Best Practices For Managing IS&T Professionals

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INTRODUCTION

IS&T professionals are those whose primary job function is the development, installation, and implementation of computer systems or communication technology. Researchers over the last decade have generated a body of literature which is informed by management research and theory and tailored to the unique demands that characterize IS&T work. At the industry level, IS&T fluctuates with the supply and demand asymmetry caused by technological advances (Agarwal & Ferratt, 2002a). The changing nature of the industry trickles down to affect IS&T professionals who must continually update their skills in order to prevent technical obsolescence (Tsai, Compeau, & Haggerty, 2007). IS&T work demands flexibility in responding to customer demands, emerging issues, and spontaneously hectic workloads. The nature of the work is continuous (frequently 24/7) and often requires the coordination of multiple experts. IT is typically a service function upon which other organizational functions depend. Yet, it is common for IT to be undervalued, unless there is an IT failure. IS&T work may be performed by individuals or teams that may be co-located or virtually connected. Drawing from management and IS&T scholarship, this article provides IT supervisors with an overview of best practices for effectively managing IT professionals.

BACKGROUND

A capable and talented IT workforce is a strategic resource and competitive advantage for organizations.

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Prior to the popping of the IT bubble, the abundance of talented IT professionals permitted supervisors to focus on motivating extant staff. Since the industry has stabilized and skilled labor is in shorter supply, supervisors must focus on retention, a more longitudinal goal, in addition to maintaining production levels (Agarwal, Ferratt, & De, 2007; Ferratt, Prasad, & Enns, 2012). This article focuses on best practices for effectively managing the IT workforce.

Agarwal and Ferratt (2002a) and Major et al. (2007) have combined survey and interviewing methodologies to empirically derive taxonomies of best human resources management (HRM) and supervisory practices for IT (see Table 1). Although both taxonomies address the issue of effectively managing IS&T professionals, Agarwal and Ferratt approach the issue from a more global HRM systems perspective, while Major et al. focus on the practices of individual supervisors.

Reminiscent of classical leadership theory, two comparable dimensions emerge in each taxonomy. One dimension focuses on the work itself and outputs – "task-focused leadership practices" (Major et al., 2007) or "productivity concerns" (Agarwal & Ferratt, 2002a). This aspect emphasizes performance management, employee involvement, and training and development. Another dimension attends to the individual needs of IS&T workers. At the macro-level, this refers to attending to employee needs through human resources and demonstrating "concern for the individual." Similarly, Major et al. (2007) refer to "person-focused practices" for meeting individuals' social needs and maintaining interpersonal relationships though supervisor-subordinate interaction. The

Table 1. IS&T best practices taxonomies

Human Resource Practices Agarwal & Ferratt (2002a)	Supervisory Practices Major et al. (2007)
Performance Measurement	Task-Focused Practices
Compensation & Benefits Systems	Boundary Spanning
Work Arrangements	Performance Management
Employability Training	Employee Involvement
Longer-Term Career Development	Training & Development
Opportunities for Advancement	
Opportunities for Recognition	Person-Focused Practices
Quality of Leadership	Relationship Building
• Sense of Community	Mentoring
Lifestyle Accommodations	Stress Management
Organizational Stability & Employment Security	Work-Family Balance

person-focused practices and productivity focused practices that emerge from the two taxonomies are essential to the primary IT management goals of motivating and retaining a skilled workforce. In the remainder of this article, best practices representing each dimension are elaborated.

PERSON-FOCUSED PRACTICES

Relationship Building

Upon hire, employees enter into a relationship with their organization. As with any relationship, it requires reciprocity. Employees make an investment in their organization (e.g., labor and effort) and hold expectations of the company in return. The perceived exchange relationship between employees and their organizations is referred to as a psychological contract (see Ng, Feldman, & Lam, 2010). As the direct representative of the organization, supervisors are responsible for communicating and upholding the employer's end of the contract and may assist the organization to enjoy the benefits of the relationship (Agarwal & Ferratt, 2002b; Ng et al., 2010). Leader-member exchange (LMX) represents the reciprocal relationship between supervisors and employees, and is a primary channel through which resources are distributed to employees to fulfill expectations in the psychological contract (Dulac, Coyle-Shapiro, Henderson, & Wayne, 2008; Graen & Uhl-Bien, 1995). As a result of LMX, employees perceive greater fairness in the work environment and report advantageous work outcomes, such as increased satisfaction and reduced turnover (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012).

IT supervisors should maintain open and frequent communication with their subordinates for motivational purposes. Research suggests that interpersonal relationship building via face-to-face communication is preferred over other methods (e.g., email) by IS&T professionals and their supervisors (Major et al., 2007). Through good communication aimed at establishing strong relationships, managers can mitigate job stressors such as customer service demands, tight deadlines, and understaffing (Major et al., 2007). For employees working virtually or at a distance, providing for faceto-face communication with supervisors is especially important to maintain job performance (Golden, Veiga, & Dino, 2008). Over time, mutual trust and loyalty develop through open communication, honesty, dependability, and perceived fairness (Levin, Whitener, & Cross, 2006; Lewicki, Tomlinson, & Gillespie, 2006). Thus, when the opportunity to directly interact with one's subordinates is not available, a supervisor must rely on these characteristics of a high-quality LMX relationship to bridge the distance created by remote work (Golden et al., 2008; Liden & Maslyn, 1998; Major et al., 2007).

IT research has especially advocated the implementation of mentor-based systems, in which mentors assist employees in identifying career growth and development opportunities. When supervisors provide mentoring, benefits for employees (e.g., satisfaction and commitment) are particularly strong (Madlock & Kennedy-Lightsey, 2010). Supervisors who participate in mentoring relationships are able to provide sponsorship and exposure, and have the power to promote the career progress of an employee (Haggard, Dougherty, Turban, & Wilbanks, 2011). In fact, supervisors who take on the role of mentor are more likely to provide

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