ASSESSING THE DIFFERENCE BETWEEN TRANSFORMATIONAL-LEADERSHIP STYLE AND BUSINESS STRATEGIC PROJECT-ALIGNMENT FACTORS

by

Chukwudi A. Udeh

GAIL FERREIRA, DM, Faculty Mentor and Chair

RICHARD YELLEN, PhD, Committee Member

ADOLFO GORRIARAN, PhD, Committee Member

Barbara Butts Williams, PhD, Dean, School of Business and Technology

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Abstract

Successfully aligning projects to an organization's strategic goals and determining the leadership style has the greatest impact on project success. Aligning projects are critical factors in the organization's ability to effectively meet its business goals and remain competitive in a fast-paced global business environment. This research study reviewed organizational leadership theories, analyzed project management strategies, and identified factors that affect successful alignment of projects to organizational strategies. Furthermore, it examined alignment theories that give organizations a construct to align projects successfully to their business strategies. To accomplish these objectives, this study used quantitative, non-experimental research methodology to assess the difference between transformational-leadership style dimensions and business strategic project-alignment factors. The researcher collected the dataset from 229 certified project managers using the Multifactor Leadership Questionnaire Form 5X (MLQ-5X) short developed by Bass and Avolio in 1995 and a demographic questionnaire. The researcher used a Multivariate analysis of variance (MANOVA) to analyze the dataset from research sample participants. The findings of this study demonstrated that leadership style of transformational-leadership dimensions has a direct relationship between business strategic project-alignment factors. Theoretical implications include the need for project managers to be trained in business strategic project alignment based on their transformational-leadership style dimensions.

Keywords: Transformational Leadership, Strategic Project Alignment, Project Management

Dedication

As I come to the end of my academic journey, I would like to thank God for giving me life and the strength to get thus far in my academic pursuits. I dedicate this research work to the memory of my parents: Mr. Peter O. Udeh and Mrs. Veronica E. Udeh, who instilled work ethics in me, my brothers (Emmanuel, Christopher, Peter, Michael), and my sisters, (Christiana and Josephine) and encouraged and believed in us. Throughout my academic successes, they urged me never to give up on my academic dream. Even though I am glad that this time has come, I am saddened that my parents; my brother, Emmanuel; and my sister, Christiana, are not around to see me become a doctor. I also dedicate this work to my brothers and sister who have endured my absence and have taken on the role of managing the affairs of our family both emotionally and financially during this doctorial journey.

I also dedicate this research work to my wife, Valarie, for her love, support, and encouragement and to my children, Chidera and Amara, for their patience. I know this doctorial pursuit did create both financial and difficult times for our family; I thank you for your understanding. I am indebted to all of you. Your love and sacrifice propelled and sustained this doctorial pursuit.

Finally, I dedicate this research to all my friends who have supported me, and my family and those I have lost touch with because of my focus on this project. I look forward to reconnecting with you. Thank you and I wish all of you God's blessings.

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CHAPTER 1. INTRODUCTION

Introduction to the Problem

From 2002 to 2012, the use of leadership styles in project management has seen a significant increase from transactional to transformational leadership as part of organizations' competitive-advantage strategies (Morriss & Jamieson, 2005; Muller & Turner, 2010a). Managers with varied leadership experiences are now leading successful projects that are directly aligned to support an organization's overarching business strategy; in fact, transformational leadership style are now used by businesses at all stages of a project life cycle, such as conceptual, planning, construction, testing, implementation, and closure (Srivannaboon, 2006; Tarafdar & Qrunfleh, 2010; Weiss & Thorogood, 2011). The conceptual phase includes the preliminary evaluation of an idea; the planning phase assigns resources and establishes specific time, cost, and scope parameters. In addition, the construction phase of the project refers to the creation of the actual project, the testing period refers to monitoring, and auditing of the project, and finally, closure involves the termination of the project (Kerzner, 2009).

Furthermore, the chance of having a successful project is realized when led by competent leaders who specialize in project management and are fully empowered by the organization to apply their leadership skills, expertise, and to make critical decisions (Lien-Tung, Cheng-Wu, & Chen-Yuan, 2010; Toney, 2001). Briggs, Chen, Nunamaker, and Romano (2003) stated that successful projects could be achieved by using "collaborative project management tools and processes which focus[es] on the explicit representation of project information and timely sharing of the right information to the right people at the right time" (p. 3). As companies strive to remain competitive by successfully completing projects in a rapidly changing global marketplace, they realize the need to identify and develop project-management leaders with

varied leadership experiences who can align the organization's projects to the businesses strategic-alignment goal (Srivannaboon, 2006; Yang, Huang, & Wu, 2011). As a result of these global and competitive challenges, project-management professionals are always searching to identify the leadership skills, traits, talents, characteristic, or competencies that might define the standard project manager's leadership style or ideal project-management methodology that leads to businesses' strategic project-alignment goals (Project Management Institute [PMI], 2008).

In order to achieve these objectives, the PMI established *A Guide to the Project Management Body of Knowledge (PMBOK Guide)* as "a formal document that describes established norms, methods, processes, and practices" (PMI, 2008, p. 3). The *PMBOK Guide* provides guidelines for managing individual projects and identifies nine broad project-management knowledge areas including "project integration, scope, time, cost, risk, quality, human resources, communications, and procurement" (Muriithi & Crawford, 2003, p. 311). These functions are managed through the "application of knowledge, skills, tools, and techniques of project life cycle" to achieve the project objective (PMI, 2008, p. 6).

To supplement the *PMBOK Guide* standard, Parry (1996) asserted that thousands of organizations from around the world such as the Australian Institute of Project Management (AIPM), International Project Management Association (IPMA), and others have joined the quest for a standard definition of project-leadership competencies. These organizations have identified a number of tasks ranging from designing effective organization systems to managing culture, developing structure, developing procedures, and developing a measurement system, as well as recruiting, selecting, training, developing, compensating, motivating, and retaining high-performing managers and a knowledgeable workforce as important project management competencies (PMI, 2008). Leadership tasks play an important role in the organization's

competitive advantage, which calls for effective project leadership that is in tune with a fast-changing and competitive environment (Porter, 1980, 1985; Ulrich, 1997; Gonzalez-Benito & Suarez-Gonzalez, 2010). Leading effective organizational systems requires the participation of subordinates who are capable of aligning an organization's goals and objectives, stakeholders' needs, assessing and mitigating risk, integrating tasks, clarifying responsibilities, developing milestones and infrastructure, and most of all, utilizing organizational human resources to support these actions, which could lead to successful company projects (Kaufman, 1992).

Beyond identifying leadership-style competencies, increasing project complexity is also influenced by business strategic project alignment (Yang et al., 2011). Traditional transactional leadership competencies are no longer enough to accomplish an organization's tasks. According to Kreitner, Kinicki, McShane, von Glinow, and Waddock (2001), transactional managers:

> focus on achieving their current objectives by linking job performance to valued rewards and ensuring that employees have the resources needed to get the job done, despite these efforts; this leadership style has not been able to stem the tide of project failures. (p. 101)

A report released by Standish Group International (1998) showed the failure rate for project completion for all businesses is high because of project-leadership misalignment. Because of these project-failure trends, organizational leadership philosophy needs to be changed. Transformational-leadership theory is one philosophy that is effective in some types of environments that need the ability to respond quickly to new demands and changes and offer positive results for portfolios, programs, project management, and project-management offices [PMO] (Bass, 1999; Gellis, 2001).

Dvir, Eden, Avolio, and Shamir (2002) asserted that transformational managers who serve as project leads especially in PMO may experience higher project-success rates because

they "exert additional influence by broadening and elevating followers' goals and providing them with confidence to perform beyond the expectations specified in the implicit or explicit exchange agreement" (p. 3). They noted that transformational managers exhibit charismatic behaviors, which arouse inspirational motivation, provide intellectual stimulation, and treat followers with individualized attention (Dvir et al., 2002). These behaviors, according to the authors, transform their followers, helping them to reach their full potential and generate the highest levels of performance in portfolios, programs, and project-management environments. This research study examined the difference between transformational-leadership style dimensions of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project-alignment factors in the context of cost leadership, differentiation, and best cost.

Background of the Study

Researchers have established a strong correlation between project-management success, project teamwork, team productivity, and teamwork satisfaction (Castro, Perinan, & Bueno, 2008; Deluga, 1990; Dvir et al., 2002; Muller & Turner, 2010a). Academicians and practitioners have noted that the primary responsibility of a project leader is to manage the resources needed to effectively define and deliver a project (Morriss & Jamieson, 2005). Although these elements are critical to the project's success, the difference between a project manager's transformational-leadership style dimensions of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration by business strategic project-alignment factors in the context of cost leadership, differentiation, and best cost has not been adequately studied (Srivannaboon, 2006). The fundamental responsibility of the project leader is to manage the resources needed to define and deliver a project efficiently (Morriss & Jamieson, 2005). In

order to avoid project failure because of a lack of leadership-style alignments, an organization's strategic project goals must be understood at all levels, such as organizational leadership style, portfolio, program, project-management team, and stakeholders. Research by Medley and Larochelle (1995) showed that "the leadership style of the supervisor is related to the job satisfaction of subordinates" (p. 64). In addition, Simon and Platts (2005) noted that misalignment of leadership style to an organization's project could result in confusion, time wasting, and internal conflict, which can lead to project failure.

For example, Keegan and Hartog (2004) designed a comparative study on transformational-leadership style in project-based environments that demonstrated how project managers are not perceived as less transformational. The study showed relationships between transformational leadership and outcomes tend to be stronger for employees reporting to transformational project managers than for those reporting to line managers with different leadership styles. Dooley and O'Sullivan (2003) measured project success and failure in their study and found that "poor leadership and management, poor alignment between goals and project, poor monitoring of overall process results, poor planning, and control of action implementation" resulted in project failure (p. 656).

Keller's (1992) study suggested that experimental designs in the laboratory or field study were needed to determine the direction of causality, as well as the extent of reciprocal influence between transformational leadership and group performance. The study found that, at this point in project-management leadership-style research, more information is required to substantiate the difference in transformational-leadership style attributes on subordinates by business strategic project-alignment goals (Srivannaboon, 2006). This study will add to existing research regarding leadership style by focusing on the assessment of the difference in project managers'

transformational-leadership style dimensions by business strategic project-alignment factors. Project management, according to Srivannaboon and Milosevic (2006), is a "specialized form of management, similar to other functional strategies that are used to accomplish a series of business goals, strategies, and business tasks within a well-defined schedule and budget" (p. 494).

However, the failure to align project leadership styles to business strategic project alignment is a major challenge that organizational leaders have yet to address, despite project failure because of leadership-style misalignment (Srivannaboon, 2006). Chan and Land (1999) posited that the leadership-style discrepancies in project strategic alignment have collectively cost businesses more than $145 billion annually. Srivannaboon and Milosevic (2006) noted, "Misalignment may cause an organization to lose market opportunities, and recovery from such misalignment is difficult" (p. 494).

According to Kerzner (2009), the major problem many project leaders face is managing stress that usually develops when new teams are formed without adequate project-leadership alignment. Kerzner noted that "this stress experienced by team members is normal and predictable, and can be a barrier to getting the team focused on the task" without properly aligned leadership (p. 212). Despite this understanding, projects continue to fail because of a lack of alignments between business strategy and projects, especially in organizations that run multiple projects and face human-resources allocation issues. Lim and Mohamed (1999) identified factors that affect project success and failure. They included lack of project objective clarity, level of linkage between organization structure and the project, the homogenous nature of project scope and objectives, and the capability of the project team to execute the project goal with aligned leadership. Furthermore, Briggs et al., (2003) indicated in their research potential

mistakes or pitfalls organizations make, such as "overemphasizing the project reporting aspect of project management, ineffective and inefficient communication, managing project inputs and outputs but not process, reactive rather than proactive project management, and the lack of a project repository" (p. 2).

In a study from Milosevic and Srivannaboon (2006), the researchers discovered that the project-management alignment measurement methodology deserved an empirical study. The authors suggested that if such a study uses a comprehensive approach, researchers could standardize the measurement and create a framework for comparative studies of aligning the various leadership styles and the organization's business strategy and types of projects (Milosevic & Srivannaboon, 2006). They contended that it would enable researchers to work toward determining the level of leadership-style alignment required to assure projects and organizations' strategic business goals are related to different leadership styles (Milosevic & Srivannaboon, 2006).

Statement of the Problem

The goal of every project strategy is to create an environment in which the organization has a competitive advantage, bearing in mind that projects take place in a broader context than the project environment. Project strategy is a fundamental, yet critical, project-management process; however, varying definitions and views exist. According to Kerzner (2005), "The primary reason for any organization to perform strategic planning for project management is the desire to secure a competitive advantage and minimize the competition's competitive advantage or strengthen the organization's competitive advantage" (p. 205). In addition, for any project to be successful, it must first position itself to its environment, and the goal and methods of the project must be well planned. The stakeholders must be identified; their goals and interest on the

project might vary but have to be strategically considered. The varying interest of the stakeholders requires that the project manager needs to plan on how to communicate to the stakeholders' interests. Furthermore, the organization's strategic goal has to be the parent of the project-management strategy, which requires the alignment of the two strategies. The project's life cycle, staffing, considerations of the organization's ongoing project, established project methodologies, the basic structure of the organization, and how it is managed, and executed must be considered (PMI, 2008). Where the mentioned criteria are not well defined and identified, organizations end up being in disarray, which results in a loss of business revenue and ultimately could lead to project failure. Large organizations are now creating project-management offices (PMO) staffed by individuals with varied leadership skills, such as transformational leadership, to help motivate and inspire project managers to work toward alignment of the organization's project goal.

Purpose of the Study

The purpose of this research study is to assess the relationship, if any, between transformational-leadership style dimensions and business strategic project-alignment factors. The independent variable includes five dimensions of transformational-leadership style including idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration, whereas the dependent variables include three factors of business strategic project alignment including cost leadership, differentiation, and best cost (Bass, 1999; Deluga, 1990; Milosevic & Srivannaboon, 2006).

The researcher collected business strategic project-alignment data with options of *yes* or *no* on a demographic questionnaire (see Appendix) and dependent variables data on a five-point Likert scale using the Multifactor Leadership Questionnaire Form (MLQ-5X) developed by Bass

and Avolio (1993, 1995). The survey questionnaires were posted on the SurveyMonkey platform to collect the dataset from the targeted population. In addition, the demographic questionnaire captured information from randomized consent participants regarding their job functions, education levels, nationalities, ages, genders, and project-management certifications. This MLQ-5X and demographic survey instrument questionnaire were administered to certified project managers in the United States. Certified project managers are appropriate for this study because they are involved in all business sectors.

Rationale

This research contributes to knowledge in the field of organization and project management by creating a better understanding of the differences in project managers' transformational-leadership styles by business strategic project-alignment factors in the context of cost leadership, differentiation, and best cost. Muller and Turner (2010a) noted that with an "increase in project requirements . . . measured in complexity, project type, and duration, there is an increased need for emotional competencies in a project manager" (p. 446). This means that an increased need exists for various types of leadership styles such as leader-member exchange/transactional where leader and followers develop a dyadic relationship, expectancy theory of path-goal theory for project managers who manage relatively simple task projects and processes, and transformational leaders for more demanding projects and human resources' knowledge (Muller & Turner, 2010a). The authors asserted that the project performance for some types of projects could be impaired if project managers do not adapt and align their leadership styles to fit the complexity of the project.

Project managers progressing from junior-, middle-, and finally to senior-management level will lead projects of different types and complexities. As part of career development,

project-management leaders should examine the difference in project managers' transformational-leadership style dimensions by how best to align with business strategic project factors in the context of cost leadership, differentiation, and best cost. This can help ensure projects are completed on time successfully and within budget. Transformational-leadership style offers project managers the insight and knowledge they need in order to create a vision and mission, set goals, solve problems, and coach and mentor as they progress and enhance their leadership competencies (Muller & Turner, 2010a).

Paarlberg and Lavigna (2010) asserted that the transformational-leadership style is a value-based framework, where leadership involves a socialization process, such as mentoring. They argued that it might mediate the relationship between transformational leadership and positive work attitudes and career expectations, thus allowing new employees to take their behavioral cues from experienced colleagues.

Research Questions

The researcher developed the hypotheses and research questions based on the literature review of transformational-leadership theory and organizational business strategic project alignment typology by identifying gaps in existing research. The researcher used the following research questions to examine this study.

Research Question 1: To what extent, if any, is there a difference between project managers' transformational-leadership styles of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of cost leadership?

Research Question 2: To what extent, if any, is there a difference between project managers' transformational-leadership styles of idealized attributes, idealized behaviors,

inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of differentiation?

Research Question 3: To what extent, if any, is there a difference between project managers' transformational-leadership styles of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of best costs?

Significance of the Study

The research study adds to the existing body of research regarding the assessment of project managers' transformational-leadership styles of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project-alignment factors. The study provides additional insight into project-management elements that are not exclusive to the project managers' functional skills but offers a perspective on the role of transformational-leadership style regarding business strategic project-alignment factors. This also demonstrates the need for organizations to examine the leadership style of the existing portfolio, program, project managers, and future project leaders and their relationships with business strategic project-alignment factors.

The study results provide project management office (PMO) leaders and organizational leaders additional insight to train project managers in different transformational-leadership styles in order to achieve better project alignment and desired outcomes. In addition, organizational leaders can be creative in project assignments based on the leadership attributes of the project manager and further validate the alignment actions of organizations that have adopted the practice of aligning leadership style to organizational business strategic project goals.

Definition of Terms

The definition of the constructs provides an understanding of the terms as they apply to these research questions and the title of this study. The researcher used theoretical framework that drew from existing research literature and traced article theory development and its internal and external validity to determine the relationship between transformational-leadership style and business strategic project-alignment factors. The difference between transformational-leadership style and an organization's business strategic project alignment was assessed in this study. Thus, the definitions that drove the focal point of the study are as follows:

- *Best cost*: The combination of an organization's business strategy, which may be the best way of creating a sustainable competitive advantage (Milosevic & Srivannaboon, 2006).
- *Business strategic project alignment*: The degree to which priorities of an organization's project management are compatible with priorities of its business strategic goal (Srivannaboon & Milosevic, 2006).
- *Cost leadership*: Entails pursuing a cost leadership strategy that seeks to gain competitive advantage and increase market share by being the lowest cost producers in the industry (Milosevic & Srivannaboon, 2006).
- *Differentiation*: Relates to pursuing a differentiation strategy that seeks to position themselves in the marketplace with a distinct identity that satisfies the desires of their customers such as fast time to market, superior quality and service, and innovative features (Milosevic & Srivannaboon, 2006).
- *Business strategy*: Includes cost leadership, differentiation, and best cost (Milosevic, 2003; Porter, 1980, 1985).

- *Idealized attributes*: The degree to which the leader behaves in admirable ways that cause followers to identify with the leader (Judge & Piccolo, 2004).
- *Idealized behaviors*: The degree to which the leaders transcend their self-interest for the sake of the organization and develop a collective sense of mission and purpose (Castro et al., 2008).
- *Individualized consideration*: The degree to which the leader attends to the followers' needs, acts as a mentor or coach to followers, and listens to the followers' concerns and needs (Judge & Piccolo, 2004).
- *Inspirational motivation*: The degree to which the leader articulates a vision that is appealing and inspiring to followers (Judge & Piccolo, 2004).
- *Intellectual stimulation*: The degree to which the leader challenges assumptions, takes risks, and solicits followers' ideas (Judge & Piccolo, 2004).
- *Transformational leadership*: Refers to leaders who motivate followers to accomplish more than they originally intended or expected, move followers to go beyond their own self-interests for the good of the group, and convert their followers into leaders (Bass, 1999). The five dimensions of transformational leadership include "idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration" (Judge & Piccolo, 2004, p. 755).

Assumptions and Limitations

The theoretical assumptions needed for this study are based on the theory of transformational leadership initially proposed by Burns (1978) and later expanded upon by Bass (1999). Burns drew from the humanistic psychology movement by asserting that "transformational leaders shapes, alters, and elevates the motives, values and goals for followers

achieving significant change in the process" (Bolden, Gosling, Marturano, & Dennison, 2003, p. 15). Bass extended Burns concept of transformational leadership by asserting that they may expand the followers' portfolios of needs and self-interest and increase confidence, elevate expectations, increase the leader's expected outcomes, encourage behavior change, and motivate others to personal achievement thus touching on Maslow's (1943) self-actualization theory (Bolden et al., 2003). Bass and Avolio (1993) suggested that transformational leadership is much in line with the type of leadership employees aspire to have when describing their ideal leaders. By fully empowering leaders to make decisions for their organization, Toney (2001) asserted that they would be able to apply their skills and expertise at a reduced cost to the organization. Bass (1999) also tied transformational leadership-style to individuals' and organizations' business strategic project alignment.

Assumptions

In view of these seminal and theoretical linkages, the researcher of this study assumes that the population of project leaders and project managers benefits from the findings of this study. The researcher assumes that the transformational leadership-style is appropriate for the project-management environment. It further assumes that the MLQ-5X accurately measures the concepts of transformational-leadership dimensions of idealized attributes (respect, trust, and faith), idealized behaviors (living one's ideal), inspirational motivation (inspiring others), intellectual stimulation (stimulating others), and individual consideration (coaching and development) by business strategic project-alignment factors in the context of cost leadership, differentiation, and best cost. The researcher assumes that the participants are capable of assessing leadership qualities based on the comparative study of organizations' leadership strategic goals and business strategic project-alignment factors.

The researcher further assumes that selected study participants were based on job functions that apply to their project-management role, their experience as project managers, organizational type, level of education, type of credential, and gender of the participant. This ensures that experienced project managers were selected to participate, and noncertified practicing project managers were excluded. Last, the researcher assumes that the participants will truthfully answer the self-rated MLQ-5X and demographic questionnaires.

Limitations

The major project-management leadership attributes explored in this study represent themes found throughout the literature researched. These attributes, however, only represent a small part of the comprehensive set of project leaders' attributes. Study limitations include the validity and reliability of the data and the study participants. The study only includes participants who volunteered to participate. Although the researcher included a glossary of terms in the study, participants may have difficulty interpreting or understanding study terms and wording. Furthermore, the study is limited to participants who were able to complete the survey because of time constraints.

The study may reflect a bias because only certified project managers completed the survey, excluding a large number of noncertified project managers. The study survey was a one-time research measurement tool and did not reflect any environmental or organization factors that might affect respondents at the time of the survey. In addition, a lack of actual project knowledge and information might exist.

Data gathered from the survey were self-rated and were limited to the honest recollection of survey participants. Consequently, results are not based on measurable performance criteria, limiting the reliability of the data. The design of the data collection methodology of the study

allows participants to select to participate or not participate in the study, resulting in a possible self-selection bias. The validity of the study was limited to the reliability of Bass's MLQ-5X instrument, which the researcher used. The MLQ-5X measures transformational-leadership dimensions and the demographic questionnaire measures business strategic project-alignment factors. The outcome variables are the difference between project managers' transformational-leadership style dimensions of idealized attributes, idealized behaviors, inspirational relationships, intellectual stimulation, and individual consideration by business strategic project-alignment factors of cost leadership, differentiation, and best cost.

The limitation of study participants to only certified project managers could be both the weakness and strength of the study. As a weakness, it limits a wider study of the activities of experienced practicing project managers who are not certified project managers. As strength, it validates the collected dataset by using known credentialed project managers.

Theoretical/Conceptual Framework

This research used both theoretical background and conceptual framework to assess the relationship between transformational-leadership style and business strategic project-alignment factors. Theoretical framework, according to Dubin (1978), Milosevic and Srivannaboon (2006), includes "the variables or unit of analysis, the law of interaction among units of the framework, the boundaries within which the framework is expected to hold, and the propositions of the framework" (p. 495). The framework aids the researcher in studying the variables of (a) transformational-leadership theory dimensions, which acknowledge the importance of power and the dimensions of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration; and (b) business strategic project alignment in the

context of cost leadership, differentiation, and best cost (Deluga, 1990; Milosevic, 2003; Porter, 1980, 1985).

Leadership Theory

Burns (1978) and Bass and Avolio (1993) are three scholars who expanded the theory of visionary or charismatic leadership in their seminal works. Visionary leadership has two main styles: (a) transformational, which is concerned with relationships, and (b) transactional, which is concerned with the process. The transformational-leadership theory "refers to the leaders moving the followers beyond immediate self-interests through charisma or idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration" (Bass, 1999, p. 11).

Judge and Piccolo (2004) asserted that:

1. Idealized attributes are the degree to which the leader behaves in admirable ways that cause followers to identify with the leader.
2. Idealized behaviors are the degree to which the leaders transcend their self-interest for the sake of the organization and develop a collective sense of mission and purpose.
3. Inspirational motivation is the degree to which the leader articulates a vision that is appealing and inspiring to followers.
4. Intellectual stimulation is the degree to which the leader challenges assumptions, takes risks, and solicits followers' ideas.
5. Individualized consideration is the degree to which the leader attends to the follower's needs, acts as a mentor or coach to the follower, and listens to the follower's concerns and needs. (p. 328)

Transformational managers have shown to satisfy subordinates who exhibit a high level of motivation and commitment, often exert more extra effort on their jobs, and are trusted by their peers (Keegan & Hartog, 2004). Subordinates and superiors tend to perform better in businesses with managers that exhibit transformational-leadership style. In addition, because of a fear of disappointing their leader, transformational followers are motivated to shift their goals away from personal interests toward self-actualization and greater good (Reuvers, Engen, Vinkenburg, & Wilson-Evered, 2008).

Followers of transformational leaders trust, admire, and respect their leaders, but it does not necessarily mean that followers will behave with integrity. Research has shown that followers tend to act unethically in order to please their transformational leader (Parry & Proctor-Thomson, 2002). According to the author, transformational leaders' behaviors have been labeled as "narcissistic, manipulative, [and] self-centered, but also effective" (Parry & Proctor-Thomson, 2002, p. 75). This conflicting view of transformational leadership has led to the question about the moral behavior of transformational leaders who look the other way while their subordinates are acting unethically. This lack of action puts the organization at risk because of a lack of compliance problems, ineffective action, dishonesty, and communication blocks (Parry & Proctor-Thomson, 2002). Based on these conflicting attributes of transformational leadership, what effect will transformational project management leaders have in organizational strategic project alignment?

Business Strategic Project Alignment Factors

The leadership style of transformational leadership has a direct relationship between business strategic project-alignment factors. Milosevic (2003) noted that the essence of competitive business strategy lies in creating advantages that give it an edge over its rivals. In

essence, business strategic project-alignment factors help project managers with transformational-leadership attributes to support the execution of an organization's competitive strategy and deliver the desired outcome such as fast time to market, high quality, and low cost product (Srivannaboon, 2006 and Kearns & Sabherwal, 2007). Competitive strategies, according to Porter (1980, 1985 and Narayanan & Fahey, 2005), follow one of three generic frameworks: low cost, differentiation, and best cost (see Figure 1).

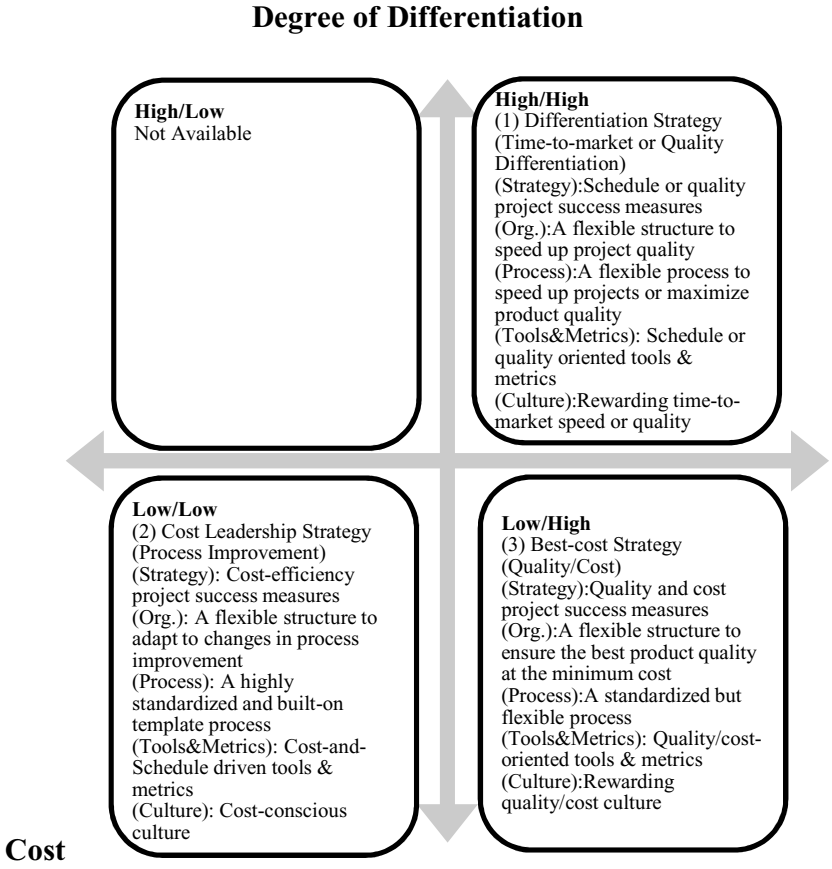

Figure 1. Summary of project management configuration per Porter's (1985) generic strategies. Adapted from "A theoretical framework for aligning project management with business strategy," by D. Z. Milosevic and S. Srivannaboon, 2006, *Project Management Journal*, *37*(3), 103.

Milosevic (2003) noted that each type of competitive strategy has the same goal—to create competitive advantage—and ways to achieve the goals are different. In addition, this competitive approach enables project management to achieve a series of business goals,

strategies, and work tasks within a well-defined schedule and budget (Milosevic & Srivannaboon, 2006). Milosevic and Srivannaboon (2006) identified key business processes, which enable organizations to align with its business strategy to implement a valuable delivery system. Milosevic (2003) argued that such alignment strategies include "differentiation strategies of low cost/low differentiation (cost advantage); high differentiation/high cost (time advantage); and low cost/high differentiation (customer focus)" (p. 6).

Based on the theoretical foundation identified, the researcher explored the following framework relationships (see Figure 2).

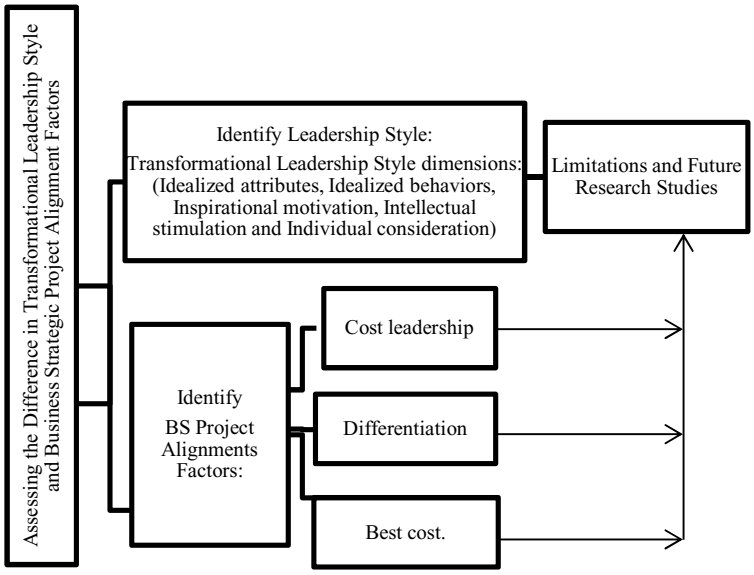

Figure 2. Theoretical framework.

Organization of the Remainder of the Study

The purpose of this research study was to assess the relationship, if any, between transformational-leadership style dimensions and business strategic project-alignment factors. The independent variable includes five dimensions of transformational-leadership style including

idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration, whereas the dependent variables includes three business strategic alignment factors including cost leadership, differentiation, and best cost (Bass, 1999 & Deluga, 1990 and Milosevic & Srivannaboon, 2006).

Chapter 1 of this study consisted of the introduction to the problem, background of the study, statement of the problem, purpose of the study, study rationale, research questions, definition of terms, assumptions and limitations, and theoretical/conceptual framework. Chapter 2 of the study presents a variety of literature that addressed various constructs associated with the business strategic alignment factors of Porter's (1980, 1985), in addition to project-management strategies and transformational-leadership theory dimensions, which include Bass's (1985) model.

Chapter 3 describes the methodology, design of the study, measurement strategy and the instrument utilized to assess the difference between transformational-leadership style and business project strategic-alignment factors. Chapter 4 presents the results of the research findings, and Chapter 5 contains a discussion of the outcome of the research, the implications, and recommendations for future studies.

CHAPTER 2. LITERATURE REVIEW

Introduction

This literature review chapter of transformational leadership theory dimensions and business strategic project alignment factors reveals high levels of concern among business leaders, practitioners, industry organizations, academicians, and researchers that the role of business strategic project alignment is essential to the survival of businesses in turbulent economic times. The study has demonstrated the need for leaders to understand the effect leadership styles have on businesses, especially project outcomes and alignment (Bass, 1985). The purpose of this literature review chapter is to examine current and historical research studies about transformational leadership, project-management strategies, and business strategic project-alignment factors. Work from Burns (1978), Bass (1999), and Bass and Avolio (1993) supported current research for general leadership and specifically transformational leadership. Muller and Turner (2010a, 2010b) and Cooke-Davies (2003) for leadership in the discipline of project management and project managers; Porter (1980, 1985) and Narayanan & Fahey (2005) for three generic frameworks of competitive strategy; and Srivannaboon & Milosevic (2006) for strategic project alignment.

This literature review used peer-reviewed journals and published research articles focused on transformational-leadership characteristics, competence, emotional intelligence, and project manager's profiles. Additionally, peer-reviewed journals reviewed included, literature on performance on project-based environment, organizational structure, and corporate culture.

Leadership Defined

This study will attempt to define leadership from multiple disciplines. Bass (1990), research concluded that different definitions of leadership exist and that various authors have

attempted to define leadership from their own perspectives. Robbins and Judge (2009) defined leadership as "the ability to influence a group toward the achievement of a vision or set goals" (p. 385). Cleland (1995) noted that a leader is the "individual in the group given the task of directing and coordinating task[s] relevant group activities, or [the person] who, in the absence of a designated leader, carries the primary responsibility for performing these functions in the group" (p. 85). In contrast, Hogan and Kaiser (2005) defined leadership in terms of the "ability to build and maintain a group that performs well relative to its competition" (p. 171). These definitions share the view that leadership involves influence and responsibility and that all leaders have one or more followers. It is evident that influence, either directly or by virtue of position, is fundamental to leading. Influence is often expressed through threats, a promise of rewards, well-reasoned technical arguments, inspirational appeals, or an expression of moral values that appeal to followers (Vroom, 2007).

Strategy Defined

The goal of every strategy is to create an environment in which an organization has a competitive advantage, bearing in mind that projects take place in a broader context than just the project environment. Project strategy is a significant, yet critical project-management process; however, varying definitions and views exist. According to Kerzner (2005), "the primary reason for any business to perform strategic planning for project management is the desire to secure a competitive advantage and minimize the competition's competitive advantage or strengthen the organization's competitive advantage" (p. 205). In addition, for any project to be successful, it must first position itself to its environment, and the goal and methods of the project must be well planned out. The stakeholders must be identified; their goals and interest in the project might vary but they need to be considered strategically. The varying interests of the stakeholders will

require that the project manager needs to plan how to communicate to stakeholder's interests. Furthermore, the organization's strategic goal has to be the foundation of the project-management strategy, which requires the alignment of the two strategies. Other factors to be considered are: the project life cycle, staffing needs, considerations of the organization's ongoing project, already established project methodologies, and the basic structure of the organization, and how it is managed and executed (PMI, 2008).

Based on these conflicting interests in a project, Kerzner (2005) defined strategic planning for project management as "the development of a standard methodology . . . which can be used over and over again . . . [and] will produce a high likelihood of achieving the project's objectives" (p. 283). Artto, Kujala, Dietrich, and Martinsuo (2008) defined project strategy very loosely as "a direction in a project that contributes to success and survival of the project in its environment" (p. 8).

In their research, Artto et al. (2008) concluded that project management leaders must have direction, which must include: goals, plans, guidelines, means and methods, tools, or [a] governance system. In addition, they contend that in order to accomplish the organization's desired goals, controlling systems such as team rewards, accountability, and measurement devices must be in place to ensure team members' contributions have a direct effect that leads to project success. Furthermore, project leaders must pay attention to events external to the project's boundaries, such as market demand or government regulations, with which the project must continuously interact (Artto et al., 2008).

Transformational-Leadership Theory

Burns (1978) and Bass and Avolio (1993) are three scholars who expanded the theory of visionary or charismatic leadership. According to their definitions, visionary leadership has two

main styles: transformational, which is concerned with relationships, and transactional, which is concerned with process. Studies indicate that transformational leadership is positively related to a leader's effectiveness in generating follower satisfaction, motivation, and performance (Castro et al., 2008). These leaders go beyond transactional leadership by engaging follower's personal value systems and encouraging them to go beyond the regular exchange agreement of transactional exchange for expected performance. Though the concept of transformational leadership has its roots in rebel leadership and the study of political leaders, Bass (1985) extended Burns's (1978) work by articulating three behaviors of transformational leadership—charisma, intellectual stimulation, and individual consideration—which enabled Bass and Avolio to expand the three-factor model with the fourth factor of inspirational motivations (Downton, 1978; Barbuto & Burbach, 2006). Later, Antonakis, Avolio, and Sivasubramaniam (2003) replaced charisma with idealized influence (Barbuto & Burbach, 2006).

Transformational leadership, according to Keegan and Hartog (2004), "is related . . . [to] strong personal identification with the leader, the creation of the future, and a relationship between leaders and followers based on far more than just the simple exchange of rewards for compliance" (p. 609). These leaders define the need for change, create new visions for the organization, mobilize commitment to these visions from followers, and transform individual followers, and even organizations (Keegan & Hartog, 2004).

According to Judge and Piccolo (2004), the theory of transformational-leadership is the degree to which leaders behave admirably by causing followers to identify with the leaders and get inspired with the leader's vision thereby stimulating the followers to take risks and challenge established assumptions. The leader then attends to the followers' needs by coaching and

mentoring them to achieve their highest potential for the good of the organization, which is beyond their own personal goals.

Keegan & Hartog (2004) found that transformational leaders have shown to satisfy subordinates who exhibit a high degree of motivation and commitment, often exert extra effort on their jobs and are trusted by their peers. Subordinates and superiors tend to perform better in businesses with managers who exhibit a transformational-leadership style. In addition, because of a fear of disappointing their leader, transformational followers are often motivated to shift their goals away from personal interests toward self-actualization and the greater good (Reuvers et al., 2008). Followers of transformational leaders trust, admire, and respect their leaders, but it does not necessarily mean that, as a result, followers will act with integrity. Researchers have found that followers act unethically in order to please their transformational leader (Parry & Proctor-Thomson, 2002). Futhermore, transformational leaders' behaviors have been labeled as "narcissitic, manipulative, [and] self-centered, but also effective" (Parry & Proctor-Thomson, 2002, p. 75). This conflicting view of transformational leadership has led to the question about the moral behavior of transformational leaders who look the other way while their subordinates act unethically. This lack of action puts the organization at risk because of a lack of compliance problems, ineffective action, dishonesty, and communication blocks (Parry & Proctor-Thomson, 2002). Based on these conflicting attributes of transformational leadership, one is left to wonder what happens when a transformational leader is placed in a project-based environment.

Exploration of Leadership Theory Concepts in Project Management

In this literature review, the researcher explored transformational-leadership theory in project management to help understand the benefit of application of leadership-style attributes on organization's strategic-project alignment. By understanding these leadership dimensions,

industry leaders, scholars, and practitioners will have an appreciation for the influence transformational leadership has had in business strategic project alignment. Muller and Turner (2005) noted that, with an "increase in project requirements[,] . . . measured in complexity, project type, and duration, there is an increased need for emotional competencies in the project manager" (p. 446). Therefore, there is an increased need for transactional-focused project leaders who manage relatively simple projects and processes, as well as transformational leaders who direct more demanding projects and human-resources knowledge (Muller & Turner, 2010b). The researchers asserted that the project performance for some types of projects could be impaired if project managers do not adapt their leadership styles to fit the complexity of the project (Muller & Turner, 2010b).

Project managers progressing from junior-, to middle-, and finally to senior-management levels will have the opportunity to lead projects of different types and complexities. As part of their career development and growth, project managers need to understand which leadership style dimensions best aligned to project types, which can help to ensure projects are successfully completed. Transformational-leadership style, on one hand, offers project managers the insight and experience they will need, such as creating a vision and mission, goal setting, problem solving, coaching and mentoring, as they progress and enhance their leadership competencies (Muller & Turner, 2010b). A drawback of transformational leadership is that subordinates may develop the impression that the leaders are manipulating their subordinates in order to advance their vision. Transformational leaders want their actions to highlight their authenticity rather than have their actions not support their verbal commitments. In addition, transformational leaders exhibit charisma, trust, respect, and vision, which tend to transform their followers. By providing inspiration and motivation, that creates high expectation from their followers,

transformational leaders are able to create positive behavior. Transformational leaders tend to fulfill the need of individual employees who seek personal attention, respect, intellectual stimulation, and challenging assignments.

In order to comprehend the effect of transformational leadership dimensions on business strategic project alignment factors, leadership theories such as leader-member exchange, and path-goal theory were defined. Transformational leadership theory focuses on idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration, whereas personal compatibility, subordinate competence, and extroverted personality drive leader-member-exchange (LMX) theory. On the other hand, path-goal practicing project managers are constantly monitoring, interacting, and charting subordinates' day-to-day functions. Educated subordinates who prefer to chart their own career path will find directive leadership, such as path-goal theory, to be a redundant and an unsatisfactory experience, whereas employees with an internal locus of control will be more satisfied with a participative style, such as transformational leadership (House, 1996).

Finally, practicing achievement-oriented leadership, such as path-goal theory, increases employees' beliefs that their efforts will lead to high performance and employee satisfaction when tasks are ambiguously structured. The overall implication of these leadership theories to practicing project managers is that they need to be aware of the use of each theoretical concept as it relates to project performance and project complexity. Leadership plays a central role in understanding employee or group performance. Project managers who have a full appreciation of the range of leadership styles will be more likely to achieve higher successful project-completion rates.

Seminal Works Regarding Transformational Leadership

This section focuses on seminal works in recent literature and several studies regarding transformational leadership. Deluga's (1990) work expanded on the effect of these leadership characteristics on subordinate influence performance. The author identified four transformational-leadership characteristics: charisma, inspiration, intellectual stimulation, and individual consideration (Deluga, 1990). Citing previous work from key authors such as Bass (1985), Burns (1978), and Yukl (1989) as a backdrop, the researcher predicted a hypothesis that tested those behaviors using a structured survey questionnaire. The study sample was from (N = 228) men and (N = 223) women university students enrolled in graduate school (Deluga, 1990). Deluga collected the dataset using the MLQ to verify and authenticate the validity and reliability of the research. The generalizable results supported the predictions and found that managers exerted corrective action as subordinates deviated from objectives when it comes to a management-by-exception leadership style. The limitations of the research show that a hypothetical situation may not capture leadership influence tactics. The implications of this study could serve to inflate the transformational leader's self-image and trigger denigrating perceptual stereotypes of subordinates.

Parry and Proctor-Thomson (2002) explored the perceived integrity of transformational leaders in a non-experimental organizational setting. The study showed that a range of descriptions can be used to label transformational leaders, such as narcissistic, manipulative, and self-centered, but also moral, just, and effective (Parry & Proctor-Thomson, 2002). With Bass and Steidlmeier (1999) rejecting the notion of transformational leaders being unethical, the researchers set out to distinguish between authentic transformational leadership as ethical and pseudo-transformational leadership as unethical by empirically studying the perceived integrity

of transformational leadership using the perceived leadership integrity scale (PLIS) and Bass's MLQ instrument (Parry & Proctor-Thomson, 2002). Drawing from previous works, the researchers predicted a hypothesis that tested the correlation of leadership effectiveness, integrity, and transactional behavior. Gathering the research sample from (N = 6,025) managers throughout New Zealand and incorporating both public- and private-sector organizations (N = 1,354), they gathered a usable surveys response rate of 22.5% (Parry & Proctor-Thomson, 2002). The positive ontological results suggest that a high level of correlations exist between perceived integrity, leadership styles, and effectiveness. MLQ instrument authenticates the validity and reliability and these are authenticated partly through generalizability of the study. In spite of the correlations, it is possible the study was limited by chance of a systematic leniency bias when respondent rate subordinates vis-à-vis their peers and the possibility of the same source bias. The authors asserted that a need exists for a qualitative study to uncover the range of variables that could relate to perceived integrity.

In another study, Khatri (2005) drew from Bass's (1985) transformational theory of idealized attributes, idealized behaviors, inspirational motivation, individualized consideration, and intellectual stimulation as his foundation to the formulation of his alternative design. The researcher proposed replacement of the transformational component Bass and Avolio (1993) with two new central constructs of leadership research: charisma and vision. The author defines charisma as "an emotion-based phenomenon, or a heart thing and vision as an intellectual phenomenon, or a head thing" (Khatri, 2005, p. 21). Khatri (2005) used an analytical methodology to gather data regarding an "alternative model that rests on the assumption that charisma and vision are independent constructs" (p. 21). The researcher argued that the focus of charismatic leadership should be on charisma rather than on vision and that, by developing two

dimensions as the central construct for transformational leadership, there was no mixing of emotional and intellectual components in a single dimension, thus allowing the author to develop transformational-leadership dimensions and showing discriminatory validity. The next step for this proposed model is for its validity to be empirically tested in future research. This qualitative case study is generalizable and needs to be tested by other researchers.

In their quantitative study, Medley and Larochelle (1995) discussed transformational leadership and job satisfaction among nurse practitioners. The researchers also noted that, in the process of motivating employees, transformational leaders use three major behaviors: charisma, individualized consideration, and intellectual stimulation and, that charisma is the quality central to transformational leaders, as followers want to identify with them, develop intense feelings about them, and trust them (Medley & Larochelle, 1995). This positivist study used subjects of staff nurses ($N = 278$) selected from a 40% random sample ($N = 100 - 300$) acute-care hospitals in north-central Florida; the researchers distributed questionnaires for the study and guaranteed total anonymity and no individual follow-up was attempted. The researchers designed their survey using a MLQ on a five-point Likert scale. They appraised the validity and reliability of the study using the MLQ through a principal-components analysis (Medley & Larochelle, 1995). The result of the study showed significant positive correlation between transformational scores and professional status, interaction, organizational policies and autonomy, whereas no transactional factor scores showed statistical significance.

Seminal Work on Transformational Leadership in a Project-Based Environment

Despite several studies regarding leadership theories, the application of tools and techniques is often characteristic of the leadership of successful project managers (PMI, 2008). Keller's (1992) seminal work significantly contributed to transformational leadership in a

project-based environment by using quantitative methodological approaches. The researcher conducted a study, which investigated transformational leadership and the performance of a research and the development (R&D) project group. Drawing on the seminal work of Bass (1990), Avolio (1987), Conger (1987), House (1977), Podsakoff et al. (1990), and Yukl (1989) regarding leadership behaviors in R&D environment. The researcher acknowledged that little research has been conducted in this construct despite the understanding that research and development (R&D) work take place in project groups/teams where professional employees work with supervisors to transform scientific and technological information into technological innovations (Keller, 1992).

Bass's (1985) theoretical formulation of transformational leadership, predicted higher project quality and budget/schedule performance rating. The study generated result from professional employees ($N = 462$) from three industrial R&D businesses. A high level of education and deep interest in the challenge of their work characterize the participants selected for the study. The researcher used the MLQ to measure transformational leadership. The positivist epistemological assumptions built into the design of the study suggest normative implications for the management of R&D project groups. This includes the selection of transformational leaders or the use of transformational leadership, especially in projects doing research work, and is generalizable (Keller, 1992). The result of this research suggest that experimental designs in the laboratory or field are needed to determine the direction of causality, as well as the extent of reciprocal influence between transformational leadership and group performance and the effect group performance outcome will have when extended to organizational strategic alignment.

In another study on project management, Keegan and Hartog (2004) used quantitative non-experimental methodology in an empirical analysis of transformational leadership in a project-based environment, which compared the relationship between the leadership styles of project managers and the leadership of styles of line managers. The authors hypothesized and empirically tested a compiled dataset from a sample of participants (N = 181) and used the MLQ instrument to measure results. The causal comparative analysis showed an empirical relationship between transformational-leadership style and employee motivation, commitment, and stress for employees reporting to either project or line managers (Keegan & Hartog, 2004). The results of the study showed that although project managers are not perceived as less transformational, the relationships between transformational leadership and outcomes tend to be less strong for employees reporting to project managers than for those reporting to line managers (Keegan & Hartog, 2004).

The authors mentioned the cross-sectional design of the research as the limitation. The result of the study also envisaged research that adopts a grounded theory approach and uses inductive methods to explore leadership processes within the project context for further research. In view of the generalizable positivist assumption results of the transformational leadership model is having in a project management and project-based environment, this model could be extended to organizational strategic project alignment.

Recent Work on Transformational Leadership

Castro, Perinan, and Bueno (2008) quantitatively expanded the study of transformational leadership by examining the mediating role of psychological empowerment from transformational leaders to their followers. The results of the authors' research led to conceptually hypothesized and empirical tests. Castro et al. (2008) used the sample-data study

methodology to collect data from a structured survey questionnaire from respondents ($N = 437$) and then measured the leadership behaviors and characteristics with MLQ, a widely used instrument. The results of this positive ontological study added to the body of knowledge by demonstrating that psychological empowerment mediates the relationship between transformational leadership and employee attitudes (Castro et al., 2008). The study also identified common sources bias limitations and suggested future research that would examine the moderating role of the distance (physical, social, and frequency of interaction) between leader and followers (Castro et al., 2008).

This qualitative case study by Paarlberg and Lavigna (2010) regarding transformational-leadership characteristics examined the positive role of public-service employee motivations. The study proposed a framework for how organizational leaders, using the principle of transformational leadership, can apply good management practices to harness the power of employees' public-service motivation. The data for the study were grounded on case-study methodology that broadly defined public-service motivations as the beliefs, values, and attitudes that go beyond self-interest and organizational interest to energize employees to do their best for others and contribute to the well-being of organizations and society. Paarlberg and Lavigna's (2010) study is a reflection of an interpretive assumption of reality, which states that multiple realities are formed through individual interpretations. The result of the findings aid in the assumption that managing employees' self-interest has focused on transactional acts of management in which those in charge exchange rewards for desired employee performance, seeking to align the self-interest of employee and manager (Paarlberg & Lavigna, 2010). Still, these transactional approaches are often in conflict with the other-regarding values of many employees.

Piccolo and Colquitt's (2006) quantitative methodology study used previous work to build and expand to their generalizable studies across organizations. The researchers' study on transformational leadership focused on followers' view of their jobs and core work-characteristic effects. These non-experimental study's results, documented from literature reviews, led to the hypothesis that transformational leaders generate positive results for their followers (increased job performance, positive perceptions of core job characteristics, increased intrinsic motivation, and commitment to the organization's goal (Piccolo & Colquitt, 2006). The authors used dataset surveys ($N = 283$) that represented a broad cross-section of job types from Web designers, education, various organizations and a nonprofit organization in Florida. The researchers measured the generalizable five dimensions of transformational leadership: idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration using the MLQ. The result displayed strong and consistent correlations with task performance across organizations. The result of the research suggested recruiting part-time and full-time employees who reported to supervisors for future research and base the study on a positivist view, which has influenced leadership models on project management.

Reuvers, van Engen, Vinkenburg, and Wilson-Evered (2008) used a quantitative methodology to examine the relationship between transformational leadership and employees' innovative work behavior and additionally examined the moderating effect of the gender of the manager and the gender of the employee. By reviewing past literature, they derived the hypothesis that guided their research. Reuvers et al. (2008) compiled the dataset for this non-experimental study from a sample of participants ($N = 335$) dispersed throughout four hospitals and used the MLQ to make measurements. These generalizable results revealed a positive and significant correlation between transformational leadership and innovative work behavior. The

gender of the manager moderated the later relationship indicating that employees reported more innovative responses when male managers displayed transformational leadership attributes in comparison with female managers, thus confirming the gender-bias hypothesis. The authors identified design limitations of the study and recommended further research between gender performance and line-work motivation.

Barbuto and Burbach (2006) examined the emotional intelligence of transformational leaders by conducting quantitative field studies of elected officials. In their study, respondents "lauded transformational leaders for providing the symbolic and emotional force behind organizational change" and stated that "leaders' emotional intelligence relates to their use of transformational behaviors" (Barbuto & Burbach, 2006, p. 52). This non-experimental dataset collected sample for this study which comprised of (N = 80) elected public officials in the United States with a reporting staff of 388 altogether. The generalizable result showed correlations among all subscales measured and reflected the dyadic differences in perceptions of behaviors between leaders and those rating them. This positivist study showed the relationships between emotional intelligence and transformational leadership and found several correlations that reinforce the role of emotional intelligence in leadership (Barbuto & Burbach, 2006).

In a study regarding the effect of transformational leaders on their followers' perceived work characteristics and psychological wellbeing, Nielsen, Randall, Yarker, and Brenner (2008) found a relationship between charismatic leaders and positive emotions and mood in their subordinates. The researchers also noted that supervisory behavior explained incremental variance over and above other workplace factors when predicting general health. They also found that "few studies have examined the relationship between transformational leadership and the health and wellbeing outcomes including measures of burnout, increased health issues, and

job-related stress" (Nielsen et al., 2008 p. 17). In this non-experimental analytical study, Nielsen et al. (2008) drew from previous work of key authors such as Bass (1985) and Judge and Piccolo (2004) to support their study, which examined the mechanisms through which transformational, or inspiring leadership behavior, influences employee wellbeing. The study used a longitudinal study designed to test the validity of two mechanisms. The structural Equation Modeling (SEM), with a positivist ontological assumption, tested the theory-driven model of the relationships between leadership, work characteristics, and psychological well-being. This generalizable and replicable result indicates that followers' perception of their work features did mediate the relationship between transformational-leadership styles and psychological well-being.

Transformational Leadership in a Project-Based Environment

Yang, Huang, and Wu (2011) expanded on the study of project management and leadership style by using a quantitative methodology and a literature review of other seminal work to examine the association connection between project managers' leadership styles, team members' collaboration, and project success. They also examined whether the effect of collaboration on project performance was moderated by variables of industry sector, installed cost, regulations, site, size of the team, project complexity and type (Yang et al., 2011). The researchers' derived their hypothesis from a literature review and developed a questionnaire that surveyed and collected ($N = 400$) a usable dataset that analyzed project managers' leadership styles, types of collaboration, and rates of project success in terms of production schedule and cost performance, quality of performance, and stakeholder satisfaction (Yang et al., 2011). The results of this generalizable study suggested that increases in levels of leadership might enhance relationships among team members and indicate higher rates of collaboration exhibit a statistically significant level of influence on project performance (Yang et al., 2011). This

positivist ontological study also shows correlations between types of leadership, levels of collaboration, and overall project performance. The researchers identified a cross-sectional design limitation of the study and recommended that this could lead to greater insights into the associations between leadership behaviors and project success.

In this work, Muller and Turner (2010a) examined the leadership attributes of successful project leaders in different types of projects. They also used a non-experimental study of previous works from Bass (1985), Briggs et al. (2003), Crawford et al. (2006), and Podsakoff et al. (1990) as a backdrop in order to ascertain which leadership models work best in the project. This positivist study was comprised of (N = 400) responses to the Leadership Development Questionnaire (LDQ). Project managers of successful projects were profiled to determine their intellectual, managerial, and emotional qualities (IQ, MQ, and EQ, respectively) (Muller & Turner, 2010a). The generalizable results showed a causal comparison to existing profiles for goal-oriented, involving, and engaging leadership styles, and found the implications derived was needed for project leaders to be trained in the soft elements of leadership, particularly for their types of projects. Theoretical issues involve the need for more transactional-leadership styles in more simple projects and more transformational-leadership styles in more demanding projects (Muller & Turner, 2010a). The study suggests that future research could build and validate the current issues by assessing the role of the organization in different profiles with teams and stakeholders.

In another quantitative methodology study, Muller and Turner (2010b) explored the value of project managers' attitudes and leadership competencies for achieving project success. By reviewing past literature, they derived a hypothesis that guided this positivist research study. They used a non-experimental quantitative study to build on the leadership theory of competency

school, identified leadership competencies as IQ, MQ, and EQ and were assessed using the LDQ instrument (Muller & Turner, 2010b).

Muller and Turner used ($N = 400$) responses from Web-based questionnaire given to project managers to measure the variances in attitudes and leadership in relation to project success. This generalizable study revealed a positive and significant correlation between the leadership ability of project leaders and its relationship to project success. The researchers identified design limitations of the study by showing relative importance of specific attitudes and leadership skills for different types of project success and identified areas for project managers' development in order to move from mediocre to superior project results.

Cook-Davies (2003) used a mixed-methods case study to examine the real success factors that impact projects, identified what factors leads to project-management success, critical success factors on an individual project, and project success, as well as broadly defined the distinction among these constructs. The researchers took data ($N = 136$) from European projects executed between 1994 and 2000 by 23 companies to study project-management factors (Cook-Davies, 2003). The result showed that when project schedule delay and cost were escalated and compared with different projects, positive correlations existed between the two with cost escalation accounting for the schedule (time) delay (Cooke-Davies, 2003).

In order to determine critical success factor that impacts the individual project, the researcher used data gathered from an analysis of six recent project-management bodies of knowledge that identified ($N = 60$) the core elements that are central to how project managers think. The result of the study showed that senior project management value influenced decisions about project prioritization and resource allocation more than informal assessment of project phase continuation. It also showed that anticipated benefits require the close cooperation

between the project team and the project sponsor (stakeholder) in order to deliver the project successfully, which is more difficult than delivering project-management success.

Cook-Davies (2003) went on to examined the factors that lead to consistent successful projects and collected data for this study from a detailed member-information networks questionnaire about project-management practices at both the corporate level and the individual project level. Results of the study's questionnaire showed three areas of practice organizations around the world needed for development and that are critical to consistent corporate success. Among these areas are (a) portfolio and program management that allow enterprise resources to be strategically matched with corporate and business objectives; (b) a suite of project-, program-, and portfolio-management metrics that provides direct feedback on current project performance so that corporate decisions can be aligned; and (c) an effective means of learning from experience on projects that combines explicit knowledge with tacit knowledge in a way that encourages people to learn and to embed that learning into the continuous improvement of project-management processes and practices (Cooke-Davies, 2003). The study by Cook-Davies (2003) is a reflection of an interpretive assumption of reality, which states that multiple realities are formed through personal interpretation.

Rationale for Aligning Project-Management Strategies

According to Milosevic (2003), "the essence of a company's competitive strategy lies in creating competitive advantages that will give it an edge over its rival" (p. 6). Competitive strategies follow one of three generic frameworks: low cost, differentiation, and best cost. The author noted that, "although each type of competitive strategy has the same goal—[to] create competitive advantage—[the] ways to achieve the goals are different" (Milosevic, 2003, p. 9).

Srivannaboon and Milosevic (2006) identified "key business value delivery systems. Among these value delivery elements project management organizations should align with business strategy are: project strategy, organization, process, tools, metrics and culture" (p. 99). In addition, this alignment would allow project management to achieve a series of business goals, strategies, and work tasks within a well-defined schedule and budget (Srivannaboon & Milosevic, 2006). Using Porter's generics strategies, Milosevic (2003) argued that "the core of differentiation strategies are low cost/low differentiation (cost advantage); high differentiation/high cost (time advantage); and low cost/high differentiation (customer focus)" (p. 6).

Cost-Advantage Strategy

Organizations with a low-cost competitive strategy (cost leadership) focus on cutting costs throughout their manufacturing and non-manufacturing areas with the objective of identifying and creating low-cost competitive advantages. Milosevic (2003) stated that the "intent is to use the low-cost advantage as a source for under pricing rivals and taking market share away from them" (p. 7). In this situation, project management is a key functional discipline that can help drive an increased market share and profitability by designing efficient production, shortening the assembly process, and creating an efficient distribution network. The risk of low cost is that other competitors may be able to lower their costs, as well (Porter, 1996 and Karl & Rapp, 2000).

Time-Advantage Strategy

A differentiation competitive strategy is focused on gaining the market advantage by distinguishing itself through a fast time to market, high-quality products, cutting-edge innovation, the latest technology, special product features, and superior service. Milosevic

(2003) noted that "when thriving for product superiority, companies pursuing this strategy build in whatever features customers are willing to pay [for]. Such a strategy enables them to charge a premium price to cover the extra costs for differentiating features" (p. 6). When an organization is focused on product differentiation, project management can help drive the market share, extend product life, support premium pricing, and generate higher profit margins. The risks associated with this strategy include imitation by competitors and unanticpated customers' change of taste (Porter, 1996 and Karl & Rapp, 2000).

Customer-Focused Strategy

A best-cost competitive strategy offers customers products with upscale features for the best cost relative to its competitors. According to Milosevic (2003), this competitive strategy leads to greater value of product by meeting or exceeding what client expects to receive in return for their money. The aim of this strategy is to become "low-cost provider of a product that has good-to-excellent features and use that cost advantage to underprice rivals with comparable features" (p. 7). Product features and price will often meet or exceed customers expectations

The role of project management in this company is to help capture market share and secure a commanding market position. The risk of this strategy includes imitation by competitors and development in target segments or competitors might carve out sub-segments of organizations' targets (Porter, 1996 and Karl & Rapp, 2000).

In order to realize the business objective of each competitive strategy, project strategy has to be aligned with the business outcomes. A project approach in support of a low-cost competitive strategy is focused on cost cutting in comparison to a product advantage focused organization. According to Milosevic (2003), "organizations have to reduce the cost and pressures with the[ir] goal of creating low-cost[s] competitive advantages" (p. 8). According to

Srivannaboon and Milosevic (2006), the role of project management at this point is to "support the execution of organizations' competitive strategy in order to deliver the desired outcome" (p. 494).

In comparison, an organization with a differentiation competitive approach will leverage a project strategy focused on project scheduling (time) as opposed to an organization focused on the customer. Competitive advantage is realized through shorter project cycles not only for manufacturing but throughout the organization. As Milosevic (2003) stated, it is a management choice to deploy project management to help "build the benefits through the accomplishment of ever-shorter project cycle times throughout the organization" (p. 7).

The project strategy implemented to support a best-cost competitive strategy is driven by standardization. Milosevic (2003) asserted that "standardized . . . project management protocols . . . help to bring projects within cost and quality goals" (p. 7). Srivannaboon and Milosevic (2006) noted that "project strategy, organization, process, tools, metrics, and culture are project management elements that should be aligned with business strategy" (p. 494).

Business Strategy and Project Management

The topic of leadership has been explored through a range of theoretical lenses based on the researchers' methodological preferences and definitions of leadership. Because of the virtue of their hierarchical position, a leader has more designated legitimate power than subordinates have. In this study, the leadership models studied included transformational leadership, which is characterized by using idealized influence, inspirational motivation, intellectual stimulation, and individual consideration (Judge & Piccolo, 2004). This section focuses on literature review analysis of business strategy and project management.

Srivannaboon and Milosevic (2006) noted in their study of business strategy and project management that there are two-way influence businesses have recognized: "business strategy planning, portfolio management, and project selection as the responsibilities governed by senior managers and project planning and execution process as the activities performed by project managers and their teams"(p. 98).

The term *strategy* is defined as the broad project for achieving an organization's objectives and thus implementing its mission. Strategy can be active, conscious, and rational. According to Porter (1996), "A company can outperform rivals only if it can establish a difference that it can preserve" (p. 62), but in most cases strategies are not revised unless internal/external threats exist to the organization's progress. Mintzberg, Ahlstrand, and Lampel (1998) asserted that the strategy creates a unified "direction for an organization" in terms of its many objectives, and it guides the deployment of company resources used to move the organization toward those objectives (p. 9).

In order to maintain an organization's competitiveness, Srivannaboon (2006) noted Porter's (1985) "three generic strategies that result in cost leadership, differentiation, and best-cost" (p. 88). In terms of project management, it is generally regarded as a specialized form of business management "used to accomplish a series of business goals, strategies, and work tasks within a well-defined schedule and budget" (Srivannaboon, 2006, p. 89). Srivannaboon also noted that the key to project management is to support the execution of an organization's competitive strategy "that link[s] projects to [the] business strategies of the organization" (Srivannaboon, 2006, p. 89).

Aligning Project-Management Tools to Business Strategy

Selecting and adapting a project management toolkit is the next step in aligning project management with the company's competitive strategy. Milosevic (2003) posited that, "most of the tool types will show up in all three (cost, differentiation and cost/quality) toolboxes" (p. 521). However, the degree to which each tool is utilized is based upon which competitive strategy is used; for instance, a low-cost project-management toolkit will rely heavily on work breakdown structure (WBS), cost estimates, cost baselines, quality, and schedule tools, as well as Gantt charts, a critical-path method (CPM) diagrams, and a flow chart.

Project teams supporting organizations with a differentiation competitive strategy will focus on time. Gantt charts, time-scaled arrow diagrams, and CPM diagrams are standard tools, whereas quality-control flow charts, affinity, cost estimates, and cost baselines are important tools for delivering strategic business objectives (Milosevic, 2003 and Martinelli & Wadell, 2005). The project-management toolkit used to support a best/quality competitive approach would include balance of tools focused on both quality and cost such as cost estimates, cost baselines, Gantt charts, scheduling tools, and so forth (Milosevic, 2003).

Influence of Stakeholders on Project-Management Strategy Alignment

According to the Project Management Institute [PMI], (2008), project stakeholders are "individuals and organizations whose interests may be affected by the project outcomes, either positive or negatively" (p. 227). Stakeholders can be internal or external to the company and provide valuable information that can affect the outcome of a project or program. In order to manage the needs of this crucial segment of the project, project managers must acquire a balance of technical, interpersonal, and conceptual skills that will help them to analyze situations and interact appropriately. Among these interpersonal skills are leadership, team-building,

motivations, communication, influencing, decision-making, political, cultural-awareness, and negotiation skills (PMI, 2008). For example, team building helps groups of individuals that are bound by a common sense of purpose to work independently with each other, their leader, external stakeholders, and the organization, and effective communication within the project team and all external stakeholders are paramount to success or failure of a project.

This approach is dependent on how to meet the differing needs and expectations of stakeholders. According to PMI (2008), the project manager must utilize strong leadership skills to set clear goals, assess readiness for change, plan for the change, provide resources/support, monitor the development, obtain, and evaluate feedback from those affected by the change, and manage issues with people who are not fully embracing the change irrespective of the level of the stakeholder. To fulfill the needs of these varying interests, project-management strategic-alignment goals need to be achieved regardless of leadership style or the philosophy of the project leaders.

Organizational Influence on Project-Management Alignment

Organizational structure, culture, and style strategy influence how organizations manage projects and they affect an organization's degrees of project-management maturity and strategic alignment. Robbins and Judge (2009) defined *organizational culture* "as a system of shared meaning held by members that distinguish[es] the organization from other organizations" (p. 155). Organizational culture can also help the organization maintain stability and success if it encourages teamwork, rewards innovation, and does not stifle individual or team initiatives. The organizational culture also guides and shapes the attitudes and behaviors of employees. Just as organizational culture can be a stabilizing and successful factor; it also has the potential to be

dysfunctional in that it can inhibit the stability and success of an organization (Robbins & Judge, 2009).

Enterprise environmental factors are also considered in managing project's execution, monitoring and controlling the progress of a project, and the conclusion of the projects. According to the PMI (2008), *enterprise environmental factor* refers to both "internal and external environmental factors that surround or influence a project['s] success" (p. 14). According to the author, these factors can enhance or constrain project management. External and internal factors, outlined by the PMI (2008), originates from any or all of the businesses involved in the project including, but not limited to, "organizational culture, infrastructure, existing human resources, commercial databases, market conditions, and project management information system, government or industrial standards, stakeholders' risk tolerances, the political climate, communication channels, organization work authorization systems" (p. 14). Such a project is bound to be successful when all factors are aligned to the organization's business strategy.

Organizational Maturity Level for Project Alignment

Project maturity is best explained as the ability to act and decide; willingness to be involved; and an understanding of the impact of the action (sum of the action, attitude, and knowledge) respectively (Andersen & Jessen, 2003). The concept of maturity indicates a development from one level of capability to a higher one and it follows the logic that the maturity develops in time and can be recognized through particular steps or stages (Andersen & Jessen, 2003). An organization that has reached a higher maturity level is more inclined to make a strategic decision that aligns its business and project management to its company's goal. In addition, Andersen and Jessen asserted that the company's ladder maturity consists of basic

layer of project management where project managers "concentrate on individual team efforts in order to achieve predefined project goals with predetermined constraints to time and resources" (Andersen & Jessen, 2003, p. 459). This means that project maturity model has a major impact on how organization's business strategic alignment are applied.

Summary

In this literature review chapter, the researcher discussioned transformational-leadership dimensions, business strategic alignment factors, and project-management strategies. For an organization to be effective, it must see project alignment and leadership as a dynamic process and be able to adjust to change in order to manage both internal and external factors that influence an organization's competitive strategy. Project-management strategies should create value for the company and be an integral component of organizational processes. Organizational decision-making is stronger when project-management strategies are aligned with organization strategies in terms of low cost, best-cost leadership, and differentiation (Narayanan & Fahey, 2005).

Other factors that influence an organizations' project-management strategies that were discussed in the literature include staffing the project, stakeholder influences, risk and uncertainty, and ability to affect the final project's outcome. As an organization's strategy is planned for projects, the project team should also plan on how to align the project-management process (initiation, planning, execution, monitor and control, and closure). These processes should be incorporated with nine project management knowledge areas (integration, scope, time, cost, quality, human resources, communications, risk, and procurements) in order for the project to be successful (PMI, 2008).

CHAPTER 3. METHODOLOGY

In this study, the researcher assessed the difference between transformational-leadership style dimensions and business strategic project-alignment factors. The differences among three business strategic project-alignment factors in the context of cost leadership, differentiation, and best cost by five dimensions of transformational-leadership style: idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration were shown (Milosevic & Srivannaboon, 2006; Bass, 1999; Deluga, 1990). The theoretical framework was based on Bass and Avolio's (1993, 1995) transformational-leadership style and Porter's (1980, 1985) business strategic project-alignment factors. The business strategic project-alignment dataset, which is the independent variable, were collected with options of *yes* or *no* on demographic questionnaire (see Appendix). The researcher collected the dependent variable data using the Multifactor Leadership Questionnaire Form (MLQ-5X), which Bass and Avolio (1993, 1995) developed, on a five-point Likert scale. The researcher posted the questionnaires on the SurveyMonkey platform with a link in the e-mails from SurveyMonkey to participants.

The methodology includes description of research questions, research design, the population sample used in the study, and the instruments used to conduct the study. In addition, the research method included how the research data were collected, analyzed, and the validity and reliability of the instrumentation and ethical considerations of the study.

Research Questions

The research hypotheses and research questions were developed based on the literature review of transformational-leadership theory and organizational business strategic project-

alignment typology by identifying gaps in existing research. The researcher used the following research questions to examine this study.

Research Question 1: To what extent, if any, is there a difference between project managers' transformational-leadership styles of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of cost leadership?

Research Question 2: To what extent, if any, is there a difference between project managers' transformational-leadership styles of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of differentiation?

Research Question 3: To what extent, if any, is there a difference between project managers' transformational-leadership styles of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of best cost?

Research Design

Three components involved in research design researchers have used are "researcher's philosophical worldview, strategies of inquiry, and specific methods of the study" (Creswell, 2009, p. 5). Selecting the most appropriate research method and design is often based on the intersection of the characteristics of the three components (postpositive, social constructive, advocacy) and four philosophical worldviews (post positivism, constructivism, participatory, and pragmatic) of the researcher. Creswell (2009) noted that three commonly used methods of design are qualitative, quantitative, and mixed-methods research. The researcher's philosophy must align with the three common types of designs including (a) quantitative for post positivism,

(b) qualitative for constructivism and advocacy/participatory, and (c) pragmatism for mixed methods. The qualitative method is "exploratory and is useful when the researcher does not know the important variables to examine" (Creswell, 2009, p. 18). On the other hand, quantitative design is a "means for testing objective theories by examining the relationship among variables that can be measurable using instrumentation so that numbered data can be analyzed using statistical procedures" (Creswell, 2009, p. 4). Finally, mixed-methods research is the combination of qualitative and quantitative design.

Based on this background information discussed, the researcher used quantitative research-design strategies of inquiry to establish statistically significant conclusions about the targeted population. This was achieved by using the MLQ-5X to survey a representative sample of the project managers who are credentialed project managers; the researcher assumed a postpositive view in research methods of research questions, data collection, data analysis, interpretation, write-up, and validation (Creswell, 2009). In addition to the described research methodology, three basic tools are available to researchers in making decisions: pretests, control groups, and time series (Swanson & Holton, 2005). Each of these tools enables researchers to ascertain additional information from datasets. This study used a time-series tool to collect datasets. The researcher used this time-series tool to measure performance over time and obtained the dataset sample from the project manager through an online survey design, which provided quantitative or numerical descriptions of trends, attitudes, or opinions of the population (Creswell, 2009).

The researcher used the MLQ-5X on a five-point Likert scale to measure data regarding the dependent variables of transformational-leadership style dimensions of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual

consideration. Response options included 0 = *not at all*, 1 = *once in a while*, 2 = *sometimes*, 3 = *fairly often*, and 4 = *frequently, if not always* (Bass & Avolio, 1995). The independent variable of business strategic project-alignment factors of cost leadership, differentiation, and best cost were measured with a question in the demographic portion of the survey with response options of *yes* or *no* (see Appendix). The researcher posted the survey on online survey company, SurveyMonkey.com, and sent participants an e-mail with a link from SurveyMonkey. Section one of the questionnaire collected demographic information about the participants. This demographic information was not part of the MLQ-5X but was used to collect general information about the participants and independent variables.

To assess Research Questions 1, 2, and 3, the researcher conducted a MANOVA to determine whether differences existed on the five subscales of the transformational scale of the MLQ-5X by business strategic alignment in the context of cost leadership, differentiation, and best cost. The MANOVA is the appropriate analysis when the goal of research is to determine whether simultaneous significant difference exists between two or more continuous dependent variables by a nominal grouping variable (Tabachnick & Fidell, 2012).

The MANOVA creates a linear combination of the dependent variables for a grand mean used to assess whether group differences exist on the set of dependent variables (Stevens, 2009). The MANOVA uses the *F*-test, which is the ratio of two independent variance estimates of the same population variance (Pagano, 2009). By using the *F*-test, the researcher makes the overall comparison of whether group means differ. Prior to conducting the MANOVA, the researcher assessed the assumptions of normality, homogeneity of variance/covariance, and the absence of multicollinearity. The researcher assessed normality using Kolmogorov-Smirnov tests, which assume data, were normally distributed. The researcher assessed homogeneity of variance using

Levene's tests, which assumes groups have equal error variances. The researcher assessed homogeneity of covariance, which is the multivariate equivalent of the homogeneity of variance, using Box's *M*-test. The researcher assessed absence of multicollinearity, which assumes the dependent variables are not too related, with a Pearson product-moment correlation matrix. The proposed alpha value would have been .05, but the same dependent variables are used in three analyses, increasing the likelihood of Type I error. To control for Type I error, the researcher applied a Bonferroni correction, and calculated the new alpha value by taking the old alpha value (.05) and dividing it by the number of types the dependent variables are repeated in inferential analyses (3). The researcher calculated the new alpha value to be .017.

Sample

The Population

Certified project managers in the United States are the target population for this study. According to Singleton and Straits (2005), the target population is the population to which the researcher would like to generalize his or her research. Certified project managers are project managers who have been credentialed as project managers by an accreditation organization such as the Project Management Institute (PMI), the Australian Institute of Project Management (AIPM), or the International Project Management Association (IPMA). The PMI was created in 1969 as a not-for-profit professional organization whose primary goal is to advance the practice, science, and profession of project management in the United States and around the world.

As of 2012, the PMI had more than 397,000 members in United States and 536,000 credential holders in 190 countries. The PMI offers education, certification, monthly publications, conferences, and research opportunities and is one of the global advocacy organizations for the project-management occupation (PMI, 2012). The PMI is actively engaged

in setting professional standards, conducting research, and providing access to a wealth of information and resources. The PMI also promotes career and professional development and offers certification, networking, and community-involvement opportunities (PMI, 2012).

The Sample Frame

The sample frame for this study was 397,000 certified project managers. The researcher collected the dataset using the online survey company SurveyMonkey. This study used random sample techniques to select participants from a targeted population as it allowed the researcher to make generalizations regarding the target population. Creswell (2009) asserted that the strength of "random sampling is that each individual has an equal probability of being selected from the population, ensuring that the samples are representative of the population" (p. 155). In addition, it also "ensures that no systematic process was used to sample from the population" (Swanson & Holton, 2005). The limitation of random sampling is its inability to guarantee that the sample faithfully represents the characteristics of the population (Swanson & Holton, 2005).

In order to enable inclusion of diversity of members in the research sample, this study sought demographic information from participating certified project managers. Because project managers are involved in all sectors of the economy, this inclusion resulted in diversified participants. This ensured that experienced, practicing project managers were selected to participate excluded noncertified practicing project managers in the sample.

Sample Procedures

The sample selection procedure represented the target population. The researcher of this study used random sampling to generate a list of credentialed project managers, which according to Swanson and Holton (2005), provides "statistical basis for reporting the sample drawn is representative of the entire population" (p. 101). Singleton and Straits (2005) also stated that

representation means providing close approximate characteristics of the target population. As a result, certified project-management participants have equal probability of being drawn as a sample representative of the project manager's population.

The researcher used strategies of inquiry that established statically significant conclusions about a population by studying a representative of sample of the population. In essence, it assumed a postpositive view in research methods (research questions, data collection, data analysis, interpretation, write-up, and validation (Creswell, 2009).

Sample Size

The researcher used G*Power 3.1.4 to calculate an appropriate sample size for a MANOVA test using three dependent variables and five independent groups. G*Power 3.1.4 provides dedicated power analysis options for a variety of frequently used *t, F, z, x2* and binomial tests (Faul, Erdfelder, Albert-Georg, & Axel, 2007). In this study, anticipated sample size was calculated using a medium effect size ($f = .25$), an alpha of .017, and a power of .80, making the minimum required sample size for the MANOVA to achieve empirical validity of 28 participants. However, when the researcher calculated the sample size based on the standard statistical power analysis formula in Table 1, a more stringent sample size of 220 subjects satisfied the required sample size for both the population and the required sample size for the MANOVA.

As of 2012, more than 397,000 certified project managers existed in United States. The random sample size of this study generated a list of 1,065 credentialed project managers with an anticipated response rate of 25% for the surveys. Using Creative Research Systems' (2012) sample-size calculator with a population of 397,000, a confidence level of 95% (0.95), and confidence interval of plus or minus 5% (+/-0.05), a sample size of 384 satisfied the requirement

but might skew the research as a result of the large number of participants that might be needed. When the confidence interval is increased to plus or minus 6.6% (+/-0.066), the sample size is 220 (see Table 2). By using this probability sample method, the reliability and validity of the study increases and minimizes the one-source bias that is typical in a probability sample survey (Swanson & Holton, 2005).

Table 1

Standard Statistical Formulas

Symbol	Description
SS	Sample size
SS	[Z2 * (P) * (1-P)]/[C2] To calculate sample size
New SS	[SS]/[1+(SS-1)/(POP)] Correction for finite population
Z	Z value (e.g., 1.96 for 95% confidence level)
P	Percentage picking a choice, expressed as decimal (.5 used for sample size needed)
C	Confidence Interval, expressed as decimal (e.g., .04 = ±4)
POP	Population

Table 1 shows the standard statistical formulas typically used for sample calculation. Using Creative Research Systems' sample-size calculations from creative research system website, the researcher generated the following values in Table 2.

Table 2

Creative Research Systems' Sample-Size Calculations

Description	Values	Values
Confidence level	95%	95%
Confidence interval	5.0	6.6
Population	397,000	397,000
Sample size needed	384	220

Instrumentation/Measures

The measures available to quantitative researchers to measure independent and dependent variables include categorical or nominal, continuous or interval, and ordinal or rank order (Swanson & Holton, 2005). In nominal measures, the data does not come from measures with characteristic numeric value to them, whereas in internal measure, the data have intrinsic numeric values; finally, in ordinal measure, the data are less descriptive when compared to interval data. The researcher used an ordinal measurement tool to measure the independent and dependent variable of project managers' transformational-leadership styles and used the instrument of MLQ-5X, which Bass and Avolio (1993, 1995) developed.

Transformational leadership has been identified in a number of leadership studies and research (Bass, 1999). The MLQ is a widely used measure of leadership consisting of the five dimensions of transformational-leadership styles including idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration (Castro et al., 2008). The researcher used the MLQ-5X with a five-point Likert scale to collect dependent-variable data of transformational-leadership dimensions and used the demographic questionnaire to collect the independent variables of business strategy construct on business strategic project-alignment factors in the context of cost leadership, differentiation, and best cost with an option of *yes* or *no*.

Cooper and Schindler (2003) posited that the five-point Likert scale compared participants' scores with other sample groups. Response options included 0 = *not at all*, 1 = *once in a while*, 2 = *sometimes*, 3 = *fairly often*, and 4 = *frequently, if not always* (Bass & Avolio, 1995). These values should be subject to statistical analyses. The researcher examined the analyses of the sample according to the levels of responsibility that show that the five-factor

model produced a better fit on all of the indices. The reliability coefficient scale (Cronbach's alpha) ranged from 0.74 to 0.94, exceeding the standard for internal consistency recommended in the literature (Janis, 2003). The researcher utilized lack of discriminant validities among the factors with high correlations between 0.859 and 0.994. The research analyses also showed the various fit measures, as well as the chi-square test results of competing models.

The researcher used this instrument because (a) it has psychometric properties that are known, and it is superior to those of other available instruments; (b) it is commonly used in leadership research; and (c) researchers have found it to be an adequate measure of instrumental leadership behavior in previous studies (Schriesheim & DeNisi, 1981).

A demographics questionnaire is an instrument survey researchers have used to collect information. In this study, the researcher used a demographics questionnaire to collect demographic general information, including job function, education, age, gender, and project-management certification of the participants. In addition, the researcher collected independent-variable data using the options of *yes* or *no*. Project managers answered questions regarding leadership attributes that are in support of business strategic project-alignment factors, such as information on the role of participants and their contributions to organizational business strategic project alignment in the context of cost leadership, differentiation, and best cost (Milosevic, 2003; Porter 1980, 1985).

Data Collection

Three methods of data collection are available to researchers: primary, secondary, and tertiary sources. Primary sources are the original work of research without interpretations or an official opinion; secondary sources are the interpretations of primary data; and tertiary sources are interpretations of secondary data, which are often in the form of indexes, bibliographies, and

Internet search engines (Cooper & Schindler, 2011). To conduct the research study, the researcher used primary sources including two self-rated questionnaires as data-collection instruments. Data collection was voluntary, and the study participants received an introductory e-mail with an informed consent form link from SurveyMonkey.

The data collection was systematic, and the researcher used an Internet-based survey and the MLQ-5X as instruments, which provided a means for collecting data in a single reliable database source. Creswell (2009) asserted that the use of websites and the Internet is one of the easiest methods for collecting data. The MLQ-5X questionnaire instrument with a five-point Likert scale was posted on the SurveyMonkey.com. Participants first answered demographics survey questionnaire, which included questions on independent variables of business strategic project-alignment factors and then proceeded to answer the dependent variable of the MLQ-5X, which Bass and Avolio (1993, 1995) developed. The researcher used the MLQ-5X with a five-point Likert scale to collect independent variable data of transformational leadership, including idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration, by dependent variable of business strategic project-alignment factors. The five-point Likert scale has been used in several other studies. The researcher used the collected data to determine whether differences exist between the independent and dependent variables. The dataset consisted of a summative rating scale that asks subjects to agree or disagree with statements that express either favorable or unfavorable attitudes toward the subject (Cooper & Schindler, 2011).

The researcher used the MLQ-5X instrument to collect ordinal categorical data with a five-point Likert scale as the selected instrument to gather input from project-management leaders to assess the differences in project managers' transformational-leadership styles by

business strategic project-alignment factors. The dependent variable of business strategic project-alignment factors and the independent variables of transformational-leadership style as a function in the MLQ-5X of idealized attributes assisted in explaining the relationship transformational-leadership style has with the dependent variable. The MLQ-5X is an extension of the transformational leadership theory Burns developed in 1978.

According to Bass and Avolio (1995), the survey instrument includes a summary of the model of the full range of leadership development concepts from the transformational leadership's self-assessment questionnaire form. This questionnaire has 45 items that have been identified to measure the transformational-leadership components of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. The researcher used these leadership attributes to determine the differences in business strategic project-alignment factors in the context of cost leadership, differentiation, and best cost (Milosevic, 2003; Porter 1980, 1985).

The demographic survey questionnaire instrument has been used by past researchers as a simple instrument to collect information. In this study, the researcher used the survey instrument to collect general demographic information, including job function, education, age, gender, and project-management certification. Survey participants were asked additional questions regarding leadership attributes such as information on the role of subjects and their contributions to organizational-leadership strategy that are in support of business strategic project-alignment factors in the context of cost leadership, differentiation, and best cost with options of *yes* or *no*.

Data Analysis

The researcher entered data into SPSS 21.0 for analysis and assessed for univariate and multivariate outliers (Green & Salkind, 2005 and SPSS, 2011). The researcher assessed

univariate outliers with the creation of *z*-scores for the continuous data and removed the univariate outliers from the dataset. The researcher also assessed data for multivariate outliers and did so using Mahalanobis distances. The critical values were $\chi^2(6) = 16.81$, $p < .001$. The researcher presented descriptive statistics to describe the sample population and presented frequencies and percentages for demographics, such as gender and age. The researcher presented means and standard deviations for continuous data, such as transformational-leadership scores.

The researcher conducted Cronbach's alpha tests of internal consistency on the transformational subscales of the MLQ-5X. The alpha values ranged from 0 to 1, where values > .70 indicate acceptable reliability (George & Mallery, 2010).

To assess Research Question 1, the researcher conducted a MANOVA to determine whether differences exist on the five subscales of the transformational scale of the MLQ-5X by business strategic alignment in the context of cost leadership. The MANOVA is the appropriate analysis when the goal of research is to determine whether simultaneous significant differences exist between two or more continuous dependent variables by a nominal grouping variable (Tabachnick & Fidell, 2012). The dependent variables in the analysis were idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration (Deluga,1990). The researcher used the MLQ-5X to measure the dependent variables. Response options included 0 = *not at all*, 1 = *once in a while*, 2 = *sometimes*, 3 = *fairly often*, and 4 = *frequently, if not always* (Bass & Avolio, 1995). The researcher calculated scale scores by averaging. Idealized attributes were calculated by averaging items 10, 18, 21, and 25. Idealized behaviors were calculated by averaging items 6, 14, 23, and 34. Inspirational motivation was calculated by averaging items 9, 13, 26, and 36. Intellectual stimulation was

calculated by averaging items 2, 8, 30, and 32. Individual consideration was calculated by averaging items 15, 19, 29, and 31.

The researcher treated average scores as continuous data. The independent variable in the first analysis was business strategic project alignment in the context of cost leadership. The researcher measured the independent variables with a question in the demographic part of the survey. Response options were *yes* or *no*, and data were treated as dichotomous.

The researcher used the MANOVA to create a linear combination of the dependent variables for a grand mean and used the mean to evaluate whether group differences exist between the set of dependent variables (Stevens, 2009). The MANOVA used the *F*-test, which is the ratio of two independent variance estimates of the same population variance (Pagano, 2009). By using the *F*-test, the researcher was able to make the overall comparison on whether group means differ. Prior to conducting the MANOVA, the assumptions of normality, homogeneity of variance/covariance, and the absence of multicollinearity were assessed. Normality assumes data were normally distributed and was assessed with Kolmogorov-Smirnov tests. Homogeneity of variance assumes groups have equal error variances and was assessed with Levene's tests. Homogeneity of covariance is the multivariate equivalent of the homogeneity of variance and was assessed with Box's *M*-test. Absence of multicollinearity assumes the dependent variables were not too related and was assessed with a Pearson product-moment correlation matrix. The proposed alpha value would have been .05; however, the researcher used the same dependent variables in three analyses, increasing the likelihood of Type I error. To control for Type I error, the researcher applied a Bonferroni correction and calculated the new alpha value by taking the old alpha value (.05) and dividing it by the number of types the

dependent variables were repeated in inferential analyses (3). The new alpha value was calculated to be .017.

To assess Research Question 2, the researcher conducted a MANOVA to determine whether differences exist between the five subscales of the transformational scale of the MLQ-5X by business strategic alignment in the context of differentiation. The MANOVA is the appropriate analysis when the goal of research is to determine whether simultaneous significant differences exist between two or more continuous dependent variables by a nominal grouping variable (Tabachnick & Fidell, 2012). The dependent variables in the analysis were idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration (Deluga, 1999). The researcher measured the dependent variables using the MLQ-5X. Response options included 0 = *not at all*, 1 = *once in a while,* 2 = *sometimes,* 3 = *fairly often,* and 4 = *frequently, if not always* (Bass & Avolio, 1995). The researcher calculated scale scores by averaging. Idealized attributes were calculated by averaging items 10, 18, 21, and 25. Idealized behaviors were calculated by averaging items 6, 14, 23, and 34. Inspirational motivation was calculated by averaging items 9, 13, 26, and 36. Intellectual stimulation was calculated by averaging items 2, 8, 30, and 32. Individual consideration was calculated by averaging items 15, 19, 29, and 31.

The researcher treated average scores as continuous data. The independent variable in the second analysis was business strategic project alignment in the context of differentiation. The researcher measured the independent variable with a question in the demographic part of the survey. Response options were *yes* or *no*, and data were treated as dichotomous.

The MANOVA was used to create a linear combination of the dependent variables for a grand mean and was also used to assess whether or not there are group differences on the set of

dependent variables (Stevens, 2009). The MANOVA used the *F*-test, which is the ratio of two independent variance estimates of the same population variance (Pagano, 2009). By using the *F*-test, the researcher was able to make the overall comparison of whether group means differed. Prior to conducting the MANOVA, the researcher assessed the assumptions of normality, homogeneity of variance/covariance, and the absence of multicollinearity. Normality assumes data were normally distributed and was assessed with Kolmogorov-Smirnov tests. Homogeneity of variance assumes groups have equal error variances and was assessed with Levene's tests. Homogeneity of covariance is the multivariate equivalent of the homogeneity of variance and was assessed with Box's *M*-test. Absence of multicollinearity assumes the dependent variables are not too related and was assessed with a Pearson product-moment correlation matrix. The proposed alpha value would have been .05; however, the same dependent variables are used in three analyses, increasing the probability of Type I error. To control for Type I error, the researcher applied a Bonferroni correction, and the new alpha value was calculated by taking the old alpha value (.05) and dividing it by the number of types the dependent variables are repeated in inferential analyses (3). The new alpha value was calculated to be .017.

To assess Research Question 3, a MANOVA was conducted to determine whether differences exist between the five subscales of the transformational scale of the MLQ-5X by business strategic alignment in the context of the best cost. The MANOVA is the appropriate analysis when the goal of research is to determine whether simultaneous significant differences exist between two or more continuous dependent variables by a nominal grouping variable (Tabachnick & Fidell, 2012). The dependent variables in the analysis were idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration (Deluga, 1999). The researcher used the MLQ-5X to measure the dependent

variables. Response options included 0 = *not at all*, 1 = *once in a while*, 2 = *sometimes*, 3 = *fairly often*, and 4 = *frequently, if not always* (Bass & Avolio, 1995). The researcher calculated scale scores by averaging. Idealized attributes were calculated by averaging items 10, 18, 21, and 25. Idealize behaviors were calculated by averaging items 6, 14, 23, and 34. Inspirational motivation was calculated by averaging items 9, 13, 26, and 36. Intellectual stimulation was calculated by averaging items 2, 8, 30, and 32. Individual consideration was calculated by averaging items 15, 19, 29, and 31.

The researcher treated average scores as continuous data. The independent variable in the third analysis was business strategic project alignment in the context of the best cost. The researcher measured the independent variable with a question in the demographic portion of the survey. Response options were *yes* or *no*, and data were treated as dichotomous.

The MANOVA creates a linear combination of the dependent variables for a grand mean used to assess whether group differences exist in the set of dependent variables (Stevens, 2009). The MANOVA uses the *F*-test, which is the ratio of two independent variance estimates of the same population variance (Pagano, 2009). By using the *F*-test, the researcher is able to make an overall comparison of whether group means differ. Prior to conducting the MANOVA, the researcher assessed the assumptions of normality, homogeneity of variance/covariance, and the absence of multicollinearity. Normality assumes data were normally distributed and was assessed with Kolmogorov-Smirnov tests. Homogeneity of variance assumes groups have equal error variances and was assessed with Levene's tests. Homogeneity of covariance is the multivariate equivalent of the homogeneity of variance and was assessed with Box's M-test. Absence of multicollinearity assumes the dependent variables are not too related and was assessed with a Pearson product-moment correlation matrix. The proposed alpha value would

have been .05; however, the same dependent variables are used in three analyses, increasing the likelihood of Type I error. To control for Type I error, the researcher applied a Bonferroni correction and calculated the new alpha value by taking the old alpha value (.05) and dividing it by the number of types the dependent variables were repeated in inferential analyses (3). The new alpha value was calculated to be .017.

Validity and Reliability

The validity and reliability of the data and measures can be determined based on the methodology of the research and data measurement. Cooper and Schindler (2011) defined *validity* as a "characteristic of measurement concerned with the extent that a test measures what the researcher actually wishes to measure, and that differences found with a measurement tool reflect true differences among participants drawn from a population" (p. 731). Creswell (2009) noted two types of threats to validity: internal and external. These two types of validity include content, face, factor, construct, convergent, divergent, criterion-group, discriminate, and predictive studies (Bar-On, 2007).

Validity

Internal validity, according to Cook and Campbell (1979), "refers specifically to whether an experimental treatments or condition makes a difference or not, and whether there is sufficient evidence to support the claim" (para. 4). For example, inclusion of participants who fall short of the targeted population of the certified project managers' criteria that the researcher set in this study could affect the results of the research and will certainly deem the research questionable. In addition, Cook and Campbell noted that external validity also threatens research validity and is a threat to the generalizability of the treatment or condition outcomes. This threat can happen when interactions occur among subjects. Research validity requires researchers to disclose any

potential internal and external threats and action taken to mitigate the threat in order for the research to be deemed valid and reliable. When interactions occur in the study, they affect the selection biases and the experimental variable of the entire study (Cook & Campbell, 1979).

Reliability

The reliability of research is a "measure that yields consistent results" (Swanson & Holton, 2005, p. 35). Two types of reliability tests exist: internal consistency and retest reliability. Internal reliability, or consistency, refers to the degree to which all the items of a particular scale measure the same construct, whereas the retest reliability of a survey instrument involves using the same survey with the same respondents at different times (Trochim, 2006). Swanson and Holton (2005) noted that the measure might be very reliable but not valid because of inaccurate measure or other things, as researchers bring their own unique perspectives to the study, thereby making confirmability of such research questionable.

The researcher tested the reliability for the sample population for this study using Cronbach's alpha, which shows a high reliability scale, and used the validity of the MLQ-5X, which the researcher used in the study of leadership, factors, to validate the study along with previous literature with the literature review and theoretical framework studies.

Didow and Franke (1984) noted that Cronbach's alpha is "one of the most useful indicators of a multiple-item which measure's reliability" (p. 13). Field (2009) explained that the reliability for a research instrument is established when that instrument consistently and repeatedly delivers accurate results. Cronbach's alpha, also known as the coefficient alpha, is used to assess the internal regularity of the different subordinate elements of a particular tool designed to measure similarity between components elements. The researcher used Cronbach's alpha to provide this research measurement of the chosen instrument's reliability by rendering an

assessment of the instrument. Using Cronbach's alpha, the inter-instrument component was rated on a scale between 0 and 1. Field (2009) noted that a coefficient with a value close to 1.00 indicates a high level of reliability rating for the questions in the MLQ-5X, comprising the initiation of structure and consideration subscales, which were .846 and .913 respectively.

Ethical Considerations

Based on the nature of sample collection and analysis methodology, the researcher guaranteed participating subjects anonymity and were not identifiable. They were guaranteed the principles of respect of persons, beneficence, and justice as required by the Institute Review Board (IRB) of Capella University. This research adhered to the following principle: to "respect autonomy, research subjects were asked to consent to be part of the study and were fully informed about what participation means, including what benefits and risks they might experience" (Swanson & Holton, 2005, p. 431).

The potential ethical issues involved in sampling include unethical activities such as violation of nondisclosure agreements, breaking participants' confidentiality, misrepresenting results, deceiving people, using invoicing irregularities, avoiding legal liability, and more (Cooper & Schindler, 2011). The privacy guarantee is important in order to retain the validity of the research and protect the participants. In any research where privacy or equal treatment is not exercised and protected, the potential damage or implications, especially to any vulnerable segment of the population, usually constitutes a violation of ethical principles of justice and tends to linger longer than when the violation occurred. To help drive this point home, the Academy of Management's [AOM] (2008) ethical guidelines listed *Respect for People's Rights and Dignity* in their general principles, in which they urge AOM members to respect the dignity

and worth of all people and the rights of individuals to privacy, confidentiality, and self-determination (AOM, 2008).

CHAPTER 4. RESULTS

This chapter presents the analysis of the dataset that was collected to assess the difference in transformational-leadership style dimensions and business strategic project-alignment factors. The assessment examined the differences among three business strategic alignment factors in the context of cost leadership, differentiation, and best cost (Milosevic & Srivannaboon, 2006), by five dimensions of transformational-leadership style of idealized attributes, idealized behaviors inspirational motivation, intellectual stimulation, and individual consideration (Bass, 1999 & Deluga, 1990). In addition, the demographics of consent participants were provided and analyzed. This chapter result reports on respondent characteristics, presentation, and summary of the findings of this research study.

Data Screening

Data were collected from 229 participants. All participants gave consent to participate. Data were assessed for missing cases. Four participants were missing consecutive data points due to non-completion of the survey questionnaires; the four cases were removed from the dataset to avoid skewing the study. Data were assessed for univariate outliers by creating *z* scores for the continuous dependent variables of interest. Values more than 3.29 standard deviations from the mean were considered outliers (Tabachnick & Fidell, 2012). No univariate outliers were found in the dataset. Data were assessed for multivariate outliers using Mahalanobis distances. The critical value was set at $\chi^2(6) = 16.81$, $p < .001$. Nine multivariate outliers were found in the dataset and were removed. Final data analysis was conducted on 216 participants who completed the study and met all the researcher's criteria.

Descriptive Statistics

Many participants selected other as their company's industry or function 67 (31%). Half of the participants described their current role as executing the work necessary to achieve the objectives of a project 108 (50%) and 135 (63%) participants reported their organizational type as functional. Many participants had 0 – 5 years of experience as a project manager 106 (49%) and 58 (27%) participants were 46 – 55 years old. Sixty-two (29%) participants held a bachelor's degree and 79 (37%) participants reported other as their credentials. The majority of participants were female 169 (78%). Frequencies and percentages for participants' demographics are presented in Table 3.

Table 3

Frequencies and Percentages for Participants' Demographics

Demographic	*n*	%
Company's industry or function		
Manufacturing	19	9
Insurance/Real Estate	5	2
Finance/Banking/Accounting	16	7
Federal Government	7	3
State or Local Government	3	1
Health Sector	22	10
Transportation	5	2
Communication Carrier	6	3
Data Processing Services	5	2
Legal Services	2	1
Retailer/Wholesaler/Distributor	20	9
Utilities	2	1
Construction/Architecture/Engineering	12	6
Education	11	5
Publishing/Broadcast/Advertising/Public Relations/Marketing	3	1
Business Services Consultant	11	5
Other	67	31
Function(s) that applies to your role		
Defining the scope and obtaining approval from internal or external clients	60	28

Preparing the project plan or developing a work breakdown structure for a project	81	38
Executing the work necessary to achieve the objectives of a project	108	50
Monitoring project progress, managing change and risk, and communicating project status	83	38
Finalizing all project activities, archiving documents, obtaining acceptance for deliverables, and/or communicating project closure	75	35
Client-facing sales	53	25
Overseeing product development timelines	46	21
Hiring and recruitment	48	22
Other	24	11
Experience as project manager		
0 – 5 years	106	49
6 – 10 years	57	26
11+ years	53	25
Age		
18 – 25	25	12
26 – 35	39	18
36 – 45	51	24
46 – 55	58	27
56+	43	20
Organizational type		
Functional	135	63
Matrix	14	7
Projectized	32	15
Other	35	16
Educational level		
High school diploma	61	28
Associate's degree	41	19
Bachelor's degree	62	29
Graduate degree	42	19
Other	10	5
PMI or other credentials		
CAPM (Certified Associate in Project Management)	46	21
PMI-SP (PMI Scheduling Professional)	16	7
PMI-RMP (PMI Risk Management Professional)	16	7
PMP (Project Management Professional)	39	18
PgMP (Program Management Professional)	20	9
Other	79	37
Gender		
Female	169	78
Male	47	22

Note. Percentages may not total 100 due to rounding error.

Five variables of interest were examined in the study: idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. All scores ranged from 1 to 5. The variable with the largest mean was inspirational motivation (M = 3.97) followed by individual consideration (M = 3.96). Cronbach's alpha tests of reliability were conducted on the five variables. Reliability coefficients (α) ranged from .80 (idealized behaviors) to .87 (inspirational motivation), indicating acceptable to good reliability (George & Mallery, 2010). Means, standard deviations, and the reliability coefficients on the variables of interest are presented in Table 4.

Table 4

Means, Standard Deviations, and Reliability Coefficients on the Variables of Interest

Variable	*M*	*SD*	α	No. of items
Idealized attributes	3.90	0.91	.84	4
Idealized behaviors	3.83	0.88	.80	4
Inspirational motivation	3.97	0.92	.87	4
Intellectual stimulation	3.80	0.88	.81	4
Individual consideration	3.96	0.90	.84	4

Preliminary Analysis

For each research question, the proposed alpha value would have been .05, however the same dependent variables were used in all three analyses, increasing the likelihood of Type I error. To control for Type I error, a Bonferroni correction was applied and the new alpha value was calculated by taking the old alpha value (.05) and dividing it by the number of times the dependent variables were repeated in inferential analyses (3). The new alpha value was calculated to be .017.

Prior to conducting the analyses, data were assessed for normality, homogeneity of variance/covariance, and absence of multicollinearity. Normality was assessed with

Kolmogorov Smirnov tests and none of the subscales were normal, however non-normality is typically not a problem with a large enough sample size, such as samples greater than 30 (Pallant, 2010). Homogeneity of variance was assessed with Levene's tests and also was not met. Due to this violation, a more stringent alpha of .01 was used to evaluate the individual ANOVAs. Homogeneity of covariance was assessed with Box's M and was met. Additionally, a Pearson product moment correlation matrix was conducted to assess for absence of multicollinearity among the five variables of interest. According to Pallant (2010), correlations > .90 indicate multicollinearity. The correlation between idealized attributes and idealized behaviors was $r(214) = .90$, $p < .001$, indicating that the assumption of multicollinearity was not met. To control for multicollinearity, idealized attributes was removed from the MANOVA analyses. The MANOVAs were conducted for idealized behavior, inspirational motivation, intellectual stimulation, and individual consideration.

Research Question 1

To what extent, if any, is there a difference in project manager's transformational-leadership style of (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration) by business strategic project alignment in the context of cost leadership?

$H_0$1: There is no difference in the five dimensions of project managers' transformational-leadership style (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration) by business strategic project alignment in the context of cost leadership.

H_a1: There is a difference in the five dimensions of project managers' transformational-leadership style (idealized attributes, idealized behaviors, inspirational motivation, intellectual

stimulation, and individual consideration) by business strategic project alignment in the context of cost leadership.

To address research question one, a MANOVA test was conducted to determine if statistical differences exist on idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of cost leadership. The dependent variables in the MANOVA were idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. The independent grouping variable in the analysis was business strategic project alignment in the context of cost leadership (*yes* vs. *no*). Statistical significance for the MANOVA was determined at alpha = .017. Statistical significance for the individual ANOVAs was determined at alpha < .01.

The results of the MANOVA were statistically significant at alpha = .017, $F(4, 211) = 7.00$, $p < .001$, partial $\eta^2 = .12$, indicating that differences exist on idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of cost leadership (*yes* vs. *no*). The MANOVA model's effect size (partial η^2) of .12 indicates that a small difference exists on the scores between those participants who reported business strategic project alignment in the context of cost leadership and those participants who did not (Morgan, Leech, Gloekner & Barrett, 2007). The individual ANOVAs, one per dependent variable, were interpreted to determine where the significant differences lie.

The ANOVA on idealized behaviors was statistically significant at alpha < .01, $F(1, 214) = 15.55$, $p < .001$, partial $\eta^2 = .07$, indicating that differences exist on idealized behaviors by business strategic project alignment in the context of cost leadership. The ANOVA model's effect size (partial η^2) of .07 indicates that a small difference exists on idealized behaviors

between those participants who reported business strategic project alignment in the context of cost leadership and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of cost leadership had significantly higher idealized behaviors scores ($M = 3.95$) than those participants who did not ($M = 3.39$).

The ANOVA on inspirational motivation was statistically significant at alpha < .01, $F(1, 214) = 21.78$, $p < .001$, partial $\eta^2 = .09$, indicating that differences exist on inspirational motivation by business strategic project alignment in the context of cost leadership. The ANOVA model's effect size (partial η^2) of .09 indicates that a small difference exists on inspirational motivation between those participants who reported business strategic project alignment in the context of cost leadership and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of cost leadership had significantly higher inspirational motivation scores ($M = 4.11$) than those participants who did not ($M = 3.43$).

The ANOVA on intellectual stimulation was statistically significant at alpha < .01, $F(1, 214) = 25.17$, $p < .001$, partial $\eta^2 = .11$, indicating that differences exist on intellectual stimulation by business strategic project alignment in the context of cost leadership. The ANOVA model's effect size (partial η^2) of .11 indicates that a small difference exists on intellectual stimulation between those participants who reported business strategic project alignment in the context of cost leadership and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of cost leadership

had significantly higher intellectual stimulation scores ($M = 3.95$) than those participants who did not ($M = 3.25$).

The ANOVA on individual consideration was statistically significant at alpha < .01, $F(1, 214) = 13.56$, $p < .001$, partial $\eta^2 = .06$, indicating that differences exist on individual consideration by business strategic project alignment in the context of cost leadership. The ANOVA model's effect size (partial η^2) of .06 indicates that a small difference exists on individual consideration between those participants who reported business strategic project alignment in the context of cost leadership and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of cost leadership had significantly higher individual consideration scores ($M = 4.07$) than those participants who did not ($M = 3.54$). The null hypothesis—there is no difference in the five dimensions of project managers' transformational-leadership style (idealized influence (attributes), idealized influence (behaviors), inspirational motivation, intellectual stimulation, and individual consideration) by business strategic project alignment in the context of cost leadership—can be rejected. Idealized influence (attributes) dependent variable was not assessed in the MANOVA due to multicollinearity. The results of the MANOVA and ANOVAs are presented in Table 5. The means and standard deviations on the dependent variables are presented in Table 6.

Table 5

MANOVA and ANOVAs on Dependent Variables by Business Strategic Project Alignment in the Context of Cost Leadership (Yes vs. No)

Variable	MANOVA $F(4, 211)$	ANOVA $F(1, 214)$ IB	IM	IS	IC
Business strategic project alignment in the context of cost leadership	7.00**	15.55**	21.78**	25.17**	13.56**

Note. IB = idealized behaviors. IM = inspirational motivation. IS = intellectual stimulation. IC = individual consideration. For MANOVA: *$p < .017$, **$p < .001$. For IB, IM, IS, and IC: *$p < .01$, **$p < .001$. F ratios are Wilks's Lambda approximation of F. MANOVA: $F(4, 211) = 7.00$, $p < .001$, partial $\eta^2 = .12$.

Table 6

Means and Standard Deviations on Dependent Variables by Business Strategic Project Alignment in the Context of Cost Leadership (Yes vs. No)

	Yes		No	
Variable	*M*	*SD*	*M*	*SD*
Idealized behaviors	3.95	0.78	3.39	1.06
Inspirational motivation	4.11	0.82	3.43	1.06
Intellectual stimulation	3.95	0.77	3.25	1.05
Individual consideration	4.07	0.81	3.54	1.09

Research Question 2

To what extent, if any, is there a difference in project manager's transformational-leadership style of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of differentiation?

$H_0$2: There is no difference in the five dimensions of project managers' transformational-leadership style of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of differentiation.

H_a2: There is a difference in the five dimensions of project managers' transformational-leadership style of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of differentiation.

To address research question two, a MANOVA was conducted to determine if statistical differences exist on idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of differentiation. The dependent variables in the MANOVA were idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. The independent grouping variable in the analysis was business strategic project alignment in the context of differentiation (*yes* vs. *no*). Statistical significance for the MANOVA was determined at alpha = .017. Statistical significance for the individual ANOVAs was determined at alpha < .01.

The results of the MANOVA were statistically significant at alpha = .017, $F(4, 211) = 3.29$, $p = .012$, partial $\eta^2 = .06$, indicating that differences exist on idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of differentiation (*yes* vs. *no*). The MANOVA model's effect size (partial η^2) of .06 indicates that a small difference exists on the scores between those participants who reported business strategic project alignment in the context of differentiation and those participants who did not (Morgan et al., 2007). The individual ANOVAs, one per dependent variable, were interpreted to determine where the significant differences lie.

The ANOVA on idealized behaviors was statistically significant at alpha < .01, $F(1, 214) = 12.51$, $p < .001$, partial $\eta^2 = .06$, indicating that differences exist on idealized behaviors by business strategic project alignment in the context of differentiation. The ANOVA model's

effect size (partial η^2) of .06 indicates that a small difference exists on idealized behaviors between those participants who reported business strategic project alignment in the context of differentiation and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of differentiation had significantly higher idealized behaviors scores (M = 3.95) than those participants who did not (M = 3.48).

The ANOVA on inspirational motivation was statistically significant at alpha < .01, $F(1, 214) = 10.38$, $p = .001$, partial $\eta^2 = .05$, indicating that differences exist on inspirational motivation by business strategic project alignment in the context of differentiation. The ANOVA model's effect size (partial η^2) of .05 indicates that a small difference exists on inspirational motivation between those participants who reported business strategic project alignment in the context of differentiation and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of differentiation had significantly higher inspirational motivation scores (M = 4.08) than those participants who did not (M = 3.64).

The ANOVA on intellectual stimulation was statistically significant at alpha < .01, $F(1, 214) = 9.63$, $p = .002$, partial $\eta^2 = .04$, indicating that differences exist on intellectual stimulation by business strategic project alignment in the context of differentiation. The ANOVA model's effect size (partial η^2) of .04 indicates that a small difference exists on intellectual stimulation between those participants who reported business strategic project alignment in the context of differentiation and those participants who did not (Morgan et al., 2007). The researcher assessed a pairwise comparison to determine where the differences lie: those participants who reported

business strategic project alignment in the context of differentiation had significantly higher intellectual stimulation scores ($M = 3.91$) than those participants who did not ($M = 3.49$).

The ANOVA on individual consideration was statistically significant at alpha < .01, $F(1, 214) = 7.21$, $p = .008$, partial $\eta^2 = .03$, indicating that differences exist on individual consideration by business strategic project alignment in the context of differentiation. The ANOVA model's effect size (partial η^2) of .03 indicated that a small difference exists on individual consideration between those participants who reported business strategic project alignment in the context of differentiation and those participants who did not (Morgan et al., 2007). The researcher assessed a pairwise comparison to determine where the differences lie: those participants who reported business strategic project alignment in the context of differentiation had significantly higher individual consideration scores ($M = 4.06$) than those participants who did not ($M = 3.69$). The null hypothesis—there is no difference in the five dimensions of project managers' transformational-leadership styles (idealized influence [attributes], idealized influence [behaviors], inspirational motivation, intellectual stimulation, and individual consideration) by business strategic project alignment in the context of differentiation—can be rejected. The researcher did not assess the idealized influence (attributes) dependent variable in the MANOVA because of its multicollinearity. Table 7 presents the results of the MANOVA and ANOVAs. Table 8 presents the means and standard deviations on the dependent variables.

Table 7

MANOVA and ANOVAs on Dependent Variables by Business Strategic Project Alignment in the Context of Differentiation (Yes vs. No)

Variable	MANOVA $F(4, 211)$	ANOVA $F(1, 214)$ IB	IM	IS	IC
Business strategic project alignment in the context of differentiation	3.29*	12.51**	10.38*	9.63*	7.21*

Note. IB = idealized behaviors. IM = inspirational motivation. IS = intellectual stimulation. IC = individual consideration. For MANOVA: *$p < .017$, **$p < .001$. For IB, IM, IS, and IC: *$p < .01$, **$p < .001$. F ratios are Wilks's Lambda approximation of F. MANOVA: $F(4, 211) = 3.29$, $p = .012$, partial $\eta^2 = .06$.

Table 8

Means and Standard Deviations on Dependent Variables by Business Strategic Project Alignment in the Context of Differentiation (Yes vs. No)

Variable	Yes		No	
	M	*SD*	*M*	*SD*
Idealized behaviors	3.95	0.80	3.48	1.00
Inspirational motivation	4.08	0.84	3.64	1.05
Intellectual stimulation	3.91	0.76	3.49	1.10
Individual consideration	4.06	0.81	3.69	1.08

Research Question Three

To what extent, if any, is there a difference in project managers' transformational-leadership styles of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of best cost?

$H_0$3: There is no difference in the five dimensions of project managers' transformational-leadership styles of idealized attributes, idealized behaviors, inspirational motivation, intellectual

stimulation, and individual consideration by business strategic project alignment in the context of best cost.

H_a3: There is a difference in the five dimensions of project managers' transformational-leadership style idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration) by business strategic project alignment in the context of best cost.

To address research question three, a MANOVA was conducted to determine if statistical differences exist on idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of best cost. The dependent variables in the MANOVA were idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. The independent grouping variable in the analysis was business strategic project alignment in the context of best cost (*yes* vs. *no*). Statistical significance for the MANOVA was determined at alpha = .017. Statistical significance for the individual ANOVAs was determined at alpha < .01.

The results of the MANOVA were statistically significant at alpha = .017, $F(4, 211) = 6.06$, $p < .001$, partial $\eta^2 = .10$, indicating that differences exist on idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of best cost (*yes* vs. *no*). The MANOVA model's effect size (partial η^2) of .10 indicates that a small difference exists on the scores between those participants who reported business strategic project alignment in the context of best cost and those participants who did not (Morgan et al., 2007). The individual ANOVAs, one per dependent variable, were interpreted to determine where the significant differences lie.

The ANOVA on idealized behaviors was statistically significant at alpha < .01, $F(1, 214) = 15.69$, $p < .001$, partial $\eta^2 = .07$, indicating that differences exist on idealized behaviors by business strategic project alignment in the context of best cost. The ANOVA model's effect size (partial η^2) of .07 indicates that a small difference exists on idealized behaviors between those participants who reported business strategic project alignment in the context of best cost and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of best cost had significantly higher idealized behaviors scores ($M = 3.94$) than those participants who did not ($M = 3.38$).

The ANOVA on inspirational motivation was statistically significant at alpha < .01, $F(1, 214) = 15.68$, $p < .001$, partial $\eta^2 = .07$, indicating that differences exist on inspirational motivation by business strategic project alignment in the context of best cost. The ANOVA model's effect size (partial η^2) of .07 indicates that a small difference exists on inspirational motivation between those participants who reported business strategic project alignment in the context of best cost and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of best cost had significantly higher inspirational motivation scores ($M = 4.09$) than those participants who did not ($M = 3.50$).

The ANOVA on intellectual stimulation was statistically significant at alpha < .01, $F(1, 214) = 24.40$, $p < .001$, partial $\eta^2 = .10$, indicating that differences exist on intellectual stimulation by business strategic project alignment in the context of best cost. The ANOVA model's effect size (partial η^2) of .10 indicates that a small difference exists on intellectual stimulation between those participants who reported business strategic project alignment in the

context of best cost and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of best cost had significantly higher intellectual stimulation scores ($M = 3.94$) than those participants who did not ($M = 3.25$).

The ANOVA on individual consideration was statistically significant at alpha < .01, $F(1, 214) = 14.11$, $p < .001$, partial $\eta^2 = .06$, indicating that differences exist on individual consideration by business strategic project alignment in the context of best cost. The ANOVA model's effect size (partial η^2) of .06 indicates that a small difference exists on individual consideration between those participants who reported business strategic project alignment in the context of best cost and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of best cost had significantly higher individual consideration scores ($M = 4.07$) than those participants who did not ($M = 3.52$). The null hypothesis—there is no difference in the five dimensions of project managers' transformational-leadership style (idealized influence (attributes), idealized influence (behaviors), inspirational motivation, intellectual stimulation, and individual consideration) by business strategic project alignment in the context of best cost—can be rejected. Idealized influence (attributes) dependent variable was not assessed in the MANOVA due to multicollinearity. The results of the MANOVA and ANOVAs are presented in Table 9. The means and standard deviations on the dependent variables are presented in Table 10.

Table 9

MANOVA and ANOVAs on Dependent Variables by Business Strategic Project Alignment in the Context of Best Cost (Yes vs. No)

Variable	MANOVA $F(4, 211)$	ANOVA $F(1, 214)$ IB	IM	IS	IC
Business strategic project alignment in the context of best cost	6.06**	15.69**	15.68**	24.40**	14.11**

Note. IB = idealized behaviors. IM = inspirational motivation. IS = intellectual stimulation. IC = individual consideration. For MANOVA: *$p < .017$, **$p < .001$. For IB, IM, IS, and IC: *$p < .01$, **$p < .001$. F ratios are Wilks's Lambda approximation of F. MANOVA: $F(4, 211) = 6.06$, $p < .001$, partial $\eta^2 = .10$.

Table 10

Means and Standard Deviations on Dependent Variables by Business Strategic Project Alignment in the Context of Best Cost (Yes vs. No)

Variable	Yes		No	
	M	*SD*	*M*	*SD*
Idealized behaviors	3.94	0.78	3.38	1.07
Inspirational motivation	4.09	0.82	3.50	1.11
Intellectual stimulation	3.94	0.77	3.25	1.06
Individual consideration	4.07	0.81	3.52	1.09

Summary

This chapter did present respondent demographics, the analysis, and the presentation of the findings assessing the differences among three business strategic alignment factors in the context of cost leadership, differentiation, and best cost by five dimensions of transformational-leadership style of idealized attributes, idealized behaviors inspirational motivation, intellectual stimulation, and individual consideration. The study result was based on self-rated online survey administered to project managers in United States. The survey used MLQ-5X (Short Form) instrument created by Bass and Avolio, (1993, 1995) and a demographic questionnaire.

Hypotheses were performed to answer the three research questions, which assessed research questions one, two, and three. MANOVA was conducted to determine if there are differences on the five subscales of the transformational scale of the MLQ-5X by business strategic alignment in the context of cost leadership, differentiation, and best cost. The results of the MANOVA were statistically significant at alpha = .017, $F(4, 211) = 7.00$, $p < .001$, partial $\eta^2 = .12$, indicating that differences exist on idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of cost leadership, differentiation, and best cost (*yes* vs. *no*).

These results support the null hypothesis—there is no difference in the five dimensions of project managers' transformational-leadership style of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of best cost, differentiation, and best cost—can be rejected. The findings were validated using ANOVA and a Pairwise comparison analysis on idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration.

CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

This chapter contains a summary of the research study's findings, a discussion of the implications of the study, and recommendations for future studies. The purpose of this research study was to assess the difference between transformational-leadership style dimensions and business strategic project-alignment factors. The researcher assessed the differences among three business strategic-alignment factors in the context of cost leadership, differentiation, and best cost by five dimensions of transformational-leadership style of "idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration" (Deluga, 1999, p.193).

As organizations strive to remain competitive by having successful projects in a rapidly changing global marketplace, they realize the need to identify and develop project-management leaders with varied leadership experiences who can align organizations' projects to business strategic-alignment goals (Srivannaboon, 2006; Yang et al., 2011). The assessment study also provides insight regarding the difference in transformational-leadership style and business strategic project-alignment factors.

For this study, the researcher used both theoretical background and theoretical framework to assess the relationship between transformational-leadership style based on Bass's (1985), and business strategic project-alignment factors based on Porter's (1985), as illustrated in Figure 1. In addition, the researcher analyzed transformational-leadership style dimensions as dependent variables and business strategic-alignment factors as independent variables. The dependent variables of transformational-leadership dimensions are individual attributes, individual behaviors, inspirational motivation, intellectual stimulation, and idealized consideration (Deluga,

1990). The independent variables of business strategic project-alignment factors are cost leadership, differentiation, and best cost (Milosevic, 2003; Porter, 1980, 1985).

Keegan and Hartog (2004) asserted that transformational-leadership style has shown to satisfy subordinates who exhibit a high degree of motivation and commitment, and often leaders exert more effort on their jobs and are trusted by their peers. Subordinates and superiors tend to perform better in businesses with managers who exhibit transformational-leadership style. In addition, because of fear of disappointing their leader, transformational followers are motivated to shift their goals away from personal interests toward self-actualization and the greater good (Reuvers et al., 2008).

Porter's (1980) framework included a theoretical proposition that shows how business strategic project-alignment factors positively affect business performance. Bass (1998) argued that transformational-leadership style theory is the philosophy that is effective in business strategic project alignment, especially where rapid response demands new changes and offers positive results for portfolio, program, and project-management office (PMO) environments.

In organizations where transformational managers serve as project leads, such as PMOs, employees tend to experience higher project success rates because it "exerts additional influence by broadening and elevating followers' goals and providing them with confidence to perform beyond expectations" (Dvir et al., 2002, p. 3). Porter (1980) also argued that cost leadership strategy and differentiation strategy can both lead to success but managers should understand cost and differentiation advantages as discrete alternatives to business strategic project alignment and align leadership dimensions in order to maintain a business competitive edge.

Summary of Findings

The findings in this study were based on a self-rated online survey among certified project managers across industry sectors of the United States. It is also in support of theoretical background and conceptual framework of transformational leadership and business strategic project alignment, as illustrated in Figure 2, which presents the summary of the model in business strategic project alignment. Literature review regarding transformational leadership, business strategic business alignment, and project-management strategies supported the purpose of this research study, which is to assess the difference between transformational-leadership style dimensions and business strategic project-alignment factors.

In this study, five variables—idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration—were examined with five scores ranging from 1 to 5 (Deluga, 1999). The variable with the largest mean score was inspirational motivations ($M = 3.97$) followed by individual consideration ($M = 3.96$). To establish coefficient reliability, the researcher conducted Cronbach's alpha tests on all the variables, which ranged from .80 (idealized behaviors) to .87 (inspirational motivation), indicating the reliability of the scores. This shows a strong positive relationship between transformational-leadership style of leaders of project managers and their subordinates' willingness to exert extra effort, perceived leadership effectiveness, and satisfaction with the leader.

Prior to conducting the analyses, the researcher assessed data for normality, homogeneity of variance/covariance, and absence of multicollinearity. The researcher assessed normality using Kolmogorov Smirnov tests, and none of the subscales were normal; however, non-normality is typically not a problem with a large enough sample size, such as samples greater

than 30 (Pallant, 2010). Homogeneity of variance was assessed with Levene's tests and was not met. Because of this violation, the researcher used a more stringent alpha of .01 to evaluate the individual analysis of variance (ANOVA). The researcher assessed homogeneity of covariance with Box's M-test, which was met. Additionally, the researcher conducted a Pearson product-moment correlation matrix to assess for absence of multicollinearity. According to Pallant (2010), correlations > .90 indicate multicollinearity. The correlation between idealized attributes and idealized behaviors was $r(214) = .90$, $p < .001$, indicating that the assumption of multicollinearity was not met. To control for multicollinearity, the researcher removed idealized attributes from the MANOVA analyses. The researcher conducted MANOVAs for idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration.

Hypothesis 1 in this study assessed the difference between the five dimensions of project managers' transformational-leadership style including idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration (dependent variables) by the independent variable of business strategic project alignment in the context of cost leadership. To assess Research Question 1, the researcher conducted a MANOVA. The dependent variables in the MANOVA were idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. The independent variable in the analysis was business strategic project alignment in the context of cost leadership (*yes* vs. *no*). The researcher determined statistical significance for the MANOVA at alpha = .017 and determined statistical significance for the individual ANOVAs at alpha < .01.

The results of the MANOVA were statistically significant at alpha = .017, indicating that differences exist on idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of cost leadership

(*yes* vs. *no*). The MANOVA model's effect size of .12 indicates that a small difference exists in the scores between those participants who reported business strategic project alignment in the context of cost leadership and those participants who did not (Morgan et al., 2007). The individual ANOVAs, one per dependent variable, were interpreted to determine where the significant differences lie.

The ANOVA on idealized behaviors was statistically significant at < .01, indicating that differences exist on idealized behaviors by business strategic project alignment in the context of cost leadership. The ANOVA model's effect size of .07 indicates that a small difference exists on idealized behaviors between those participants who reported business strategic project alignment in the context of cost leadership and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie; those participants who reported business strategic project alignment in the context of cost leadership had significantly higher idealized behavior scores ($M = 3.95$) than those participants who did not ($M = 3.39$).

The ANOVA on inspirational motivation was statistically significant at alpha < .01, indicating that differences exist in inspirational motivation by business strategic project alignment in the context of cost leadership. The ANOVA model's effect size of .09 indicates that a small difference exists in inspirational motivation between those participants who reported business strategic project alignment in the context of cost leadership and those participants who did not (Morgan et al., 2007). The researcher assessed a pairwise comparison to determine where the differences lie; those participants who reported business strategic project alignment in the context of cost leadership had significantly higher inspirational motivation scores ($M = 4.11$) than those participants who did not ($M = 3.43$).

The ANOVA on intellectual stimulation was statistically significant at alpha < .01, indicating that differences exist in intellectual stimulation by business strategic project alignment in the context of cost leadership. The ANOVA model's effect size of .11 indicates that a small difference exists in intellectual stimulation between those participants who reported business strategic project alignment in the context of cost leadership and those participants who did not (Morgan et al., 2007). The researcher assessed a pairwise comparison to determine where the differences lie; those participants who reported business strategic project alignment in the context of cost leadership had significantly higher intellectual stimulation scores (M = 3.95) than those participants who did not (M = 3.25).

The result of the ANOVA on individual consideration was statistically significant at alpha < .01, indicating that differences exist in individual consideration by business strategic project alignment in the context of cost leadership. The ANOVA model's effect size of .06 indicates that a small difference exists in individual consideration between those participants who reported business strategic project alignment in the context of cost leadership and those participants who did not (Morgan et al., 2007). The researcher assessed a pairwise comparison to determine where the differences lie: those participants who reported business strategic project alignment in the context of cost leadership had significantly higher individual consideration scores (M = 4.07) than those participants who did not (M = 3.54). The null hypothesis—there is no difference in the five dimensions of project managers' transformational-leadership styles of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of cost leadership—can be rejected.

Hypothesis 2 in this study assessed the difference in the five dimensions of project managers' transformational-leadership styles of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration (dependent variables) by independent variable of business strategic project alignment in the context of differentiation. To address Research Question 2, the researcher conducted a MANOVA to determine whether statistical differences exist in idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of differentiation. The dependent variables in the MANOVA were idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. The independent grouping variable in the analysis was business strategic project alignment in the context of differentiation (*yes* vs. *no*). The researcher determined statistical significance for the MANOVA at alpha = .017 and determined statistical significance for the individual ANOVAs at alpha < .01.

The results of the MANOVA were statistically significant at alpha = .017, indicating that differences exist in idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of differentiation (*yes* vs. *no*). The MANOVA model's effect size of .06 indicates that a small difference exists in the scores between those participants who reported business strategic project alignment in the context of differentiation and those participants who did not (Morgan et al., 2007). The individual ANOVAs, one per dependent variable, were interpreted to determine where the significant differences lie.

The ANOVA on idealized behaviors was statistically significant at alpha < .01, indicating that differences exist in idealized behaviors by business strategic project alignment in the context

of differentiation. The ANOVA model's effect size of .06 indicates that a small difference exists in idealized behaviors between those participants who reported business strategic project alignment in the context of differentiation and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of differentiation had significantly higher idealized behavior scores ($M = 3.95$) than those participants who did not ($M = 3.48$).

The ANOVA on inspirational motivation was statistically significant at alpha < .01, indicating that differences exist in inspirational motivation by business strategic project alignment in the context of differentiation. The ANOVA model's effect size of .05 indicates that a small difference exists in inspirational motivation between those participants who reported business strategic project alignment in the context of differentiation and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie; those participants who reported business strategic project alignment in the context of differentiation had significantly higher inspirational motivation scores ($M = 4.08$) than those participants who did not ($M = 3.64$).

The ANOVA on intellectual stimulation was statistically significant at alpha < .01, indicating that differences exist on intellectual stimulation by business strategic project alignment in the context of differentiation. The ANOVA model's effect size of .04 indicates that a small difference exists in intellectual stimulation between those participants who reported business strategic project alignment in the context of differentiation and those participants who did not (Morgan et al., 2007). The researcher assessed a pairwise comparison to determine where the differences lie; those participants who reported business strategic project alignment in

the context of differentiation had significantly higher intellectual stimulation scores (M = 3.91) than those participants who did not (M = 3.49).

The ANOVA on individual consideration was statistically significant at alpha < .01, indicating that differences exist in individual consideration by business strategic project alignment in the context of differentiation. The ANOVA model's effect size of .03 indicates that a small difference exists in individual consideration between those participants who reported business strategic project alignment in the context of differentiation and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie; those participants who reported business strategic project alignment in the context of differentiation had significantly higher individual consideration scores (M = 4.06) than those participants who did not (M = 3.69). The null hypothesis—there is no difference in the five dimensions of project managers' transformational-leadership style of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of differentiation—can be rejected.

In this study, the researcher used Hypothesis 3 to assess the difference in the five dimensions of project managers' transformational-leadership style of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration (dependent variables) by independent variable of business strategic project alignment in the context of cost leadership. To address Research Question 3, the researcher conducted a MANOVA to determine whether statistical differences exist in idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of best cost. The dependent variables in the MANOVA

were idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. The independent grouping variable in the analysis was business strategic project alignment in the context of best cost (*yes* vs. *no*). The researcher determined statistical significance for the MANOVA at alpha = .017 and determined statistical significance for the individual ANOVAs at alpha < .01.

The results of the MANOVA were statistically significant at alpha = .017, indicating that differences exist in idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of best cost (*yes* vs. *no)*. The MANOVA model's effect size of .10 indicates that a small difference exists on the scores between those participants who reported business strategic project alignment in the context of best cost and those participants who did not (Morgan et al., 2007). The individual ANOVAs, one per dependent variable, were interpreted to determine where the significant differences lie.

The ANOVA on idealized behaviors was statistically significant at alpha < .01, indicating that differences exist in idealized behaviors by business strategic project alignment in the context of best cost. The ANOVA model's effect size of .07 indicates that a small difference exists in idealized behaviors between those participants who reported business strategic project alignment in the context of best cost and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of best cost had significantly higher idealized behaviors scores (M = 3.94) than those participants who did not (M = 3.38).

The ANOVA on inspirational motivation was statistically significant at alpha < .01, indicating that differences exist in inspirational motivation by business strategic project

alignment in the context of best cost. The ANOVA model's effect size of .07 indicates that a small difference exists in inspirational motivation between those participants who reported business strategic project alignment in the context of best cost and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of best cost had significantly higher inspirational motivation scores ($M = 4.09$) than those participants who did not ($M = 3.50$).

The ANOVA on intellectual stimulation was statistically significant at alpha < .01, indicating that differences exist in intellectual stimulation by business strategic project alignment in the context of best cost. The ANOVA model's effect size (partial η2) of .10 indicates that a small difference exists in intellectual stimulation between those participants who reported business strategic project alignment in the context of best cost and those participants who did not (Morgan et al., 2007). A pairwise comparison was assessed to determine where the differences lie: those participants who reported business strategic project alignment in the context of best cost had significantly higher intellectual stimulation scores ($M = 3.94$) than those participants who did not ($M = 3.25$).

The ANOVA on individual consideration was statistically significant at alpha < .01, indicating that differences exist in individual consideration by business strategic project alignment in the context of best cost. The ANOVA model's effect size (partial η2) of .06 indicates that a small difference exists in individual consideration between those participants who reported business strategic project alignment in the context of best cost and those participants who did not (Morgan et al., 2007). The researcher assessed a pairwise comparison to determine where the differences lie; those participants who reported business strategic project

alignment in the context of best cost had significantly higher individual consideration scores (M = 4.07) than those participants who did not (M = 3.52). The null hypothesis—there is no difference in the five dimensions of project managers' transformational-leadership style of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration by business strategic project alignment in the context of best cost—can be rejected.

This study supported Bass (1999); Bass and Avolio (1993, 1995) and Avolio's (2007) research on transformational-leadership behavior, which posited that leaders who motivate followers to accomplish more than they originally intended or expected move followers to go beyond their own self-interests for the good of the group and convert their followers into leaders. In addition, the study demonstrated that leadership style of transformational leadership has a direct relationship between business strategic project-alignment factors.

Discussion of Implications

This assessment research study contributes to knowledge in the field of organization and project management by creating a better understanding of the differences in project manager's transformational-leadership style by business strategic project-alignment factors. The assessment research study indicated that subordinates involved in applying the business strategic project-alignment factors of cost leadership, differentiation, and best cost prefer project managers with transformational-leadership style dimensions of idealized behaviors (living one's ideal), inspirational motivation (inspiring others), intellectual stimulation (stimulating others), and individual consideration (coaching and development). The factor of idealized attributes (respect, trust, and faith) was an exception to this transformational-leadership dimension preference.

Muller and Turner (2010) noted that with an "increase in project requirements . . . measured in complexity, project type, and duration, there is an increase[d] need for emotional competencies in project manager" (p. 446). This means that there is an increased need for various types of leadership dimensions for project managers who manage relatively simple task projects and processes and transformational leaders for more-demanding projects and human-resources' knowledge (Muller & Turner, 2010). The authors asserted that project performance for some types of projects could be impaired if project managers do not adapt and align their leadership style to fit the complexity of strategically aligning projects.

With this research showing that small differences exist in the scores between those participants who reported business strategic project alignment in the context of cost leadership, differentiation, and best cost and those participants who did not, this means that organizations pursuing cost-leadership strategies seek to gain a competitive advantage and increase market shares by being the lowest cost producer. Organizations seeking differentiation strategies seek to position themselves in the marketplace with a distinct identity that satisfies the desires of their customers such as fast time-to-market, superior quality and service, and innovative features (Milosevic & Srivannaboon, 2006). Furthermore, the study indicates that a small difference exists in idealized behaviors between those participants who reported business strategic alignment in the context of cost leadership. This means that a combination of organizations' business strategies may be the best way to create a sustainable competitive advantage (Milosevic & Srivannaboon, 2006).

Based on these positive implications, project managers progressing from a junior-, middle-, and finally, to a senior-management level will lead projects of different types and complexities. As part of career development, project-management leaders should examine the

difference in project managers' transformational-leadership style dimensions by how best to align with business strategic project-alignment factors in the context of cost leadership, differentiation, and best cost. This can ensure projects are completed on time successfully and within budget. Transformational-leadership style offers project managers the insight and knowledge they will need, such as creating a vision and mission, goal setting, problem solving, coaching and mentoring, as they progress and enhance their leadership competencies (Muller & Turner, 2010).

Milosevic (2003) noted that the essence of competitive business strategy lies in creating advantages that give it an edge over its rivals. In essence, business strategic project-alignment factors help project managers with transformational-leadership attributes to support the execution of an organization's competitive strategy and deliver a desired outcome such as fast-time-to-market, high quality, and a low-cost product (Srivannaboon, 2006).

Recommendations for Future Research

The strengths of this study include research designs developed around concepts and theoretical framework that were based on a simple random sample of certified project managers with real professional experience in all industry sectors of the United States. Single-source bias limited this study because of utilization of the online survey instrument that randomized the participants of the study. The theoretical frameworks of transformational-leadership style could be generalizable across different industries, types, sizes of projects, and levels of project complexity to ascertain business strategic project-alignment factors.

In addition, the study framework used Bass's (1985) transformational-leadership dimensions of idealized influence, inspirational relationship, intellectual stimulation, and individual consideration as independent variables to determine the differences, with business

strategic project-alignment factors as the dependent variable. The study incorporated a coherent, structured set of relationships, which was based on propositions, which was used to predict the phenomena or project, leadership style, and business strategic project-alignment factors.

Based on these aforementioned strengths and limitations of this research, the researcher of this study recommends that future research be conducted to assess the difference in transformational-leadership style dimensions and business strategic project-alignment factors by focusing on one industry or organization. The reason for this recommendation is that the researcher might find it easier to find willing certified project managers in a controlled environment to replicate this study rather than casting a wider net of participants from all sectors of the economy. In addition, having access to participants might ensure communications between researcher and potential participants, which could result in follow-through on completing the questionnaire.

Another recommendation for future researchers is to use single stage or multistage sampling, known as cluster sampling, rather than a random sample as was used in this study. Cluster sampling, according to Creswell (2009), "is ideal when it is impossible or impractical to compile a list of the elements composing the population" (p. 148). Single-stage sampling could make it easier for the researcher to have access to names in the population and to sample the participants directly, while multistage sampling clusters individual names of participants into specified groups or organizations (Creswell, 2009). The researcher then identifies participants based on those clusters for sampling. By clustering participants, the researcher avoids one source bias, and the population sampling method enables generalization of the study across other businesses, age groups, educational level, ethnicities, and gender differences. These recommendations broaden the study of the effect transformational-leadership style dimensions

and business strategic project-alignment factors might have on these different organizations without aggregating all these groups for analysis.

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APPENDIX. DEMOGRAPHIC PROFILE

1. **From the drop-down menu, please select the category that best describe your company's industry or function:**
   - ☐ Manufacturing
   - ☐ Insurance/Real Estate
   - ☐ Finance/Banking/Accounting
   - ☐ Federal Government
   - ☐ State or Local Government
   - ☐ Health Sector
   - ☐ Transportation
   - ☐ Communication Carrier
   - ☐ Data Processing Services
   - ☐ Research/Development Lab
   - ☐ Legal Services
   - ☐ Retailer/Wholesaler/Distributer
   - ☐ Utilities
   - ☐ Construction/Architecture/Engineering
   - ☐ Education
   - ☐ Publishing/Broadcast/Advertising/Public Relations/Marketing
   - ☐ Business Services Consultant
   - ☐ Other
2. **From the list below, select the function(s) that apply to you:**
   - ☐ Defining the scope and obtaining approval form internal or external clients.
   - ☐ Preparing the project plan or developing a work breakdown structure for a project.
   - ☐ Executing the work necessary to achieve the objectives of a project.
   - ☐ Monitoring project progress, managing change and risk, and communicating project status.
   - ☐ Finalizing all project activities, archiving documents, obtaining acceptance for deliverables, and communicating project closure.
   - ☐ Client-facing Sales
   - ☐ Hiring and recruitment
   - ☐ None of the above
   - ☐ Other (please specify)

3. **Experience as a Project Manger**
   - ☐ 0-5 years
   - ☐ 6- 10 years
   - ☐ 11+ years

4. **Gender**
   - ☐ Female
   - ☐ Male

5. **Age Group**
   - ☐ 10 – 25
   - ☐ 25 – 35
   - ☐ 36 – 45
   - ☐ 46 -55
   - ☐ 56+

6. **Organizational Type**
   - ☐ Functional
   - ☐ Matrix
   - ☐ Projectized
   - ☐ Other (please specify)

7. **Educational Level**
   - ☐ High School Diploma
   - ☐ Associate Degree
   - ☐ Baccalaureate Degree
   - ☐ Graduate Degree
   - ☐ Other (please specify)

8. **PMI Credentials or Other Credentials**
   - ☐ CAPM (Certified Associate in Project Management)
   - ☐ PMI-SP (PMI Scheduling Professional)
   - ☐ PMI-RMP (PMI Risk Management Professional)
   - ☐ PMP (Project Management Professional)
   - ☐ PgMP (Program Management Professional)
   - ☐ Other (please specify)

9. In your role as project management professional, do you believe your organization's strategic project alignment decision is influenced by cost leadership (cost-efficiency)?
   - ☐ Yes
   - ☐ No

10. In your role as project management professional, do you believe your organization's strategic project alignment decision is influenced by differentiation (schedule or quality)?
   - ☐ Yes
   - ☐ No

11. In your role as a project management professional, do you believe your organization's strategic project alignment decision is influenced by best cost (quality and cost)?
   - ☐ Yes
   - ☐ No