



A Path Analytic Study of the Antecedents of Organizational Commitment of IS Managers

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Information systems (IS) technology has become a strategic resource for most organizations to compete successfully in today's highly uncertain marketplace. One critical component of this strategic resource is the IS human resource. Unlike many other professions, the IS professionals historically displayed a much higher rate of turnover due to rapid technological changes, job stress and emerging employment opportunities. Such excessive turnover can be very costly to the organization in terms of costs of recruiting and re-training, and the loss of systems development productivity. Therefore, maintaining a qualified and stable body of IS staff has been continually ranked among the most important issues for the successful functioning of IS departments. However, these important IS human resource management issues have not received enough empirical research attention within the IS management literature. The current study attempts to fill this gap by empirically examining the relationships among a set of organizational and psychological factors (i.e., management support, degree of IS control, IS strategic significance, role stressors) and the organizational commitment of IS managers. Empirical data was collected through large-scale questionnaire survey. The rigorous statistical method of LISREL path analysis was used. Results show that these variables are closely related to each other, which provides valuable insights for organizations to more effectively manage their IS human resource.

INTRODUCTION

Information systems (IS) technology is drastically changing every aspect of our lives as well as that of organizations. Organizations are increasingly dependent on IS technology to obtain market information, design and produce products, keep in contact with customers, and manage daily operations (McGee and Prusak, 1993). In many organizations, IS has emerged from a traditional supportive function to a strategic resource that may finally determine the firms' competitive capability (Sabherwal and King, 1991). As a result, firms have been investing heavily in IS technologies in the hope of remaining competitive.

The introduction of new technologies has offered new ways for organizations to restructure and manage their IS. For example, technological advances have made it possible to implement concepts such as re-engineering which have impacted on IS structure through networking and downsizing (Benjamin and Levinson, 1993; Teng, Grover and Fiedler, 1994). These changes, coupled with the increased knowledge,

awareness, and demands of IS users, have considerably altered the IS executive's work environment, thus creating the potential for increasing job stress. Job stress in turn profoundly alters IS executives' commitment to the organization and their motivation to stay with the organization (King and Sethi, 1997).

Maintaining a qualified and stable body of IS staff has been continually ranked among the most critical factors for the successful functioning of IS departments. However, it is shown that the turnover rate among IS professionals is still very high (Tan and Igarria, 1994). Such excessive turnover can be very costly to the organization in terms of costs of recruiting and re-training, and loss of systems development productivity (Igarria et al., 1994). While the difficulty of the retention of qualified personnel cannot be understated, a particular problem in the retention of IS personnel is attributed to their "higher growth needs", which makes the efforts involved in motivating IS personnel quite substantial (Couger and Zawacki, 1980; Igarria et al., 1991). While these and similar issues have been

addressed in the organizational behavior literature, the human resource management issues relating to IS professionals have not received enough research attention within the IS literature (Ginzberg and Baroudi, 1988; Sethi, Barrier and King, 1999). As Baroudi and Ginzberg (1986) already pointed out, there is considerable interest in understanding how to increase IS personnel productivity, satisfaction, and organizational commitment, and to decrease turnover. Given the importance of retaining qualified IS personnel, studies directed at gaining further understanding of the factors that influence the turnover of IS personnel would contribute to the theoretical IS literature and also have practical significance. The purpose of this study is to address the above identified gap in the IS literature.

The next section reviews the research on organizational commitment, both in the organizational behavior and the IS literature, and provides a theoretical framework and a discussion of variables of interest. This is followed by hypothesized relationships of variables to organizational commitment. The research methodology and analysis of results are then presented, followed by discussions and implications of findings.

THEORETICAL FRAMEWORK

The organizational behavior literature has identified job stress and organizational commitment to be significant predictors of employee turnover (Williams and Hazer, 1986; Shore and Martin, 1989). Glisson and Durick (1988) summarized that variables that contribute to organizational commitment can be divided into three groups: (1) Variables that describe characteristics of the workers who perform the tasks (individual variables); (2) Variables that describe characteristics of the jobs or tasks performed by the workers (job-related variables); and (3) Variables that describe characteristics of the organization in which the tasks are performed (organizational variables).

The relationships among these variables and organizational commitment have been well researched in organizational behavior theory (Mathieu and Zajac, 1990). Several conceptual models linking organizational commitment to a variety of individual, job-related, and organizational variables have also

been proposed in the organizational behavior literature (Cotton and Tuttle, 1986). The IS literature, however, has not thoroughly studied the specific impact of variables from all three categories. The existing few IS human resource management research focused primarily on the effects of individual and job-related variables on the organizational commitment and turnover of IS personnel. For example, Baroudi (1985) examined the impact of boundary spanning (job-related variables) and role stressors (individual variables) on IS personnel organizational commitment and turnover. A study by Igbaria and Greenhaus (1992) tested the effects of demographic variables (age, education, etc.) (individual variables), role stressors (role conflict and role ambiguity) (individual variables), and career-related variables (salary, promotability) (job-related variables) on the organizational commitment of IS personnel. Given the constant change and high pressure in IS working environment as discussed earlier, more empirical research attention on IS organizational variables is warranted.

The current study develops a path analytic model by integrating variables from all three categories. It extends the organizational behavior research into the IS management area by examining the linkages between management support, degree of IS control, IS manager role ambiguity, role conflict, strategic significance of IS, and organizational commitment of IS managers. The hypothesized model under investigation is depicted in Figure 1.

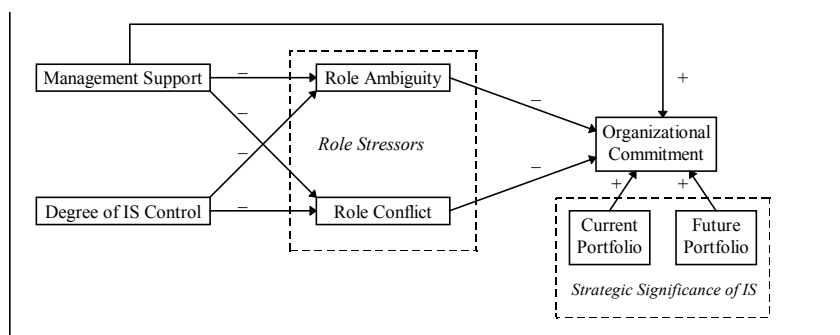
In the model, management support and degree of IS control are considered as organizational (group 1) variables, and strategic significance of IS as job-related (group 2) variables, while role stressors are considered as individual (group 3) variables. The current study does not include some antecedent variables originally proposed in the meta-analysis by Mathieu and Zajac (1990) because this is only part of a major research project. For example, job satisfaction is commonly cited as antecedent to commitment. However, considering that the effects of job satisfaction has been well studied in both the organizational behavior literature (Netemeyer, Burton and Johnston, 1995) and the IS literature (Igbaria and Guimaraes, 1993), and the job satisfaction variable was not included in the major research framework. The variables included in the hypothesized model are defined as follows:

1. *Management Support*: the degree to which top management understands the importance of IS, creates a supportive environment for IS, and involves in the activities of IS function (Raghunathan and Raghunathan, 1988).

2. *Degree of IS Control*: the degree to which IS function has control over IS through formalization and standardization of rules and procedures, and through authority of decision making concerning IS activities (Cash et al., 1992).

3. *Strategic Significant of IS*: the degree to which IS activities are vital to the firm's daily operation, product innovation, and competi-

Figure 1: Hypothesized Model



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