Chapter XVI
Determining User Satisfaction from the Gaps in Skill Expectations Between IS Employees and their Managers

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ABSTRACT

The skills held by information system professionals clearly impact the outcome of a project. However, the perceptions of just what skills are expected of information systems (IS) employees have not been found to be a reliable predictor of eventual success in the literature. Though relationships to success have been identified, the results broadly reported in the literature are often ambiguous or conflicting, presenting difficulties in developing predictive models of success. We examine the perceptions of IS managers and IS employees for technology management, interpersonal, and business skills to determine if their perceptions can serve to predict user satisfaction. Simple gap measures are dismissed as inadequate because weights on the individual expectations are not equal and predictive properties low. Exploratory results from polynomial regression models indicate that the problems in defining a predictive model extend beyond the weighting difficulties, as results differ by each skill type. Compound this with inherent problems in the selection of a success measure, and we only begin to understand the complexities in the relationships that may be required in an adequate predictive model relating skills to success.

INTRODUCTION

Past studies on information system skills focused on the identification of the ideal skill set for information system (IS) personnel. From this slant, the viewpoints of different stakeholders have been explored (Lee, Trauth, & Farwell, 1995; Trauth, Farwell, & Lee, 1993). It should not surprise one that there exists a significant difference of thought among stakeholders (users, IS managers, and IS employees) in their expectations on skill sets. Depending on the stakeholder, some studies argue technical skill is most important (Duncan, 1995; Todd, McKeen, & Gallupe, 1995), while other studies argue that business and interpersonal skills are more important (Leitheiser, 1992). One fundamental assumption of these IS skill studies is that there is a positive link between skills expectation and success measures. However, this fundamental assumption has never been fully established in the literature (Jiang, Klein, Van Slyke, & Cheney, 2003).

Studies found that satisfaction of any stakeholder is likely determined by the gaps between their own perceived skill expectation and skill proficiency (*within* a stakeholder) (Byrd & Turner 2001). These studies, however, tend to apply equal weights to expectations and performance. Other empirical IS skill studies show there to be expectation gaps among different stakeholders (Klein, Jiang, & Sobol, 2001). These studies naturally lead to question if the interaction of expectations *among* stakeholders will impact the final outcomes, such as user satisfaction. More specifically, can the existence of this skill expectation gap *between* two (or more) stakeholders serve as a predictor of user satisfaction?

Some researchers have argued that a "shared vision" of skill requirements among stakeholders is necessary to achieve success (Trauth et al., 1993). An understanding of how skill expectation gaps among stakeholders (between IS managers and IS employees in this study) impact user satisfaction ratings is crucial, as user satisfaction ratings are often used in organizations as the basis for IS employee promotions, terminations, transfers, and reward distributions. In addition, ratings that are obtained as part of job analyses can be used to specify the skills required of a job incumbent. Such ratings require judgment of the relative importance of skills by IS employees and IS managers (Wexley & Latham, 1991). This evaluation often is used concurrently in personnel and human resource decisions such as personnel planning, training needs analysis, employee selection, and the design and administration of compensation programs. In spite of its importance, to our best knowledge, research on IS skills has not explored the impacts of the perceived skill expectation gap between IS employees and IS managers to determine if these measures may be at all predictive of user satisfaction.

The purpose of this study is, therefore, to investigate the relationship of the expectation gap between IS managers and IS personnel and user satisfaction. Social interaction theory provides the foundation for examining the relative weights on IS managers' expectation and IS personnel's expectation on determining user satisfaction. The results of this study will provide knowledge in two areas: 1) the existence of skill expectation gaps between IS employees and IS managers; and 2) the impact of gaps in these expectations to user satisfaction allowing for the components of the gaps to vary in weight.

HYPOTHESIS DEVELOPMENT

There is considerable agreement among IS skill researchers and practitioners concerning generalized job requirements and the associated job skill categories that are required of IS professionals. A commonly accepted group of IS professional skills includes (1) technology management skills, (2) business functional skills, and (3) interpersonal skills (Byrd & Turner, 2001). It is established that the skills of the IS employees can impact the

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