# Highly Effective Cross-Functional Team in a Competitive Environment

CHAPTER 1: INTRODUCTION – AVERAGES 17 TO 38 PAGES

This study examines the working relationship of leadership and cross-functional competitive proposal development teams. Leadership is defined as the process of influencing an organized group toward accomplishing a goal (Hughes, Ginnett, & Curphy, 2002, p. 241). Proposal teams are essentially project teams configured to respond to government acquisition documents called Requests for Proposals. These typically have 30, 60, or 90-day schedules, and when the proposal is completed, the team disbands (Lawler & Cohen, 1992).

Besides cross-functional, the project team in many cases is inter-divisional. It provides a spectrum of expertise: engineering, information systems, contracts and pricing, supplier management, writer, editor and other subject matter experts, working to achieve a common goal or purpose. Leadership is invested in a capture team leader, a project manager, proposal specialists, and book captains. The cross-functional team (CFT) leader has the responsibility of leading the team. A temporary organizational structure is created to confer leadership authority over the team (Lawler & Cohen, 1992).

Chapter 1 provides the background of the team functions, and describes the problem statement, purpose, nature, and significance of the study. The research methodology is reviewed at the end of the chapter.

Background of the Problem

The purpose of this research is to provide insight into what characteristics effective leadership requirements necessary for assembling teams of diverse specialists in a competitive and time-constrained effort. With the advent of improved communication technology, the physical environment offers team members choices. The acquisition environment offers less comfortable choices. The defense budget is under stress; existing programs are facing cut back; and competition for the remaining work is fierce.As a result, teams face some new facts. Contract awards will routinely be contested, so that they may win and still lose on appeal, or they may have to win the same award twice. They will in all probability also find themselves competing in new areas as their firms seek “adjacencies”-- work in any new fields in which their existing abilities can be applied. Teams at larger firms may also find more and different teammates alongside as their companies buy up smaller specialized firms.

CFTs have been used successfully in manufacturing in companies such as Chrysler, NCR, Boeing, and General Electric (Wheelen & Hunger, 2004). Research further indicates that these types of teams have proven to be cost-effective when representatives from each major sector of manufacturing are integrated in the early phases of the process (Wheelen & Hunger, 2004).

Given the intense competitive environment and resources involved, it may seem surprising that companies would entrust the construction of their competitive bids to temporary CFTs; yet typically the case. Individuals with the various skills needed are conscripted, often from different parts of the company and the continent, declared “the Proposal Team,” and charged with creating the winning proposal in 60 or 90 days.

CFTs are not thought of as the typical team – a group drawn together by shared experience with established relationships. In the case of the proposal team, many if not most of the members of this team will never have worked together; many if not most will not have worked on a proposal. Teams are successful; each competition sees a winner, and leadership is credited with bringing the team to success. The study will explore CFT leadership effectiveness and opportunities for improvement.

Statement of the Problem

Organizations are rapidly adapting to the competitive environment and demands of the global economy. The success of these organizations depends on dynamic and effective leadership with the ability to negotiate and coordinate the strategic objectives. The objectives are based on Request for Proposal requirements to cross-functional and inter-divisional teams (Ancona & Caldwell, 1998). The leadership of CFTs is faced with different challenges from those in the traditional organization. According to Ancona and Caldwell, leadership and cross functional proposal development teams represent the interest of the corporation when creating a proposal for submittal. CFTs are generally formed to address a specific issue.

Effective and dynamic leadership requires skills in diagnosing the challenges facing the team; adapting, or the ability to adjust behavior and other resources to meet situational contingencies; and communicating in a clear and concise manner where the team understands and accepts the request (Weiss, 2003). The dynamics of this type of working team differ from – and can create more challenges than– those of the traditional team environment. Leadership and cross-functional teams are important to the organizations, and an understanding of communications, cooperation, and coordination is required (Webber, 2001). The problem is leaders responsible for making decisions in the formation of teams should be more involved with the specific language of each area represented as well as the positions they hold. In addition, this qualitative Delphi study will explore leaders’ decision criteria in selecting CFT participants in the competitive environment. The target population includes capture team leaders, proposal managers, subject matter experts, and executives.

Purpose of the Study

The purpose of this study is to explore opportunities for effective leadership of cross-functional teams. In addition, this qualitative Delphi study will explore leaders’ decision criteria in selecting cross-functional team participants in the competitive environment.

The use of the Delphi method is selected as most appropriate to forming a consensus of experts on the present research subject, highly effective cross-functional teams in a competitive environment. The Delphi method ensures an abundance of rich and contemporary information about the skills and social processes involved in leading cross-functional teams in a competitive environment (Skulmoski, Hartman, & Krahn, 2007).

The identified populations for this study include capture team leaders, proposal managers, subject matter experts, and executives. In order to add validity to the research, vice presidents in three major business units and retired government acquisition employees were interviewed. The general population locations include California, Missouri, and Washington.

Significance of the Study

Effective leadership of cross-functional teams poses challenges and is often cited as a reason for team failure or underperformance (Jassawalla & Sashital, 1998). This research will add to the body of knowledge on leadership in cross-functional teams by bringing a current use perspective to criteria that have been reported in prior research studies. The cultural dynamics of the workplace and the contemporary management philosophies of participation and collaboration favor the use of a cross-functional team approach to access the best of the organization’s experience, knowledge and skills. The knowledge gained from this research will benefit the leadership and teams developing defense acquisition proposals. Research has now provided guidelines and recommended processes to follow that may be useful in implementing the cross-functional structures more effectively (Katzenbach & Smith, 1993).

In today’s fast paced global environment, technical or highly specialized skills are often a prerequisite to employment; but the ability to work effectively in a teaming environment is often valued just as much (Tarricone 2002). “The speed and efficiency with which effective CFTs can be brought together to respond and resolve challenges is crucial to success in the modern organization” (Economist 2006, p 15). Gordon (1992) performed research showing that 82% of U.S. organizations surveyed participate in teaming activities. Large multi-national organizations contribute part of their success to the use of teams (Economist 2006). Along with early adoption of new technology, the understanding of how to develop and use teams is a key enabler for firms trying to get products to the market faster (Cravotta 2003). In Australia, it is also felt that to achieve success with the fast rate of technology growth; teams are crucial (Walters 2005).

Nature of the Study

This section includes a summary of the appropriateness of the chosen research method and design. The section is divided into two subsections. The first subsection describes the research method and the method’s appropriateness. Second, an overview of the research design appropriateness in comparison to other designs is discussed.

*Methodology*

Qualitative research involves relying on the views of participants, asking general questions, and analyzing the answers for themes. The inquiry is conducted in a biased, subjective manner (Creswell, 2005). It deals in “soft” data: memories, biases, and reactions to questions that could be expressed as disjointed sentences and fragmentary statements (Neuman, 2006, p 151). Quantitative methodology by contrast follows a linear path; as its name implies, searching out numbers, and applying logic to them (Neuman). Much research is an amalgam of the two (Creswell, 2005; Neuman). A mixed methods research study encompassing\s both qualitative and quantitative data is useful when building from one research phase to another (Creswell, 2005).

Qualitative methods are appropriate for the present study because of exploration in the research: the specific variables are unknown, and the intent is to first seek a deeper meaning of the patterns and contexts associated with expert knowledge transfer of the panel experts (Burgess, 2005; Davenport & Prusak, 2000). Neuman (2003) reinforces the choice, holding that qualitative studies are the way to search out patterns in data with which to arrive at an understanding of the study under investigation. Information will come in the form of opinions expressed by an expert panel on the leadership decisions and the selection of the right team members.

Several types of qualitative research designs accordingly received consideration before the selection of the Delphi technique as the most appropriate research tool.

The ethnographic method was inappropriate because its lengthy process requires an in-depth examination of an entire group within its culture (Simon, 2006). The case study is not an option because of the emphasis on the analysis of a single unit or entity. The ground theory approach, with its focus on theory development, is inappropriate to meet the goals of the study. The phenomenological approach is not appropriate due to the highly personal nature of the research, requiring firsthand experience of the study (Merriam, 1998; Simon, 2006).

“Delphi” refers to the famed oracle in ancient Greece who predicted the future and gave advice to the gods (The Delphi Method, 2003). The Delphi method originated in the 1950s; in an Air Force-sponsored Research and Development Corporation (RAND) project. The purpose of the defense study is to obtain a consensus of expert opinions regarding the perspective of Soviet strategic planners (Linstone & Turoff, 1975). It was not until the 1960s that the Delphi method emerged outside the defense community in long-range forecasting.

Many early studies involved an exploration of forecasting. Delphi studies can also seek out opinions and judgments in a variety of different contexts and fields (Mullen, 2003). Linstone and Turoff (1975) ascribed four characteristics to the method; anonymity of the participants; individual contribution to a group view, which is then discussed by the group; then succeeding rounds of alterations in participants’ conclusions.

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*Research Design*

The qualitative research for the study relies on the informal wisdom and perspectives developed from experience of three panels of experts. Of critical importance to the collective judgment is the composition of the expert panel. Linstone and Turoff (1975) posited that expert judgment can be a surrogate for knowledge when inadequate theories or incomplete information exist. However, according to Baker, Lovell, and Harris (2006), no clear consensus exists regarding the definition of an expert. Researchers must build the most appropriate panel they can from within their professional group.

The traditional Delphi technique starts with an open-ended survey given to the panel. Through successive iterations, the experts independently modify and refine responses until the positions are firm and the participants reach agreement on a topic. Diverse panels of experts who have led CFTs in a competitive environment are chosen for this Delphi study. A consensus will be gained using electronic survey data and a leadership skills assessment scenario generated during the literature review. The panelists will explore the primary research question by determining knowledge, skills, and abilities (KSA) contribute to effective leadership decisions in a CFT.

Research Question

There have been many theories about how teams function and several theoretical constructs define a general model of team development. However, a review of the literature indicates that these models have not been satisfactorily validated in regard to short duration, cross-functional teams. The teams of primary interest in this study consist of a small number of individuals who are subject matter experts in their field that has been assembled to produce a proposal that wins new work from aerospace and defense customers.

Senior management faces a critical decision in choosing capture team leaders for the capture team for survival of the organization depends on the success of the team. By wisely selecting team leaders, senior management increases the likelihood of a win. Due to the complexity of the proposal preparation task, the team invariably has members from all functions within the organization, and this increases the difficulty of choosing the right leaders.

As discussed above, Skulmoski, Hartman, & Krahn, 2007 indicate the Delphi method works well when the goal is to improve the understanding of problems, opportunities, solutions, or to develop forecasts. As the purpose of this study is to seek understanding of a phenomenon, the following research question will focus this study:

What opportunities exist for improvement of leadership in cross-functional proposal teams?

Management’s dilemma with respect to selecting capture team leaders has at least the following dimensions. These factors will guide the initial discussions within the Delphi panel:

1. The win record of prior teams

2. Budget performance of prior teams

3. Potential team members concerns about how capture teams are led

4. Turn-over rates within prior teams

5. Reluctance of potential team member to agree to serve again

6. Functional area managers concern about the capture team

7. Inadequate measures of team leader’s performance

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Definition of Terms

Many scholars, consultants, highly visible executives and theorists in an organizational context using a wide array of conceptual and descriptive terms have defined leadership. For the purposes of this research, the definition of leadership provided by Hughes, Ginnett, & Curphy (2002 p. 241) will be used: Leadership is a process of influencing an organized group toward accomplishing a goal.

Cross-functional team (CFT) has been defined as group of people who apply different skills, with a high degree of interdependence, to ensure the effective delivery of a common objective (Holland, Gaston & Gomes, 2000). New product development teams, whether they are working in functional, project-based or matrix organizations, exemplify this definition.

KSA is a commonly used acronym for knowledge, skills and abilities. Knowledge refers to the understanding of a given subject area, the ability to recall information such as facts, details, procedures and concepts. Skills refer to the application of knowledge in terms of performing a task or function that uses specific knowledge. Abilities refer to the motivation to perform as well as the capability to integrate knowledge and skills in a meaningful, appropriate and purposeful way.

Theoretical Framework

This section provides context for the study within the body of knowledge that currently exists. Philosophy, concepts, paradigms, and theory play an important part in providing perspective due to a lack of empirical data.

*Philosophical Foundation*

A brief discussion of Bass’s (1990) perspective on the development of a theoretical framework is presented. Bass suggests that leadership must be modeled into some form of theoretical framework that will illustrate the many interactions of the changing variables present in constant motion. Bass specifically advised: Traits, skills, personal attributes, abilities, styles, attitudes, or other characteristics do not a leader make; these factors have to resonate with the members of the team. This simply means the leader must adapt to the situation and to the team. Addition or loss of a popular member can radically change the team dynamic (p. 76).

According to Bass, leadership may be in the eye of the follower. Even though a given group in a given situation may respond well to an individual’s leadership, another group, or the same group in different circumstances, may not. The individuals’ personal characteristics and skills, compared to the many possible types of situations, are stable and constant (Bass, 1990). Bass (1990) reported that the stability in skills or personal traits of human behavior is what prevents leadership. For example, Bass (1990) explained it is not extremely difficult to find individuals who are leaders, but it is quite another matter to place these individuals in different situations and expect them to function as leaders every time. Bass (1990) believed an adequate analysis of leadership involves a study of not only personal traits and skills of leaders, but an evaluation of the different types of situations facing leaders.

With the leader’s presence established, Trent lays out three vital functions. The team is going nowhere without goals, so setting goals comes first. The leader must work with the members of the team to do this; member buy-in is necessary, and this is the most likely path to achieving buy in.

Collective commitment is one thing, and individual involvement can be another. There may be varying degrees of enthusiasm among the members, which can show up later in the process, potentially at some awkward time. Establishing the commitment of each team member becomes the leader’s second priority task. The third can be the most difficult: any internal conflicts must be resolved, if possible, but at least managed.

Assumptions

Neuman (2003) notes that assumptions – unproven but reasonably stated arguments – are necessary to discovering truths through the interaction of ideas (p. 529). The research study is based on the following assumptions.

First, the skills of leaders of competitive CFTs are assumed to contribute to the effective leadership of such teams. According to trait theory or great man theory, leaders are endowed with superior qualities that differentiate them from their followers and it should be possible to identify these qualities or skills (Bass, 1990, p. 38). Bass (1990) further noted that the trait theory of leadership is espoused by those who show how faltering business corporations are turned around by such transformational leaders. The assumption that the skills of leaders of competitive campaigns contribute to effective cross functional leadership appears to be reasonable, and substantial support from Bass (1990), and many others provides satisfactory assurance that the assumption would be met.

Second, it is assumed that the expert panelists on leading competitive project cross functional teams will have the appropriate knowledge, skills, and abilities to identify and analyze the skills contributing to effective leadership. They have held positions such as: vice presidents, capture team leaders, subject matter experts, consultants, and program managers. Many are employed in aerospace with direct knowledge of the defense acquisition procurement process. Their response to questions in the surveys is expected to be the opinions of experts.

Each prospective panelist will complete an applicant survey that will be analyzed and judged according to a specified set of criteria. It is assumed their knowledge, skills, and abilities, after being evaluated against this set of criteria, will be adequate for the purpose of the study. The assumption appeared reasonable and the analysis, measurement, and judgment of the expert Delphi panelists’ KSA against the set of criteria will provide satisfactory assurance that the assumption will be met.

Third, the expert panelists are assumed to be effective communicators who can transfer observations and information into a written format via e-mail and deliver the information to the researcher. Surveys will be used in the study and require them to communicate their answers and responses effectively. The assumption appeared to be a reasonable one: the panelists should be adept at communication by virtue of the positions they have held.

Scope and Limitations

This section provides a summary of boundaries and special characteristics of the sample and population, which are discussed in detail in the Nature of the Study. A Delphi technique is used to investigate the primary research question by utilizing electronic surveys. A consensus will be gained from a diverse panel of experts who understand the defense procurement acquisition process and who have leads CFTs in a competitive environment. The boundaries of the study are restricted to a population of expert practitioners drawn from the aerospace industry.

The study’s boundaries were left as open and unrestricted as possible through the use of open-ended questions in the applicant and Round one surveys to allow the expert panelists to thoroughly analyze and evaluate their knowledge and experience in leading competitive CFTs and to stimulate creativity in their answers to the questions.

The panelists will explore the research question through their response to the survey questions. The panelists were asked which skills contribute to the effective leadership of a CFT in a competitive environment.

Delimitations

The research of cross-functional teams is conducted by inquiry of information through the Delphi method working with subject matter experts (SMEs) and practitioners in the aerospace industry, consulting firms, and proposal managers’ association. The SMEs are identified and selected based on knowledge, skills, expertise, and experience in understanding the defense acquisition procurement process and leading competitive campaign cross-functional teams. The SMEs will be required to share their ideas regarding the effective implementation of business strategies and to focus on the business capture strategies that will support successful cross-functional teams in a competitive environment.

Summary

Cross functional proposal teams working in the defense procurement environment face particular challenges that may call for a different type of leadership than that which works for other types of teams. This study is an attempt to establish the validity of this assumption and, if correct, to catalog the attributes identified.

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