Leadership Behaviors in Information Technology Project Management: An Exploratory Study

Hazel Taylor
University of Washington Information School
hztaylor@uw.edu

Jill Palzkill Woelfer
University of Washington Information School
woelfj@uw.edu

Abstract

While IT projects continue to have a poor reputation for successful outcomes, there is increasing evidence that the project manager’s skills can be critical for effective project team performance. The aim of this exploratory study was to examine the leadership behaviors of IT project managers, with the goal of exploring the types of leadership behaviors they used to keep their projects on track. We used an interpretive critical incident method to explore this under-investigated area, interviewing 23 experienced IT project managers from 11 different organizations. Results showed that these managers relied predominantly on task behaviors to ensure efficiency in their projects and boundary-spanning behaviors to manage intra- and inter-organizational collaborations. The prevalence of boundary-spanning behaviors suggests organizations should ensure that personnel in project management roles have both task-oriented knowledge and boundary-spanning skills to bridge the gap between the team and wider stakeholder groups, both within and external to the organization.

1. Introduction

Project-based modes of organizing and controlling work are becoming increasingly prevalent in high technology industries. In such project-based organizations, work is structured into distinct projects, in which groups of people with a variety of skills are brought together for a specified period of time to achieve a specified outcome [1, 2]. While the flexibility and support for innovation offered by these modes of working hold a promise of competitive advantage for many firms, the project-based structure relies on highly developed, complex and dynamic forms of team-based coordination and can be problematic. The Information Technology (IT) sector, for example, has had both a high reliance on project-based modes of work and a long-standing poor reputation in the delivery of its projects [3, 4]. While many factors contribute to the IT industry’s poor project performance, there is increasing evidence that effective project team performance and the skills of the project leader play critical roles in ensuring a successful outcome [3, 5, 6].

A project-based team’s performance depends not only on individual team members’ knowledge, skills and abilities, but also on how well the individuals can work together as a team, and a considerable amount of research has investigated factors that can support or hinder effective team performance [7]. In contrast, the role that the team leader plays in determining a team’s performance outcomes has, historically, received less attention in the literature [8], and only recently have studies begun to highlight the importance of leadership in the team context and to identify key leadership behaviors related to effective team performance [9]. The problematic history of projects in the IT industry suggests that team leadership of IT projects in this sector could be a particularly fruitful area for further investigation. While interest in leadership of project teams (in contrast to on-going teams) has also increased in recent years [see, for example, 10, 11, 12], the determination of particular leadership skills and behaviors that are critically important for the management of IT projects remains under-investigated [13]. This paper aims to begin to fill this gap.

2. Literature review

2.1. Leadership behaviors research

Leadership has been a key concept for researchers in organizational behavior for well over half a century, resulting in hundreds of theoretical and empirical studies developing leadership theories and examining leadership behaviors and their impact.
on individual and organizational performance [14]. Early research at Ohio State University and the University of Michigan identified two distinct categories of leadership behaviors, task-focused and person-focused. Task-focused, or initiating structure, behaviors facilitate understanding of task requirements and planning and scheduling work. Person-focused, or consideration, behaviors are concerned with showing support and building trust and confidence. For many years, research was dominated by a focus on examining these two categories of behavior and their relationship to leadership effectiveness, with findings suggesting weak correlations between both categories and subordinate performance, moderated by a variety of situational variables [14, 15].

More recently, researchers have focused on a third category of change-oriented leadership, with the development of theories of transformational [16, 17] and charismatic [18] leadership, suggesting that certain change-oriented behaviors, for example, inspirational and risk-taking behaviors and behaviors that are intellectually stimulating, are related to leader effectiveness, particularly in situations involving substantial organizational change. Yukl, Gordon and Taber [15] have developed an integrated taxonomy of these leadership behaviors, comprising three meta-categories – task, relations and change – with specific behaviors associated with each meta-category, shown in the first three columns of Table 1.

Yukl et al. [15] argue that each meta-category of behaviors has a different primary objective, related to a different aspect of organizational effectiveness. The task behaviors are related to goals of improving efficiency, the relations behaviors have the primary objective of improving human resources and relations, and the change behaviors are aimed at improving innovation and adaptation. All three meta-categories of leadership behaviors have an important role to play in effective leadership, although some behaviors will be more appropriate in certain situations than others. In particular, certain leadership behaviors may be more useful in team and project leadership contexts, and we turn now to a brief review of research into leadership in these contexts.

### 2.2. Team leadership

Research interest in leadership of teams, particularly on-going teams, has increased substantially in recent years, with a growing body of work examining how team leaders can influence team performance and facilitate effective team outcomes. In contrast to the research on general leadership behaviors discussed above, which has examined how leaders can develop and facilitate individual subordinates’ performance, key issues in the team leadership research arena relate to understanding which leadership behaviors are most effective in developing and maintaining team integration and interaction in order to support team performance in various project contexts [8]. For example, in the research and development context, Keller [20] found that leadership behaviors in the change and task meta-categories were important for predicting team performance, but that the change behaviors were more important for research teams, while the task behaviors were more important for development teams.

Relationships between team leadership behaviors and team performance outcomes were examined by Burke et al. [9] in a meta-analysis of 50 empirical studies. Their findings showed that task, relations, and change behaviors were all related to perceived team effectiveness and team productivity. In addition, boundary spanning communication behaviors, which include 1) acting as a buffer to protect the team; 2) acting as an ambassador to represent the team and communicate the team’s achievements to outsiders; 3) collaborating and coordinating with others outside the team; 4) scanning the environment; and 5) negotiating resources for the team, [19, 21] were found to be related to perceived team effectiveness (no studies were found investigating boundary spanning and team productivity). While environmental scanning corresponds to external monitoring behavior in Yukl et al.’s taxonomy (see Table 1), there are no equivalents for the other boundary spanning communication behaviors, suggesting that, for team leadership, the taxonomy should be extended to include these behaviors, as shown in the fourth column of Table 1. The primary objective of these boundary spanning behaviors is the improvement of intra- and inter-organizational collaborations and communications.

### 2.3. Team leadership functions

In addition to investigating the leadership behaviors that might be appropriate in a team context, it is also important to examine the functions that the team leader performs, in order to understand where and when different behaviors might be applied. A key focus of research into leadership in hierarchical teams has been on functional leadership, that is, the idea that a team leader’s function is to ensure that the team’s work gets done [8, 9]. From the functional leadership perspective, team leadership is seen as a...
Table 1: Leadership and team leadership behavior meta-categories and behaviors within each meta-category.
(Task, relations & change behaviors after Yukl et al. [15]; boundary spanning behaviors after Burke et al. [9] and Ancona & Caldwell, [19])

<table>
<thead>
<tr>
<th>Task Behaviors</th>
<th>Relations Behaviors</th>
<th>Change Behaviors</th>
<th>Boundary-spanning Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarifying roles:</td>
<td>Supporting:</td>
<td>Envisioning change:</td>
<td>Buffering:</td>
</tr>
<tr>
<td>Assigning tasks and explaining job responsibilities, task objectives, and performance expectations</td>
<td>Acting considerately, showing sympathy and support when someone is upset or anxious, and providing encouragement and support when there is a difficult, stressful task</td>
<td>Presenting an appealing description of desirable outcomes that can be achieved by the unit or team, describing a proposed change with great enthusiasm and conviction</td>
<td>Protecting the team from outside pressures and interference and filtering external communications to the team</td>
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<tr>
<td>Short-term planning:</td>
<td>Consulting:</td>
<td>Taking risks for change:</td>
<td>Representing:</td>
</tr>
<tr>
<td>Determining how to use personnel and resources to accomplish a task efficiently, and determining how to schedule and coordinate unit or team activities efficiently</td>
<td>Checking with people before making decisions that affect them, encouraging participation in decision making, and using the ideas and suggestions of others</td>
<td>Taking personal risks and making sacrifices to encourage and promote desirable change in the organization</td>
<td>Acting as an ambassador for the team, promoting and communicating the team’s achievements to others outside the team</td>
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<tr>
<td>Monitoring operations:</td>
<td>Recognizing:</td>
<td>Encouraging innovative thinking:</td>
<td>Collaborating:</td>
</tr>
<tr>
<td>Checking on the progress and quality of work, and evaluating individual and unit or team performance</td>
<td>Providing praise and recognition for effective performance, significant achievements, special contributions, and performance improvements</td>
<td>Challenging people to question their assumptions about the work and consider better ways to do it</td>
<td>Collaborating with others outside the team and managing and coordinating external relationships, schedules, and tasks</td>
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<tr>
<td>Developing*:</td>
<td>Empowering:</td>
<td>External monitoring**:</td>
<td>Negotiating:</td>
</tr>
<tr>
<td>Providing coaching and advice, providing opportunities for skill development, and helping people learn to improve their skills</td>
<td>Allowing substantial responsibility and discretion in work activities, and trusting people to solve problems and make decisions without getting prior approval</td>
<td>Analyzing information about events, trends, and changes in the external environment to identify threats and opportunities for the organizational unit or team</td>
<td>Negotiating resources for the team and negotiating goals with internal and external stakeholders</td>
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<tr>
<td>Developing*:</td>
<td>Providing coaching and advice, providing opportunities for skill development, and helping people learn to improve their skills</td>
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<td>External monitoring**:</td>
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<tr>
<td>* The Developing behavior contributes to both task and relations categories; **The External Monitoring behavior contributes to both change and boundary spanning categories.</td>
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Establishing the right conditions plays the greatest role in determining team effectiveness [22, 23], and this function should be the first priority of the team leader. Hackman and Wageman [24] identify four initial conditions for effective performance of work teams: 1) the team must be a ‘real’ team; 2) the team must have a compelling direction; 3) the team requires a facilitative or enabling structure; and 4) the team needs a supportive organizational context. With these initial conditions in place, a fifth requirement, of expert team coaching as the teamwork unfolds, must also be problem solving function driven by the pragmatic goal of ensuring that required team outcomes are achieved [8, 9]. Appropriate team leadership behaviors, then, are determined pragmatically by the nature of the team, the team goals, and the team circumstances. In order to maximize the likelihood of the desired outcomes from the team’s work, the team leader must do whatever is necessary to ensure the creation and maintenance of the right conditions for optimal team outcomes, and then facilitate the team processes as required to achieve the outcomes [8].
met in order to facilitate the team’s achievement of the desired outcomes.

A ‘real’ team is one that has clear boundaries that distinguish members from non-members, a collective responsibility for the team outcomes, and moderate stability of membership. Clarifying roles behavior can help to establish who belongs to the team and who does not, while the leader’s negotiating behaviors with senior management and other stakeholders can aid in ensuring that team boundaries are established and the team membership remains relatively stable.

A compelling direction is an overarching aim for the team that is challenging, clear, outcome-focused, and consequential either for others or for the team members. Motivational or change-related behaviors such as envisioning change and encouraging innovative thinking can help set a challenging and consequential direction, but these behaviors must be supported by task-related clarifying roles behaviors that establish clear outcomes by explaining objectives, responsibilities and performance expectations.

Enabling team structure addresses task design, norms of conduct, and team composition. Tasks should be meaningful and allow team members a degree of autonomy in determining the work procedures, with regular feedback on task performance. The team should have clearly specified group norms of conduct and expectations about acceptable behavior. Well-composed teams are as small as possible for the scope of the work, and include a good mix of members, with both task and inter-personal skills. The enabling team structure conditions are supported by task-related clarifying roles, short-term planning, and monitoring behaviors to address task design and performance feedback; relations behaviors – supporting, consulting, and empowering – to develop group norms of conduct; and boundary spanning negotiating and collaboration behaviors to ensure that the team has access to the required skill-sets. Additionally, developing behaviors may be needed where assigned team members lack certain essential skills.

The organizational context should provide a reward system that recognizes the team as a whole for good performance. Here, as well as recognizing behaviors, strong team leader negotiating skills are required since many organizations’ human resource systems are designed to support and reward individual effort, but not team effort. Rewards that target individual performance only may foster competition and actually hinder development of the collaboration and coordination needed to achieve high levels of team performance [23]. In addition, an organizational information system is needed that provides the team with clear data about the whole task, and deadlines and progress. Such a system can be supported by the leader’s task behaviors, specifically, short term planning and monitoring operations. Finally, the organization context should be supportive of the team members’ educational requirements, providing training and coaching as required, a requirement which calls on the leader’s developmental behaviors.

With the right conditions in place, the leader must facilitate the team in achieving the desired outcomes. Facilitation of the team performance processes is essentially a coaching function, directed at addressing the level of team effort, the team performance strategies, and the team knowledge and skills [22]. Leadership coaching behaviors targeting team effort are typically motivational in character, and include envisioning change behaviors. Performance strategy coaching behaviors can be task related, including clarifying roles, short-term planning and monitoring operations behaviors; relations related, including supporting, consulting, and empowering behaviors; or change related, especially encouraging innovative thinking behaviors. Coaching that addresses the team’s knowledge and skills is educational, or developing behavior. Additionally, the team leader may engage in buffering behaviors to protect the team members from outside interference that could hinder their work.

Finally, for teams that have developed strong team performance processes in the areas just discussed, leaders can enable incremental gains in team performance through the use of verbal reinforcement, i.e. recognizing behaviors, of good work processes [25]. It should be noted that, in spite of much popular practitioner literature to the contrary, there is little empirical evidence that coaching behaviors targeted at improving interpersonal processes within the team, such as team building activities, reliably improve team performance, although team building work that serves to clarify roles at the start-up stage is effective [22, 26]

2.4. IT project leadership

While Hackman and Wageman’s [24] conditions for team effectiveness identify essential requirements for work teams in general, IT project teams have some unique characteristics, which may make these conditions more difficult to achieve and require special attention from the project leader. Examining projects across a range of industries, Belassi and Tukel [27] identified factors related to the team, the project, the organization, and the external environment as critical success factors that must be addressed by the project leader. For IT projects, factors related to the project team, the nature of the project and external stakeholder relations were identified as particularly important.

IT project teams are typically transient in nature, lasting only for the duration of the project. Project
teams are often disbanded at project end, and a new, largely different, group will be assembled for the next project. In addition, teams are usually interdisciplinary and the team boundaries are often fluid: while there may be a small set of core members, other people may have smaller, temporary roles and enter and exit the team throughout the course of the project [28]. Increasingly, IT project teams include geographically dispersed team members. These team characteristics—transience, changing and interdisciplinary membership and lack of co-location—hampers the team leader’s ability to ensure that the ‘real’ team and enabling team structure conditions are achieved, and thus we would expect IT team leaders to demonstrate high levels of behaviors supporting these conditions.

The IT project task itself usually provides a compelling and challenging direction. However, high levels of uncertainty and ambiguity, technical complexity, and task interdependency often make it difficult for the project leader to provide clarity about the purpose and direction. For effective team function under these conditions, we would expect the leader to pay close attention to role and task clarification, while ensuring that the team structure facilitates team discussion and collaboration [29]. In addition, we would also expect to see the leader applying strong boundary-spanning skills throughout the project, communicating and negotiating with external stakeholders to reach agreement on changing requirements, while buffering the team from excessive pressures and interference. Finally, many IT project tasks require team members with high levels of specific technical skills that are often in demand across the organization, resulting in competition for the most highly skilled team members. Thus, the team composition component of the team structure condition is also more challenging for IT project leaders to meet and, again, strong negotiating skills are needed to ensure the best team is assembled and retained.

Beyond supporting the core project team’s composition, internal work and interactions, the IT project leader must address additional organizational and external conditions. In the organizational context, top management support and a project sponsor are seen as essential conditions for effective project performance [27, 30, 31]. The IT project leader must also be the interface—both ambassador and buffer—between the team and a variety of internal and external parties, including key stakeholders, clients and users in the project, and external partners, suppliers and contractors. Effective management of both organizational and external conditions is likely to entail strong boundary spanning behaviors, including buffering, negotiation, communication and collaboration skills, on the part of the IT project leader [29, 32].

All of these characteristics of IT projects make for a challenging context for IT project leaders, in terms of their ability to support the necessary conditions for the project team to function effectively in order to deliver the required project outcomes. Table 2 presents an initial framework that integrates the key team leadership behaviors identified earlier with Hackman and Wageman’s [24] conditions for team effectiveness and the unique characteristics of the IT project context, illustrating how IT leadership behaviors may influence project team outcomes.

2.5. The current study

While the research discussed above provides a strong foundation for our expectations about leadership behaviors that are likely to be important for IT project managers, there is little empirical evidence about the leadership behaviors demonstrated by IT project managers in practice. Thus, the aim of the current study was to examine leadership behaviors of managers of IT projects, with the goal of exploring the types of leadership behaviors that IT project managers use to keep their projects on track. In particular, we were interested in examining the approaches IT project managers rely on when faced with critical situations in their project, and determining the prevalence of task-oriented, relations-oriented, change-oriented and boundary spanning leadership behaviors among IT project managers. Tables 1 and 2 provide an initial framework to support the focus of our study, examining which leadership behaviors are actually applied in critical situations faced by project leaders in the IT context. An understanding of which leadership behaviors IT project managers demonstrate in practice can provide a starting point for understanding approaches to address the especially difficult leadership situations represented by IT projects. We were particularly interested to explore whether IT project managers address, through their leadership behaviors, the establishment of effective conditions for team performance as set out by Hackman and Wageman [24].
Table 2. Team conditions and team leadership behaviors in the IT project context

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<tr>
<th>Heading</th>
<th>Task behaviors</th>
<th>Relation behaviors</th>
<th>Change behaviors</th>
<th>Boundary spanning behaviors</th>
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<tr>
<td>‘Real’ team</td>
<td>Clarifying roles</td>
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<td>Envisioning change</td>
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<td>Compelling direction</td>
<td>Clarifying roles</td>
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<td>Enabling team structure</td>
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<td>Empowering</td>
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<td>Short-term planning</td>
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<td>Monitoring operations</td>
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<td>Supporting organizational context</td>
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<td>Facilitative team processes</td>
<td>Clarifying roles</td>
<td>Supporting</td>
<td>Envisioning change</td>
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3. Method

The research presented here is part of a larger exploratory study into IT project managers’ competencies. In this part of the study we focused on project managers’ leadership behaviors. We approached this exploratory study from an interpretive viewpoint, aiming for an in-depth examination of behaviors that project leaders engage in when managing their projects.

3.1. Sample

We sought experienced project managers who had extensive experience with a range of IT projects, in order to capture as wide a range as possible of potential leadership behaviors in a variety of IT project contexts. Thus our sampling strategy was one of maximal variation, which is appropriate for an initial exploratory study such as this one, which seeks to surface the range of leadership behaviors that might be expected in the IT project environment. Our 23 project manager respondents came from 11 different organizations, with an average IT project management experience of 13 years and 28 projects. Respondents had typically managed projects for three or four different organizations, with varying team sizes, budgets and durations, and had experience with a variety of project types, including in-house development, web development, infrastructure upgrades, and customized package implementation work.

3.2. Data collection procedures

We used a critical incident approach [33], conducting semi-structured interviews with the project manager respondents. In the interviews, which were tape-recorded and transcribed, we focused the managers on critical situations that they had faced in any of their projects, over the course of their project manager experience, from which they had been able to draw key learnings about IT project management. We were careful not to seed the interviews with expectations that the project managers would talk about what they perceived to be their leadership behaviors. If we had asked the respondents to describe leadership behaviors we would likely have tapped into their espoused theories about leadership, rather than their actual actions [34]. By focusing more broadly on key critical incidents that had provided learning opportunities for the managers, we were able to surface the actual leadership behaviors, if any, that were applied in these situations.
3.3. Analysis procedures

In view of the substantial amount of prior research on leadership behaviors, we were able to take a thematic analysis approach to coding [35, 36]. We used qualitative data analysis software (Nvivo version 8) to manage the coding process, and coded the critical incidents described by respondents for leadership behaviors, using the frameworks in Tables 1 and 2 as a guide.

4. Results and Discussion

In total, the project managers in this set described 82 critical situations from which they had drawn key learnings about aspects of project management. While all 23 respondents described at least one leadership-related situation, not all situations related to leadership actions. For example, some project managers described key situations where they had learned about issues related to their own self management, rather than to issues related to management of the project or the team. We were able to discern leadership behaviors in 49 of the critical situations, with over half of these leadership situations including descriptions of more than one type of leadership behavior, for a total of 76 descriptions of leadership behaviors. We identified task behaviors in critical situations described by 17 of the 23 respondents; relations behaviors in situations described by nine respondents; change behaviors in situations described by four of the respondents; and boundary-spanning behaviors in situations described by 15 of the respondents. Table 3 shows the number of project managers and the number of critical situations in which each leadership behavior was observed.

As can be seen from Table 3, task and boundary-spanning behaviors were the predominant leadership behaviors observed across many different situations, with 28 instances of task leadership behaviors and 27 of boundary-spanning leadership behaviors.

Within the task behaviors category, the major emphasis was on behaviors related to clarifying roles and short-term planning, both reflecting the aims of these project managers to ensure their projects were well set up at the start. Somewhat surprisingly, we found little evidence that the managers placed a high priority on monitoring the plans they put in place, with only four explicit instances of monitoring operations behaviors, although in most of the descriptions of planning behavior there was an assumption that the plans would subsequently be used for controlling progress, as B3 comments:
This strong emphasis on establishing the tasks and roles up front suggests that this group of project managers had strong efficiency-focused goals, aiming to establish the right conditions for efficient and effective performance of their team members on their projects. These task behaviors served to clearly identify the team and to establish an effective team structure, and to provide the team members with clear information about their work, deadlines and progress.

In the boundary spanning category, negotiating and collaborating behaviors predominated. Managers described very proactive behaviors in negotiating to get key personnel assigned to the team:

One guy I know, I’ve worked with for years as a colleague on a very big project, and I knew he was available so I went after him immediately when we were still in the planning and discussion phases. [B5]

Other managers spoke of the challenge of working with team members who did not report directly to them, and the importance of finding more subtle ways to influence these team members to place a high priority on their projects. As B1 explains:

I had to very subtly work with people and have them do something because it’s the right thing to do, because they need to do it….Without direct reports, I had to trade experience, knowledge and skill to get work accomplished that exceeded my capacity. [B1]

Some respondents described difficult situations with clients, where they strove to balance client demands with the realities of what the team could accomplish. In these situations they frequently applied both negotiating and collaboration behaviors:

I encouraged the team to talk with the business partners to get to know their jobs through sometimes daily contact and we developed trust and information flow increased in the context of we were starting to learn things somewhat related to the project but not completely and [we could] influence the project and also project results. [B4]

The high number of situations in which boundary-spanning behaviors was observed reflects the typical IT project situations faced by this group of project managers, with teams drawn from across the organization, and a variety of internal and external stakeholders. The managers’ interactions with this diverse group of interested parties required close attention to the range of boundary spanning behaviors in order to ensure effective intra- and inter-organizational collaborations and communication, both through selecting and supporting core team members and through facilitating collaboration and knowledge sharing across the wider body of people with a stake in the project. While there was only one explicit description of an external monitoring behavior, general situation awareness was evident in many of the situational descriptions, suggesting that for this group of managers, external monitoring might be more of an implicit and underlying attitude than an explicit behavior.

Relations behaviors, while not as prevalent as task and boundary spanning behaviors, were still identified in 17 of the 49 leadership situations. The situations where relations behaviors were identified mainly involved empowering (8 situations) and consulting (5 situations) behaviors, and related to the managers’ efforts to facilitate team discussion and collaboration and to get the team fully involved in the project work and decisions. Thus B2 described how he enlisted his team to solve a problem on the project that he’d never encountered before:

With my team then we said how shall we face this? And how shall we do that? [B2]

And D1 described how he set out right from the start of a difficult project to fully engage the team in all aspects of the project planning and decision making in order to build a sense of ownership of the project among the team members:

I involved them pretty much when the idea was conceptualized, I involved them during the estimate, I involved them during the brainstorming session. So, they kind of owned the project, they felt that it is their project too. And, so [as the project progressed], I always talk to them and ask for solutions, respect their opinions, and include them to contribute to the project. [D1]

In contrast to the task behaviors, which were typically identified in situations at or near the beginning of a project, the situations with relations behaviors more often related to the on-going progress of the project, with managers like D1 recognizing the need to establish a pattern of team involvement and consultation early on and then build on that involvement throughout the project. This aligns well with Hackman and Wageman’s [24] model of actions to support team facilitation once the appropriate team tasks, roles and structures have been established. Hackman and Wageman also suggest that, with the right conditions in place, team leaders can gain incremental improvements through recognition of good performance. However, recognizing behaviors were not generally evident in this group of managers, with only one situation being coded for recognition.

Finally, change behaviors were identified in only 4 of the situations. This very low incidence of change behaviors is somewhat surprising, and suggests that the
respondents in this study were not working on projects requiring high levels of innovation and adaptation. Nor did they place high value on motivational leadership behaviors for building a sense of compelling direction or for ensuring on-going high motivation in the team. Instead, they seemed to rely on their task-related skills and behaviors to establish the team roles and structures, and assumed that the IT project task itself would be sufficiently motivating to provide the compelling direction described in Hackman and Wageman’s [24] model. We noted that this group of project managers worked mainly on software development and implementation projects, rather than on ‘blue sky’ research projects, and thus our findings of an emphasis on task, rather than change, behaviors find support from Keller’s [20] conclusions that task behaviors are more important for development projects.

5. Limitations and Conclusions

As a preliminary and exploratory investigation into IT project manager leadership behaviors, the study is clearly limited in terms of generalizable conclusions that can be drawn. However, it does provide some empirical support for the view that project team leadership requires a different mix of leadership behaviors from leadership more generally, and that IT projects present some unique leadership challenges, particularly in terms of spanning the interface between the team and a variety of internal and external stakeholders. Specifically, the project managers in this study demonstrated high levels of task oriented behaviors, focused on efficiency, and high levels of boundary-spanning behaviors, focused on promoting intra- and inter-organizational communication and collaboration.

The prevalence of boundary-spanning behaviors is particularly striking and speaks to the need for organizations to ensure that personnel selected for project management roles have not only the skills and knowledge to address the task-oriented work, but also the appropriate skills and abilities to bridge the gap between the core team’s project work and the wider stakeholder groups, both within and external to the organization.

One area that clearly requires further investigation is the possible link between IT project managers’ leadership behaviors and the final outcomes of the project. Further research is planned to examine this link, with a view to determining which competencies and leadership behaviors are particularly important in supporting different aspects of final project success in the IT context.

6. References


[34] Argyris, C. and D.A. Schön, Organizational Learning II. 1978, Reading, MA: Addison-Wesley.
