

A Framework for Exploring the Relationship Between Project Manager Leadership Style and Project Success

Ana L. Rosado Feger Management Systems Department Ohio University College of Business

Gregg A. Thomas
Department of Management
Clemson University

Abstract

Research on the success of projects has proceeded along two streams. The first focuses on the leadership characteristics of the individual project managers and the relationship to success. The second focuses on the definition of project success, identifying its various dimensions. These research streams are interrelated but not yet interconnected. This paper presents a framework for connecting these streams, additionally proposing a moderating effect of organizational structure on the relationship between the PM's leadership style and project success.



1. Introduction

A project is defined as a temporary endeavor undertaken to create a unique product or service (PMBOK, 2008). *Project management* is the application of knowledge, skills, tools, and techniques to plan activities to meet the project requirements (PMBOK, 2008). For an organization, projects are a means to respond to requests that cannot be adequately addressed within the organization's normal operational limits. For example, within the context of Operations Management, the scope of projects can include new product development, product and/or process improvement, implementations of new processing technology, and rollouts of organization-wide initiatives such as Six Sigma, Just-in-Time, and Lean Manufacturing. Implementing project management allows organizations to be more "efficient, effective, and competitive in a shifting, complex, and unpredictable environment" (Ika, 2009).

The project manager (PM) is the individual responsible for managing the project (PMBOK, 2008). In order for the project to succeed, the PM must be able to apply their own knowledge and skills as well as identify the skills and knowledge of the members of the team and coordinate their actions. The composition of the project team can vary widely, both in terms of necessary technical and business skills and in terms of lines of supervisory authority. PM's have to motivate team members as well as solve conflicts and other problems that arise during the project. In return, the team members put forth the effort to complete the project that is satisfactory to the client as well as on time, on budget, and with the predetermined features. The PM serves a dual role, as both manager and leader. This research explores the role of the PM's leadership style on the success of the project.

The construct of leadership has been the topic of many studies in the general management literature. While the frameworks for describing the characteristics of a leader have evolved, the consensus is that effective leadership is a success factor in organizations, and that an appropriate leadership style can lead to better performance (Laohavichien, Fredendall & Cantrell, 2009; Turner & Müller, 2005; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). These studies and others like them have investigated the leadership of executive management, and used executive managers as their respondents. Although executive management leadership is important, leadership at the middle management level should not be discounted. Middle managers are often asked to lead a variety of projects undertaken to improve the operation of the business. They are also tasked with executing these projects through a variety of team structures and team members. Pinto (1986) and Pinto & Slevin (1988) found that the capabilities of the people involved in resolving extraordinary situations and unforeseen problems are an important factor for project success. Effective project management leadership has been suggested as an important success factor on projects (Prabhakar, 2005), while Turner & Müller (2005) state that there is a need to investigate the impact of the individual project manager's (PM) leadership style on the success of their projects. However, the project management literature has only recently begun to answer this call for action (Geoghegan & Dulewicz, 2008; Müller & Turner, 2007; Crawford, Hobbs, & Turner, 2005).



In addition to PM leadership, an important factor to project management and project success is organizational structure (Gray, 2001; Hyvari, 2006). Organizational structure refers to an organization's internal pattern of relationships, authority, and communication (Hage & Aiken, 1967). Individual projects require varying mixes of personnel and knowledge resources, including cross-functional and cross-organizational input. When assembling the project team, the organization's structure determines the type and level of authority that an individual PM will have over team members and individual resources.

The purpose of this paper is to propose a framework to describe the constructs and variables relevant to explaining the impact of individual project managers' leadership styles on the various dimensions of project success. In addition, we explore the possibility that organizational or team structures moderate the effect of the PM's leadership style on project success. This framework is proposed as part of the process of reconciling leadership and project management theory. As Avolio (2007, p. 25) says: "Leadership theory and research has reached a point in its development at which it needs to move to the next level of integration— considering the dynamic interplay between leaders and followers, taking into account the prior, current, and emerging context—for continued progress to be made in advancing both the science and practice of leadership."

The framework adds to the leadership literature by addressing leadership at a tactical rather than strategic level of the organization. By investigating leadership at the middle management level, we explore the differential effect of leadership style at lower hierarchical levels of the organization. Finally, this framework attempts to tie together the separate project management research streams by investigating the moderating effect of organizational structure on the relationship between the individual project manager's leadership style and the success of projects. The paper concludes with the potential implications for project management research, project managers, and organizational leaders.

The rest of the paper will be organized as follows. The first section reviews the literature on leadership, organizational structure, project management, and project success. Following the literature review is a description of the proposed framework and relevant propositions based on the current state of knowledge. Finally, the discussion section lists possible avenues for future study.

2. Literature review

2.1. The Evolution of Leadership Models

Throughout the past century, scholars sought to analyze and describe the characteristics of leadership. Barnard (1938) proposed that executives had both managerial and emotional functions, which he called cognitive and cathectic. Cognitive functions include guiding, directing, and correcting. Cathectic functions include motivating and developing commitment to the organization's goals. Since his seminal work, six main schools of leadership can be identified, as summarized in Table 1.

As noted by Van Maurik (2001), these schools are neither mutually exclusive nor time-bound:



"Although it is true that the progression of thinking tends to follow a sequential path, it is quite possible for elements of one generation to crop up much later in the writings of someone who would not normally think of himself or herself as being of that school. Consequently, it is fair to say that each generation has added something to the overall debate on leadership and that the debate continues." (van Maurik, 2001: 3)

For example, Clarke (2010) found that Emotional Intelligence is positively associated with both Project Manager Competences and Transformational Leadership, after controlling for both personality and general mental ability. Verma & Wideman (2000) argue that project managers are often called to be both *managers* and *leaders*. That is, they are responsible for not only directing and coordinating human and material resources (managing) but also providing vision and motivation to the team members (leadership). Recent research on teams and their productivity highlights the critical role that leadership plays in getting productivity from a heterogeneous team (Thomas & Bendoly, 2009). The temporary, dynamic, and often uncertain nature of projects and project management challenge established "definitions" of leadership and management. We address this challenge by proposing a comprehensive model of project management leadership.

Table 1. Summary of Leadership Frameworks (condensed from Turner and Müller 2005).

Leadership School	Main Tenet(s)	Leader Characteristics	Representative Studies
Trait	Leaders are born	Drive/ambition Desire to lead Integrity Self-confidence Technical knowledge	Kirkpatrick & Locke, 1991 Turner, 1999
Behavioral or Style	Leaders can be made	Concern for people Use of authority Concern for production Team involvement Flexibility toward rules	Slevin, 1989 Hershey & Blanchard,1988
Contingency: Path-goal	Different circumstances require different approaches	Directive leaders Supportive leaders Participative leaders Achievement-oriented leaders.	House, 1971
Visionary	Individual leads by either controlling or inspiring	Transformational and Transactional Leaders	Bass 1990
Emotional Intelligence	Emotional intelligence more important that intellectual capability	Self-awareness Self-management Social awareness Relationship management	Goleman, Boyatzis, & McKee, 2002
Competency	Leaders exhibit a variety of relevant competencies, both innate personal characteristics and learned behaviors.	Three types of competence: Intellectual Managerial skill Emotional	Dulewicz & Higgs, 2004



In 1978, Burns published a seminal work introducing the concepts of transactional and transformational leadership. Transactional leadership refers to a relationship between leader and follower in which each attempt to meet their own self-interests. Transactional leaders view leadership as an exchange of one thing for another (Burns, 1978). Transactional leaders use contingent rewards or corrective action to influence the follower to perform in the manner required by the leader. For example, a reward is given to the follower if the follower performs the tasks required by the leader to the leader's satisfaction. Transformational leadership involves moving the followers beyond their self-interests and towards the accomplishment of team goals. Transformational leadership elevates the follower's ideals from self-satisfaction to the well-being of others and the organization (Bass, 1999; Bass & Avolio, 1990).

Transformational leadership has been proposed as the more successful style of leadership in quality management (Dean & Bowen, 1994). Laohavichien et al (2009) investigated transformational and transactional leadership and determined that they are conceptually and measurably different than top management support, and that these different leadership styles impact infrastructure quality practices. Anderson et al (1995) and Rungtusanatham et al (1998) determined that visionary (i.e. transformational) leadership has an impact on both cooperation (internal and external) and learning. Bass & Avolio (1990) state that individual leaders display both transformational and transactional leadership characteristics, but have measurable preferences for one or the other. Howell & Avolio (1993) found that transformational leadership is more highly correlated with performance and motivation of subordinates. However, other researchers have found relationships between transactional components of the MLQ and leadership effectiveness (Tejeda et al 2001; Avolio & Howell, 1992; Yammarino & Bass, 1990).

Transformational and transactional leadership have been operationalized as multi-dimensional constructs (Bass, 1985; Bass & Avolio, 1990; Podsakoff *et al.*, 1990). The most widely used instrument to assess transformational and transactional leadership is the Multifactor leadership Questionnaire (MLQ) developed by Bass & Avolio (1990). Using this instrument, researchers commonly represent transformational and transactional leadership as second-order latent constructs, reflected by a series of first-order constructs. Although it is widely used, factor analyses of the MLQ have been inconsistent in dimensional structure (Tejeda et al, 2001). Podsakoff et al (2003) suggest that one possible reason is that the original reflective factor model was mis-specified, and that transformational and transactional leadership might both be better represented as second-order constructs with first-order constructs as *formative* rather than reflective indicators (i.e.—composite latent variable models). Although this makes it more difficult to estimate the model (MacCallum & Browne, 1993), a formative model may more accurately reflect the nature of leadership indicators. As described by Podsakoff et al (2003) modeling a latent construct using reflective indicators requires that:

- 1. The indicators are *caused* by the latent construct.
- 2. The indicators are interchangeable (as the latent construct is assumed to be unidimensional).



- 3. The indicators covary.
- 4. The indicators have the same antecedents and consequences.

The dimensions of transformational and transactional leadership do not meet these four requirements. Although a discussion of the psychometric implications of this situation is beyond the scope of this paper, we mention the issue to preface our formative project management leadership framework. The next sections define and describe constructs that are posited as antecedents to the project manager's leadership style.

2.2. Emotional intelligence

Clarke (2010) defines emotional intelligence as the ability to reason about a particular type of information, namely emotional information. Mayer & Salovey (1997, p. 10) define emotional intelligence as "the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth." According to Turner & Müller (2005), the emotional intelligence school has become more popular since the 1990's. Over the past twenty years, researchers have found that these cognitive abilities regarding emotions can be associated with work-related behaviors, particularly leadership (Clarke, 2010; Rosette & Ciarrochi, 2005; Barling, Slater, & Kelloway, 2000). Proponents of this school believe that a leader's emotional intelligence has a greater impact on success than the leader's intellectual capability (Goleman, Boyatzis, & McKee, 2002). Within project management, Druskat & Druskat (2006) suggest that the nature and characteristics of projects place a premium on the emotional intelligence of project managers. Within the time limitations of a project, the project manager must quickly create trust and commitment among the team members, facilitate knowledge transfer, deal with ambiguity and change, and manage conflict. These roles are facilitated by emotional intelligence competences.

Studies of emotional intelligence within project management have shown significant positive correlations with effective leadership, particularly transformational leadership. Clarke (2010) takes these findings one step further and finds significant positive correlations between emotional intelligence and project management competences (conflict management and teamwork), and between emotional intelligence and two dimensions of transformational leadership, even after controlling for both cognitive ability and personality. This finding suggests that emotional intelligence may be an antecedent of transformational leadership. It is difficult to envision a leader who can successfully inspire his or her followers beyond self-interest unless the leader can accurately gauge their emotions and understands how to appeal to their better selves.

2.3. Temporal Skills

Timely completion is one of the key performance measures for projects (Cooke-Davies, 2002; Morris & Hough, 1987). While many sources of delays are beyond the control of the project manager, an individual PM's orientation towards the concept of time, or *time alignment*, can affect his or her abilities to complete a project by a specified deadline (Thomas & Pinto, 1999; Thomas & Greenberger, 1995). Project management



requires that the individual in charge of a project focus on several timelines simultaneously. In the longer-term, the PM must create and communicate a vision for the project team. Future-oriented PM's excel at creating compelling visions and contingency plans for a wide variety of potential pitfalls. On the other hand, future-facing PM's can have trouble dealing with the day-to-day implementation of the project plan, resulting in frustration and project failure. According to Thoms & Pinto (1999), the nature of project management requires that individuals in PM roles have well-developed temporal skills, including time warping (the ability to bring past or future events to bear on the present), creating a future vision (creating a cognitive image of the future), chunking time (the ability to break down time into manageable sections that are then assigned to tasks), polychronicity (temporal multitasking, or, simultaneously managing multiple non-synchronized timelines), predicting (formulating estimates of the future events), and recapturing the past (reflecting on past events and using them to inform future decisions). Project management requires the project leader to exercise each of these skills at particular milestones during the project's life cycle.

2.4 Organizational Structure

As mentioned previously, organizational structure may have an impact on the relationship between the leadership style of the project manager and the success of the project. The organization's established patterns of relationships and communication affect the process of selection of the project team as well as the level and type of authority of the project manager over the individual team members (PMBOK, 2008). A project manager must work within the constraints of the organizational structure. Hence, the individual's leadership style may be suited to some structures better than others. Cooke-Davies et al (2009) suggest that the success of project management (and by extension, the success of the individual project managers) depends on the level of "fit" between the organization's strategy and their organizational context. In following with the conceptualization of "fit" between context and strategy, organizational structure is presented within the current framework as a moderator for the relationship between leadership style and project success.

The Project Management literature identifies five common organizational structures: functional, weak matrix, balanced matrix, strong matrix, and projectized (Larson & Gobeli, 1987; Kuprenas, 2003). Each of these structures has a different impact on the authority of the project manager, the nature of the project manager's role, and the team selection process. Gray (2001) found that the team structure of projects tended to match the structure of the organization. For the purposes of the proposed framework, team structure will be the equivalent of organizational structure.

The simplest team structure found in the project management literature is the functional team. The functional team is a hierarchy where each employee or team member belongs to a functional area of the business (i.e. accounting, marketing, production) and has one clear superior to whom they report. In this type of structure, the project manager has little or no supervisory authority over the team members (PMBOK, 2008). The individual functional managers have primary responsibility for the specific segments of the



project that require the resources of their functional area. This means that the project manager must work with the functional managers in executing the project as well as in the selection of team members. Often within this organizational structure, the project manager has additional function-specific responsibilities beyond the leadership role for the potentially multi-functional project. The project manager in this type of organizational structure is more of a coordinator than a true project manager and is often given the title of Project Coordinator or Project Leader.

On the opposite end of the spectrum is the projectized organizational structure. In a projectized organization, team members are often collocated. Team members may be from different functional departments of the firm, but they all report directly to the project manager or provide support services to various projects (PMBOK, 2008). Thus, the project manager has a great deal of independence and authority in this structure as well as considerable input in the selection of team members. The project manager works full-time as a project manager and moves sequentially though project assignments. In this type of structure, project managers generally have the title of Project Manager or Program Manager.

Matrix organizations are a blend of the functional and projectized organizations. The first type of matrix organization is the functional matrix. In a functional matrix organization, team members involved in the project remain under the control of their functional manager, who in turn retains control over the functional resources. The project manager is formally designated to oversee the project across different functional areas. Therefore, the project manager has limited authority over the project team and primarily plans and coordinates the project (Larson & Gobeli, 1987). In a functional matrix structure, the PM is again a part-time project manager and is usually give the title of Project Leader or Project Coordinator.

The second type of matrix structure is the balanced matrix. In a balanced matrix, the functional manager and the project manager share the responsibility for the project resources. Under this structure, project managers are assigned to oversee the project and interact on an equal basis with functional managers. The project manager has low to moderate authority over the project team and they usually work full-time as a project manager. Functional managers and project managers jointly direct project work and approve technical and operational decisions (Larson & Gobeli, 1987).

Finally, the third matrix structure is the project matrix. In a project matrix, the project manager is fully responsible for oversight and completion of the project. The project manager has moderate to high authority over the team members. Functional managers only help assign resources and technical expertise on an as-needed basis. The project manager works full-time on projects and is given the title of Project Manager in this type of structure (Larson & Gobeli, 1987).



2.5. Other Contextual Factors

Prior research has established that the environmental context within which a project is implemented has an impact on the determinants of project success. Collyer & Warren (2009) study the challenge of project management under conditions of high dynamism, concluding that contingent rewards (i.e. transactional leadership) are counter-productive in this environment. Cooke-Davies (2003) investigated the effect of organizational project management maturity in the development of an "optimal" project management process within a pharmaceutical organization. Dulewicz & Higgs (2004) study the impact of leadership style on project success within the context or varying levels of organizational volatility. Scott-Young & Samson (2008) explore the impact of clear organizational goals and top management support on the success of projects. Although researchers have studied the project manager's leadership style and its impact on project success, as well as organizational structure and its relationship to project success, out literature search revealed only one study which linked both of these research streams. Hyvari (2006) studied the prevalence of various organizational structures and the use of the various leadership behaviors, as defined within the Managerial Practices Survey and their correlation with measure of project manager effectiveness. However, there was not attempt to connect these two influences in order to determine whether the organizational structure moderated the effects of leadership, as modeled within our framework.

2.6 "Success" in Project Management

Although much has been written in the project management literature about "project success," a clear definition of this term remains elusive (Ika, 2009; Wells, 1998; Pinto & Slevin, 1988). Part of the problem stems from the variety of perspectives that can come into play when assessing the outcome of a project. Each stakeholder group applies its own standards when judging; therefore the same project can be both a resounding success and an abysmal failure, depending on which stakeholder is evaluating the project's outcome (Fincham, 2002; Lim & Mohamed, 1999). Further complicating matters, Hazebroucq (1993) has pointed out that there is a "percussion effect": projects perceived as failures at launch can later be considered successes, whereas those considered successful at launch can turn out to be catastrophic failures. The PM's are often caught in the middle, because the success of their careers and of their organizations depends in large part on the perceived "success" of the projects that these individuals have managed (Ika, 2009). In particular, it is difficult to identify and quantify how an individual PM can affect the outcome of the projects that he or she manages.

In a general sense, success can be framed in terms of two elements: efficiency and effectiveness. Efficiency refers to the degree to which an organization "does things right", maximizing outputs for the given inputs. Effectiveness, on the other hand, refers to the degree to which an organization "does the right thing," performing the necessary actions to attain the project's goals (Belout, 1998).



In terms of project management, we can relate efficiency to the evaluation of success thru the lens of the traditional "triangle of virtue": time, cost, and quality (Jugdev & Müller, 2005; Pinto & Slevin, 1988). A significant research effort has been dedicated to the development of tools and techniques to achieve control over these three criteria (Belassi & Turkel, 1996). While these three elements are important considerations, they do not by themselves guarantee that a project will be considered "successful." Examples abound of projects that were delivered on time, within budget, and to specifications, only to be considered failures after their launch. Effectiveness is more nuanced because it is a subjective measure. Researchers have addressed this issue by incorporating measures of "satisfaction", including client satisfaction, end user satisfaction, and stakeholder satisfaction (Lim & Mohamed, 1999). These success criteria (time, cost, quality, and satisfaction) drive the evaluation of project outcomes.

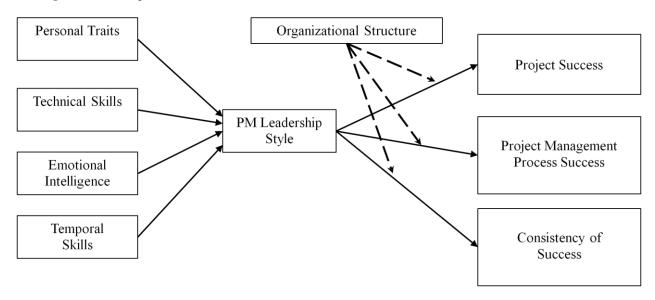
In addition to the project outcomes, the career success of the PM depends on their ability to influence the project's processes. Cooke-Davies (2002) identifies three dimensions of project success: (1) project success; (2) project management process success; and (3) consistency of success over multiple projects. Researchers have not neglected this issue. A number of critical success factors have been identified and described and critical success factor frameworks developed (Lim & Mohamed, 1999; Clarke, 1999; Morris & Hough, 1987). Clarke (1999) identified effective communication, clear objectives, dividing the project into manageable components, and using project plans as critical project success factors. Pinto & Slevin (1988) developed a comprehensive list of success factors, including project mission, top management support, project schedules/plan, client consultation, personnel, technical tasks, client acceptance, monitoring and feedback, troubleshooting, communication, *characteristics of the project team leader* (emphasis added), power and politics, environmental events, and urgency.

In a recent review on the study of project success in project management journals, Ika (2009) note that although there is considerable research on success criteria and critical success factors, there is a gap in studying the link between the two. The proposed framework attempts to bridge this gap with regard to the leadership style of the project manager. Previously, Turner & Müller (2005), reviewed leadership and its use in project management studies, concluding that there is not enough research done on the impact of leadership styles on project success. Many project management studies investigate the critical success factors to projects (Belout, 1998; Baccarini 1999; Jugdev and Müller, 2005) and project failures (Linberg, 1999; Dilts & Pence, 2005). Other studies investigated the political skill of project managers (Graham, 1996) and the vision of project managers (Christenson & Walker, 2004). As documented by Turner & Müller (2005), the Project Management Institute has called for more research to investigate how the project manager, including through his or her leadership style, affects project success. The proposed framework addresses this question while acknowledging that characteristics of the organizational structure will have an impact on this relationship.



3. Conceptual framework

Figure 1. Conceptual Model



Having defined the elements of our framework, we illustrate it in Figure 1. As stated previously, the constructs in this proposed model have been studied independently. The contribution of this framework is to provide a connection between these research streams. The framework incorporates the findings of leadership theorists and project management scholars within a contingency approach as described by Ika (2009). As examples of testable relationships, we formulate the following propositions:

Proposition 1: The PM's leadership style is influenced by the individual's personal traits, acquired technical skills, his or her level of emotional intelligence, and his or her level of temporal skills.

Management literature has shown that the most effective leaders have both "hard" and "soft" skills. The Transformational/Transactional model implicitly acknowledges the presence of characteristics and/or behaviors that overlap conceptually with the competences associated with emotional intelligence. Time orientation influences the leader's choice of tasks (Thoms & Pinto, 1999). The Multifactor Leadership Questionnaire developed by Bass & Avolio (1990) to measure Transformational and Transactional leadership has been evaluated repeatedly. However, the development of a manageable number of supplemental items relating to emotional intelligence and temporal skills will be required to test this relationship.

Proposition 1a: A "future" time orientation is more consistent with a Transformational leadership style.

Individuals with a future time orientation can clearly envision the final product and provide a compelling target for their subjects, skills generally associated with Transformational leadership. However, it is possible that the myriad details of the actual implementation stretch their capacity to process the information, and hence this can be a risk factor for project failure.



Proposition 2: In organizational structures where the PM has little or no authority over the team (Functional, Functional Matrix), Transformational leadership will have greater impact on project success and project management process success than in those structures where the PM has more authority.

In the absence of supervisory authority over team members, the PM cannot resort to contingent rewards, as they are not within his or her purview. The best recourse is to create a compelling vision and motivate team members to "buy into" the project. Prior research has established that Transformational leadership has a greater effect on project success, this proposition adds to that research by considering the moderating influence of organizational structure.

Proposition 3: Transactional Leadership will have a greater impact on project management process success than on project success.

The creation and delivery of the project deliverable is a process of creative problem-solving and the creation of a unique product or service. In contrast, managing the project management process requires monitoring budgets and timelines, which are more amenable to management by contingent reward. While both success outcomes are influenced by both forms of leadership, Transactional leadership's "carrot and stick" approach may be more suited for the day-to-day detail orientation and process management required to deliver a project on schedule and within budget.

Proposition 4: The PM's leadership style will have less explanatory value for projects within the Functional and Functional Matrix organizational structures.

An important determinant of success when exercising leadership is appropriate use of the power of authority. Unfortunately, PM's in a Functional and Functional Matrix structure do not wield authority over their team members. Because of this, it would be expected that in these environments, the PM's leadership style would explain less of the variance in performance than in those organizational structures where the PM has more authority.

Proposition 5: The PM's leadership style will have a significant impact on the Consistency of Success.

Although the success of an individual project may be beyond the ability of an individual project manager to accomplish, over time the individuals who develop appropriate leadership competencies and leadership style should demonstrate a more consistent pattern of success. This pattern would help to identify the types of projects for which the individual PM is particularly well-suited, as well as those for which he or she may not be suited. Consistency of Success is a key element for both individual and organizational success; hence this is a key area of investigation for this proposed framework.



4. Conclusions

The purpose of this paper was to propose a framework describing the relationship between project manager leadership and three dimensions of project success. It proposes that leadership will have a positive relationship with project and project management process success. It also proposes that organizational structure may have a moderating impact on the relationship between project manager leadership behavior and project success. We approach the issue from a contingency perspective: due to the uniqueness of each project and project management environment, a single "best" style probably does not exist. Our model seeks to address at least one of the important contingencies: organizational structure.

The proposed framework contributes to the project management literature in three ways. First, for researchers it is an attempt to fill the gap in the literature between project manager leadership and project success, particularly in consideration of the organizational context. Secondly, it extends leadership theory by applying it to a lower management level than previously done. Finally, it could be used as a springboard for a wide-scale survey to test the relationship of project manager leadership and project success and make the theory more generalizable.

For practitioners, this study could indicate the importance of leadership style on different dimensions of project success. This would give practitioners a guideline as to what behaviors may help them make their project a success. Secondly, this research could provide useful knowledge as to what leadership behaviors work best in different organizational structures. Therefore, project managers could identify which leadership behaviors they should employ depending on the organizational structure in which they are working. Finally, testing these relationships may assist organizational managers in assigning individual PM's to projects and teams for which they are well suited due to their leadership style, hence enhancing the success of the organization as a whole.



References

- 1. Anderson, J. C., M. Rungtusanatham, R. G. Schroeder, & Devaraj, S. (1995). A path analysis model of theory of quality management underlying the Deming management method: preliminary empirical findings. *Decision Sciences*, 26, 5, 637-658.
- 2. Avolio, B. (2007). Promoting More Integrative Strategies for Leadership Theory-Building. *American Psychologist*, 62, (1), 25-33.
- 3. Baccarini, D. (1999). The logical framework method for defining project success. *Project Management Journal*, 30, 4, 25-32.
- 4. *Barber*, E. & *Warn*, J. (2005) Leadership in Project Management: From Fire Fighter to Fire Lighter, *Management Decisions*, 43, 7/8, pp. 1032-1040.
- 5. Barling, J., Slater, F., & Kelloway, E. (2000). Transformational leadership and emotional intelligence: an exploratory study. *Leadership and Organization Development Journal*, 21, (3), 157-161.
- 6. Barnard, C. (1938). The functions of the executive. Cambridge, MA: Harvard University Press.
- 7. Bass, B. M. (1985). Leadership and performance beyond expectation. New York: Free Press.
- 8. Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics*, 18(3), 19-31.
- 9. Bass, B. M. (1999). Two Decades of Research and Development in Transformational Leadership. *European Journal of Work and Organizational Psychology*, 8, 1, 9-32.
- 10. Bass, B.M. & Avolio, J. (1990). *Transformational Leadership Development: Manual for the Multifactor Leadership Questionnaire*, Consulting Psychologists Press, Inc.: Palo Alto, California.
- 11. Belassi, W., & Turkel, O. (1996). A new framework for determining critical success/failure factors in projects. *International Journal of Project Management*, 14, 141-151.
- 12. Belout, A. (1998). Effects of human resource management on project effectiveness and success: toward a new conceptual framework. *International Journal of Project Management*, 16, 1, 21-26.
- 13. Burns, J.M. (1978). Leadership, New York: Harper & Row.



- 14. Christenson, D. & Walker, D. H. T. (2004). Understanding the role of 'vision' in project success. *Project Management Journal*, 35, 3, 39-52.
- 15. Clarke, A. (1999). A practical use of key success factors to improve the effectiveness of project management. *International Journal of Project Management*, 17, 3, 139-145.
- 16. Clarke, N. (2010). Emotional Intelligence and Its Relationship to Transformational Leadership and Key Project Manager Competences. *Project Management Journal*, 41, 2, 5-20.
- 17. Collyer, S. & Warren, C. (2009). Project management approaches for dynamic environments. *International Journal of Project Management*, (27) 355–364.
- 18. Cooke-Davies, T. (2002) The "real" success factors on projects. *International Journal of Project Management* 20, 185–190
- 19. Cooke-Davies, T., & Arzymanow, A. (2003) The maturity of project management in different industries: An investigation into variations between project management models. *International Journal of Project Management* 21 471–478
- 20. Cooke-Davies, T., Crawford, L., & Lechler, T. (2009). Project management systems: moving project management from an operational to a strategic discipline. *Project Management Journal*, 40, (1), 110-123.
- 21. Crawford, L., Hobbs, B., & Turner, J., (2005). *Project Categorization Systems*. Project Management Institute, Newton Square, PA, USA.
- 22. Dean, J. & Bowen, D. (1994). Management theory and total quality: improving research and practice through theory development. *Academy of Management Review*, 19, 3, 392-418.
- 23. Dilts, D. M. & Pence, K. R. (2006). Impact of role in the decision to fail: An exploratory study of terminated projects. *Journal of Operations Management*. (24), 4, 378-396.
- 24. Druskat, V., & Druskat, P. (2006). Applying emotional intelligence in project working. In S. Pryke and H. Smyth (Eds.), *The management of complex projects: a relationship approach*. (pp. 78-96). Oxford, UK: Blackwell.
- 25. Dulewicz, V., & Higgs, M. (2004). Assessing leadership styles and organizational context. *Journal of Managerial Psychology* Vol. 20 No. 2, pp. 105-123



- 26. Eisenhardt, K. (1989). Building theories from case studies. *Academy of Management Review*, 14, 4, 532-550.
- 27. Fincham, R. (2002). Narratives of success and failure in systems development. *British Journal of Management*, 13, 1-14.
- 28. Geoghegan, L., & Dulewicz, V. (2008). Do project managers' leadership competencies contribute to project success? Project Management Journal, 39(4), 58-67.
- 29. Graham, J. H. (1996). Machiavellian project managers: do they perform better? *International Journal of Project Management*, 14, 2, 67-74.
- 30. Gray, R. (2001). Organizational climate and project success. *International Journal of Project Management*, 19, 2, 103-109.
- 31. Goleman, D., Boyatzis, R., & McKee, A. (2002). *The New Leaders*. Boston: Harvard Business School Press.
- 32. Hage, J., & Aiken, M. (1967). Program change and organizational properties. *American Journal of Sociology*, 72, 503-518.
- 33. Hazebroucq, J. (1993). Les facteurs clés de success dans le management de projets. *Revue Internationale en Management et Gestion de Projets*, 1(1), 27-40.
- 34. Hershey, P., & Blanchard, K. H. (1988). *Management of organizational behavior* (5th ed.). Englewood Cliffs, NJ: Prentice Hall.
- 35. House, R. J. (1971). A path-goal theory of leader effectiveness. *Administrative Science Quarterly*, September, 321-338.
- 36. Hyvari, I. (2006). Project Management effectiveness in project-oriented business organizations. *International Journal of Project Management*, 24, 3, 216-225.
- 37. Ika, L. A. (2009). Project Success as a Topic in Project Management Journals. *Project Management Journal*, 40, 4, 6-19.
- 38. Jugdev, K. & Müller, R. (2005). A retrospective look at our evolving understanding of project success. *Project Management Journal*, 36, 4, 19-31.
- 39. Kirkpatrick, S. A., & Locke, E. A. (1991). Leadership traits do matter. *Academy of Management Executive*, March, 44-60.



- 40. Kuprenas, J. A. (2003). Implementation and performance of a matrix organization structure. *International Journal of Project Management*, 21, 1, 51-62.
- 41. Laohavichien, T., Fredendall, L., & Cantrell, S. (2009). The Effects of Transformational and Transactional Leadership on Quality Improvement. *Quality Management Journal*, 16 (2), 7-24.
- 42. Larson, E. W. & Gobeli, D. H. (1987). Matrix management: contradictions and insights. *California Management Review*, 29, 4, 126-138.
- 43. Larson, E., & Gobeli, D.H. (1989). Significance of project management structure on development success. IEEE Transactions on Engineering Management; 36(2):119–1215.
- 44. Leban, W., & Zulauf, C. (2004) Linking emotional intelligence abilities and transformational leadership styles. *The Leadership & Organization Development Journal* Vol. 25 No. 7, pp. 554-564.
- 45. Lim, C. S. & Mohamed, M. Z. (1999). Criteria of project success: An exploratory re-examination. *International Journal of Project Management*, 17, 4, 243-248.
- 46. Linberg, K. R., (1999). Software developer perceptions about software project failure: a case study. *The Journal of Systems and Software*, 49, 3, 177-192.
- 47. Mayer, J., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey and D.J. Sluyter (Eds.), *Educational development and emotional intelligence: Educational implications*. New York: Basic Books.
- 48. Morris, P. W. G. & Hough, G. H. (1987). *The anatomy of major projects: A study of the reality of project management* (Vol. 1), John Wiley & Sons, Ltd, Chichester, UK.
- 49. Müller, R. & Turner, J.R. (2007). Matching the Project Manager's Leadership Style to Project Type. *International Journal of Project Management*, (25), 1, 21-32.
- 50. Nunnally, J. C. (1978). Psychometric Theory, McGraw Hill, New York, NY.
- 51. Pinto, J. K. & Slevin, D. P. (1988). Project Success: Definitions and measurement techniques. *Project Management Journal*, 19, 1, 67-73.
- 52. Podsakoff, P.M., MacKenzie, S.B., Moorman, R.H. & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, 1, 107-142.



- 53. Podsakoff, P., MacKenzie, S., Podsakoff, N., & Lee, J. (2003). The mismeasure of man(agement) and its implications for leadership research. *The Leadership Quarterly 14*, 615-656.
- 54. Prabhakar, G. P. (2005). An empirical study reflecting the importance of transformational leadership on project success across twenty-eight nations. *Project Management Journal*, *36*, 4, 53-60.
- 55. Project Management Institute, (2008). A Guide to the Project Management Body of Knowledge (PMBOK Guide) (4th ed.), Newtown Square, Pennsylvania: Author.
- 56. Rosete, D., & Ciarrochi, J. (2005). Emotional intelligence and its relationship to workplace performance outcomes of leadership effectiveness. *Leadership and Organization Development Journal*, 26 388-399.
- 57. Rungtusanatham, M., Forza, C., Filippini, R. & Anderson, J.C. (1998). A replication study of theory of quality management underlying the Deming management method: insights from an Italian context. *Journal of Operations Management*, 17, 77-95.
- 58. Scott-Young, C. & Samson, D. (2008). Project success and project team management: Evidence from capital projects in the process industries. *Journal of Operations Management*, (26), 749-766.
- 59. Slevin, D. P. (1989). The whole manager. New York: Amacom.
- 60. Sotiriou, D. & Wittmer, D. (2001). Influence Methods of Project Managers: Perceptions of Team Members and Project Managers. *Project Management Journal*, 32 (3) 12-20.
- 61. Tejeda, M., Scandura, T., & Pillai, R. (2001). The MLQ Revisited: Psychometric Properties and Recommendations. *The Leadership Quarterly*, 12, 21-52.
- 62. Thamhain HJ, Wilemon D. (1977). Leadership effectiveness in program management. *Project Management Quarterly* (June) 25–31.
- 63. Thamhain, H. (2004). Team Leadership Effectiveness in Technology-Based Project Environments. *Project Management Journal* 35 (4) 35-46.
- 64. Thomas, D., & Bendoly, E. (2009). Limits to Effective Leadership Style and Tactics in Critical Incident Investigations. *Project Management Journal*, 40, 2, 70-80.
- 65. Thoms, P., & Greenberger, D. (1995). The relationship between leadership and time orientation. *Journal of Management Inquiry* (4), 272-292.

₽JM

THE INTERNATION JOURNAL OF MANAGEMENT

- 66. Thoms, P., & Pinto, J. (1999). Project Leadership: A Question of Timing. *Project Management Journal*, 30 (1), 19-26.
- 67. Turner, J. R. (1999). The handbook of project-based management: Improving the processes for achieving strategic objectives. London: McGraw-Hill.
- 68. Turner, J. R. & Müller, R. (2005). The project manager's leadership style as a success factor on projects: A literature review. *Project Management Journal*, *36*, 1, 49-61.
- 69. Van Maurik, J. (2001). Writers on Leadership, London: Penguin.
- 70. Verma, V., & Wideman, R.M. (2000). "Project Manager to Project Leader? And the Rocky Road Between...", Retrieved July 29, 2010 from http://www.maxwideman.com/papers/leader/intro.htm.
- 71. Wells, W. G., (1998) From the Editor. Project Management Journal, 29 (4), 4-6.