (when scientists and engineers are given more weight in setting policy and making decisions than other types of employees) and its effects warrant further study by engineering management scholars.

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APPENDIX

THE GROUNDED THEORY PROCESS

This appendix discusses the grounded theory research process used for this study. Figure 5 presents the major phases and events of the research process. Actual data from the observations of this study are used to demonstrate the process.

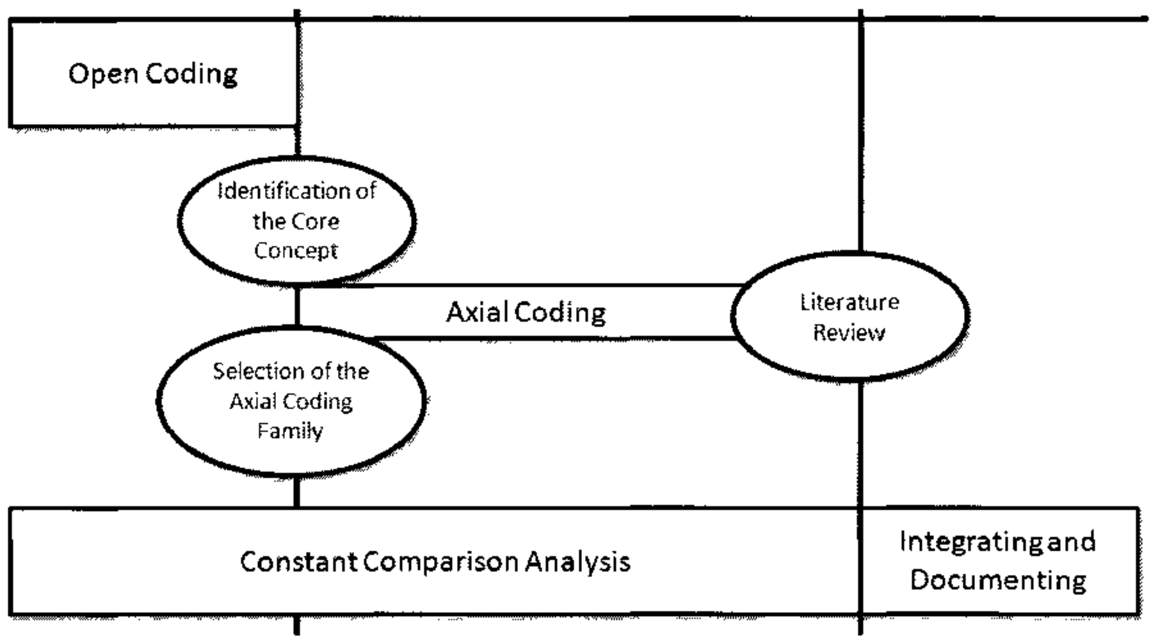

Figure 5. The Grounded Theory Research Process

Because constant comparison analysis is used during both open and axial coding, it is necessary to describe its mechanisms first.

Constant Comparison Analysis

Constant comparison analysis, developed by Glaser and Strauss for grounded theory but now adopted by some other inductive methods, is another way in which grounded theory is differentiated from other research methods. In most deductive and some inductive research methods, there is a systematic process where observations are collected, then coded, then analyzed. In grounded theory, these actions are required to occur simultaneously from the time data gathering starts to its completion. This constant comparison of all collected data encourages the development of rich, "ever-developing" theories based on the belief that theory is a process, not a perfected process (Glaser & Strauss, 1967, p.32). This principle harkens back to Strauss's American Pragmatism. While a quantitative researcher would prefer a statistical approach, such as using an intercoding tool, this proves impossible and inappropriate for a grounded theory researcher because all observations taken are written in the explicit language of the researcher (Ambert, P. A. Adler, P. Adler, & Detzner, 1995, p.885). Other inductive research methods such as case studies and ethnographies often depend on the detail of its descriptions for reliability, but this makes generalizability and filtering bias very difficult.

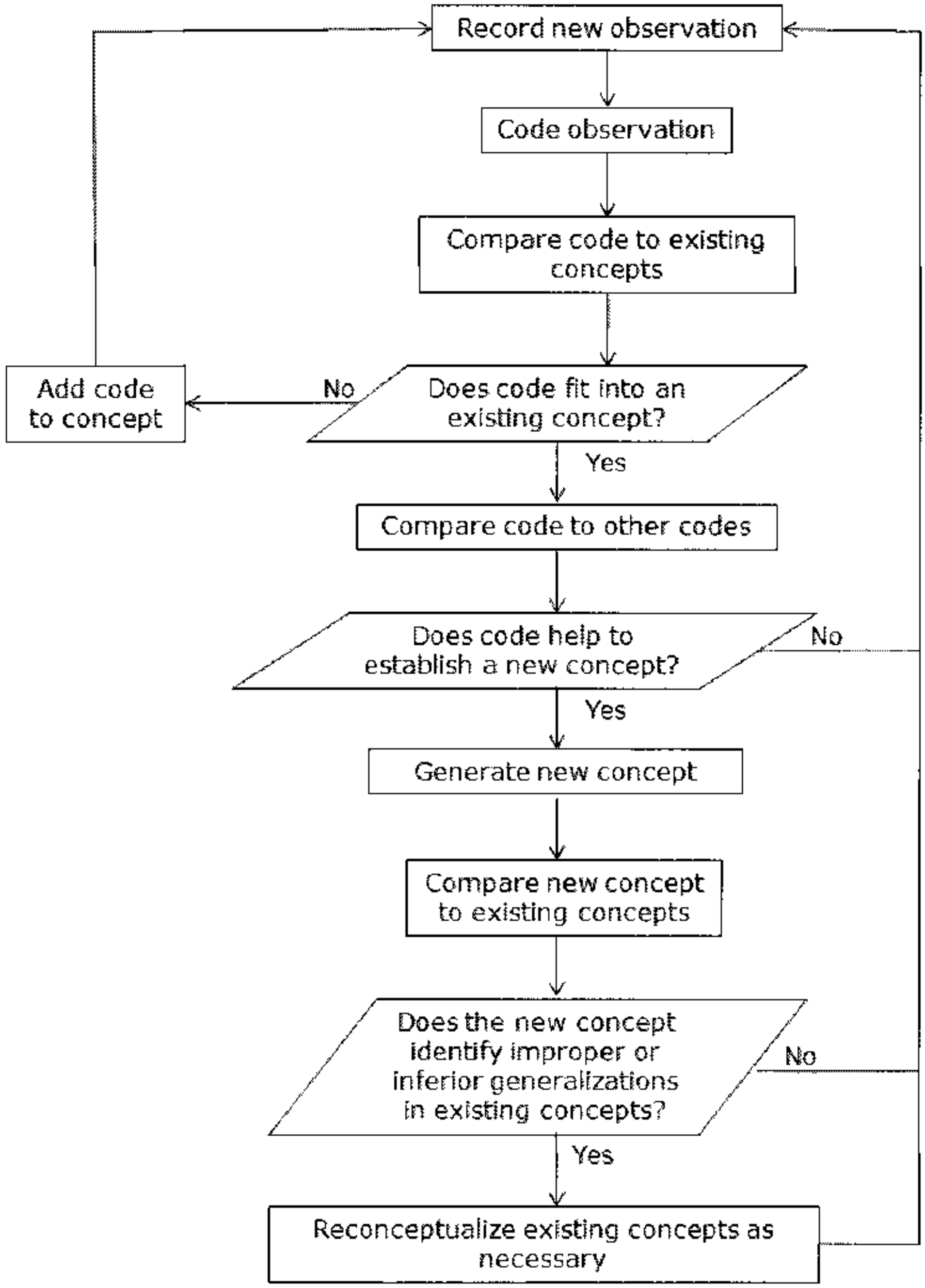

Figure 6. The Constant Comparison Analysis Process

Constant comparison analysis serves four purposes (Glaser, 1998, p.139):

- It verifies concepts as patterns in the data.
- It verifies the fit of the concept nomenclature to the pattern.
- It generates the properties of the concepts.

- It saturates the concepts and its properties.

At the beginning of the constant comparison analysis process, as each new observation is recorded, it is coded and added to the data set. First, the researcher determines if the newly coded observation helps to substantiate or describe an existing concept (if any) within the developing grounded theory. If so, the properties of that coded observation are added to those of the concept. If the new code does not fit into any of the existing concepts, the researcher must then determine whether the code helps to identify a previously undiscovered pattern in the data. The researcher does this by comparing the new code to all the existing codes, including the ones that may already be part of any existing concepts. If a new pattern is not discovered, the researcher returns to data gathering, and the code is left until a suitable pattern is discovered. If the code does help to identify a new pattern within the data set, then that pattern is conceptualized and established by the researcher. Once the new concept is established, it must be compared to the other existing concepts. The researcher must determine if the new concept causes a disruption with the existing concepts because it is a better generalization into which other concepts or parts of concepts should be included. This may mean expanding or deleting existing concepts or developing entirely new concepts. The new concept may even uncover a problem with the data-coding scheme the researcher has chosen, and all previous codes will have to be reassessed.

The identification of an inferiorly generalized concept may also indicate research bias. Bias can be defined as "any influence, condition, or set of conditions that singly or together distort the data from what may have been obtained under the conditions of pure chance" (Leedy 1993, p.213). Exposing and eliminating bias is one of the primary functions of constant comparison analysis. Biased concepts, usually caused by researchers attempting to force fit data, will cause major logical inconsistencies within the developing theory. As more data are collected and analyzed, the tenuous relationships between biased concepts and other concepts will break down, and the developing grounded theory will lose its continuity. Once bias has been identified, it is dependent upon the integrity of the researcher to mindfully remove or account for it. Otherwise, any theory produced will be discontinuous and invalid.

Open Coding Phase

During the open coding phase of grounded theory, data are collected and given a descriptive name to assist the researcher in identifying patterns. During this phase, with data collection and data analysis occurring simultaneously, the researcher attempts to identify the core concept; the most general concept that will describe all observations; and the axial coding family that will allow for greater conceptualization and categorization of the data. As an example, Table 1 presents the open coding of the first four observations of this study's data set.

Incident	Event	Topic	Observation	Code
1	Cascading Discussion	Cascading the Strategy	The board discussed the need to cascade the strategy so that they would be able to hold employees accountable to implementing it.	Cascading
2	Strategic Management and Workforce Development Meeting	Strategic Gaps	The board discussed their need for more technical leaders based on their comparison of current assessments to their projections	Strategic Gaps
3	Strategic Management and Workforce Development Meeting	Facilitation	The board discussed their need for facilitation at their next retreat in order to increase their cohesiveness, stating that being more cohesive would allow them to strategically lead better.	Facilitation
4	Strategic Management and Workforce Development Meeting	Organizational Culture Study	The board discussed findings of a study they had conducted on the organization's culture stating that they needed to have a better understanding of the organization in order to produce a viable strategy.	Organizational Assessment

Table 1. Coding during the Open Coding Phase

Identification of the Core Concept

The core concept is identified when the researcher can use one concept to describe all of the observed phenomena. In the case of this study, after four months of data collection and analysis, it was apparent that the observed board of director's core concept (the motivation for its actions) was to sustain the strategic vitality of its organization.

Selection of the Axial Coding Family

Axial coding allows the researcher to increase his or her ability to identify and conceptualize patterns in the data. The axial code family is selected or custom created to fit the data that is being collected. Returning to the first four observations of this study's data set, Table 2 demonstrates how the data were used to identify the correct axial code family.

Incident	Event	Topic	Observation	Code
1	Cascading Discussion	Cascading the Strategy Activity	The board discussed the need to cascade the strategy so that they would be able to hold employees accountable to implementing it.	Cascading Goal
2	Strategic Management and Workforce Development Meeting	Strategic Gaps Activity	The board discussed their need for more technical leaders based on their comparison of current assessments to their projections	Strategic Gaps Product
3	Strategic Management and Workforce Development Meeting	Facilitation Goal Anticipated Consequence	The board discussed their need for facilitation at their next retreat in order to increase their cohesiveness, stating that being more cohesive would allow them to strategically lead better.	Facilitation Activity
4	Strategic Management and Workforce Development Meeting	Organizational Culture Study Goal Anticipated Consequence	The board discussed findings of a study they had conducted on the organization's culture stating that they needed to have a better understanding of the organization in order to produce a viable strategy.	Organizational Assessment Product

Table 2. Finding an Axial Coding Family that Fits the Data

Once the axial coding family is identified, the researcher can recode all collected data under the axial codes (Table 3). This allows the researcher to more readily identify emerging patterns.

Incident	Observation	Activity	Product	Goal	Anticipated Consequence
1	The board discussed the need to cascade the strategy so that they would be able to hold employees accountable to implementing it	Cascading	Not Applicable	Employee Accountability	Not Applicable
2	The board discussed their need for more technical leaders based on their comparison of current assessments to their projections	Identify Strategic Gaps	Strategic Gaps	Increase Fidelity of the Strategy (identified in accompanying material)	Not Applicable
3	The board discussed their need for facilitation at their next retreat in order to increase their cohesiveness, stating that being more cohesive would allow them to strategically lead better	Using Facilitation	Not Applicable	Increase Cohesion	Increase Board Effectiveness
4	The board discussed findings of a study they had conducted on the organization's culture stating that they needed to have a better understanding of the organization in order to produce a viable strategy.	Cultural Assessment	Organizational Assessment	Increase Organizational Understanding	Increase Fidelity of Strategy

Table 3. Coding Data Axially

As coding continues, patterns will begin to emerge in the data. Table 4 shows an example of how a pattern emerges as the observed board of directors conducts various studies of their organization. These activities all center on the board attempting to gain an understanding of their organization. These activities share common goals and anticipated consequence of those goals.

Incident	Observation	Activity	Product	Goal	Anticipated Consequence
4	The board discussed findings of a study they had conducted on the organization's culture stating that they needed to have a better understanding of the organization in order to produce a viable strategy	Cultural Assessment	Organizational Assessment	Increase Organizational Understanding	Increase Fidelity of Strategy
18	The board assessed their workforce's expertise and capabilities in order to better understand the strategic gaps	Expertise Assessment	Organizational Assessment	Increase Organizational Understanding	Increase Fidelity of Strategy
25	The board made an attempt to evaluate the flexibility of the workforce so that they could develop realistic strategic objectives	Flexibility Assessment	Organizational Assessment	Increase Organizational Understanding	Increase Fidelity of Strategy
635	The board assessed their organization's facilities to determine how much maintenance could be automated. This assessment was necessary to increase the fidelity of strategic projections	Facilities Assessment	Organizational Assessment	Increase Organizational Understanding	Increase Fidelity of Strategy

Table 4. Emerging Pattern

As patterns emerge, they are conceptualized by the researcher. Near the end of the axial coding phase when the discovered patterns start to solidify, the researcher will conduct a literature review.

Literature Review

The literature review in grounded theory serves two purposes. First, it further establishes the significance of the study and its findings as it establishes the study's contribution to the body of knowledge. Second, the literature review situates the grounded theory into a scholarly context to further the validity and reliability of the theory by adding substantiation to its concepts. The researcher uses the scholarly literature to ensure that the developed concepts are properly generalized and described using standard nomenclature. Doing so ensures that the concepts can be easily communicated to a larger audience of scholars and practitioners. For example, referring to Table 4, the researcher has conceptualized the products being generated by these activities as "organizational assessments." A review of the literature of boards of directors and of strategic management practices reveals that these products are more commonly referred to as "internal assessments," and the goal of this activity is commonly referred to as "sustaining internal knowledge." Therefore, the researcher renames his codes in the more common vernacular to make his or her findings more relatable to the body of knowledge (Table 5). The properties of these assessments (e.g., that they are conducting cultural assessments or assessments of facilities) are used as examples to substantiate the observed pattern.

Incident	Observation	Activity	Product	Goal	Anticipated Consequence
4	The board discussed findings of a study they had conducted on the organization's culture stating that they needed to have a better understanding of the organization in order to produce a viable strategy.	Conducting Internal Assessments	Internal Assessment	Sustain Internal Knowledge	Increase Fidelity of Strategy
18	The board assessed their workforce's expertise and capabilities in order to better understand the strategic gaps.	Conducting Internal Assessments	Internal Assessment	Sustain Internal Knowledge	Increase Fidelity of Strategy
25	The board made an attempt to evaluate the flexibility of the workforce so that they could develop realistic strategic objectives.	Conducting Internal Assessments	Internal Assessment	Sustain Internal Knowledge	Increase Fidelity of Strategy
635	The board assessed their organization's facilities to determine how much maintenance could be automated. This assessment was necessary to increase the fidelity of strategic projections.	Conducting Internal Assessments	Internal Assessment	Sustain Internal Knowledge	Increase Fidelity of Strategy

Table 5. Recoding to Match Common Theoretical Venacular

The literature review may also reveal biases and/or logical inconsistencies in the theory. In this respect, the literature review can be viewed as another layer of triangulation and crosschecking of the observational data. Therefore, unlike most qualitative studies, the results of the literature review in a grounded theory study are interwoven into the results of the study.

Integrating and Documenting

This is the final stage when all the results of the study are written into a concise theory in a way that is accessible to the intended audience. The audience for a grounded theory is the scholars and the practitioners in the field. Using the literature review helps to establish the write up of the theory in a scholarly context. It also helps to increase the generalizability of the theory so that it is applicable to more than just scholars and the actual participants of the study.

Once data collection ceases, the concepts and their properties may require some final sorting so that the theory can be written with continuity. Much thought and care must be given to the writing of the concepts. The concepts should be developed with the properties recorded and substantiated using examples and quotes from the data.

Once the grounded theory is properly documented, it can be presented and defended.

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