The Project Manager's Leadership Style as a Success Factor on Projects: A Literature Review

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ABSTRACT

The Project Management Institute has commissioned the authors to conduct research into whether the project manager's leadership style is a success factor on projects, and whether its impact is different on different types of projects. In this paper, we review the literature on the topic. Surprisingly, the literature on project success factors does not typically mention the project manager and his or her leadership style or competence as a success factor on projects. This is in direct contrast to the general management literature, which views effective leadership as a critical success factor in the management of organizations, and has shown that an appropriate leadership style can lead to better performance. Since, unlike most literature on project success factors, project management literature does consider the role of the project manager, we also review what it says about his or her leadership style and competence.

Keywords: leadership; emotional intelligence; literature; project success factors

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Introduction

The authors have been commissioned by the Project Management Institute to determine:

1. Whether the competence, including personality and leadership style, of the project manager is a success factor for projects; and
2. If different competence profiles are appropriate for different project types.

In reviewing the literature on project success factors, we found it largely ignores the project manager, and his or her leadership style and competence. This is in direct contrast to the general management literature, which considers effective leadership a success factor in organizations, and has shown that an appropriate leadership style can lead to better performance.

In this paper, we review the literature on leadership in a project context. We start by reviewing the general management literature on leadership, and show how the project management literature has reflected this. We indicate specific instances where it has been shown that an appropriate leadership style, and the competence and emotional intelligence of the leader, delivers better results. We then review the literature on project success factors, and consider how and why it largely ignores the project manager, and his or her leadership style and competence. We look at literature on the role of the project manager and his or her leadership style and competence. We close by indicating how this suggests further research as sponsored by the Project Management Institute.

General Management Literature on Leadership Styles and Competence

Throughout history, people have tried to say what makes a good leader. Some of the most often quoted historical authors include Plato, Machiavelli, Hobbes, and Locke from the West (Collinson, 1998), and Confucius and Xunxi from the East (Collinson, Plan, & Wilkinson, 2000). As early as 500 B.C., Confucius listed the virtues (*de*) of effective leaders. Four were key to his beliefs:

- *Jen* (love)
- *Li* (proper conduct)
- *Xiao* (piety)
- *Zhang rong* (the doctrine of the mean)

Notice that three of the virtues are emotional and only one managerial. Confucius's theory has formed the basis of Chinese government for 2,500 years.

In this review of what the general management literature says about successful leadership styles and competence, we consider:

- The development of leadership theory through the 20th century, and how that is reflected in the project management literature
- The literature on behavior of team members
- The literature on cultural behaviors of managers
- The current literature on the competence of leaders.

Theories of Leadership in the 20th Century

Barnard (1938) suggested the functions of a leader. He said an executive had both managerial and emotional functions, which he called cognitive and cathectic, respectively:

- Cognitive functions include guiding, directing, and constraining choices and actions.
- Cathectic functions include emotional and motivational aspects of goal-setting, and developing faith and commitment to a larger moral purpose.

This is similar to Aristotle's view of *pathos, ethos,* and *logos,* according to which a leader must:

1. Build relationships with those who are led
2. Advocate a moral vision
3 Persuade by logic to manage actions.

Over the last seventy years, there have been six main schools of leadership theory (Dulewicz & Higgs, 2003; Handy, 1982; Partington, 2003):

1. The trait school
2. The behavioral or style school
3. The contingency school
4. The visionary or charismatic school
5. The emotional intelligence school
6. The competency school.

The Trait School

The trait approach was popular up to the 1940s. The idea behind this school is that effective leaders share common traits. It effectively assumes that leaders are born, not made. Attempts to identify the traits of effective leaders have focused on three main areas:

- Abilities: hard management skills
- Personality: such as self-confidence and emotional variables
- Physical appearance: including size and appearance.

In a recent study, Kirkpatrick and Locke (1991) identified six traits of effective leaders:

- Drive and ambition
- The desire to lead and influence others
- Honesty and integrity
- Self-confidence
- Intelligence
- Technical knowledge.

Through his work at Henley Management College, Turner (1999) identified seven traits of effective project managers:

- Problem-solving ability
- Results orientation
- Energy and initiative
- Self-confidence
- Perspective
- Communication
- Negotiating ability.

The Behavioral or Style School

The behavioral or style school was popular from the 1940s to the 1960s. It assumed that effective leaders adopt certain styles or behaviors. It assumes, in effect, that effective leaders can be made. Most of the best-known theories characterize managers or leaders against one or two parameters, and place them on a one-dimensional continuum or in a two-dimensional matrix (see, for example, Adair, 1983; Blake & Mouton, 1978; Hershey & Blanchard, 1988; Slevin, 1989; Tannenbaum & Schmidt, 1958). The parameters (see Table 1) include:

1. Concern for people or relationships
2. Concern for production
3. Use of authority
4. Involvement of the team in decision-making (formulating decisions)
5. Involvement of the team in decision-taking (choosing options)
6. Flexibility versus the application of rules.

Parameter	Blake and Mouton	Tannenbaum and Schmidt	Hershey and Blanchard	Bonoma and Slevin
1. People	2-D grid		2-D grid	
2. Production	based on 1 & 2		based on 1 & 2	
3. Authority	covering 3	1-D spectrum	covering 3	2-D grid
4. Decision-making		based on 3		based on 4 & 5
5. Decision-taking		covering 4 & 5		covering 3

Table 1: : Models of leadership style based on five parameters

Parameter	Laissez-faire	Democratic	Autocratic	Bureaucratic
4. Team Decision-making	High	High	Low	Low
5. Team Decision-taking	High	Low	Low	Low
6. Flexibility	High	High	High	Low

Table 2: Four styles of project manager (Turner, 1999)

Turner (1999) identified four styles of project manager based on parameters 4 to 6 (see Table 2).

The Contingency School

The contingency school was popular in the 1960s and 1970s (see Fiedler, 1967; House, 1971; Krech, Crutchfield, & Ballachey, 1962; Robbins, 1997). Rather than seeking universal theories of leadership that would apply in every situation, contingency theories suggest that what makes an effective leader would depend on the situation. They tend to follow the same pattern:

1. Assess the characteristics of the leader
2. Evaluate the situation in terms of key contingency variables
3. Seek a match between the leader and the situation.

One contingency theory that has proven popular is path-goal theory (House, 1971). The idea is the leader must help the team find the path to their goals and help them in that process. Path-goal theory identifies four leadership behaviors:

- Directive leaders
- Supportive leaders
- Participative leaders
- Achievement-oriented leaders.

These must then be matched to environmental and subordinate contingency factors:

- Environmental factors:
  - Task structure
  - Formal authority system
  - Work group.
- Subordinate factors:
  - Locus of control
  - Experience
  - Perceived ability.

Fiedler (1967) recommends different leadership styles, depending on the favorability of the leadership situation. He identified three major variables to determine this favorability, which then affects the leader's role and influence:

- Leader-member relations: degree to which the leader is trusted and liked by members
- Task structure: degree of clearness of a task and its instructions
- Position power: leader power by virtue of organizational position.

Fiedler distinguishes between task-oriented and participative approaches to leadership. He uses a least-preferred-coworker (LPC) score to assign team members to leaders depending on the leadership situation. In very favorable situations and very unfavorable situations, he assigns *task-oriented leaders* (having a low LPC score) to achieve effectiveness through a directive and controlling style. In moderately favorable situations, he assigns *participative* leaders (high LPC score) for high effectiveness through interpersonal relationship orientation.

In the project management field, Frame (1987) suggested how the four leadership styles listed in Table 2 are appropriate at different stages of the project life cycle and with different team structures (see Table 3).

The Visionary or Charismatic School

The visionary school was popular during the 1980s and 1990s, and arose from the study of successful business leaders leading their organizations through change. Bass (1990) identified two types of leadership, transactional and transformational:

1. Transactional leadership:
   - Emphasizes contingent rewards, rewarding followers for meeting performance targets
   - Manages by exception, taking action when tasks are not going as planned.
2. Transformational leadership:
   - Exhibits charisma, developing a vision, engendering pride, respect and trust
   - Provides inspiration, motivating by creating high expectations and modelling appropriate behaviors
   - Gives consideration to the individual, paying personal attention to followers and giving them respect and personality
   - Provides intellectual stimulation, challenging followers with new ideas and approaches.

Leadership Style	Stage	Team Type	Team Nature
Laissez-faire	Feasibility	Egoless	Experts with shared responsibility
Democratic	Design	Matrix	Mixed discipline working on several tasks
Autocratic	Execution	Task	Single discipline working on separate tasks
Bureaucratic	Close-out	Surgical	Mixed working on a single task

Table 3: Leadership styles, project team types and the project life cycle

Style	Dimensions	Description
Transformational	Idealized influence (attributed) Idealized influence (behavior) Inspirational motivation Intellectual stimulation Individualized consideration	The charisma of the leader Charisma centered on values, beliefs, and mission Energizing followers by optimism, goals, and vision Challenging creativity for problem solving Advising, supporting, and caring for individuals
Transactional	Contingent reward leadership Management by exception (active) Management by exception (passive)	Providing role, task clarification and psychological rewards Active vigilance of a leader to ensure goals are met Leaders intervene after mistakes have happened
Laissez-faire	Laissez-faire leadership	Leader avoids making decisions, abdicates responsibility, and does not use authority

Table 4: Dimensions of the Multifactor Leadership Questionnaire (Bass, 1990)

The transactional leader emphasizes Barnard's cognitive roles and Aristotle's *logos*. The transformational one emphasizes Barnard's cathectic roles, and Aristotle's *pathos* and *ethos.* In reality, a different combination of the two styles will be appropriate in different circumstances.

Bass (1990) developed the Multifactor Leadership Questionnaire (MLQ) to test transactional, transformational, and non-transactional laissez-faire leadership style (see Table 4). It is now the most widely used leadership assessment questionnaire. Antonakis, Avolio and Sivasubramaniam (2003) identified the impact of context on the MLQ results. Contextual factors identified were environmental risk, leader's hierarchical level, and gender. Dulewicz and Higgs (2004) showed the need to integrate contextual concepts in the MLQ questionnaire and added scales for Organizational Commitment and Organizational Context. These scales contain four items designed to assess the degree of commitment that followers show to the organization and to the team in which they work, and one item to measure the extent of change faced by the organization. These items cover:

- Job satisfaction
- Realism
- Commitment to requisite change and to the organization
- Understanding the need for change
- Change faced by the organization.

Dulewicz and Higgs' questionnaire removes the weaknesses identified within the original version of MLQ, and provides for the broadest coverage in assessing leadership and context simultaneously.

In a project management context, Keegan and den Hartog (2004) predict that a project manager's leadership style needs to be more transformational than transactional, but found no significant link. What they did find is that although there is a significant correlation between the manager's leadership style and employees' commitment, motivation, and stress for line managers, there is no such correlation for project managers.

The Emotional Intelligence School

The emotional intelligence school has been popular since the late 1990s, and says the leader's emotional intelligence has a greater impact on his or her success as a leader—and the performance of his or her team—than does the leader's intellectual capability (Goleman, Boyatzis, & McKee, 2002). They identified four dimensions of emotional intelligence (see Table 5), and, from there, six leadership styles:

- Visionary
- Democratic
- Coaching
- Pacesetting
- Affiliative
- Commanding.

Domains	Competencies
Personal Competence	
• Self-awareness	Emotional self-awareness Accurate self-awareness Self-confidence
• Self-management	Emotional self-control Transparency Adaptability Achievement Initiative Optimism
Social Competence	
• Social awareness	Empathy Organizational awareness Service
• Relationship management	Inspirational leadership Influence Developing others Change catalyst Conflict management Building bonds Teamwork and collaboration

Table 5: Domains of emotional intelligence

Goleman, Boyatzis, and McKee (2002) say that the first four of these styles will foster resonance in the team, and usually lead to better performance in appropriate circumstances. The last two styles can foster dissonance, so—although appropriate in the correct circumstances—these last two styles need to be used with care. Goleman, Boyatzis, and McKee, as well as other authors, have shown a clear correlation between the emotional intelligence and leadership style of managers and the performance of their organizations.

The Competency School

Since the late 1990s, the emphasis has been to identify the competencies of effective leaders. This may appear to be a return to the trait approach. However, competencies can be learned, so leaders can be made, not just born. Further, different combinations of competencies can lead to different styles of leadership, appropriate in different circumstances, producing transactional leaders in situations of low complexity and transformational leaders in situations of high complexity. In addition, competencies can be technical or intellectual in nature, emphasizing Barnard's cognitive roles, or emotional in nature, emphasizing Barnard's cathectic roles and the domains of emotional intelligence. Dulewicz and Higgs (2003) give an overview of the competency school.

Since the competency school forms the basis of our research model, we discuss it in a separate section after considering the literature on team behaviors and cultural behaviors of leaders.

Literature on Behaviors of Team Members

In addition to the literature on the styles and behaviors of leaders, there is a substantial literature on the behavior of team members. Sometimes people apply team roles to leadership styles. However, Dulewicz and Higgs (2003) have shown there is little correlation between competencies of leaders and commonly identified team roles and behaviors. However, many of these are used as the basis for psychometric testing to determine the personality and behaviors of team members and team leaders to judge how they will perform, and as part of the recruitment of managers and executives. We describe five of the most commonly discussed theories:

FIRO-B

FIRO-B stands for Fundamental Interpersonal Relations Orientation-Behavior, and was developed by Schultz (1955). It examines the way people react with each other, looking at three types of work behavior. It judges how much a person gives and needs to receive each of the three dimensions:

- Inclusion: social skills and the need to get along with other people
- Control: leadership behavior, and how much control one wants to exert and how much one is willing to receive
- Affection: the deep need for giving and receiving affection.

FIRO-B also offers two other scores, the interpersonal score and expression-of-anger score. Used by the best practitioners, it can give an accurate picture of how an individual behaves at work and how he or she is perceived by others.

Belbin

Belbin (1986) identified nine team roles, and associated characteristics. To these we add the role of comic, identified as important by the emotional intelligence school of leadership:

- Plant
- Monitor-evaluator
- Shaper
- Coordinator
- Resource investigator
- Team worker
- Implementer
- Completer-finisher
- Specialist
- Comic.

Margerison and McCann

Margerison and McCann (1990) produced a leadership model based on two spectra:

- Controlling behavior to exploring behavior
- Advising roles to organizing roles.

The team roles adopted by an individual depend on the extent to which they apply these two fundamental behaviors. Nine team roles result. Many of these roles are similar to the roles identified by Belbin.

16PF

Cattell, Eber, and Tatsuoka (1970) identified 16 personality factors (16PF) that influence a person's performance in a team. They grouped the 16 factors into three groups:

1. Those showing extroversion versus introversion
2. Those showing emotional stability
3. Others.

Dulewicz (1995) has correlated the Belbin team roles and 16PF, showing that people adopting certain team roles exhibit particular personality factors.

Myers-Briggs Type Indicator

The Myers-Briggs Type was developed by Briggs-Myers (1992), and mainly gives an indication of an individual's thinking style and temperament in a team. It describes the individual's personality on four scales:

- Introversion to extroversion
- Sensing to intuition
- Thinking to feeling
- Judgment to perception.

Correlation Between Team Roles and Leadership Styles

It is a common fallacy for people to mix the team roles mentioned here with leadership styles, saying that the team roles are styles adopted by leaders. However, Dulewicz and Higgs (2003) have shown that only some of the team roles and personality factors are correlated to performance as a leader.

1. *Belbin:* Dulewicz and Higgs (2003) showed that only the roles of resource investigator and team worker were strongly correlated to performance as a leader. The coordinator and implementer roles are weakly correlated to performance as a leader.
2. *16PF:* There was greater correlation of the 16PF personality factors with performance as a leader. The results suggest that extroverts and more emotionally stable individuals are likely to be better leaders. There is also some correlation with some of the other factors.

Based on these results, Dulewicz and Higgs (2003) suggest that their 15 leader competencies give better insight into performance as a leader than the Belbin roles or 16PF personality factors, though the latter are correlated to their 15 leader competencies.

Literature on Cultural Behaviors of Leaders

Another dimension used to explain the performance of leaders is their cultural preferences. This tends to be presented as an environmental factor, with different styles appropriate in different cultural contexts. The most commonly quoted lists come from Hofstede (1991) and Trompenaars (1993) (see Table 6). Although these are environmental factors, many are related to the parameters determining styles of managers in the style school and in path-goal theory.

Turner (1999) suggests that different cultural styles lead to better performance at different stages of the project life cycle. Müller and Turner (2005) have shown a correlation between the cultural preferences of project managers and their performance in different contexts.

The Competence School of Leadership

The focus of leadership research is now on the competence of leaders, and competencies they exhibit (see, for example, Alimo-Metcalfe & Alban-Metcalfe, 2001; Bass & Avolio, 1995; Bennis, 1989; Dulewicz & Higgs, 2003; Goffee & Jones, 2000; Goleman et al., 2002; Kets de Vries & Florent-Treacy, 2002; Kotter, 1990; Kouznes & Posner, 1998; Marshall, 1991; Zaccaro, Rittman, & Marks, 2001).

Competence and the Earlier Schools

At first sight, it might appear that the competence school signals a return to the trait school. However, in reality, the competence school encompasses all the earlier schools. Competence can be defined as knowledge, skills, and personal characteristics that deliver superior results (Boyatsis, 1982; Crawford, 2003).

Thus, competence covers personal characteristics (traits as understood by the traits school and emotional intelligence), knowledge and skills (including intelligence and problem-solving ability, as well as management skill). However, it goes on to show that different competence profiles are appropriate in different circumstances, covering the contingency school. Finally, personal characteristics also encompass charisma and vision, and it is possible to build up different competency profiles to match different forms of leadership such as transactional and transformational leadership.

Types of Competence

Dulewicz and Higgs (2003) show that many of the authors identify up to four types of competence that determine leadership performance (Kets de Vries & Florent-Treacy, 2002; Marshall, 1991; Zaccaro et al., 2001):

- Cognitive
- Behavioral
- Emotional
- Motivational

Cognitive competencies are related to Barnard's cognitive functions of the executive, and Confucius's *li*. Emotional, behavioral and motivational competencies are related to Barnard's cathectic functions, and Confucius's *ren* and *yi*. (How far have we come in 2,500 years?)

However, based on their own observations and their analysis of the literature, Dulewicz and Higgs (2003) suggest that three types of competence explain most managerial performance:

- Intellectual (IQ)
- Managerial skill (MQ)
- Emotional (EQ).

From the above list, they have broken cognitive into intellectual (intelligence and problem-solving abilities) and managerial (knowledge and skills of management functions). They have combined emotional, behavioral and motivational (Barnard's cathectic functions) into one. Elsewhere, Dulewicz and Higgs (2000) show that intellectual competence (IQ) accounts for 27% of leadership performance, managerial competence (MQ) accounts for 16%, and emotional competence (EQ) accounts for 36%. Emotional competence is therefore the most significant, but the other two are important, as Barnard and Confucius suggested.

Author	Cultural Dimension	Explanation
Hofstede	Power distance	Autocracy vs. democracy, range of influence
	Individualism vs. collectivism	Focus on individual or group
	Uncertainty avoidance	Attitude toward risk, complexity and ambiguity
	Masculinity	Differentiation of male and female roles
Trompenaars	Universalist vs. particularist	Ethics and personal relationships
	Specific vs. diffuse	Legal processes and trust
	Neutral vs. emotional	Objective vs. emotional
	Short term vs. long term	Perspective of investment returns and results
	Achievement vs. ascription	Status, performance, assignment of rewards
	Attitudes to time	Emphasis on past, present and future
	Internal vs. external	Ego vs. society

Table 6: Cultural dimensions of leadership after Hofstede (1991) and Trompenaars (1993)

Group	Competency	Goal	Involving	Engaging
Intellectual (IQ)	1. Critical analysis and judgment	High	Medium	Medium
	2. Vision and Imagination	High	High	Medium
	3. Strategic Perspective	High	Medium	Medium
Managerial (MQ)	4. Engaging Communication	Medium	Medium	High
	5. Managing Resources	High	Medium	Low
	6. Empowering	Low	Medium	High
	7. Developing	Medium	Medium	High
	8. Achieving	High	Medium	Medium
Emotional (EQ)	9. Self-awareness	Medium	High	High
	10. Emotional Resilience	High	High	High
	11. Motivation	High	High	High
	12. Sensitivity	Medium	Medium	High
	13. Influence	Medium	High	High
	14. Intuitiveness	Medium	Medium	High
	15. Conscientiousness	High	High	High

Table 7: Fifteen leadership competencies as suggested by Dulewicz and Higgs (2003), and the competence profiles of their three styles of leadership

Leadership Competencies

From their review of the literature (Alimo-Metcalfe & Alban-Metcalfe, 2001; Bass & Avolio, 1995; Bennis, 1989; Goffee & Jones, 2000; Goleman et al., 2002; Kotter, 1990; Kouznes & Posner, 1998) and from their own work, Dulewicz and Higgs (2003) have identified 15 leadership competencies. There are seven emotional (EQ) competencies, three intellectual (IQ) ones and five managerial (MQ) ones (see Table 7). By tabulating their eight against those suggested by the other authors, they confirm a strong agreement in the literature with this list. Other authors have slightly fewer or slightly more factors. They merge some and split some, but there is a strong agreement with the list.

Styles (and Charisma)

Dulewicz and Higgs (2003) identify three leadership styles:

• Engaging (E) • Involving (I) • Goal-oriented (G).

These are similar to the four styles of path-goal theory (House, 1971) and the two styles from the visionary school (Bass, 1990). So, although these are offered as styles, they are related to the styles of the competence and visionary schools more than those of the style schools. These styles depict different competence profiles, as shown in Table 8.

Leadership Competencies and Change Projects

Dulewicz and Higgs (2003) go on to show that leaders with the different leadership styles perform better or worse on different types of change projects (see Table 8). Thus, their 15 leadership dimensions can be used to explain the performance of project managers on different types of change projects.

Leadership and Performance

Clearly, the general management literature suggests that a manager's leadership style and competence is key to successful performance in business, and many studies have confirmed a correlation between these and the performance of organizations and companies. So what does the project management literature have to say about the leadership style of the project manager, and its contribution to the success of the project?

Project Management Literature on Project Success

The literature on project success factors, surprisingly, is very quiet about the role of the project manager and his or her leadership style or competence. Leadership style and competence are seldom identified as critical success factors on projects.

Leadership Style	Relatively Stable	Context-Significant Change	Transformational Change
Goal-oriented	Good Fit	Moderate Fit	Poor Fit
Involving	Moderate Fit	Good Fit	Moderate Fit
Engaging	Poor Fit	Moderate Fit	Good Fit

Table 8: Performance of different leadership styles on different types of change projects

Project Success Factors

The changing understanding of project success is discussed by Jugdev and Müller (in press). They identify four periods, each widening the definitions of success. In the 1970s, project success focused on implementation, measuring time, cost and functionality improvements, and systems for their delivery. During the 1980s and 1990s, the quality of the planning and hand-over was identified as important. Lists of Critical Success Factors (CSF), which also took into account organizational and stakeholder perspectives, became popular. More recently, CSF frameworks were developed on the basis that success is stakeholder-dependent and involves interaction between project supplier and recipient. Additional dimensions taken into account were the project product and its utilization, staff growth and development, the customer, benefits to the delivery organization, senior management, and the environment. For the future, they anticipate further broadening of the definition of success, especially taking into account factors from the conceptual stages of the project life cycle and the close-down of the project's product, together with an increasing understanding of the importance of the project sponsor's view of success. We also expect a greater focus on the project manager's leadership style and competence. We consider further the second and third stages.

1980s

The 1980s was a period of intense research into project success factors, with many authors producing lists of project success factors. Seldom does the project manager, his or her leadership style or competence appear overtly in these lists as a critical success factor on projects. It could be said that these lists imply that the project manager should be competent because they imply that things should be well done. However, it is perhaps this that leads to the sense in the project management community that project managers do not need training, that they can just gain their competence through on-the-job experience, as the accidental project manager (Turner, Keegan, & Crawford, 2003).

Andersen, Grude, Haug, & Turner (1987) identified project pitfalls, things that project managers might do, or not do, which increased the chance if failure. They identified pitfalls in the way the project is established, planned, organized and controlled. Only once in their list is the project manager mentioned directly, and that is in organizing the project the project manager should be chosen for his or her managerial competence, and not technical skills. Their reasoning is that technical experts are not good at Barnard's (1938) cognitive and cathectic roles. Andersen et al.'s (1987) list was compiled by asking project managers to record why their projects had failed.

Morris (1988) identified success factors and failure factors, with different factors identified at successive stages of the project management life cycle. He mentions poor leadership as a failure factor during formation, build-up and close-out, but not in execution. However, he mentions many of Barnard's (1938) cognitive and cathectic roles as success factors, and so clearly by implication the project manager should be competent in these things.

Baker, Murphey, & Fisher (1988) produced a list of success factors. The project manager is not specifically mentioned in their list. Pinto and Slevin (1988), in a now-classic piece of work, identified 10 project success factors (see Table 9). This is one of the most widely quoted lists. They also do not overtly mention the project manager. Pinto and Prescott (1988) later suggested that personnel is not a success factor. Belout and Gauvreau (2004) questioned this, because it is contrary to human resource management literature, but in their own study reached the same conclusion. However, both pairs of authors asked project managers what they thought was important. Since project managers tend to be task-oriented rather than people-oriented (Mäkilouko, 2004), perhaps this result is predictable. To truly determine project success factors, it may be necessary to measure what actually has an impact on project success. Andersen et al. (1987) determined their list from reviews of failed projects, so it was based on assessment of actual project performance, but the assessment was done by the project managers. Baker et al. (1988) and Pinto and Slevin (1988) also only asked the opinions of project managers. Perhaps project managers are too modest to consider themselves as a success factor.

Morris and Hough (1987) identified success factors from a study of seven major projects in the UK from the 1960s, 1970s and 1980s. Some were successful and some were not. Morris (1997) further developed this list into a project strategy model, which Turner (1999) recast as the Seven Forces Model for project success (see Figure 1), with five success factors in each of seven areas:

1. Context
2. Attitude
3. Sponsorship
4. Definition
5. People
6. Systems
7. Systems

People, including leadership and management, overtly appear as success factors, as do many of Barnard's (1938) cognitive and cathectic roles.

2000s

Recently, there has been a revival of interest in project success factors. Hartman and Ashrafi (2002) identified a list of ten factors for Information Systems projects, very similar to

Success Factor	Description
1. Project Mission	Clearly defined goals and direction
2. Top Management Support	Resources, authority and power for implementation
3. Schedule and Plans	Detailed specification of implementation
4. Client Consultation	Communication with and consultation of all stakeholders
5. Personnel	Recruitment, selection and training of competent personnel
6. Technical Tasks	Ability of the required technology and expertise
7. Client Acceptance	Selling of the final product to the end users
8. Monitoring and Feedback	Timely and comprehensive control
9. Communication	Provision of timely data to key players
10. Troubleshooting	Ability to handle unexpected problems

Table 9: Project success factors after Pinto and Slevin (1988)

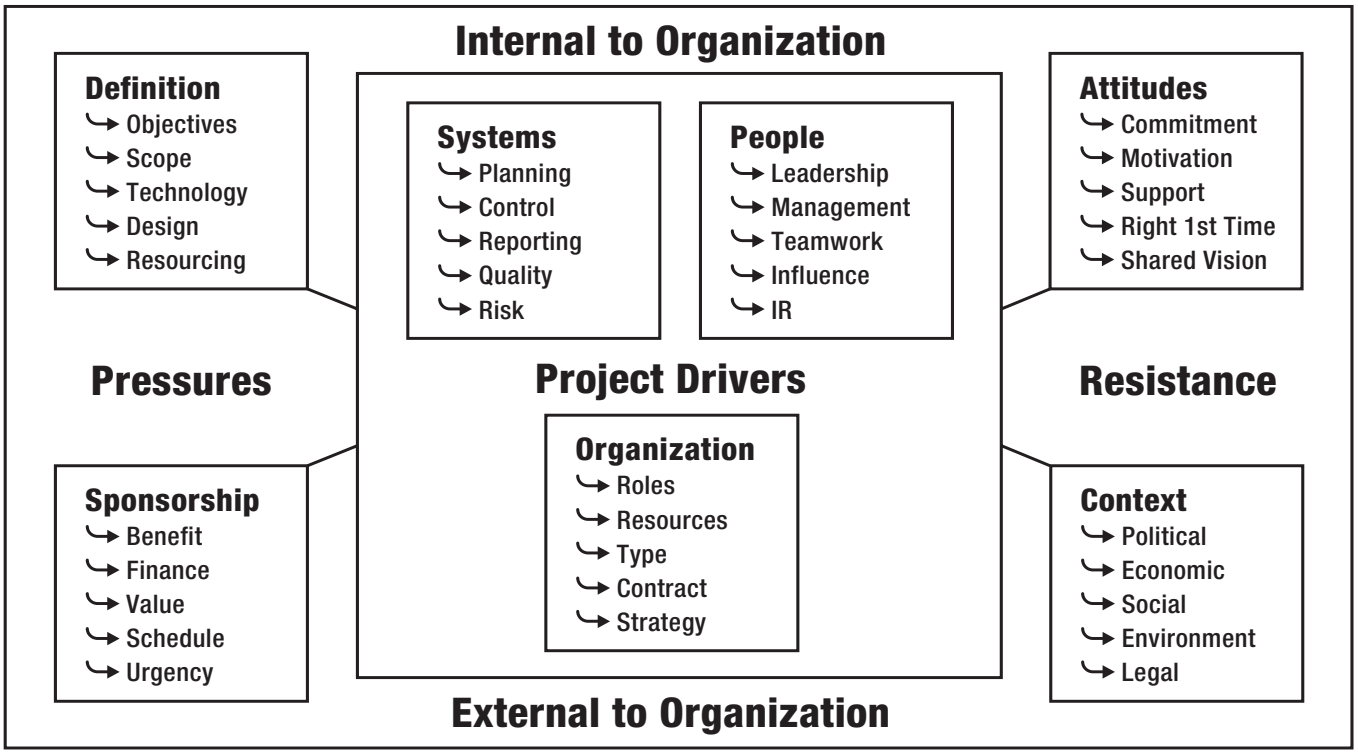

Figure 1: The Seven Forces Model for project success, after Turner (1999)

Pinto and Slevin's (1988) list. Cooke-Davies (2001) identified factors linked to successful project management and factors leading to successful projects. Under successful project management, he identified six factors that help ensure the project is completed on time, and two more which help ensure it is completed within budget. He identified four more that help ensure the project is successful. Cooke-Davies' list was obtained from benchmarking project performance in several benchmarking networks he manages, so is based on subjective assessment of actual project performance. He also does not overtly mention the project manager, but since he has identified project management success factors, he is implying that the project manager should be competent. Kendra and Taplin (2004) used a model of success factors grouped into four types: micro-social, macro-social, micro-technical, and macro-technical. The leadership, behavior, and personal attributes of the project manager are proposed as one success factor in the micro-social list.

And So…

Rarely does the literature on project success factors specifically or overtly mention the project manager and his or her leadership style and competence. Perhaps the project manager does not contribute to project success. Perhaps there is something about the nature of projects and project teams that means their success is not dependent on the leadership style and competence of the manager. But that conclusion totally contradicts the preceding leadership literature review, as well as human resource management and organizational behavior literature. Many of the previously cited authors asked project managers their opinion, and it would seem that many project managers do not recognize themselves, their leadership style, or their competence as a contributor to project success. Of the three lists compiled in other ways, two (Morris, 1988; Morris & Hough, 1987) did identify leadership as a success factor. Cooke-Davies (2001) identified project management as a success factor, but not the project manager. However, you see what you measure, and perhaps his study was constructed to identify project management and not the project manager. Some studies have focused specifically on the project manager, and considered more directly their contribution to project success. We now consider some of those.

Project Management Literature on the Project Manager's Leadership Style

Although the project success literature has, by and large, ignored the project manager (and his or her competence, personality, or leadership style) as a project success factor, much has been written on those subjects. For instance authors have suggested that:

1. The project manager's competence is related to his or her success as a project manager
2. Different project leadership styles are appropriate at each stage of the project life cycle
3. Specific leadership styles are appropriate for multi-cultural projects
4. Project managers have a leadership role in creating an effective working environment for the project team
5. Project managers prefer task-oriented to people-oriented leadership styles
6. The project manager's leadership style influences his or her perception of success in different situations.

Competence and success

The most significant work on correlating the project manager's competence to his or her success as a project manager was done by Crawford (2001). Crawford's measure of success was not project performance, but assessment by the supervisor, so it was subjective assessment by the project manager's line manager. Further, it was an assessment of overall performance, not that on a specific project. Crawford found that once a project manager has achieved an entry level of knowledge, more knowledge does not make him or her more competent. Competence can be defined as knowledge, skills, and personal attributes that lead to superior results or to meet defined performance standards (Boyatsis, 1982; Crawford, 2003):

Following the earlier definition of competence (Boyatsis, 1982; Crawford, 2003), personality and leadership style are included in the manager's competence, and it is these other dimensions that make a project manager more competent. This was confirmed by Hobbs, Pettersen, and Guérette (2004), who also showed that once the project manager has obtained an "entry ticket" level of knowledge, more knowledge does not make him or her more competent.

Management Style Through the Life Cycle

Frame (1987) was the first to suggest that different leadership styles are appropriate at different stages of the project life cycle. Building on his work, Turner (1999) suggested four leadership styles based on how much he or she involves the team in decision-making, decision-taking, and his or her flexibility (see Table 2). He then suggested that different styles were appropriate at each stage of the life cycle (see Table 3).

Turner (1999) also considered different cultural styles, using Hofstede's (1991) four cultural parameters (see Table 7). He showed that different combinations of the four parameters were appropriate at different stages of the life cycle.

Multi-cultural Projects

Many authors have written about the leadership styles appropriate on multi-cultural projects (e.g., Björkman & Schaap, 1992; Hastings & Briner, 1996; Hofstede, 1991; Mäkilouko, 2004; Rees, 2003; Selmer, 2002; Trompenaars, 1993; Turner, 1999). Björkman and Schaap (1992) say that expatriate managers adopt one of three styles:

- Didactical: They sell ideas by analogy and site visits
- Organization design: They carefully choose team members to design out potential conflict
- Culturally blind: They do not recognize cultural differences.

Selmer (2002) suggests personality traits for coping with cultural differences:

- Agreeableness
- Conscientiousness
- Emotional stability
- Intellect
- Openness/extroversion.

Mäkilouko (2004) suggests most project managers adopt task-oriented styles that are inappropriate in multi-cultural situations, but suggests that some project managers adopt two other, more appropriate styles:

- People-oriented
- Relationship-oriented.

Team Fusion

Thamain (2004) shows that the working environment within the project team has a significant impact on project success, and therefore suggests that the project manager has a significant leadership role in fusing the team. Kloppenborg and Petrick (1999) suggest that project leaders have a role in developing team characteristics into a collective set of virtues including:

- Ethics
- Respect and trust for others
- Honesty
- Prudence
- Courage
- Responsible use and sharing of power.

(Here are aspects reminiscent of Confucius.) Turner and Müller (2003) made similar suggestions when they likened the project manager to the chief executive of the "temporary organization" (i.e., the project), suggesting that the project manager needs to adopt the cognitive and cathectic roles suggested by Barnard (1938).

Task-versus-people Focus

A task-versus-people focus has been a recurring theme in the leadership literature. Many of the models from the behavioral school balanced concern for people and concern for the task (see Adair, 1983; Blake & Mouton, 1978; Hershey & Blanchard, 1988; Slevin, 1989; Tannenbaum & Schmidt, 1958). From the contingency school, Fiedler (1967) identified three potential focus areas of the leader:

- Task focus
- People focus
- Power focus.

From the charismatic school, Bass (1990) identified two types of leadership:

- Transactional, primarily task-focused
- Transformational, primarily people-focused.

Mäkilouko (2004) showed that project managers are primarily people-focused, with 40 out of 47 project managers in his sample being purely people-focused. On the other hand, Lee-Kelley, Leong, and Loong (2003) found that half of their sample was relationship-oriented. Keegan and den Hartog (2004) predict that a project manager's leadership style needs to be more transformational than transactional, but found no significant link. What they did find is that, whereas for line managers there is a significant correlation between the manager's leadership style and employees' commitment, motivation, and stress, there was no such correlation for project managers. (Is it just possible that there is something about the nature of projects that makes the manager's leadership style less of a factor in their success than in a routine environment?)

Leadership style and perception of success

Lee-Kelley et al. (2003) set out to find which Project Management Knowledge Areas are critical to project success and whether the project manager's leadership style influences his or her perception of control. What they did find was the project manager's leadership style influenced his or her perception of success on the project. They suggest:

> [There is] a significant relationship between the leader's perception of project success and his or her personality and contingent experiences. Thus the inner confidence and self-belief from personal knowledge and experience are likely to play an important role in a manager's ability to deliver a project successfully. (p. 590).

It seems that the project manager's emotional intelligence has an impact on his or her perception of the success of the project. Emotional intelligence comprises four components, as shown in Table 5. All four of those could impinge on a project manager's perception of success of the project:

- How aware are they of their own performance on the project—not whether they thought the project was a success (i.e., it achieved its key performance indicators), but whether they thought the project management was a success. Are they satisfied with how they managed the project?
- That assessment may be influenced by how they felt they comported themselves
- The satisfaction of the project team members may also affect their assessment of the project, regardless of how the project actually performed
- The satisfaction of the other stakeholders, particularly the client, may also have an effect.

The Project Manager as a Success Factor

The literature on project success factors has largely ignored the impact of the project manager, and his or her leadership style and competence, on project success. This may be because most of the studies asked project managers their opinion and the respondents have not given due consideration to their own impact on project success. Or, it may be because the studies have not measured the impact of the project manager and, thus, not recorded it. Or, it may be because the project manager has no impact. However, that last conclusion is in direct contrast to the general management literature, which postulates that the leadership style and competence of the manager has a direct and measurable impact on the performance of the organization or business. Thus, the authors have been commissioned by the Project Management Institute to study whether the leadership style and competence of the project manager is a success factor on projects and whether different styles are appropriate on different types of projects.

We have set ourselves the following research aims:

1. To determine whether the competence, including personality and leadership style, of the project manager is a success factor for projects
2. To determine if different competence profiles are appropriate for different project types.

However, it is conceivable that the leadership style and competence of the project manager have *no* impact on project success, and the unique, novel, and transient nature of projects (as well as the risk involved) means the leader has *less* of an impact on performance. But that question can only be answered if it is directly measured.

References

Adair, J. (1983). *Effective leadership: A self-development manual.* Aldershot, UK: Gower.

Alimo-Metcalfe, B., & Alban-Metcalfe, R. J. (2001). Development of the TLQ. *Journal of Occupational & Organizational Psychology, 74*(1), 1–24.

Andersen, E. S., Grude, K. V., Haug, T., & Turner, J. R. (1987). *Goal directed project management,* London: Kogan Page/Coopers & Lybrand.

Antonakis, J., Avolio, B. J., & Sivasubramaniam, N. (2003). Context and leadership: An examination of the nine-factor full-range leadership theory using the Multifactor Leadership Questionnaire. *The Leadership Quarterly, 14*(3), 261-295.

Baker, B. N., Murphey, P. C., & Fisher, D. (1988). Factors affecting project success. In D. I. Cleland & W. R. King (Eds.), *Project Management Handbook* (2nd ed.). New York: Van Nostrand Reinhold.

Barnard, C. I. (1938). *The functions of the executive.* Cambridge, MA: Harvard University Press.

Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics, 18*(3), 19-31.

Bass, B. M., & Avolio, B. (1995). *The multifactor leadership questionnaire.* Palo Alto, CA: Mind Garden.

Belbin, R. M. (1986). *Management teams.* London: Heinemann.

Belout, A., & Gauvreau, C. (2004). Factors affecting project success: The impact of human resource management. *International Journal of Project Management, 22*(1), 1-12.

Bennis, W. (1989). *On becoming a leader.* London: Hutchinson.

Björkman, I., & Schaap, A. (1992). Outsiders in the middle kingdom: Expatriate managers in Chinese-Western joint ventures. *Journal of International Business Studies, 23*(1), 55-75.

Blake, R. R., & Mouton, S. J. (1978). *The new managerial grid.* Houston, TX: Gulf.

Boyatsis, R. E. (1982). *The competent manager: A model for effective performance.* New York: Wiley.

Briggs-Myers, I. (1992). *Gifts differing.* Palo-Alto, CA: Consulting Psychologists Press.

Cattell, R. B., Eber, H. W., & Tatsuoka, M. M. (1970). *Handbook for the 16PF.* Illinois: IPAT.

Collinson, D. (1998). *Fifty major philosophers.* London: Routledge.

Collinson, D., Plan, K., & Wilkinson, R. (2000). *Fifty eastern thinkers.* London: Routledge.

Cooke-Davies, T. (2001). The "real" project success factors. *International Journal of Project Management, 20*(3), 185-190.

Crawford, L. H. (2001). *Project management competence: The value of standards.* DBA Thesis, Henley-on-Thames: Henley Management College.

Crawford, L. H. (2003). Assessing and developing the project management competence of individuals. In J. R. Turner (Ed.), *People in Project Management*. Aldershot, UK: Gower.

Dulewicz, V. (1995). A validation of Belbin's team roles from 16PF & OPQ using bosses' ratings of competence. *Journal of Occupational & Organizational Psychology, 68*(2).

Dulewicz, V., & Higgs, M. J. (2000). Emotional intelligence: A review and evaluation study. *Journal of Managerial Psychology, 15*(4), 341–368.

Dulewicz, V., & Higgs, M. J. (2003). Design of a new instrument to assess leadership dimensions and styles. *Henley Working Paper Series* HWP 0311. Henley-on-Thames, UK: Henley Management College.

Dulewizcz, V., & Higgs, M. J. (2004). Leadership dimensions questionnaire: Organisation context, leader performance & follower commitment. *Henley Working Paper Research Note.* Henley-on-Thames, UK: Henley Management College.

Fiedler, F. E. (1967). *A theory of leadership effectiveness.* New York: McGraw-Hill.

Frame, J. D. (1987). *Managing projects in organizations.* San Francisco: Jossey Bass.

Goffee, R., & Jones, G. (2000). Why should anyone be led by you? *Harvard Business Review,* Sept-Oct, 63–70.

Goleman, D., Boyatzis, R., & McKee, A. (2002). *The New Leaders.* Boston: Harvard Business School Press.

Handy, C. B. (1982). *Understanding organizations.* London: Penguin.

Hartman, F., & Ashrafi, R. A. (2002). Project management in the information systems and information technologies industries. *Project Management Journal, 33*(3), 5-15.

Hastings, C., & Briner, W. (1996). Coping with cultural differences. In J. R. Turner, K. V. Grude, & L. Thurloway (Eds.), *The project manager as change agent*. London: McGraw-Hill.

Hershey, P., & Blanchard, K. H. (1988). *Management of organizational behavior* (5th ed.). Englewood Cliffs, NJ: Prentice Hall.

Hobbs, J. B., Pettersen, N., & Guérette, H. (2001). Building, validating and implementing a PM competency model: The experience of one aerospace company. *In Proceedings of the PMI Annual Symposium,* Nashville, November 2001. Newtown Square, PA: Project Management Institute.

Hofstede, G. (1991). *Cultures and organziations: Software of the mind,* London: McGraw-Hill.

House, R. J. (1971). A path-goal theory of leader effectiveness. *Administrative Science Quarterly,* September, 321-338.

Jugdev, K., & Müller, R. (in press). Project success: A retrospective look at project success and our evolving understanding of the concept. *Project Management Journal.*

Keegan, A. E., & Den Hartog, D. N. (2004). Transformational leadership in a project-based environment: A comparative study of the leadership styles of project managers and line managers. *International Journal of Project Management, 22*(8), 609-618.

Kendra, K., & Taplin, L. J. (2004). Project success: A cultural framework. *Project Management Journal, 35*(1), 30-45.

Kets De Vries, M. F. R., & Florent-Treacy, E. (2002). Global leadership from A to *Z*: Creating high commitment organisations. *Organisations Dynamics,* Spring, 295–309.

Kirkpatrick, S. A., & Locke, E. A. (1991). Leadership traits do matter. *Academy of Management Executive,* March, 44-60.

Kloppenborg T. J., & Petrick, J. A. (1999). Leadership in project life cycle and team character development. *Project Management Journal, 30*(2), 8-13.

Kotter, J. P. (1990). What leaders really do. *Harvard Business Review,* May-June, 37–60.

Kouznes, J. M., & Posner, B. Z. (1998). *Encouraging the heart.* San Francisco: Jossey-Bass.

Krech, D., Crutchfield, R. S., & Ballachey, E. L. (1962). *Individual in society.* New York: McGraw-Hill.

Lee-Kelley, L., Leong, K., & Loong. (2003). Turner's five functions of project-based management and situational leadership in IT services projects. *International Journal of Project Management, 21*(8), 583-591.

Mäkilouko, M. (2004). Coping with multi-cultural projects: The leadership style of Finnish project managers. *International Journal of Project Management, 22*(5), 387-396.

Margerison, M., & McCann, D. (1990). *Team Management.* Mercury Press.

Marshall, W. (1991). Leaders into the '90s. *Personnel Journal, 70*(5), 80-86.

Morris, P. W. G. (1988). Managing project interfaces. In D. I. Cleland, & W. R. King (Eds.), *Project Management Handbook* (2nd ed.). New York: Van Nostrand Reinhold.

Morris, P. W. G. (1997). *The management of projects* (2nd ed.). London: Thomas Telford.

Morris, P. W. G., & Hough, G. (1987). *The anatomy of major projects: A study of the reality of project management.* Chichester, UK: Wiley.

Müller, R., & Turner, J. R. (2005). Cultural differences in project owner-manager communication. In D. P. Slevin, D. I. Cleland, & J. K. Pinto (Eds.), *Innovations—Project Management Research 2004*. Newtown Square, PA: Project Management Institute.

Partington, D. A. (2003). Managing and leading. In J. R. Turner (Ed.), *People in project management.* Aldershot, UK: Gower.

Pinto, J. K., & Prescott, J. E. (1988). Variations of critical success factors over the stages in the project life cycle. *Journal of Management, 14*(1), 5-18.

Pinto, J. K., & Slevin, D. P. (1988). Critical success factors in effective project implementation. In D. I. Cleland & W. R. King (Eds.), *Project management handbook* (2nd ed.). New York: Van Nostrand Reinhold.

Rees, D. (2003). Managing culture. In J. R. Turner (Ed.), *People in project management* Aldershot, UK: Gower.

Robbins, S. P. (1997). *Essentials of organizational behavior.* Englewood Cliffs, NJ: Prentice Hall.

Schultz, W. C. (1955). FIRO: *A three dimensional theory of interpersonal behaviour.* New York: Holt, Rinehart, & Winston.

Selmer, J. (2002). Coping strategies applied by western vs. overseas Chinese business expatriates in China. *International Journal of Human Resource Management, 13*(1), 19-34.

Slevin, D. P. (1989). *The whole manager.* New York: Amacom.

Tannenbaum, R., & Schmidt, K. H. (1958). How to choose a leadership style. *Harvard Business Review,* March-April.

Thamhain, H. (2004). Linkages of project environment to performance: Lessons for team leadership. *International Journal of Project Management, 22*(7), 533-544.

Trompenaars, F. (1993). *Riding the waves of culture.* London, UK: Economist Books.

Turner, J. R. (1999). *The handbook of project-based management: Improving the processes for achieving strategic objectives.* London: McGraw-Hill.

Turner, J. R., Keegan, A. E., & Crawford, L. H. (2003). Delivering improved project management maturity through experiential learning. In J. R. Turner (Ed.), *People in project management.* Aldershot, UK: Gower.

Turner, J. R., & Müller, R. (2003). On the nature of the project as a temporary organization. *International Journal of Project Management, 21*(1), 1-8.

Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2001). Team leadership. *Leadership Quarterly, 12*(4), 451-483.

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