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ORGANIZATIONAL, JOB, AND SUPERVISORY ANTECEDENTS AND
CONSEQUENCE OF JOB EMBEDDEDNESS:
THE CASE OF VIETNAM

By

Vinh Quang Nguyen

A Dissertation
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CONSEQUENCE OF JOB EMBEDDEDNESS:
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A recent major development in the turnover literature is the introduction of the Job Embeddedness (JE) construct. JE is a multidimensional construct conceptualized as the combined forces that tend to keep an employee from leaving his or her job. Research has demonstrated that JE predicts voluntary turnover above and beyond the variables used in traditional turnover models. However, since it is a relatively new construct, JE has received very limited study, especially across cultures. Further research is needed in order to understand both antecedents and consequences of JE. This dissertation, therefore, investigates a range of presumed organizational, job, and supervisory antecedents and consequence of JE in the context of Vietnam. The objectives of the study include (1) examining how human resource practices such as perceived supervisor support, organizational rewards, growth opportunity, training, and organizational justice, impact JE; (2) investigating how job characteristics such as skill variety, task significant, task identity, autonomy, and feedback influence JE; and (3) exploring whether perceived

organizational support mediates the relationships between these organizational factors and JE; and (4) testing the relationship between JE and turnover intention in Vietnam.

The study used a sample of 304 employees from a state-owned company in Hanoi, Vietnam to test fourteen hypotheses. The results indicated that human resource practices, including organizational rewards, growth opportunities, and procedural justice, and job characteristics, directly influence JE. In addition, perceived organizational support was found to mediate the relationships between organizational rewards and JE and between procedural justice and JE. The results also provided support for a significant and negative relationship between JE and intention to quit. The findings of this study, therefore, contribute to understanding the theoretical network of JE, as well as to helping managers find ways and conditions to retain valuable employees.

DEDICATION

This dissertation is dedicated to my dad, my mom, my sisters, my wife, and my sons.

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TABLE OF CONTENTS

DEDICATION ii

ACKNOWLEDGMENTS iii

LIST OF TABLES vii

LIST OF FIGURES ix

CHAPTER

I. INTRODUCTION 1

 Turnover Research and Job Embeddedness 1

 Importance of Job Embeddedness 3

 Need for Further Research on Job Embeddedness 5

 Research Questions 6

 Objectives of the Study 7

 Model Overview 8

II. LITERATURE REVIEW, MODEL, AND HYPOTHESES 11

 Turnover Models 11

 The Development of Traditional Turnover Models 12

 The Eight Motivational Forces of Voluntary Turnover 16

 Affective Forces 16

 Contractual Forces 16

 Constituent Forces 17

 Alternative Forces 17

 Calculative Forces 18

 Normative Forces 18

 Behavioral Forces 19

 Moral Forces 19

 Definition of Job Embeddedness 20

 On-the-job Embeddedness 22

 Off-the-job Embeddedness 23

 Job Embeddedness Turnover Intention, and Turnover 27

 Antecedents of Job Embeddedness 31

 Demographic Variables and Job Embeddedness 32

Dispositional Variables and Job Embeddedness.....	33
Work Perceptions and Job Embeddedness	34
Mating Opportunity and Job Embeddedness	35
Limitations in Giosan’s (2003) Study.....	35
Organizational Socialization Tactics and Job Embeddedness	37
Job Embeddedness Research in Cross-Cultural Context.....	38
Summary	40
Purposes of the Current Study.....	41
Social Exchange Theory and Perceived Organizational Support	43
Antecedents of POS	44
Consequences of POS	45
Human Resource Practices	46
Micro Approach to Human Resource Practices.....	46
Job Characteristics	48
Theoretical Model and Hypotheses Development.....	49
Antecedents of Job Embeddedness.....	50
Perceived Organizational Support and Job Embeddedness.....	50
Perceived Supervisor Support and Job Embeddedness	53
Organizational Rewards and Job Embeddedness	55
Growth Opportunity and Job Embeddedness	56
Training and Job Embeddedness	57
Organizational Justice and Job Embeddedness.....	59
Job Characteristics and Job Embeddedness.....	62
Job Embeddedness and Turnover Intention.....	64
III. METHODOLOGY	69
Study Design.....	69
Instrument Development.....	70
Data Collection	70
Measures	72
Dependent Variable Measures	72
Job Embeddedness	72
Intention to Quit.....	72
Mediating Variable Measure.....	73
Independent Variable Measures.....	74
Perceived Supervisor Support.....	74
Organizational Rewards.....	75
Growth Opportunities	76
Training.....	76
Procedural Justice	77
Job Characteristics	78
Control Variables.....	79
Statistical Methodology and Analysis Procedures.....	81
Testing Scale Psychometric Properties.....	81
Statistical Methodology	82

Determining Sample Size	83
Testing Hypotheses on the Antecedents of JE	83
Mediation Analysis	85
Testing Hypothesis on the Consequence of JE	87
IV. DATA ANALYSIS AND RESEARCH RESULTS.....	89
Sample.....	89
Scale Verification.....	90
Scale Reliability Analysis	90
Scale Dimensionality Analysis	91
Principal Component Analysis	92
Confirmatory Factor Analysis.....	96
Results of Hypotheses Testing.....	102
Results on the Direct Antecedents of JE.....	103
Results on the Mediating Effect of POS	106
Results on the Relationship between JE and Intention to Quit.....	109
Post-hoc Tests	112
V. DISCUSSION AND CONCLUSION.....	113
Discussion of Results.....	113
Objective #1: Direct Relationships between HR Practices and JE	114
Objective #2: Direct Relationship between Job Characteristics and JE	119
Objective #3: Direct and Mediating Effects of POS.....	119
Objective #4: Relationship between JE and Intention to Quit.....	123
Contributions of the Study	123
Academic Contributions	124
Practitioner Contributions.....	125
Limitations of the Study.....	127
Recommendations for Future Research	129
Conclusion	130
REFERENCES	132

LIST OF TABLES

2.1	Dimensions of Job Embeddedness.....	22
2.2	Summary of Research Literature on Job Embeddedness.....	25
2.3	List of Hypotheses	67
3.1	Job Embeddedness Scale	72
3.2	Intention to Quit Scale	73
3.3	Perceived Organizational Support Scale.....	74
3.4	Perceived Supervisor Support Scale	75
3.5	Organizational Rewards Scale	75
3.6	Growth Opportunity Scale	76
3.7	Training Scale	77
3.8	Procedural Justice Scale.....	77
3.9	Job Characteristics Scale.....	79
3.10	Affective Commitment Scale.....	81
3.11	Testing Hypotheses Using Hierarchical Regression.....	84
4.1	Sample Demographic Information	90
4.2	Cronbach's Coefficient Alphas	91
4.3	PCA for Each Individual Scale	93
4.4	PCA for All Scales Together	95

4.5	Standardized Regression Weights and Average Variance Extracted	98
4.6	Average Variance Extracted (AVE) and Squared Correlations	101
4.7	Model Fit Indices	102
4.8	Means, Standard Deviations, and Correlations	104
4.9	Regression Results with JE as the Dependent Variable	105
4.10	Regression Results with POS as the Dependent Variable	108
4.11	Regression Results with Intention to Quit as the Dependent Variable	110
4.12	List of Hypotheses Test Results	111

LIST OF FIGURES

1.1	Conceptual Model of the Study	10
2.1	Theoretical Framework.....	51
2.2	Conceptual Model and Hypotheses	68

CHAPTER I

INTRODUCTION

This dissertation investigates the antecedents and consequences of job embeddedness (JE). The organizational, job, and supervisory factors that embed employees into their jobs and whether JE influences turnover intention are the focus in this research. The dissertation is divided into five chapters. Chapter I introduces the JE construct and includes background of the research problem, the importance and need for further studies on JE, research questions and objectives, and the study's model overview. Chapter II reviews the literature on turnover and JE, presents the theoretical model of the study, and develops the research hypotheses. Chapter III provides an in-depth discussion of the methodology, including research design, specific measures, and analytic procedures used to test the hypotheses. Chapter IV includes the analysis of the data and the results of hypotheses tests. Chapter V presents a summary of the overall research effort, including detailed discussion of the results, contributions of the study, research limitations, recommendations for future research, and conclusion.

Turnover Research and Job Embeddedness

The effective management of employee turnover is a crucial issue for organizations. This is not only because turnover is disruptive, but also because it can be very costly for organizations. According to the US Department of Labor (2009), the

average national turnover rate over the last ten years is approximately 36 percent annually, with 15 percent being voluntary turnover. In addition, the costs of replacing an employee can range from 60 percent to over 200 percent of that individual's annual salary when things such as recruitment and selection costs, training costs, and separation costs are included (Mitchell, Holtom, & Lee, 2001; Cascio, 2000). Thus, it is hardly surprising that employee retention is of great interest both to practicing managers and organizational researchers.

Numerous studies have examined why employees voluntarily leave their organizations. The traditional thinking is that given job alternatives, employees stay if they are satisfied with their jobs and committed to their organizations, and leave if they are not. Drawing heavily upon March and Simon (1958), researchers (e.g., Hom & Griffeth, 1995; Price & Mueller, 1981, Steers & Mowday, 1981) suggest that turnover results from the accumulation of negative affective reactions over time, which in turn triggers search behaviors and subsequent quitting. When employees become dissatisfied with their jobs, they look for alternatives and leave the organization if they find a better choice (Mobley, 1977). Thus, in traditional turnover models, job attitudes (specifically, satisfaction and commitment), combined with perceived ease of movement (job alternatives and job search), are thought to be the main predictors of employee turnover.

However, the empirical evidence suggested that these models have limited predictive power (Yao, Lee, Mitchell, Burton, & Sablinski, 2003). For example, job attitudes appeared to play only a relatively small role in employee retention (Hom & Griffeth, 1995; Griffeth, Hom, & Gaertner, 2000). Results from a meta-analytic study by Griffeth et al. (2000) indicated that only 4 to 5 percent of the variance in employee

turnover is accounted for by attitudinal variables. Perceived job alternatives were found to have an even weaker effect on employee turnover (Steel & Griffeth, 1989; Griffeth et al., 2000).

In an attempt to find new directions for turnover research, Mitchell, Holtom, Lee, Sablinski and Erez (2001) identified on-the-job and off-the-job factors that can cause turnover. They argued that these on-the-job and off-the-job factors can be non-attitudinal and non-affective, and can be combined into a single construct called “Job Embeddedness” (JE). JE is defined as “an overall construct conceptualized as the combined forces that keep a person from leaving his or her job” (Yao et al., 2003, p.156). It is described as being similar to a net or a web in which an individual can become enmeshed. Mitchell et al. (2001) suggested that JE might explain voluntary turnover better than traditional turnover models. In fact, empirical findings from their study showed that JE explained significant incremental variance over and above traditional turnover models.

Importance of Job Embeddedness

According to Mitchell et al. (2001), JE consists of three critical aspects: (1) “links,” or the extent to which people have connections to other people or activities, (2) “fit,” the extent to which their jobs and communities are similar to or fit with other aspects of their lives, and (3) “sacrifice,” which refers to the ease with which links can be broken (i.e., the things employees would give up if they left the employer, especially if they had to physically relocate to other places). Each of these dimensions is related to both on- and off-the-job situations, which means there are six separate factors that

contribute to JE: links-organization, fit-organization, sacrifice-organization, links-community, fit-community, and sacrifice-community.

The JE construct introduced by Mitchell et al. (2001) is a promising development in turnover research. Because JE consists of on-the-job and off-the-job factors, it incorporates not only the organizational context, but also the level of attachment to his/her community. JE also consists of different dimensions that integrate more complete variables that influence employees' decisions to leave or stay with an organization. Several empirical studies have supported the importance of the JE construct. Mitchell et al. (2001) and Lee, Mitchell, Sablinski, Burton, and Holtom (2004) report that this new construct explained significant incremental variance in turnover beyond that explained by job satisfaction, organizational commitment, job alternatives, and job search. Besich (2005) also reports that in comparing the predictive power of JE and the traditional models of voluntary turnover, the JE model was found to be a more powerful predictor. In addition, Lee et al. (2004) found that JE also influenced several other important organizational outcomes such as volitional absences, organizational citizenship behavior, and job performance. These findings support the theoretical and empirical robustness of the JE construct and expand the construct's nomological network (Lee et al., 2004).

Prior research has considered the antecedents of JE, albeit in a very limited way. Giosan (2003) found that age, strength of attachment, number of children, personality traits, perceptions about work, and perceptions about mating opportunities influence different dimensions of JE. For example, links-community was predicted by age and number of children, fit-community and sacrifice-community both were predicted by the perceived mating opportunities in the community, and fit-organization was predicted by

conscientiousness of the Big Five personality traits and by organizational and supervisor support. Another study found that socialization tactics influence newcomer turnover by embedding new employees more extensively into the organization (Allen, 2006). This is a very notable finding because an organization has control over its socialization tactics. Yao et al. (2003) also proposed that selection and socialization process, organizational justice, and job characteristics could influence JE as well.

Thus, research has shown that JE is a very important construct in the study of voluntary turnover. JE is also important in predicting other key organizational outcomes such as absenteeism, job performance, and citizenship behaviors. In addition, some studies suggest that a variety of personal and organizational factors can influence JE. Because of its relative newness and potential importance, further research on JE is necessary to understand this construct and its relationship with various factors in organizations.

Need for Further Research on Job Embeddedness

There are two important gaps in the JE literature that need further research. First, there is not a complete understanding of the organizational antecedents of JE. Although Allen (2006) investigated how organizational socialization tactics influence the JE of newcomers, the impact of many other human resource practices, such as organizational rewards, training, supervisor support, growth opportunities and organizational justice, have never been studied. In addition, while Giosan (2003) examined how the personal characteristics of employees and their work perceptions influence JE, he did not investigate the impact of job characteristics on JE.

Furthermore, there has been no study which investigates the manner by which these organizational factors impact JE. Prior research (e.g., Allen, Shore, & Griffeth, 2003) has shown that perceived organizational support, based on social exchange theory, plays a mediating role in the relationship between organizational factors (such as human resource practices) and employee outcomes (such as organizational commitment and voluntary turnover). However, there has not been any study which investigates whether perceived organizational support mediates the relationship between organizational factors and JE.

Second, there have been a very limited number of studies which examine the JE construct in different workforce populations or cultures. Most of the studies to date have been carried out in the United States and were limited to a few organizations in a small number of industries, which limits the generalizability of their findings. Therefore, more research needs to be conducted in international settings with different populations, in order to better understand the JE construct.

In the following sections, I present the research questions and the objectives of the current study in order to address these two gaps.

Research Questions

This dissertation focuses on the organizational, job, and supervisory antecedents and one consequence of JE in a non-Western country (Vietnam). The questions to be addressed in this study are the following: (1) What are the organizational, job, and supervisory factors that influence JE? (2) How do these factors influence JE? and (3) Does JE affect employee voluntary turnover in the country of Vietnam? Since there is a

paucity of research investigating how organizational factors impact JE and whether JE influences turnover intention across different cultures, this study contributes to the extant literature by attempting to answer these questions.

Objectives of the Study

The specific objectives of the study are to (1) examine how human resource practices such as supervisor support, organizational rewards, growth opportunity, training, and organizational justice, impact JE; (2) investigate how job characteristics such as skill variety, task significance, task identity, autonomy, and feedback, influence JE; (3) explore whether perceived organizational support mediates the relationships between these organizational factors and JE; and (4) test the relationship between JE and employee intention to quit in the country of Vietnam.

This study, therefore, enhances the theoretical understanding of the JE construct and extends the current body of knowledge in several ways. First, it provides tentative explanations as to how human resource practices and job characteristics influence JE. Second, by using the framework of social exchange theory, this study elucidates the manner in which human resource practices as well as job characteristics impact JE through the mediating effect of perceived organizational support. Knowledge about what factors influence JE and how they influence JE provide a clearer picture of the development of the JE construct. Third, investigating the relationship between JE and employee intention to quit in Vietnam not only expands the current limited JE research in cross-cultural contexts, but also helps validate the importance of JE construct in turnover research.

This study also has several important implications for managers in organizations. First, answers to the question whether organizational rewards, training, growth opportunities, procedural justice, and support from supervisors make employees more embedded into their jobs, can help practicing managers develop more effective human resource practices to retain valuable employees. Second, by examining the effects of job characteristics on JE, this study provides important insights for practitioners about whether the design of jobs makes employees more embedded into their jobs and therefore less likely to leave the organization. Third, findings on the mediating effects of perceived organizational support on the relationship between organizational factors and JE help managers understand that human resource practices and job characteristics might not directly, but indirectly, influence JE. Last, knowledge about how these factors impact JE and whether JE impacts intention to quit can assist organizations in their efforts to make employees more embedded into their jobs and less likely to quit.

In short, the results of this study are useful in assisting both academic researchers and managerial practitioners. The academic researchers can benefit from better understanding the theoretical network of JE, in terms of both the organizational antecedents and the consequences of JE. The managerial practitioners can better understand how employees become embedded in their jobs, and therefore find ways to retain valuable employees.

Model Overview

The conceptual model of the study is shown in Figure 1.1. Firstly, human resource practices (supervisor support, organizational rewards, growth opportunity,

training, and organizational justice) and job characteristics (skill variety, task significance, task identity, autonomy, and feedback) are proposed to directly influence JE. Secondly, perceived organizational support is hypothesized to mediate the relationships between these human resource practices and JE and between job characteristics and JE. Lastly, JE is proposed to directly influence intention to quit.

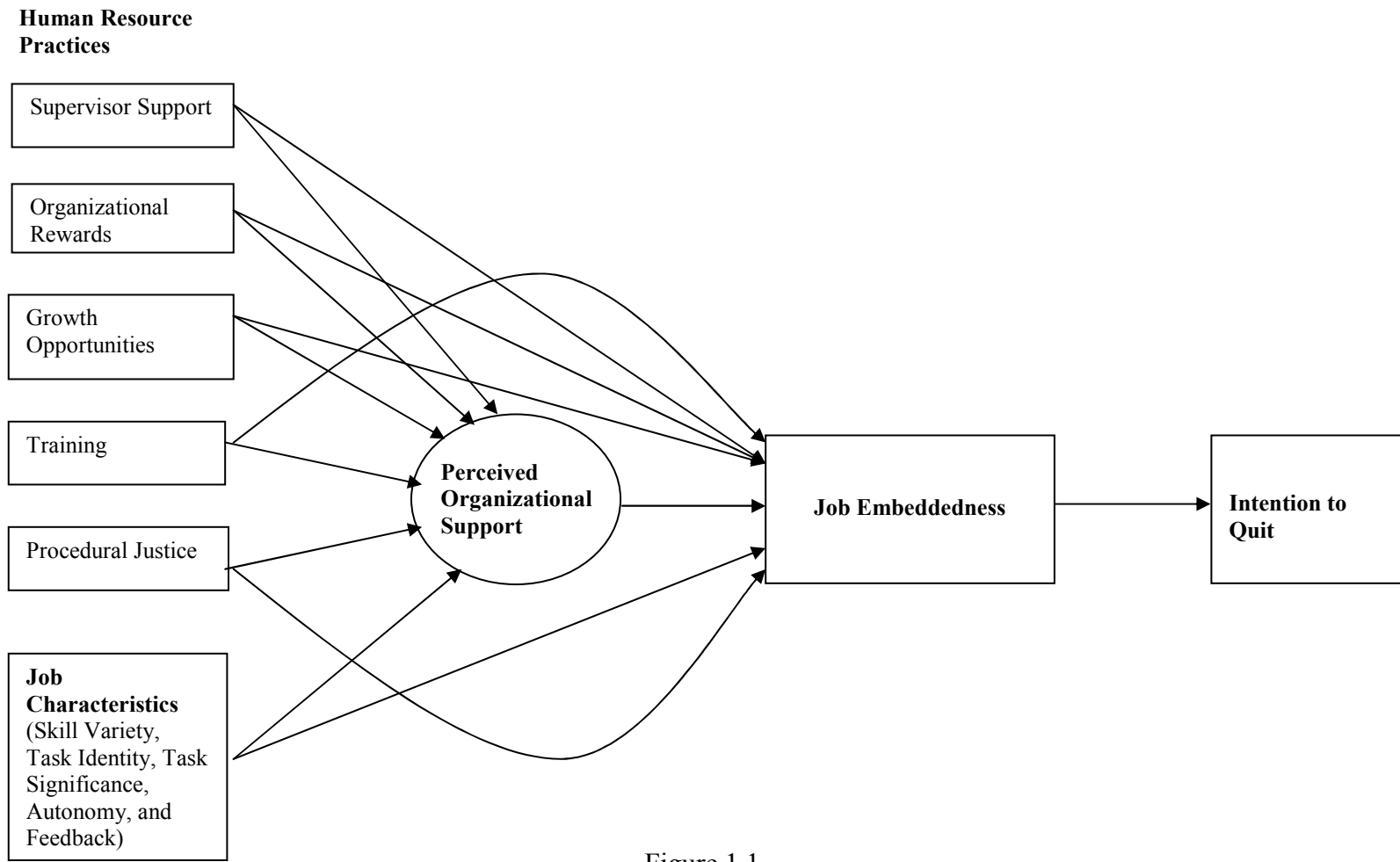


Figure 1.1

Conceptual Model of the Study

CHAPTER II

LITERATURE REVIEW, MODEL, AND HYPOTHESES

This chapter starts with a summary of turnover models and the introduction of job embeddedness (JE). Following a discussion of the antecedents and the consequences of JE, the research on social exchange theory, perceived organizational support, human resource practices, and job characteristics is reviewed. Lastly, the theoretical model of the study is presented and hypotheses are developed.

Turnover Models

Traditionally, research on employee turnover suggests that job attitudes (e.g., job satisfaction and organizational commitment) and ease of movement (e.g., perceived alternatives and job search behaviors) are the major predictors of voluntary turnover (Mitchell et al., 2001). These models are based on the concept of perceived desirability and ease of movement as proposed by March and Simon (1958). According to these ideas, employee turnover develops from the accumulation of negative affective reactions over time, which causes less satisfaction and less commitment to one's job and organization. The lack of satisfaction and commitment triggers search behaviors for new jobs, which in turn leads to turnover. Numerous studies have empirically tested these traditional models (e.g., March & Simon, 1958, Porter & Steers, 1973; Mobley, 1977; Steers & Mowday, 1981; Lee & Mowday, 1987; Blau, 1993).

Although these models have been found to be valid, their predictive power is relatively weak (Hom & Griffeth, 1995; Maertz & Campion, 1998; Griffeth, Hom, & Gaertner, 2000). The main reason for this low predictive validity is the failure to include other important factors and to comprehensively integrate different factors into the models (Mitchell et al., 2001; Maertz & Griffeth, 2004). To overcome this drawback, Maertz and Griffeth (2004) proposed an “eight forces” framework that synthesizes different motives for turnover. Similarly, Mitchell and his colleagues (2001) proposed a construct called “job embeddedness” that integrates different factors of turnover at once. In the following sections, I will briefly summarize the development of traditional turnover models, present the synthesized eight forces framework by Maertz and Griffeth (2004), and then introduce the JE construct by Mitchell et al. (2001).

The Development of Traditional Turnover Models

In their classic book, *Organizations*, March and Simon (1958) provided a clear distinction between two types of decisions made by an employee: (1) the decision to perform and (2) the decision to participate in the organization. March and Simon explained that the decision to perform job duties is reflected in terms of the employee’s motivation. The decision to participate in activities of the organization, on the other hand, is reflected in terms of the employee’s perceived desirability of movement and perceived ease of movement. According to March and Simon, there is a causal relationship between job satisfaction, expected value of reward, and level of aspiration. The employee contributes time and effort to the organization, which in turn compensates the employee with salary and benefits. If there is perceived equality between the

employee's rewards and his or her contributions, then the employee will continue to participate and remain with the organization. Otherwise, dissatisfaction will occur and the employee will look for job alternatives.

Based on March and Simon's (1958) ideas, Porter and Steers (1973) also investigated the relationship between employees' expectations and turnover. They argued that employees have set expectations regarding their jobs, which can be met or not met by their organization. If these expectations are not met, then the consequence is job dissatisfaction and eventually turnover. On the other hand, if expectations are met, then employees are satisfied with their jobs and less likely to leave the organization. Their empirical research results found consistent and inverse correlations between job satisfaction and turnover.

Mobley (1977) extended Porter and Steers' research to include job alternatives as a predictor of turnover. Mobley suggested that job dissatisfaction might lead to turnover through several steps: thoughts of quitting, searching for alternatives, comparing alternatives with the present job, and quitting. He found that even though it is present, the relationship between job satisfaction and turnover is not strong. Mobley explained that while employees may be not satisfied with their present jobs, they are not going to quit if they do not find better alternatives and/or if they expect better situations (e.g., promotions or improved conditions) regarding their present jobs in the future. Mobley (1977) also pointed out that non-job related factors, such as the transfer of a spouse, may influence an employee's decision to leave or stay.

Continuing this stream of research, Steers and Mowday (1981) identified a number of variables that affect employee turnover. These include job expectations,

affective responses, and intention to quit or stay. Steers and Mowday argued that intention to quit is the prior condition of job search behaviors. They also suggested that employees' affective responses, such as satisfaction, commitment or involvement, stem from job expectations, personal values, organizational characteristics, and job performance. The empirical results from Lee and Mowday's (1987) study showed that although the relationship between employees' affective responses and turnover was significant, its magnitude was not strong. They also found that intention to quit was the best predictor of actual turnover and that job alternatives were not significantly related to actual turnover.

Blau (1993) extended previous research by including job search behaviors to help predict turnover. He classified job search behaviors into three different types: preparatory job search behavior, active job search behavior, and general job search effort. He argued that previous turnover models lacked predictive power because they did not include job search behaviors as a predictor of turnover. The empirical results from Blau's (1993) study supported his argument. All three types of job search behaviors were related to turnover, with active job search behavior being the strongest predictor of turnover among other variables.

Within this traditional turnover research stream, a considerable number of studies have been conducted to test the relationship between turnover and job satisfaction (e.g., Cotton & Tuttle, 1986; Mobley, Griffeth, Hand, & Meglino, 1979; Tett & Meyer, 1993; Motowidlo, 1983; Lachman & Aranya, 1986; Hellman, 1997), turnover and organizational commitment (e.g., Mowday, Porter, & Steers, 1982; Jaros, Jermier, Koehler, & Sincich, 1993; Jaros, 1997; Aryee, Wyatt, & Min, 1991), turnover and job

alternatives and job search (e.g., Price & Mueller, 1981; Bannister & Griffeth, 1986; Dalessio, Silverman, & Schuck, 1986; Hom, Griffeth, & Sellaro, 1984; Hulin, Roznowsky, & Hachiya, 1985; Bretz, Boudreau, & Judge, 1994; Gerhart, 1990). Although most of the previous studies have demonstrated the validity of traditional turnover models, the predictive power of these models is limited. Hom and Griffeth (1995) reported that job satisfaction and organizational commitment account for less than 5 percent of the variance in voluntary turnover. Steel and Griffeth (1989) found that the effects of perceived opportunities on turnover are even weaker than attitudinal variables (job satisfaction and commitment). Griffeth et al. (2000), in their comprehensive meta-analytic study, indicated that job attitudes have a modest effect on turnover, with organizational commitment ($r = -.23$) predicting turnover better than job satisfaction ($r = -.19$). They also reported that perceived alternatives modestly predicted turnover ($r = .12$), and that job search yielded the best level of predictive power – ranging from .23 to .47. These results indicated that overall traditional turnover models have only small to moderate levels of predictive power

Maertz and Campion (1998), in their review of turnover research, found that only 25% of explained variance in turnover is accounted for from existing traditional turnover models. One reason is that these models have neglected or underestimated some important antecedents of turnover (Maertz & Campion, 1998). To provide a more comprehensive model of turnover, Maertz and Griffeth (2004) proposed an “eight forces” framework that synthesizes different motives for turnover. This framework will be summarized and discussed in the following section.

The Eight Motivational Forces of Voluntary Turnover

Maertz and Griffeth (2004) synthesized a typology of eight categories of motivational forces that drive employee quitting decisions. These eight forces include affective forces, contractual forces, constituent forces, alternative forces, calculative forces, normative forces, behavioral forces, and moral forces.

Affective Forces

Affective forces come from an employee's emotions or feelings toward his or her organization. If the employee feels positively about the current organization, then he or she will be motivated to maintain membership with the organization. On the other hand, if the employee feels negatively toward the organization, then he or she will want to avoid the resulting psychological discomfort by leaving the organization. These affective forces, therefore, are closely related to affective responses (such as job satisfaction and affective commitment) as proposed before (e.g., Mowday, Steers, & Porter, 1979; Steers & Mowday, 1981; Meyer, Allen & Smith, 1993).

Contractual Forces

Contractual forces are derived from the psychological contract between an employee and the organization. If the employee thinks he or she owes something to the organization, then the employee will want to stay with the organization to fulfill these perceived obligations. Conversely, if the employee thinks the organization breaches the psychological contract, then he or she will want to leave. This desire depends on the strength of the employee's norm of reciprocity. These contractual forces are closely related to the concepts of normative commitment (e.g., Meyer & Allen, 1991) and

perceived organizational support (e.g., Eisenberger, Huntington, Hutchinson, & Sowa, 1986).

Constituent Forces

Constituent forces are an employee's relationships with individuals or groups within the organization. The employee will want to stay with or leave the organization depending on whether his or her relationships with constituents are good or bad. If constituents leave the organization, then the employee may also change his or her decision to stay or leave, depending on the relationships. Previous research (e.g., Krackhardt & Porter, 1985; Becker, 1992) has demonstrated that these constituent forces impact voluntary turnover. Constituent forces are also closely related to the links-organization dimension of Mitchell et al.'s (2001) job embeddedness concept.

Alternative Forces

Alternative forces come from an employee's self-efficacy beliefs about the ability to obtain valued alternatives to his or her current job, combined with the certainty of obtaining those alternatives. If the employee is certain that he or she can get a better job at another organization, then the employee will be more likely to quit. If the employee is not certain about getting a better job, then he or she will be more likely to stay with the organization. These alternative forces are therefore related to the concept of job alternatives in earlier research (e.g., Mobley, 1977; Price & Mueller, 1981).

Calculative Forces

Calculative forces derive from an employee's cognitive evaluation of future prospects associated with continued membership in the organization. If the employee calculates that his or her goals and values can be achieved through continued membership with the organization, then the employee will be motivated to stay. Conversely, if the employee determines that his or her goals and values are unlikely to be met at the current organization, then the employee will be motivated to quit. Thus, these calculative forces are somewhat similar to the concepts of job expectations in previous research (e.g., Mobley et al., 1979; Steers & Mowday, 1981).

Normative Forces

Normative forces come from an employee's perceptions of what family or friends outside the organization expect him or her to do with respect to staying or quitting. These perceived expectations can come from one or many parties, and they can conflict with one another. The employee will be motivated to stay with or to leave the organization depending on the level of his or her compliance with these expectations. Although normative forces have demonstrated strong relationships with turnover (e.g., Hom, Katerberg, & Hulin, 1979), they have been ignored in many turnover models (Maertz & Griffeth, 2004). However, Mitchell and colleagues (2001) do argue that off-the-job factors, such as family and friends in the community, influence an employee's decision to quit.

Behavioral Forces

Behavioral forces are an employee's perceived costs associated with leaving the current organization. These costs can be tangible or psychological. If the perceived costs are very high, then the employee will be more motivated to stay with the organization. If the perceived costs are not significant, then the employee feels more freedom to leave. These behavioral forces are closely related to the concept of continuance commitment (e.g., Meyer & Allen, 1991) and to the sacrifice-organization dimension of job embeddedness (Mitchell et al., 2001).

Moral Forces

Moral forces come from an employee's internalized values regarding turnover in general. If an employee views quitting in a negative light (e.g., "quitting is bad and persistence is good"), then he or she is less likely to quit. On the other hand, if the employee's value is positive about quitting (e.g., "changing jobs regularly is positive; staying too long is boring"), then he or she will be more motivated to quit the organization. Although a few studies have investigated these moral forces (e.g., Blau & Ryan, 1997; Dougherty, Dreher, & Whitely, 1993), they are mostly absent from turnover models.

According to Maertz and Griffeth (2004), these eight forces can be correlated with each other. They may also interact in ways that exacerbate or mitigate the effects of other forces. Finally, they may simply oppose each other; that is, act in opposite directions.

Obviously, the eight forces framework provides a more comprehensive view of why people stay or leave their organization. However, because there has not been any empirical study conducted to test this integrated framework, its predictive power remains unclear. Mitchell et al. (2001) who also recognized the need for a better way of integrating different forces of turnover, developed a new construct, called “job embeddedness (JE)”. This construct, according to the authors, predicts turnover better than the traditional turnover models. The following sections will discuss this JE construct, its definition and empirical research findings related to its consequences as well as its antecedents.

Definition of Job Embeddedness

Job embeddedness (JE) represents a combination of factors that influence an employee’s decision to remain with or to leave the organization (Mitchell et al., 2001). It is described as a net or web in which an individual becomes enmeshed or stuck. The theoretical foundation of JE stems from Kurt Lewin’s (1951) field theory and from embedded figures theories (Witkin, Moore, Goodenough, & Cox, 1977). Embedded people are immersed in their field and are connected through many links within their backgrounds and environment (Mitchell et al., 2001). These individuals are hard to separate from the field and become an intrinsic part of the surroundings. Thus, there is something like a net or a web in which an individual can become stuck.

The notion of embeddedness was previously used in the sociology and economics literatures to describe the power of social structure on economic activities of individuals and other social units (Granovetter, 1985; Uzzi, 1996, 1997; Shepard, Betz & O’Connell,

1997). Baum and Oliver (1992) emphasized that the depth of involvement of economic actors in relational structures will determine their level of embeddedness in their social structure. These social relations and structures influence and constrain economic actions of the people involved. This idea is similar to the “stuckness” idea from Mitchell et al.’s (2001) JE. However, according to Mitchell and his associates, the sociologists’ and economists’ use of the embeddedness construct is far broader than theirs in terms of the units of analysis and the dependent variables. Whereas sociologists and economists focus on individuals, groups, and organizations in a wide variety of economic actions, Mitchell and his associates focus more narrowly on individuals staying in their jobs.

Based on this theoretical foundation, the JE construct was conceptualized and defined as a combination of broad factors and dimensions which influence an employee’s decision to remain in or leave the organization (Mitchell et al., 2001). The critical aspects of JE are (1) “links,” or the extent to which people have connections with other people or activities, (2) “fit,” or the extent to which their jobs and communities are similar to or fit with the other aspects of their lives, and (3) “sacrifice,” or the ease with which links can be broken (i.e., the things employees would give up if they left the organization, especially if they had to physically move to other places). These three sub-dimensions – link, fit and sacrifice – are examined in two over-arching dimensions: (1) an employee’s organization (on-the-job) and (2) community (off-the-job), generating the six dimensions of the JE construct: links-organization, links-community, fit-organization, fit-community, sacrifice-organization, and sacrifice-community (see Table 2.1).

On-The-Job Embeddedness

On-the-job embeddedness consists of three sub-dimensions: links-organization, fit-organization, and sacrifice-organization. Links-organization is defined as “discernable connections people have on the job” (Yao, et al., 2003, p.162). These can be thought of as strands that connect an employee with his or her work team members, supervisors and other colleagues. Mitchell et al. (2001) proposed that as individuals have more tenure in organizations, they tend to have a greater number of connections with other individuals. The greater the number of links, the stronger the web and therefore the more tightly the individual is bound to the job and organization (Mitchell et al., 2001).

Table 2.1

Dimensions of Job Embeddedness

	On-the-job Embeddedness	Off-the-job Embeddedness
Links	<i>Links-organization:</i> formal or informal connections exist between an employee, other people, or groups within the organization.	<i>Links-community:</i> off-the-job connections such as family, non-work friends, and other social institutions in the community.
Fit	<i>Fit-organization:</i> an employee’s perceived compatibility or comfort with an organization.	<i>Fit-community:</i> a person’s perceived fit with the community and surrounding environment such as weather, amenities and general culture.
Sacrifice	<i>Sacrifice-organization:</i> perceived cost of material or psychological benefits that may be forfeited by leaving one’s job.	<i>Sacrifice-community:</i> things such as school quality or safety of the neighborhood that a person has to give up if leaving the community.

Fit-organization is defined as an “employee’s perceived compatibility with an organization” (Yao et al., 2003, p.161). Organizational fit may take the form of compatibility between personal values, career goals and future plans, with the organizational culture and job requirements. The better the fit, the higher the likelihood an employee will feel professionally and personally tied to an organization (Mitchell et al., 2001).

Sacrifice-organization is “the perceived cost of material or psychological benefits that may be forfeited by leaving one’s job” (Yao et al., 2003, p.160). For example, leaving an organization may cause personal losses such as giving up colleagues, interesting projects, job security, promotion opportunities, as well as salary, healthcare or cash bonuses. The more an employee has to give up when leaving, the less likelihood it would be for him or her to break employment with the organization (Shaw, Delery, Jenkins, & Gupta, 1998).

Off-The-Job Embeddedness

Off-the-job embeddedness consists of three sub-dimensions: links-community, fit-community, and sacrifice-community. Links-community is defined as “discernable connections people have off the job” (Yao et al., 2003, p.162). These links may include non-work friends, social groups, the community and the physical environment in which one lives. According to Mitchell et al. (2001), the more links one has and the more important those links are, the more likely people are heavily embedded.

Fit-community is an employee’s perceived compatibility with his or her community and environment (Yao et al., 2003). Examples include one’s compatibility

with local weather, culture of the community, entertainment, political, and religious activities. The greater the fit between an individual and his or her community, the less likely he/she is to look for a job that makes him or her to move (Yao et al., 2003).

Sacrifice-community is described as the perceived cost of material or psychological benefits that may be given up by leaving one's community (Yao et al., 2003). Examples of community benefits include quality of schools, safety of the neighborhood, easy commuting or good day care. Changing to a new job in a new location may cause one's loss of those benefits and therefore influence one's decision on leaving or staying at the current job.

Thus, JE is a multidimensional construct conceptualized as the combined forces that make it difficult for an employee to leave his or her job (Yao et al., 2003). It is like a web where the employee is connecting with other people, groups, things and institutions. This web or network makes the employee feel constrained when attempting to leave his or her organization. Mitchell et al. (2001) suggested that JE would predict employee turnover better than traditional turnover models. In the following sections, empirical research findings on organizational outcomes as well as antecedents of JE will be discussed. Brief summaries of those findings can be seen in Table 2.2.

Table 2.2

Summary of Research Literature on Job Embeddedness

Study	Primary Findings
Outcomes of Job Embeddedness	
Mitchell et al. (2001)	JE predicted intention to quit and actual turnover after controlling for gender, job satisfaction, commitment, job search, and perceived alternatives. JE was moderately related to job satisfaction and commitment.
Cunningham et al. (2003)	JE global-item scale predicted turnover intention after controlling for job satisfaction and commitment. Organizational sacrifice had the strongest relationship with turnover intention.
Holtom & O'Neill (2004)	JE predicted intention to quit and actual turnover after controlling for job satisfaction, commitment, job search, and perceived alternatives.
Lee et al. (2004)	Off-the-job embeddedness predicted actual turnover and voluntary absences, whereas on-the-job embeddedness predicted job performance and organizational citizenship behaviors after controlling for job satisfaction and commitment. On-the-job embeddedness was highly related to job satisfaction and commitment, whereas off-the-job embeddedness had much lower correlations.
Wijayanto & Kismono (2004)	On-the-job embeddedness was positively related to organizational citizenship behaviors, whereas off-the-job embeddedness was not.
Besich (2005)	On-the-job embeddedness predicted turnover intention after controlling for job satisfaction, commitment, job search, and perceived alternatives. Sacrifice-organization and fit-organization were highly related to commitment, whereas links-organization was not.
Heilmann (2005)	Off-the-job embeddedness predicted actual turnover when considered in conjunction with turnover intention. Off-the-job embeddedness had low correlation with organizational commitment.
Allen (2006)	On-the-job embeddedness was negatively related to actual turnover.

Table 2.2 (continue)

Study	Primary Findings
Outcomes of Job Embeddedness	
Holtom & Inderrieden (2006)	JE predicted actual turnover after controlling for job satisfaction and gender.
Mallol et al. (2007)	JE was negatively related to intention to quit. There was a difference between Hispanic and Caucasian employees in the community dimension of JE.
Crossley et al. (2007)	JE predicted voluntary turnover beyond job attitudes (job satisfaction and organizational commitment) and core variables (perceived job alternatives and age) from traditional models of turnover. JE interacted with job satisfaction to predict voluntary turnover. Global measure of JE predicted variance in intent to search, intent to quit, and turnover over the composite measure of JE.
Ramesh (2007)	On-the-job embeddedness and family embeddedness predicted turnover in both American and Indian samples. Community embeddedness did not predict turnover in either country. Organization fit, organization links, and community links were more important in predicting turnover in India, whereas job fit was more important in predicting turnover in the U.S.
Mignonac (2008)	Off-the-job embeddedness was strongly correlated to older managerial employees' willingness to relocation.
Tanova & Holtom (2008)	JE explained a significant amount of variance in voluntary turnover in European Union above and beyond the role of demographic and traditional variables (gender, age, income, higher education, job satisfaction, job search behavior, and absenteeism).
Sekiguchi et al. (2008)	JE had a weak direct impact on employee performance. When JE interacted with leader-member exchange or when JE interacted with organization-based self-esteem, it predicted organizational citizenship behavior. When JE interacted with both leader-member exchange and organization-based self-esteem at the same time, it predicted employee task performance.

Table 2.2 (continue)

Study	Primary Findings
Hom et al. (2009)	JE, along with social exchange, mediated the relationships between employee-organization relationships and organizational commitment and intention to quit. JE was more enduring than social exchange in this mediation relationship.
Antecedents of Job Embeddedness	
Giosan (2003)	JE was predicted by demographic variables (age and number of children), dispositional variables (conscientiousness and agreeableness), work perceptions (job investments, organizational and supervisor support, skills transferability, and perceived number of alternatives), and mating opportunities in both community and organization.
Allen (2006)	Organizational socialization tactics, including collective, fixed, and investiture, were positively related to the on-the-job embeddedness of newcomers. On-the-job embeddedness mediated the relationship between some socialization tactics and turnover.

Job Embeddedness, Turnover Intention, and Turnover

Mitchell and colleagues (2001) proposed that JE would explain significant incremental variance in turnover beyond that explained by job satisfaction, organizational commitment, job alternatives, and job search. In their empirical study in 2001, Mitchell et al. used a sample of retail employees and a sample of hospital employees. They found that aggregated JE (a combination of all six dimensions) related to intention to leave, and predicted subsequent voluntary turnover in both samples. More importantly, they found that JE significantly improved the prediction of voluntary turnover after controlling for

gender, job satisfaction, organizational commitment, job search and perceived alternatives.

The research by Mitchell et al. (2001) has led to a number of studies that further examine the JE construct. Cunningham, Fink, and Sagas (2003) investigated two different measures of JE, the aggregate multi-item measure from Mitchell et al. (2001), and a global measure that they developed. The main difference between these two measures is that the global measure utilizes only one scale (which consists of 6 items) to capture the whole JE construct, whereas the aggregate multi-item measure combines six scales (a total of 42 items) to capture the six different dimensions of JE. The main finding was that both the aggregate multi-item scale and the newly created global scale accounted for large portions of the variance in turnover intentions beyond the control variables. Only the global scale, however, predicted turnover intentions beyond the effects of commonly used attachment variables (job satisfaction and organizational commitment). Thus, this suggests that the global scale may be better than the aggregate multi-item measure. Cunningham and colleagues also found that the sacrifice-organization dimension in the aggregate multi-item measure had the strongest relationship with turnover intentions, suggesting that organizational sacrifice might be the most important facet of JE.

Holtom and O'Neill (2004) reported similar results in their study. Conducting a longitudinal study, they found a significant and negative correlation between JE and intent to turnover and actual turnover. They also reported that Mitchell et al.'s (2001) aggregated JE improved the prediction of turnover beyond the contributions of job satisfaction, organizational commitment, job search and perceived alternatives. The

researchers concluded that JE assesses new and meaningful variance in turnover in excess of that predicted by the major variables included in almost all the major models of turnover. Thus, JE is a valuable lens through which to evaluate employee retention.

Unlike the previous studies which used aggregated JE, there are some studies which investigated the effects of the two separate dimensions of JE (on-the-job embeddedness and off-the-job embeddedness) on voluntary turnover. Lee and his colleagues (2004) demonstrated that off-the-job embeddedness was significantly predictive of subsequent voluntary turnover, whereas on-the-job embeddedness was not, after controlling for job satisfaction and organizational commitment. Their explanation was that the effects of on-the-job embeddedness on turnover may occur in conjunction with work attitudes (job satisfaction and organizational commitment), whereas the effects of off-the-job embeddedness may be less shaped by these attitudes. This means that on-the-job embeddedness shares more variance with job attitudes than off-the-job does in predicting turnover.

Besich (2005), however, found different results. Using structural equation models, Besich assessed the effects of the organizational dimensions of JE (on-the-job embeddedness) on voluntary turnover. He ran three different structural equation models: the traditional model (job satisfaction, organizational commitment, job search and perceived alternatives), the combined traditional-JE model, and the JE model, on turnover intention. He found that the traditional turnover model was a moderate fit to the data. The combined model with JE resulted in a better fit for the data. And the JE model alone resulted in the best fit for the data. Thus, different from Lee et al.'s (2004) findings,

Besich's study showed that on-the-job embeddedness provided predictive power above and beyond that of the traditional models in predicting voluntary turnover.

Besich (2005) also reported that all three organizational dimensions of JE were related to turnover intention. In addition, he found that JE predicted turnover intention better for males than females, and better for older employees than younger ones. He explained that older employees are more embedded in their jobs because they may have more links, feel greater fit, and experience more losses if they leave their organization, than do younger persons. Also, female employees are less embedded in jobs than male employees because they may have to take care of their children and have to devote more time to housework (Besich, 2005).

In another study, Heilmann (2005) investigated the effects of community dimensions of JE (off-the-job embeddedness) on turnover decisions. The results indicated that community embeddedness did increase the prediction of actual turnover, but did not increase the prediction of intention to quit. In addition, the study tested the moderating effects of perceptions of career plateauing, perceived organizational portability, and occupational commutability on the relationship between community embeddedness and both turnover intention and actual turnover. However, no significant results were found.

Similar to Cunningham et al.'s (2003) study, Crossley, Bennett, Jex, and Burnfield (2007) used two different measures of JE: a self-developed global measure and the aggregate multi-item measure of Mitchell et al. (2001). The results of their longitudinal study found that both aggregate and global measures of JE predicted significant variance in voluntary turnover. Moreover, the global measure of JE predicted

unique variance in intentions to search, intentions to quit, and actual turnover, even after controlling for the aggregate measure of JE and other core variables (job satisfaction, organizational commitment, perceived job alternatives, and age) commonly used to explain turnover.

Lastly, two recent studies conducted by Holtom and Inderrieden (2006) and Tanova and Holtom (2008) found that aggregated JE and voluntary turnover were negatively and significantly related among large samples of workers in multiple industries and job types. They also confirmed the finding of Mitchell et al.'s study (2001) that JE significantly improved the prediction of turnover after controlling for demographic and traditional variables (gender, age, income, higher education, job satisfaction, job search behavior, and absenteeism).

In summary, research into the relationship between JE and voluntary turnover has shown that these two variables are negatively and significantly correlated. Moreover, overall the JE construct did increase the prediction of voluntary turnover beyond the traditional models (including job satisfaction, organizational commitment, job search and perceived alternatives). However, regarding the effects of the organizational dimension of JE on turnover, a few studies have been conducted and their results were not yet consistent. More research, therefore, will be needed to investigate this organizational dimension of JE.

Antecedents of Job Embeddedness

Research on the antecedents of JE is very limited. Indeed, only two studies have investigated the factors leading to JE. One was by Giosan (2003), who examined

potential antecedents such as demographic factors, dispositions, work perceptions, and biological factors. The other study was by Allen (2006), who investigated the way in which organizational socialization tactics influence the JE of newcomers. These two studies will be reviewed in the following sections.

Demographic Variables and Job Embeddedness

Giosan's (2003) study proposed that demographic variables such as age, marital status, number of children, and community tenure, are predictors of JE. He found that age was positively and significantly related to links-organization and links-community dimensions of JE. Giosan argued this relationship was due to the fact that older people are likely to have more friends (both on- and off-the-job) that increase their links to the organization and community.

Regarding marital status, Giosan proposed that married people are more likely to be embedded in their jobs than single ones. This is because married couples are more likely to develop friendships in their community. In addition, changing jobs and relocating to other places are more difficult if a spouse does not want to move, since it implies some valuable sacrifices. The empirical results, however, did not fully support this hypothesis.

Number of children was proposed to have a positive relationship with the community dimension of JE, especially with links-community. Giosan explained that people who have children may develop relationships with neighbors who also have children – they may participate in various activities relating to childcare such as schooling and entertaining with other children's friends' parents. The empirical findings

supported this prediction, as number of children was positively and significantly related to the links-community dimension of JE.

Giosan also hypothesized that community tenure predicts JE beyond age per se. More specifically, community tenure is positively related to sacrifice-community and fit-community. The reason is that the more time a person spends in his or her community, the more he or she may “fit” with that place, and therefore more losses would be incurred if he or she leaves. The empirical study did not fully support this hypothesis. Instead, Giosan found that over time living in a big city may actually accentuate the level of misfit with the community. Therefore, the relationship between community tenure and JE is unclear in his study.

Dispositional Variables and Job Embeddedness

Giosan (2003) examined the effects of several aspects of personality (the Big-Five personality traits) and motivation on JE. Among those variables, only agreeableness and conscientiousness were found to be significantly related to a certain dimension of JE. For example, agreeableness was positively and significantly related to the sacrifice-organization dimension of JE. Giosan explained that agreeable people are more embedded in their jobs because they may find it harder to give all up and leave. In addition, conscientiousness significantly related to the fit-organization dimension of JE. The explanation was that people who are conscientious perform their jobs better, which usually leads to increased recognition from the organization, and in turn should lead to increased sense of fit with the organization.

Work Perceptions and Job Embeddedness

Giosan (2003) investigated six work-related variables which were proposed to lead to JE. These variables include perceived organizational support, supervisor support, skills transferability, perceived number of alternatives, job investments, and role ambiguity. First, according to Giosan, increased organizational and supervisor support may make it harder for people to give up their work and leave because of the perceived increased sacrifices they would have to make. The empirical results showed that organizational and supervisor support are positively and significantly related to the fit-organization and sacrifice-organization dimensions of JE. However, Giosan provided little explanation as to why and under what conditions organizational support would lead to JE.

Second, Giosan found that skills transferability is related only to the sacrifice-organization dimension of JE. The explanation was that if the organization is providing someone with the opportunity to develop transferable skills, then it should enhance the value of that organization to the individual. Thus, leaving that organization implies valuable losses to the employee.

Third, perceived number of job alternatives was found to be significantly and negatively related to JE. Giosan explained that people who have many opportunities to switch jobs should find it easier to leave. This finding was also supported in other studies (e.g., Mitchell et al., 2001; Holtom & O'Neill, 2004).

Fourth, job investments were found significantly and positively related to JE. Specifically, the more effort one puts into his or her job, the more likely the person will

experience high levels of embeddedness, in the form of a better fit with the job and organization. This hypothesis was strongly supported in Giosan's study.

Last, role ambiguity was another antecedent hypothesized to relate to JE. Giosan proposed that perceived high role ambiguity will directly affect the perception of fit with the organization. However, the empirical results found no significant relationship between JE and role ambiguity.

Mating Opportunities and Job Embeddedness

According to evolutionary psychology, much of human behavior can be explained as attempts to maximize gene reproduction or increase the likelihood of survival of both the actor and its offspring. Based on this premise, Giosan hypothesized that people who live in an environment that offers good mating opportunities will find it harder to separate from it, therefore becoming more embedded in that environment. The empirical results showed that the perceived number of mating opportunities in the community positively and significantly relates to the fit-community and sacrifice-community dimensions of JE. Giosan also found that the perceived number of mating opportunities in the organization is positively and significantly related to the fit-organization dimension of JE. Thus, people who perceived that they have opportunities to find a mate in the environment in which they live or work experience a higher level of fit with that environment.

Limitations in Giosan's (2003) Study

Although the first to investigate the antecedents of JE, there are several limitations to Giosan's study. Firstly, Giosan provided very little explanation as to how organizational factors influence JE. Specifically, the process through which perceptions

about work, such as perceived organizational support and supervisor support, influence JE was not explained. Secondly, among the demographic variables, Giosan did not examine the gender variable which may be an important contributor to JE (e.g., Besich, 2005). Thirdly and most importantly, critical organizational factors such as human resource practices and job characteristics were not examined in the study. Because human resource practices such as organizational rewards, growth opportunities, training, and organizational justice, have been found to influence an employee's decision to stay or leave the organization (e.g., Allen, Shore, & Griffeth, 2003), these practices could influence an employee's JE as well. For example, organizational rewards could be related to the sacrifice-organization dimension of JE because an employee has to give up or sacrifice those rewards if he or she decides to leave the organization.

Job characteristics could be important antecedents of JE as well. Characteristics such as skill variety, task identity, autonomy, task significance, and feedback, have been found to influence an employee's decision to stay with or leave the organization (e.g., Spector & Jex, 1991). An employee could feel a better fit with his or her job if the job characteristics are perceived to be favorable (Ehrhart, 2006). Thus, job characteristics could be related to the fit-organization dimension of JE. Giosan (2003), however, did not consider or include these important factors into his JE model.

In short, although Giosan provided a good starting point for research on antecedents of JE, more studies definitely need to be conducted to better understand this important research matter. In the following section, the second study of the antecedents of JE conducted by Allen (2006) will be discussed.

Organizational Socialization Tactics and Job Embeddedness

Allen (2006) recently investigated relationships among organizational socialization tactics, newcomer JE, and turnover. Socialization tactics are methods that organizations use to help newcomers adapt to their workplace and to acquire desired attitudes, behaviors, and knowledge to perform their job well. Using a sample of newcomers in a large financial services organization, Allen found that socialization tactics can help new employees become embedded in their jobs and therefore keep them from leaving the organization. Specifically, collective, fixed, and investiture tactics were found to be positively related to on-the-job embeddedness, whereas formal, sequential, and serial tactics were not. In addition, Allen's study showed that on-the-job embeddedness is negatively related to turnover and mediates relationships between some socialization tactics and turnover. The following are brief explanations of the three socialization tactics that were found to be related to JE.

Collective tactics are those that offer interaction and social learning for newcomers, such as working with a group or cohort. For example, a new employee is assigned into a working group of current employees. These tactics are related to JE because they lead to the development of more links and relationships with others (O'Reilly, Caldwell, & Barnett, 1989). Other studies (Cable & Parsons, 2001; Van Maanen & Schein, 1979) also found collective tactics to be associated with perceptions of fit, shared values, and a sense of community.

Fixed tactics provide information to newcomers about the timing associated with completing each socialization stage or step. As newcomers progress through each stage, they have successfully completed a step that they might have to repeat if they were to

enter a new organization. This means that leaving the current organization could be seen as a greater sacrifice because the newcomers have to give up those completed stages and start from the beginning at the new organization. Fixed tactics, therefore, are related to the sacrifice-organization dimension of JE.

Investiture tactics provide newcomers positive social support from experienced organizational members. For example, recognition and encouragement from supervisors are provided to a newcomer whenever he or she is doing a good job. This can help the newcomer gain an important sense of competence and confidence in performing his or her job (Feldman & Brett, 1983). Therefore, investiture can be associated with JE because it can make employees fit better into their jobs.

Thus, because organizational socialization tactics have been found to influence employee JE, other relevant human resource practices, such as training and development, organizational rewards, supervisor support, and organizational justice, could influence JE as well. More research is particularly needed in this area to broaden our knowledge on the antecedents of JE.

Job Embeddedness Research in Cross-Cultural Context

Although most studies of JE were conducted in the United States and used American employee samples, a few were conducted overseas and/or used non-American samples. Because those cross-cultural studies are closely relevant to this current research, I will summarize and discuss them in the following.

Mallol, Holtom, and Lee (2007) investigated whether there are significant differences between Hispanics and Caucasians with respect to JE and voluntary turnover.

Using a sample from two national financial institutions in the United States, JE was found to be significantly related to turnover for both Hispanic and Caucasian samples. In addition, the study found a significant difference in the community dimension of JE. Specifically, Hispanics were found to be more embedded in their communities than Caucasians. The explanation for this finding was that because Hispanic culture is collectivistic, higher community JE in employees is the result of their close community and family related connections. For the organizational dimension of JE, Mallol et al. (2007) found no significant difference between Hispanic and Caucasian employees.

Ramesh (2007), on the other hand, used two samples of call center employees in the U.S. and in India, and found that community embeddedness did not predict turnover in either country, while on-the-job embeddedness did in both samples. In addition, Ramesh expanded the JE model to include a family factor by creating three new dimensions (family links, family fit, and family sacrifice), and found that family embeddedness predicted turnover in both countries. The author also found that fit-organization, links-organization, and links-community were more important in predicting turnover in India, whereas job fit was more important in the U.S.

In a large-scale study conducted in four European countries (Denmark, Italy, Spain and Finland), Tanova and Holtom (2008) found a similar result to Mitchell et al's (2001) original JE study. That is, JE explained a significant amount of variance above and beyond the role of demographic and traditional variables (gender, age, income, higher education, job satisfaction, and job search behavior). The authors also found that both dimensions (on-the-job and off-the-job) of JE were significantly related to turnover. However, while on-the-job embeddedness was found to relate to turnover across all four

countries, off-the-job embeddedness was related to turnover only in the Spanish and Finnish samples.

Thus, overall these three cross-cultural studies showed that JE predicted turnover across a wide range of cultures (Hispanic, Indian, and European). Between the two dimensions of JE, on-the-job embeddedness was found to be consistently related to turnover across all samples, whereas off-the-job embeddedness showed inconsistent results. Since there have been very limited studies in cross-cultural contexts, more studies are necessary in this area.

Summary

This review of the research on JE shows that there are several important issues that need to be further researched. For example, very few studies have investigated the organizational factors that influence JE. There is not yet any study examining human resource practices such as organizational rewards, growth opportunities, training, supervisor support, and organizational justice in relation to JE. There is also no study examining the relationship between JE and job characteristics. Although one study (Giosan, 2003) investigated the relationship between perceived organizational support and JE, the manner in which perceived organizational support, JE, and organizational factors interact has not been investigated. Furthermore, the relationship between JE and employee turnover need more research, especially in different cultures and countries. In the following section, I will discuss the purposes of the current study in addressing these gaps.

Purposes of the Current Study

The study proposed here will (1) examine how human resource practices such as supervisor support, organizational rewards, growth opportunity, training, and organizational justice, affect JE; (2) investigate how job characteristics, such as skill variety, task significance, task identity, autonomy, and feedback, influence JE; (3) explore how perceived organizational support, based on social exchange theory, mediates the relationships between these organizational factors and JE; (4) investigate the relationship between JE and employee turnover intentions in a non-Western society (Vietnam).

Achieving these four objectives should help fill several gaps in JE literature. Incorporating human resource practices and job characteristics into the JE model helps expand our understanding of the development of JE. Practically, this study can help organizations develop human resource practices and design jobs in which employees become more embedded. In addition, by examining whether perceived organizational support, based on social exchange theory, mediates the relationship between human resource practices and JE as well as the relationship between job characteristics and JE, this study explicates the manner in which these organizational factors influence JE. Thus, managerial practitioners may need to understand that human resource practices and job characteristics might not directly influence JE, but indirectly via the mediation of perceived organizational support.

Furthermore, conducting this study in Vietnam provides an important contribution to cross-cultural turnover research in particular, and to cross-cultural management research in general. Vietnam is an emerging economy in Asia with annual GDP growth

rates of around 7.5% from 1990 to 2006, making it the world's second-fastest growing economy (Chandler & Prasso, 2006). At the same time, Vietnam is one of Asia's most open economies with foreign investments growing dramatically. Japanese, Western European and American companies are among the most important investors in Vietnam (Chandler & Prasso, 2006). Conducting this study in Vietnam, therefore, not only expands the current limited research on JE in cross-cultural contexts, but also helps practicing managers in Vietnam understand how to keep employees from leaving their organizations.

Finally, on-the-job embeddedness will be the focus in this study. There are two main reasons why I focus only on this dimension. First, because only organizational factors, including human resource practices, job characteristics, and perceived organizational support, are proposed to influence JE in this study, off-the-job embeddedness is not relevant. Although human resource practices, for example, may impact employees' embeddedness in their community, most organizations likely focus their policies and practices on helping and keeping employees on the job and within the organization only. Therefore, on-the-job embeddedness is more suitable in this study. Second, Vietnam is a small country where people rarely move from one city to another city to find jobs (except from rural areas to cities) (Nhan Vuong, 2001). Because over the course of their lives they mostly live in only one city, off-the-job embeddedness is again not really relevant to this study. In addition, since previous research has provided evidence of discriminant validity of the two dimensions (on-the-job and off-the-job) of embeddedness (Allen, 2006; Giosan, 2003; Lee et al., 2004), it is acceptable to investigate the dimensions separately.

In the following sections, the literature on perceived organizational support, social exchange theory, human resource practices, and job characteristics as well as the manner in which these factors possibly influence JE, will be reviewed.

Social Exchange Theory and Perceived Organizational Support

Perceived organization support (POS) is defined as employees' global beliefs about the extent to which their employing organization both values their contributions and cares about their well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986). POS is derived from social exchange theory which states that employees will trade their efforts for the promise of material and personal rewards that the organization may offer in the future (Blau, 1964). Central to social exchange theory is the norm of reciprocity that obligates individuals to respond positively to favorable treatment received from others (Gouldner, 1960). Social exchange theory also states that resources received from others are more highly valued if they are based on discretionary choice rather than circumstances beyond the donor's control. Such things as organizational rewards, training, promotions, or favorable job conditions can contribute more to POS if the employee believes they result from the organization's voluntary actions (Eisenberger et al., 1986; Eisenberger, Cummings, Armeli, & Lynch, 1997; Shore & Shore, 1995). In addition, resources exchanged need not be identical and may be exchanged at different points in time (Foa & Foa, 1974, 1980). Economic resources are more likely to be exchanged in the short-term, whereas socio-emotional resources are more likely to be exchanged in the long-term (Foa & Foa, 1974, 1980).

Social exchange theory also addresses the psychological processes underlying the consequences of POS (Rhodes & Eisenberger, 2002). Based on the reciprocity norm, POS is expected to create employees' feelings of obligation to care about the organization's welfare and to help it reach its objectives. Furthermore, "the caring, approval, and respect connoted by POS should fulfill employees' socio-emotional needs, leading them to incorporate organizational membership and role status into their social identity" (Rhodes & Eisenberger, 2002: p.699). This reciprocal relationship brings benefits for employees and the organization. Employees can increase their job satisfaction and positive mood, while the organization can achieve increased performance and reduced turnover (Rhodes & Eisenberger, 2002).

In the following sections, I will briefly summarize the research findings on the antecedents as well as the consequences of POS.

Antecedents of POS

Rhoades and Eisenberger (2002) identified three major categories of beneficial treatment which lead to the development of POS. The first category is organizational justice or fairness, which was found to have a strong relationship with POS (e.g., Cropanzano, Howes, Grandey, & Toth, 1997; Masterson, Lewis, Goldman, & Taylor, 2000; Moorman, Blakely, & Niehoff, 1998, Wayne, Shore, Bommer, & Tetrick, 2002). The second category is supervisor support which was found to have a moderate relationship with POS (e.g., Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Settoon, Bennett, & Liden, 1996; Rhoades, Eisenberger, & Armeli, 2001; Yoon & Lim, 1999). The third category is organizational rewards and job conditions,

which were also found to have moderate relationships with POS (e.g., Rhoades et al., 2001; Eisenberger, Rhoades, & Cameron, 1999; Wayne et al., 1997; Eisenberger, Fasolo, & Davis-LaMastro, 1990).

Consequences of POS

POS leads to a variety of employee outcomes, including increased job satisfaction (e.g., Eisenberger et al., 1997; Witt & Nye, 1992; Shore & Tetrick, 1991), increased affective commitment (e.g., Cronpanzano et al., 1997; Eisenberger et al., 2001; Hutchison, 1997a, b; Shore & Wayne, 1993), increased job performance (e.g., Eisenberger et al., 1990, 2001; Settoon et al., 1996; Lynch, Eisenberger, & Armeli, 1999), increased citizenship behaviors (e.g., Shore & Wayne, 1993; Wayne et al., 1997, 2002; Eisenberger et al., 1990), decreased turnover intention (e.g., Cropanzano et al., 1997; Shore & Barksdale, 1998; Aquino & Griffeth, 1999; Allen, Shore, & Griffeth, 2003) and decreased turnover (e.g., Rhoades et al., 2001; Aquino & Griffeth, 1999; Allen et al., 2003).

There are also reasons to believe that POS would impact employee JE. Giosan's (2003) empirical study supported this relationship. The more support from the organization, the more obligated many employees feel to repay it, and the more they will be embedded in their jobs. For example, an employee who perceives strong support from the organization is more likely to have a better relationship with that organization; that is, to develop a stronger link to the organization and therefore is less likely to leave. In addition, because POS means the organization values the contributions of employees and cares about their well-being, employees might feel that their personal values, career goals

and plans fit well with the organization. Moreover, in relation to sacrifice dimension of JE, employees would feel more losses, both intangible and tangible, if they leave the organization given that the organization provided high support for them.

Human Resource Practices

Human resource practices (e.g., staffing and selection, training and development, performance management, and compensation) are the means through which employee perceptions, attitudes, and behaviors are shaped (Wright, McMahan, & McWilliams, 1994). Research on the impact of these practices on the organization has been conducted at two levels: the macro and micro level. The macro-level study focuses on the relationship between human resource practices and organizational level outcomes such as firm performance. The micro approach, on the other hand, focuses on the relationship between human resource practices and employee outcomes, such as job satisfaction. Because this current study focuses mainly on employee JE, which is at the individual or micro level, the macro approach is not relevant.

Micro Approach to Human Resource Practices

At the micro level, the research of human resource practices focuses on how certain practices (e.g., organizational rewards, training, and support from supervisors) influence employees' attitudes and behaviors (e.g., job performance, satisfaction, organizational commitment, intention to quit, and turnover). POS and social exchange theory are very important theoretical frameworks for understanding how these practices influence employees' attitudes and behaviors (Allen et al., 2003; Hutchinson & Garstka, 1996; Wayne et al., 1997, 2002).

Several human resource practices such as organizational rewards, supervisor support, growth opportunity, training, and procedural justice, have been found to influence employee POS (Rhoades & Eisenberger, 2002; Eisenberger et al., 1986; Allen et al., 2003; Wayne et al., 1997; Hutchison, 1997b; Nye & Witt, 1993). First, by offering organizational rewards, an organization conveys that it cares about the well-being of employees and values their contributions (Eisenberger et al., 1986; Wayne et al., 2002). Second, supervisor support also leads to POS because supervisors act as agents of the organization, and thus employees view their supervisor's favorable or unfavorable orientation toward them as indicative of the organization's support (Eisenberger et al., 1986; Levington, 1965). Third, growth opportunities and training also have positive effects on employees' perception of organizational support. These opportunities signal that the organization recognizes and values the employee's contributions and imply future support from the organization (Wayne et al., 1997). Moreover, job training often is a discretionary and mandatory investment in the employee, thus leading to increased POS. Last, Rhoades and Eisenberger (2002) found a strong relationship between procedural justice and POS. This is because fair treatment by the organization implies that the organization cares about employees and values their contributions (Cropanzano & Greenberg, 1997; Nye & Witt, 1993).

POS also mediates the relationship between human resource practices and employee outcomes. Allen et al. (2003), for example, found that POS mediates the relationship between human resource practices and job satisfaction, organizational commitment, and turnover. Thus, based on these relationships, this study expects that

POS mediates the relationship between human resource practices and employee JE as well.

Job Characteristics

Job characteristics are the attributes of jobs that can have motivational influences on employees. The most well-known and influential job characteristics model comes from Hackman and Oldham (1975, 1976, & 1980). This model identifies five core job characteristics: skill variety, task identity, task significance, autonomy, and feedback. Skill variety is the degree to which a job requires the worker to use a number of different skills and talents. Task identity is the extent to which the job requires completion of a whole and identifiable piece of work, or doing a task from beginning to end with a visible outcome. Task significance is the degree to which the job has a substantial impact on the lives or work of other people. Autonomy is the extent to which the job provides substantial freedom, independence and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out. Feedback is the degree to which the job provides direct and clear information about the level of effectiveness of one's performance.

Comprehensive theoretical and empirical studies have demonstrated that these five core job characteristics influence employee work outcomes. That is, the greater the meaningfulness of the job (skill variety, task identity, and task significance) as well as the more experienced responsibility (autonomy) and the more knowledge of results (feedback), the greater will be employees' motivation, performance, commitment, and satisfaction, and the lower their absenteeism and likelihood of leaving the organization

(Turner & Lawrence, 1965; Brief & Aldag, 1975; Hackman & Oldham, 1975, 1980; Roberts & Glick, 1981; Loher, Noe, Moeller, & Fitzgerald, 1985; Fried & Ferris, 1987; Champoux, 1991; Spector & Jex, 1991).

There are also reasons to believe that these five core job characteristics would affect employee JE, as will be discussed later in the hypothesis section. In addition, research has found that job characteristics can also influence employee perceptions of organizational support. As discussed earlier, job conditions play a key role in employees' POS (Rhoades & Eisenberger, 2002). For example, Rhoades and Eisenberger (2002) and Robblee (1998) found a strong relationship between autonomy and POS. If an organization provides more meaningful and autonomous jobs to its employees, then they would perceive that the organization cares about and trusts them. Based on social exchange theory, POS would create an obligation to keep employees in their jobs and contribute back to the organization. Therefore, it is likely that POS mediates the relationship between job characteristics and employee JE.

In summary, the review indicates that human resource practices and job characteristics could influence employees' JE. This influence could also be mediated by POS. In the following section, I will present the theoretical model of this study and discuss the hypotheses.

Theoretical Model and Hypotheses Development

Based on the above discussion, this dissertation will propose and test whether the human resource practices of organizational rewards, growth opportunity, training, supervisor support, and organizational justice, along with job characteristics (skill

variety, task identity, task significance, autonomy, and feedback) are the antecedents of JE. The mechanism through which those factors influence JE will be partly explained by social exchange theory via POS. Regarding the consequences of JE, intention to quit, actual voluntary turnover, and volitional absences are the main outcomes of this study. The theoretical model of the dissertation can be seen in Figure 2.1.

Antecedents of Job Embeddedness

Perceived Organizational Support and Job Embeddedness

As shown earlier, an employee who perceives greater support from his or her employing organization is more likely to feel obligated to “repay” the organization (Eisenberger et al., 1986; 1990; Shore & Wayne, 1993). This obligation should encourage the employee to continue his or her participation and adoption of organizational membership (Eisenberger, et al., 1990). Thus, the norm of reciprocity enmeshes employees into their jobs in order to contribute to the organization that supports them. In other words, employees would be more embedded in their jobs if they perceive greater support from the organization.

Specifically, POS should be positively related to all three organizational dimensions of JE. First, POS would be related to the links-organization sub-dimension of JE because employees who feel supported by an organization are more likely than others to develop high-quality exchange relationships with their leaders (Wayne et al., 1997).

Employees who perceive strong support from the organization also demonstrate more cooperative and helping behaviors towards their coworkers (Shore & Wayne, 1993; Wayne et al. 1997; 2002; Rhoades & Eisenberger, 2002). Thus, POS creates stronger ties

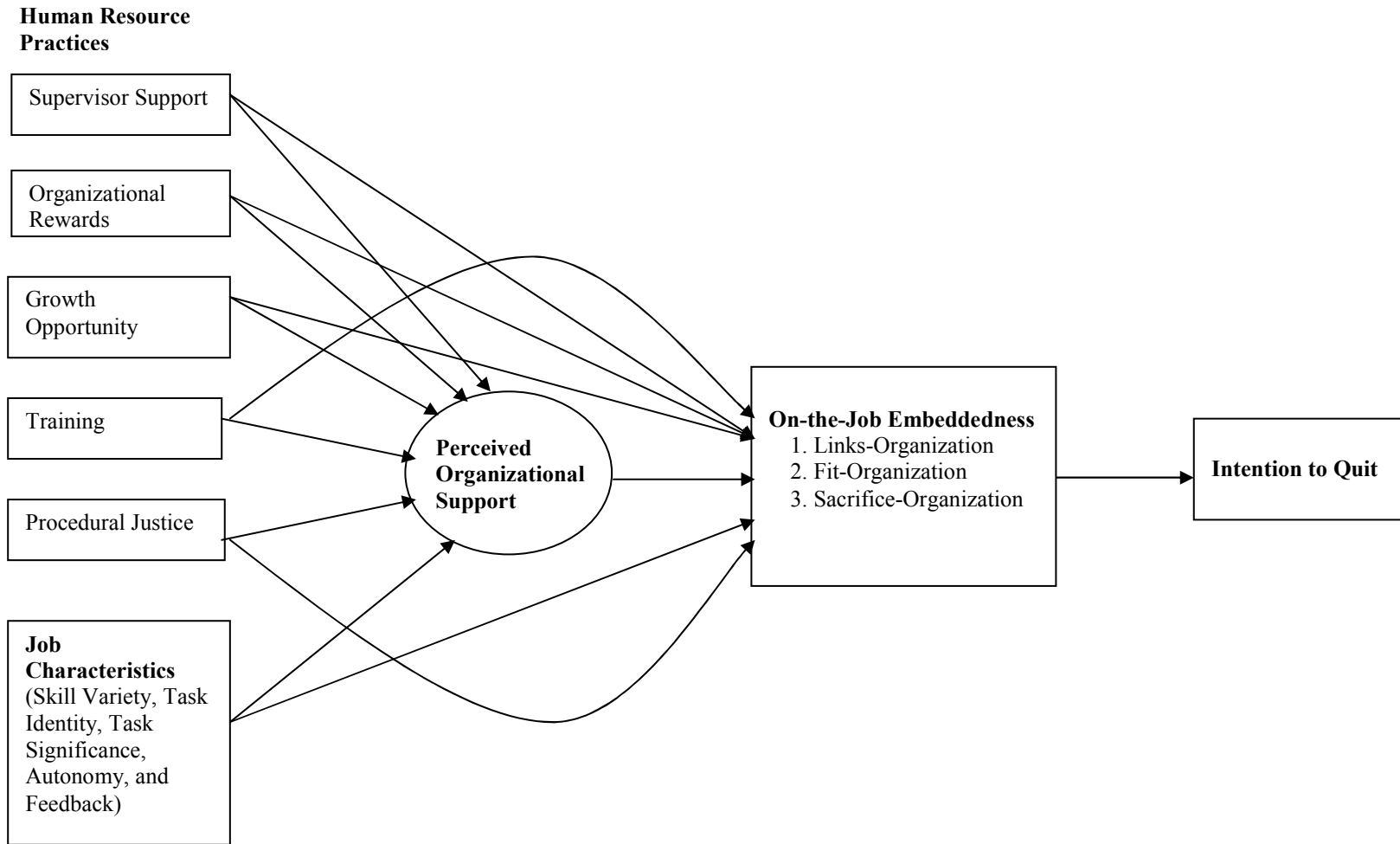


Figure 2.1

Theoretical Framework

(i.e., links) not only between employees and their leaders, but also between employees and their colleagues. In other words, POS would be related to the links-organization sub-dimension of JE.

Second, POS should be positively related to the fit-organization sub-dimension of JE. Because POS means the organization values the contributions of employees and cares about their well-being, employees would feel more valuable in the case of strong POS (Rhoades & Eisenberger, 2002; Shore & Tetrick, 1991). Moreover, POS can also create high job involvement, which refers to identification with and interest in the specific work one performs (Rhoades & Eisenberger, 2002; Cropanzano, et al., 1997; O'Driscoll & Randall, 1999). The more interest one has in his or her job, the greater fit that person will likely feel. In addition, employees who have strong POS develop a strong sense of belonging to and identifying with the organization (Rhoades & Eisenberger, 2002). This should contribute to employees' sense of purpose and meaning, which can also create more feeling of fit with the organization.

Lastly, in relation to the sacrifice-organization sub-dimension of JE, employees should feel more losses, both intangible and tangible, if they leave the organization given that the organization provides strong support for them. Intangible losses include things such as praise and recognition, and tangible losses may be wage or fringe benefits from the organization. Of course if an employee can find a better job at another organization, then he or she is not likely to feel those losses. But if the employee does not have a better alternative, then he or she will have to sacrifice if leaving the organization. The greater support from the organization, therefore, the more sacrifice employees will perceive if quitting.

Based on the above discussion, the following is proposed:

Hypothesis 1: Perceived organizational support will be positively related to job embeddedness.

Perceived Supervisor Support and Job Embeddedness

Very similar to POS, perceived supervisor support (PSS) is employees' perception about the degree to which supervisors value their contributions and care about their well-being (Kottke & Sharafinski, 1988; Eisenberger et al., 2002). For example, a supervisor who switches schedules to accommodate employees' needs, listens to their problems, organizes tasks or duties to accommodate their family responsibilities, and shares ideas or advice, can be perceived as supportive. As with POS, the level of support that a supervisor provides should create a feeling of obligation from the employee (Eisenberger, et al., 2002). Given high PSS, employees are more satisfied with and committed to their jobs, which lead to higher performance and decreased turnover (Cross & Billingsley, 1994; Chang, 1999; Stinglhamber & Vandenberghe, 2003, Singh & Billingsley, 1996; Thompson, Beauvais & Lyness, 1999; Rhoades & Eisenberger, 2002).

The relationship between PSS and JE is similar to that between POS and JE. PSS would be positively related to all three organizational dimensions (links, fit, and sacrifice) of JE. First, support from supervisors can enhance their relationship with employees. When a supervisor supports an employee, based on social exchange theory and the norm of reciprocity, the employee should feel an obligation to help the supervisor. This would create an ongoing positive mutual relationship between the employee and the supervisor. Second, support from supervisors can help employees fit better into their jobs. A

supervisor who accommodates employees' needs, shares ideas with them, and gives advice to help them better do their jobs would make employees to fit better into their jobs. Third, the more support from supervisors, the higher level of sacrifice employees might experience if they would leave the organization. Not only tangible but also intangible losses such as respect and consideration from supervisors might be forfeited if employees chose to quit. Moreover, Giosan (2003) found that JE, especially its organizational fit and sacrifice dimensions, and supervisor support are positively related. Therefore, on the whole it is expected that PSS would have positive effects on JE.

Thus, the following hypothesis is proposed:

Hypothesis 2: Perceived supervisor support will be positively related to job embeddedness.

In addition, employees view their supervisor's favorable or unfavorable orientation toward them as indicative of the organization's support (Eisenberger et al., 1986; Levington, 1965). In fact, several empirical studies have demonstrated a strong relationship between perceived supervisor support and organizational support (Settoon et al., 1996; Hutchison, Valentino, & Kirkner, 1998; Kottke & Sharafinski, 1988; Rhoades & Eisenberger, 2002). Support from supervisors implies support from the organization, which then creates feelings of obligation that keep employees embedded in their jobs to contribute back to the organization. Therefore, based on this premise of social exchange theory, it is rational to believe that POS would mediate the relationship between PSS and JE.

Consequently, the following hypothesis is proposed:

Hypothesis 3: Perceived organizational support will mediate the relationship between perceived supervisor support and job embeddedness.

Organizational Rewards and Job Embeddedness

Organizational rewards refer to tangible (e.g., pay and fringe benefits) and intangible (e.g., recognition) rewards provided by the organization for the purpose of facilitating or motivating employees' performance. Research has shown that rewards are very important factors that influence employees' performance, satisfaction, commitment, and turnover (Vroom, 1964; Arnold, 1985; Wimperis & Farr, 1979; Pritchard, Campbell, & Campbell, 1977; Allen & Griffeth, 2001).

There are reasons to believe that organizational rewards positively influence employee JE. Organizational rewards seem most likely to be related to the sacrifice-organization dimension of JE. Obviously, the more rewards an employee receives from the organization, the more losses or sacrifice he or she would experience if quitting. Of course if the employee can find a job with better rewards at another organization, then he or she is not likely to feel those losses. But if the employee does not have a better alternative, then he or she will have to sacrifice if leaving the organization. In other words, rewards would be positively related to the sacrifice-organization dimension of JE. Previous research (e.g., Griffeth et al., 2000; Appelbaum, Berg, & Kalleberg, 2000; Arthur, 1994) has shown that organizational rewards enhance employees' attachment to the organization, and therefore embed employees more into their jobs.

Thus, the following hypothesis is proposed:

Hypothesis 4: Organizational rewards will be positively related to job embeddedness.

Furthermore, many studies have demonstrated that better rewards lead to greater POS (e.g., Eisenberger et al., 1997; Eisenberger et al., 1999; Rhoades & Eisenberger, 2002). As discussed in the previous section, POS could lead to JE. Therefore, it can be argued that POS mediates the relationship between rewards and JE. This mediation is based on social exchange theory that more rewards imply more support from the organization, which creates employees' feelings of obligation. This obligation then keeps employees embedded in their jobs in order to contribute back to the organization.

Therefore, the following hypothesis is proposed:

Hypothesis 5: Perceived organizational support will mediate the relationship between organizational rewards and job embeddedness.

Growth Opportunity and Job Embeddedness

Growth opportunity includes opportunities for promotion and development that an organization provides for its employees. Different from training which focuses on providing employees with specific skills to better perform their current jobs, development is an organization's effort to provide employees with the abilities to do future jobs (Fitzgerald, 1992). Thus, for the employees, growth opportunities mean they not only have the chance to get better positions and better salaries, but they also have more opportunities to develop their knowledge and abilities to achieve their career goals. The more opportunities for growth, therefore, the more losses and sacrifice employees would have to experience if they leave the organization. Moreover, employees may believe that

an organization with plenty of growth opportunities would allow them to attain their career goals, which creates a feeling of fit with the organization. Hence, it is likely that growth opportunities would be positively related to the sacrifice-organization and fit-organization sub-dimensions of JE.

Therefore, the following hypothesis is proposed:

Hypothesis 6: Growth opportunities will be positively related to job embeddedness.

In addition, because growth opportunities lead to POS (Wayne et al., 1997; Allen et al., 2003), and because POS could lead to JE, it is reasonable that POS could mediate the relationship between growth opportunities and JE. This is based on social exchange theory that growth opportunities create a positive effect on employees' perception of organizational support, which in turn influences employees' feelings of obligation to stay with and contribute to the organization (Aryee & Chen, 2004; Eisenberger et al., 1986). As a consequence, employees would be more embedded in their jobs to fulfill this obligation.

Therefore, this leads to the following hypothesis:

Hypothesis 7: Perceived organizational support will mediate the relationship between growth opportunities and job embeddedness.

Training and Job Embeddedness

Training is defined as the process of providing employees with specific skills or helping them correct deficiencies in their performance (Fitzgerald, 1992). Training tends to focus on immediate organizational needs and improvement in employees' current job

performance. Previous research has shown that training influences employee's attitudes and behaviors toward their commitment to and retention with the organization (Bartlett, 2001; Nordhaug, 1989). Shaw and colleagues (1998) argue that providing employees with sufficient training opportunities is an investment strategy for job stability. Moreover, these researchers maintain that such actions by the organization constitute a crucial part of its fulfillment of the informal contract between itself and employees. This in turn should deepen employees' sense of attachment to the organization, and therefore enhance retention.

In relation to the three sub-dimensions of JE construct, training should improve the fit between the individual and the job, increase relationships and connections among members in the organization, and represent a sacrifice that must be experienced if the employee chooses to take employment elsewhere. First, training would provide employees with knowledge and skills to do their current jobs better, thus helping them fit better in their jobs. Second, once employees possess more knowledge and skills, it is easier for them to engage in more work teams and projects, which creates more links or connections with other colleagues in the organization. Third, training also implies better salary and future promotion opportunities. If employees decide to quit their jobs, they would have to consider all losses they might incur. Therefore, it is expected that training would have positive effects on JE by creating more links with other people, greater fit into jobs, and greater sacrifice for employees if they leave the organization.

Hypothesis 8: Training will be positively related to job embeddedness.

In addition, the relationship between training and JE can also be mediated by POS. The view from social exchange theory suggests that training provided by the

organization is a positive signal that the organization is supportive of employees and is seeking to establish or continue a social exchange relationship with them (Wayne et al., 1997). Moreover, because training is considered one of the discretionary human resource practices communicating an investment in employees, it should therefore lead to more increase in POS (Wayne et al., 1997; Rhoades & Eisenberger, 2002).

Furthermore, investments in training are usually a significant expenditure (Bassi & Van Buren, 1998). Some employees might develop a strong sense of POS based upon the organization's willingness to provide them with additional opportunities for training in an area that is of particular interest to them (Ahmad & Bakar, 2003). Besides, under certain conditions, such as when the training is company-financed and taking place on company time, employees may view training and development as a reward or benefit provided by the company (Nordhaug, 1989). This would lead to feelings of obligation that employees need to repay the organization. This obligation to contribute back to the organization, as well as the benefits and rewards received from training, would then make employees more enmeshed in their jobs. In simpler words, training could lead to POS, which then leads to JE. Therefore, it is reasonable to believe that POS could mediate the relationship between training and JE.

Hypothesis 9: Perceived organizational support will mediate the relationship between training and job embeddedness.

Organizational Justice and Job Embeddedness

Organizational justice is the overall perception of what is fair in the workplace (Greenberg, 1990). The literature on organizational justice has identified three major

types of justice – distributive, procedural, and interactional. Distributive justice refers to the perceived fairness of outcome allocation and is judged by whether outcomes adhere to one's expectations and whether they are fairly comparable to others' (Blau, 1964; Adams, 1965; Deutsch, 1985). Procedural justice is the perceived fairness of the procedures used to allocate outcomes, and is judged by whether procedures are accurate, consistent, unbiased, and correctable, and by the level of input employees have in developing those procedures (Leventhal, 1980, Thibaut & Walker, 1975; Lind & Tyler, 1988; Greenberg, 1993). Interactional justice is the perceived fairness of interpersonal treatment and communication by management to employees in the implementation of procedures, including the dignity, sincerity and respectfulness of managers as well as their use of honest and adequate explanations for decisions (Bies & Moag, 1986; Greenberg, 1993; Colquitt, 2001).

Although all three types of organizational justice might impact JE, this study includes only procedural justice. One reason for doing this is because procedural justice has been shown to have the strongest impact on employee outcomes such as perceived organizational support, job satisfaction, organizational commitment, and intention to quit (Rhoades & Eisenberger, 2002; Cohen-Charash & Spector, 2001). The other reason is that distributive and interactional justices seem to be similar and highly related to organizational rewards and supervisor support, respectively (Cohen-Charash & Spector, 2001). Thus, these similarities may not add much variance in the dependent variables.

In addition to influencing job satisfaction, organizational commitment, and turnover (Cohen-Charash & Spector, 2001), there are reasons to believe that procedural justice would also be related to JE. The fairness of procedures used in distributing

outcomes may be viewed by employees as a benefit provided from the organization. If employees choose to leave the organization with fair treatment, then they may run the risk of entering a new organization with less justice, and thus they have to sacrifice their current impartial environment (Yao et al. 2003). In addition, if employees receive unfair treatment from the organization, they may feel that there is a bad fit with the organization. Thus, in the case of unfair treatment from the organization, employees may feel that they do not really fit with the organization, and that they would not sacrifice much should they leave (Yao et al. 2003). Therefore, it is expected that JE will be influenced by procedural justice.

Hypothesis 10: Procedural justice will be positively related to job embeddedness.

In addition, the relationship between JE and organizational justice may be mediated by POS. In the literature, a strong relationship between POS and procedural justice has been established (Rhoades & Eisenberger, 2002; Rhoades et al., 2001; Hutchison, 1997b; Malatesta, 1995; Nye & Witt, 1993). This is because fair treatment by the organization implies that the organization cares about its employees and values their contributions. Thus, the more employees perceive justice from the organization, the more likely they are to believe that the organization is supporting them. On the basis of social exchange theory, POS would create employees' felt obligation to contribute back to and stay in the organization. The obligation derived from POS would then act as an invisible force that keeps employees embed in their jobs. Thus, it is likely that POS would play as a mediator's role in the relationship between JE and organizational procedural justice.

Hypothesis 11: Perceived organizational support will mediate the relationship between procedural justice and job embeddedness.

Job Characteristics and Job Embeddedness

As mentioned in the literature review section, comprehensive theoretical and empirical studies have demonstrated that the five core job characteristics – skill variety, task identity, task significance, autonomy, and feedback – influence work outcomes such as employee motivation, performance, satisfaction, absenteeism, and turnover (Turner & Lawrence, 1965; Hackman & Oldham, 1975, 1980; Fried & Ferris, 1987; Loher et al., 1985; Spector & Jex, 1991). There are reasons to believe that the five core job characteristics would also have effects on employee JE.

First, in regards to person-job fit, individuals' perceptions of how well they fit with a particular job are strongly influenced by the five core job characteristics (Ehrhart, 2006). This means that if employees think the characteristics of their jobs are favorable (e.g., the job is meaningful), then they feel a better fit with their jobs. Thus, the job characteristics would be positively related to the fit-organization dimension of JE.

Second, from the point of view of motivation-performance process, job characteristics create intrinsic motivation (Fried & Ferris, 1987), and intrinsically motivated employees engage more in their jobs (Staw, 1977; Hackman & Oldham, 1980; Kanfer, 1991). This motivation and engagement can improve employees' acquisition of task-related knowledge and skills (Kanfer, 1991). The knowledge and skills acquired would help employees perform their jobs better and as the result employees would fit

better in their job. In addition, positive effects derived from satisfaction and task accomplishment would also create employees' feeling of greater fit with their job.

Third, from field experiments of job redesign interventions, employees are more likely to stay in their job when their job is enriched (e.g., the job is given more autonomy or more skill variety) (Griffeth, 1985; Locke, Sirota, & Wolfson, 1976; Orpen, 1979; McEvoy & Cascio, 1985). This means that changes in job characteristics would influence an employee's level of job attachment. In other words, job characteristics would be related to JE.

Last, regarding the sacrifice dimension of JE, the intrinsic rewards from job characteristics may be one of the reasons that keep employees from leaving their job, because doing so would mean they have to give up those positive feelings and rewards. Therefore, overall it is expected that job characteristics would positively influence employee JE.

Hypothesis 12: The five core job characteristics (skill variety, task identity, task significance, autonomy, and feedback) will be positively related to job embeddedness.

In addition, POS may mediate the relationship between the five core job characteristics and JE. If an organization provides favorable job characteristics to its employees, then the employees would be more likely to perceive that the organization cares about them (Eisenberger et al., 2001; Settoon et al., 1996). Specifically, Eisenberger and colleagues (1997, 1999, & 2002) found that employees who were given more autonomy in carrying out their jobs would develop higher POS because it indicates that the organization cares about and trusts in them. Hutchison and Garstka (1996) also

found that there is a positive relationship between job feedback and POS. Favorable job characteristics would develop greater POS in employees, which then creates an obligation which embeds them more deeply into their job. For that reason, it is expected that POS mediates the relationship between the five core job characteristics and JE.

Hypothesis 13: Perceived organizational support will mediate the relationship between job characteristics and job embeddedness.

In the job characteristics literature, an employee's growth need strength has been considered a moderator in the relationship between job characteristics and employee outcomes (e.g., Hackman & Lawler, 1971; Hackman & Oldham 1976; Hackman et al., 1978). That is, people with strong needs for personal growth and development would respond more positively to jobs high on the job characteristics than people with low growth need strength. However, the meta-analytic study by Fried and Ferris (1987) found that a significant moderating effect of growth need strength could only be confirmed for employee performance, not for other outcomes. Therefore, this current study will not include growth need strength in the model.

Job Embeddedness and Turnover Intention

Most of the previous research has focused on the aggregated JE (combination of on-the-job embeddedness and off-the-job embeddedness or community embeddedness) and found that aggregated JE is negatively related to turnover intention (e.g., Mitchell et al., 2001; Holtom & O'Neill, 2004; Hom et al., 2009). There are a few studies which have investigated the organizational dimension of JE (on-the-job embeddedness) alone.

This current study, therefore, reexamines this relationship between the organizational dimension of JE and turnover intention.

There are three reasons for this relationship. First, the greater number of connections or links an employee has with other team members, supervisors, and others in the organization, the more she or he is bound to the job and the organization, and therefore less likely he or she is to quit (Mitchell et al., 2001). This relationship has been supported by a variety of previous studies (e.g., Prestholdt, Lane, & Mathews, 1987; Abelson, 1987; O'Reilly, Caldwell, & Barnett, 1989; Maertz, Stevens, & Campion, 2003). Second, the more an employee's personal values, career goals, and plans for the future fit with the larger corporate culture and the demands of his or her immediate job (job knowledge, skills, and abilities), the higher the likelihood that employee will feel professionally and personally tied to that organization and less likely to quit (Mitchell et al., 2001). Previous research has also supported this idea (O'Reilly, Chatman, & Caldwell, 1991; Chatman, 1991; Villanova, Bernardin, Johnson, & Dahmus, 1994). Third, the more material and psychological benefits (such as salary, bonuses, pension, promotional opportunities, and friends and colleagues) an employee would sacrifice by leaving, the more difficult it will be for him or her to break employment with the organization (Mitchell et al., 2001; Shaw, Delery, Jenkins, & Gupta, 1998).

Therefore, overall, there would be a negative relationship between JE and employee intention to quit.

Hypothesis 14: Job embeddedness will be negatively related to turnover intention.

In summary, this study proposes that the human resource practices of organizational rewards, growth opportunity, training, supervisor support, and organizational justice, along with job characteristics (skill variety, task identity, task significance, autonomy, and feedback) are positively related to JE. The study also proposes that POS mediates the relationship between those organizational factors and JE. Finally, the relationship between JE and intention to quit is also tested in this study. The list and paths of hypotheses can be seen in Table 2.3 and Figure 2.2, respectively.

Table 2.3

List of Hypotheses

	Hypothesis	Expected Relationship
H1	Perceived organizational support will be positively related to job embeddedness.	Positive
H2	Perceived supervisor support will positively related to job embeddedness.	Positive
H3	Perceived organizational support will mediate the relationship between perceived supervisor support and job embeddedness.	Mediation
H4	Organizational rewards will be positively related to job embeddedness.	Positive
H5	Perceived organizational support will mediate the relationship between organizational rewards and job embeddedness.	Mediation
H6	Growth opportunities will be positively related to job embeddedness.	Positive
H7	Perceived organizational support will mediate the relationship between growth opportunities and job embeddedness.	Mediation
H8	Training will be positively related to job embeddedness.	Positive
H9	Perceived organizational support will mediate the relationship between training and job embeddedness.	Mediation
H10	Procedural justice will be positively related to job embeddedness.	Positive
H11	Perceived organizational support will mediate the relationship between procedural justices and job embeddedness.	Mediation
H12	The combination of five core job characteristics will be positively related to job embeddedness.	Positive
H13	Perceived organizational support will mediate the relationship between the five core job characteristics and job embeddedness.	Mediation
H14	Job embeddedness will be negatively related to intention to quit.	Negative

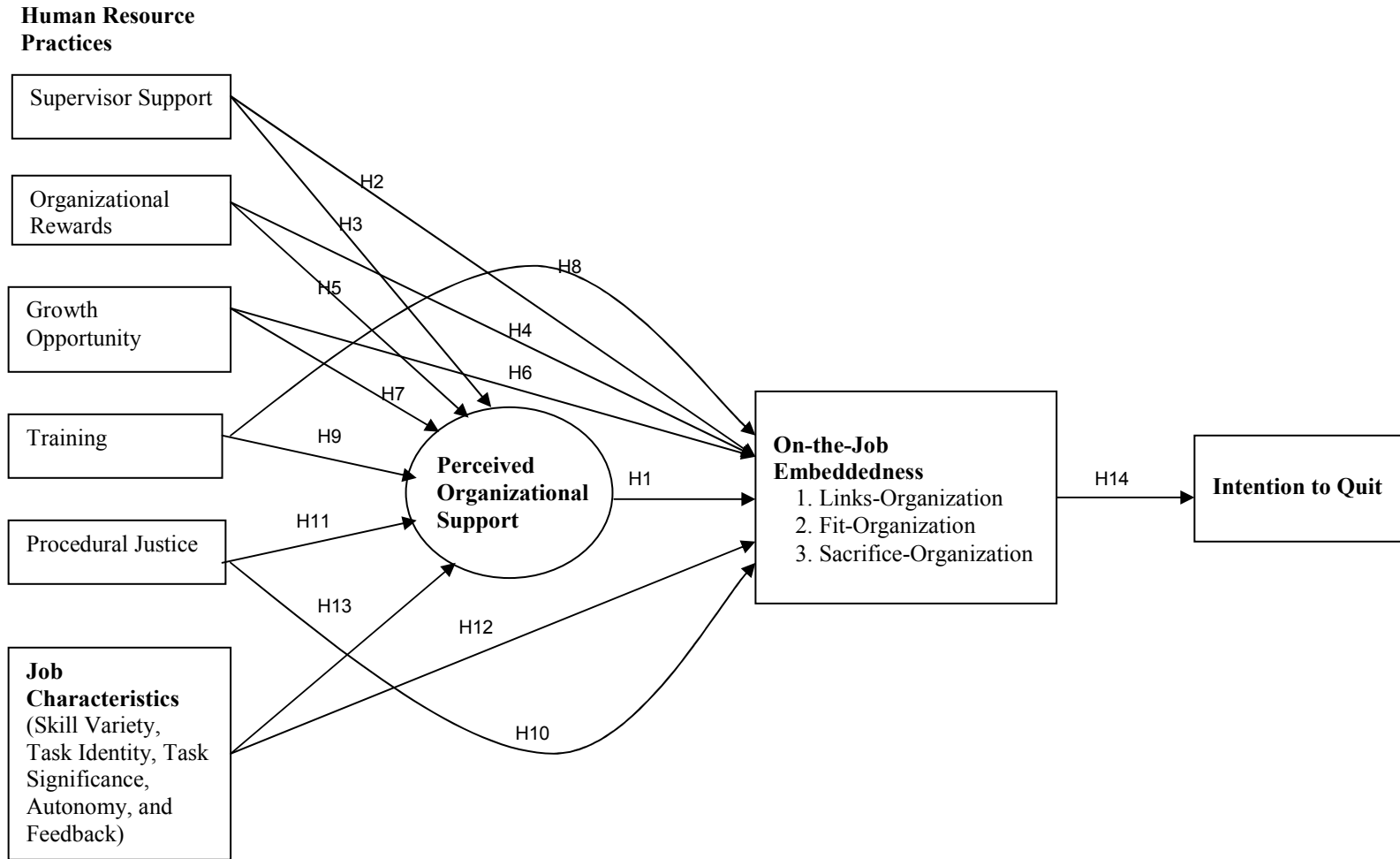


Figure 2.2

Conceptual Model and Hypotheses

CHAPTER III

METHODOLOGY

This chapter discusses the research design and methodology used to test the hypotheses developed in Chapter Two. The first section presents the study design which includes instrument development and survey data collection. The second section describes the measures used in the study, which consist of dependent, independent, mediating, and control variables. The final section outlines the statistical methodology and data analysis procedures used to test the hypotheses.

Study Design

This study tests several hypotheses on the relationships among organizational factors, job embeddedness (JE), and employee outcomes. A written survey questionnaire was utilized to collect data from employees in a state-owned company in Hanoi, Vietnam. This company currently employs 507 people. In Vietnam, there has been a braindrain problem recently in that employees, especially highly skilled ones, have been leaving state-owned organizations to work for private and foreign-owned companies (Hoe Nguyen, 1996; Quoc Phuong, 2008). The company is experiencing this problem as well, according to the company's deputy head of human resources. Therefore, it would be very appropriate to conduct this current study at that company.

Instrument Development

Because the questionnaire is originally in English, the issue of language translation needs to be addressed. Brislin (1980) and Little (1997) emphasized that the questionnaire needs to be translated forward and backward using different translators. Thus, in order to meet this translation requirement, the complete questionnaire, including introduction, instructions, and questions, was first prepared in English. The author of this study then translated the questionnaire into Vietnamese. The translated version was back-translated in English by a bilingual Vietnamese linguistic teacher who lives in Vietnam. The two translators (the linguistic teacher and the author) discussed any discrepancies and resolved them. The final Vietnamese survey was then given to two other Vietnamese bilingual teachers who live in Vietnam to answer both the Vietnamese and the English versions of the survey and to inspect the content equivalence of items. Finally, all the translators and the author discussed and selected the best terminologies for the intended meaning of the Vietnamese survey version. This procedure ensures that the questionnaire is equivalent when translating to a different language (Brislin, 1980; Brislin, Lonner, & Thomdike, 1973).

Data Collection

The questionnaires were administered at the company by an outside courier whom the author hired. To help increase the response rate, a letter from the company's head of human resources was sent out several days prior to the data collection to inform employees of the upcoming survey and its purpose. At the beginning of the day of survey, the courier handed out the questionnaires, which were placed in open envelopes,

to employees. Employees filled out the questionnaires during any break time (for example, during one hour lunch time) or at the end of their shift. There were locked collection boxes at convenient places, such as at the plant's entrance, for employees to return the completed questionnaires in sealed envelopes. At the end of the day, the questionnaires were collected by the courier from those boxes; only this person had keys to those boxes.

Participation was voluntary, which was stated in the survey instructions. Employees could stop completing the survey anytime they wanted. Participants were also assured that their individual responses would be kept confidential (only the author, not the company, has access to the completed questionnaires and data), and that only aggregate summaries, not individual level data would be utilized. However, because the study plans to collect data on actual turnover at a later time, employees' self-identification was necessary. This self-identification (in this case, employees' names) was again voluntary. In order to increase self-identification and participation, there were incentives for filling out the survey. Respondents who provided their names were entered in a drawing with 20 prizes, ranging from 100,000 VND (US \$5) to 2,000,000 VND (US \$100). These prizes were a meaningful incentive for employees because their average monthly salary is just about US \$100. After the survey was completed, the courier notified and distributed the money prizes to the winners of the drawing.

Measures

Dependent Variable Measures

The dependent variables tested in this study include job embeddedness and intention to quit.

Job Embeddedness

JE was measured by using Crossley et al.'s (2007) seven-item scale. This measure has been demonstrated very good reliability (e.g., coefficient alpha =.89 in Crossley et al.'s 2007). The JE items can be found in Table 3.1.

Table 3.1

Job Embeddedness Scale

- | |
|---|
| <ol style="list-style-type: none">1. I feel attached to this organization.2. It would be difficult for me to leave this organization.3. I am too caught up in this organization to leave.4. I feel tied to this organization.5. I simply could not leave the organization that I work for.6. It would be easy for me to leave this organization. (reverse score)7. I am tightly connected to this organization. |
|---|

Responses given on a 5-point Likert scale as follows: Strongly Disagree, Disagree, Neither Agree Nor Disagree, Agree, Strongly Agree

Intention to Quit

Intention to quit was measured by a five-item scale developed by Crossley, Grauer, Lin, and Stanton (2002). Reliability for this scale has previously been very good

(e.g., $\alpha = .89$ in Crossley et al.'s, 2007). A list of the intention to quit items can be found in Table 3.2.

Table 3.2

Intention to Quit Scale

<ol style="list-style-type: none">1. I intend to leave this organization soon.2. I plan to leave this organization in the next little while.3. I will quit this organization as soon as possible.4. I do not plan on leaving this organization soon (reverse score).5. I may leave this organization before too long.
Responses given on a 7-point Likert scale as follows: Strongly Disagree, Mostly Disagree, Slightly Disagree, Neither Disagree Nor Agree, Slightly Agree, Mostly Agree, and Strongly Agree.

Mediating Variable Measure

The hypothesized mediating variable in this study is perceived organization support (POS), and was measured with a six-item scale developed by Eisenberger, Arneli, Rexwinkel, Lynch, and Rhoades (2001). This is an abbreviated version of Eisenberger et al.'s (1986) 17-item scale. Research has shown that the abbreviated version performs similarly to the full 17-item instrument with reliabilities ranging from 0.74 to 0.94 (Eisenberger et al., 2001; Stamper & Johlke, 2003; Stinglhamber & Vandenberghe, 2003). The POS scale items can be found in Table 3.3.

Table 3.3

Perceived Organizational Support Scale

<ol style="list-style-type: none">1. This organization really cares about my well-being.2. This organization takes pride in my accomplishments at work.3. This organization values my contributions to its well-being.4. This organization strongly considers my values and goals.5. This organization shows little concern for me (reverse score).6. This organization is willing to help me if I need a special favor.
Responses given on a 7-point Likert scale as follows: Strongly Disagree, Mostly Disagree, Slightly Disagree, Neither Disagree Nor Agree, Slightly Agree, Mostly Agree, and Strongly Agree.

Independent Variable Measures

The independent variables in this study are perceived supervisor support, organizational rewards, growth opportunity, training, organizational justice, and job characteristics.

Perceived Supervisor Support

PSS was measured by using Rhoades and Eisenberger's (2006) six-item scale. Consistent with Eisenberger et al. (2002), this scale was adapted from the previously discussed POS scale by changing the word "organization" to the word "supervisor". This abbreviated measure has internal reliabilities ranging from 0.81 to 0.89 (Eisenberger et al., 2002; Stinglhamber & Vandenberghe, 2003; Rhoades & Eisenberger, 2006). The PSS items can be found in Table 3.4.

Table 3.4

Perceived Supervisor Support Scale

<ol style="list-style-type: none">1. My supervisor really cares about my well-being.2. My supervisor takes pride in my accomplishments at work.3. My supervisor values my contributions.4. My supervisor strongly considers my values and goals.5. My supervisor shows little concern for me (reverse score).6. My supervisor is willing to help me if I need a special favor.
Responses given on a 7-point Likert scale as follows: Strongly Disagree, Mostly Disagree, Slightly Disagree, Neither Disagree Nor Agree, Slightly Agree, Mostly Agree, Strongly Agree.

Organizational Rewards

A five-item scale developed by Price and Mueller (1986) was used to measure organizational rewards. Previous research has shown this measure has acceptable internal reliability (e.g., $\alpha = .70$ in Rhoades et al.'s, 2001). The organizational rewards items can be found in Table 3.5.

Table 3.5

Organizational Rewards Scale

<ol style="list-style-type: none">1. The organization rewards me very well for what I complete on my job.2. The compensation is very good at this organization.3. The benefits are very good at this organization.4. The organization recognizes me for my completion on the job.5. I am happy with the rewards that I received from the organization.
Responses given on a 5-point Likert scale as follows: Strongly Disagree, Disagree, Neither Agree Nor Disagree, Agree, Strongly Agree

Growth Opportunities

Growth opportunities were measured by a three-item scale adapted from Price and Mueller's (1986). Previous research has shown this measure has good internal reliability (Allen et al., 2003; Bedeian, Kemery, & Pizzolatto, 1991, Chay & Aryee, 1999). For example, the scale's alpha reliability was found to be 0.77 in Bedeian et al.'s (1991) and 0.88 in Chay and Aryee's (1999) study. The growth opportunities items can be found in Table 3.6.

Table 3.6

Growth Opportunity Scale

- | |
|--|
| <ol style="list-style-type: none">1. My present job is relevant to growth and development in my career.2. I feel that my present job will lead to future attainment of my career goals.3. This organization provides me the opportunity for development and advancement. |
|--|

Responses given on a 5-point Likert scale as follows:

Strongly Disagree, Disagree, Neither Agree Nor Disagree, Agree, Strongly Agree
--

Training

Training was measured by a three-item scale which is adapted from Noe and Wilk (1993) and Bartlett (2001). This measure has been successfully utilized in previous literature and shown acceptable internal reliability ($\alpha = .71$ in Bartlett, 2001). The training items can be found in Table 3.7.

Table 3.7

Training Scale

1. The organization provides excellent training for me to do my current job. 2. I obtained great knowledge and skills from training programs provided by the organization. 3. The training programs provided from the organization are really useful for me.
Responses given on a 5-point Likert scale as follows: Strongly Disagree, Disagree, Neither Agree Nor Disagree, Agree, Strongly Agree

Procedural Justice

Procedural justice was measured with a seven-item scale developed by Colquitt (2001). The items are of 5-point Likert type with higher scores representing higher justice perceptions. Previous research demonstrates that this measure has very good internal reliability, ranging from 0.85 to 0.97 (Colquitt, 2001; Ambrose, Hess, & Ganesan, 2007; Pellegini, 2006). The procedural justice items can be found in Table 3.8.

Table 3.8

Procedural Justice Scale

1. Have you been able to express your views and feelings during decision procedures? 2. Have you had influence over the decisions arrived at by decision procedures? 3. Have decision procedures been applied consistently? 4. Have decision procedures been free of bias? 5. Have decision procedures been based on accurate information? 6. Have you been able to appeal the decisions arrived at by decision procedures? 7. Have decision procedures upheld ethical and moral standards?
Responses given on a 5-point Likert scale as follows: Not at all, To a small extent, To a moderate extent, To a great extent, To a very great extent.

Job Characteristics

The five core job characteristics were measured using the revised scales from the Job Diagnostic Survey (JDS) (Hackman and Oldham, 1980) developed by Idaszak and Drasgow (1987). Research has shown that these conform more closely to the hypothesized five-factor structure than do the original job characteristics items (Idaszak & Drasgow, 1987; Kulik, Oldham & Langner, 1988; Cordery & Sevastos, 1993; Harvey, Billings, & Nilan, 1985), thus suggesting the revised version is a better measure. Each subscale of job characteristics (skill variety, task identity, task significance, autonomy, and feedback) consists of two items, as listed in Table 3.9.

Prior research on the job characteristics model has suggested that a combination or grouping of the five core job characteristics, reflecting job complexity, is a better predictor of the model's outcomes than any single job characteristic (Fried & Ferris, 1987). Thus, this study combines these five core job characteristics into one additive index. Previous research has also used an additive index of the five job characteristics quite often (e.g., Piccolo & Colquitt, 2006; Ehrhart, 2006; Evens & Ondrack, 1991; Arnold & House, 1980).

Table 3.9

Job Characteristics Scale

<p><i>Skill Variety:</i></p> <ol style="list-style-type: none">1. The job requires me to use a number of complex or high-level skills.2. The job is quite simple and repetitive * <p>* reverse score</p> <p><i>Task Identity:</i></p> <ol style="list-style-type: none">1. The job is arranged so that I can do an entire piece of work from beginning to end.2. The job provides me the chance to completely finish the pieces of work I begin. <p><i>Task Significance:</i></p> <ol style="list-style-type: none">1. The job itself is very significant and important in the broader scheme of things.2. This job is one where a lot of other people can be affected by how well the work gets done. <p><i>Autonomy:</i></p> <ol style="list-style-type: none">1. The job gives me a chance to use my personal initiative and judgment in carrying out the work.2. The job gives me considerable opportunity for independence and freedom in how I do the work. <p><i>Feedback:</i></p> <ol style="list-style-type: none">1. After I finish a job, I know whether I performed well.2. Just doing the work required by the job provides many chances for me to figure out how well I am doing.
<p>Responses to items are given on a 7-point Likert scale as follows:</p> <p>Very inaccurate; Mostly inaccurate; Slightly inaccurate; Uncertain; Slightly accurate; Mostly accurate; Very accurate.</p>

Control Variables

Demographic variables were included in the study to control for their possible effects on JE. Previous studies have shown that age, gender, marital status, race, tenure, and number of children influence JE (Giosan, 2003; Mallol, 2002). Because there is

essentially only one ethnic group of people in Vietnamese organizations, particularly in Hanoi (the Kinh people accounts for 86% of the population and this number is much larger in Hanoi, according to Vietnam Census, 2008), this study did not gather information about race. Therefore, age, gender, tenure, marital status, and number of children in family served as the control variables in the relationships between organizational factors and JE.

In addition to the above demographic variables, affective commitment was used as a control variable in the relationship between JE and intention to quit. Affective commitment has been shown as the closest variable to the JE construct (Crossley et al., 2007; Mitchell et al., 2001) and as a very important predictor of intention to quit (e.g., Crossley et al., 2007). Thus, the inclusion of affective commitment as a control variable allows us to test whether JE influences intention to quit above and beyond this control variable.

Affective commitment was measured in this study by six-item scale developed by Meyer and Allen (1997). Previous research demonstrated that this measure has acceptable internal reliability (e.g., $\alpha = .76$ in Crossley's, 2007). The items for affective commitment scale can be found in Table 3.10.

Table 3.10

Affective Commitment Scale

<ol style="list-style-type: none">1. I would be very happy to spend the rest of my career in this organization.2. I really feel as if this organization's problems are my own.3. I do not feel like "part of the family" at my organization. (reverse score)4. I do not feel "emotionally attached" to this organization. (reverse score)5. This organization has a great deal of personal meaning for me.6. I do not feel a strong sense of belonging to my organization. (reverse score)
Responses given on a 5-point Likert scale as follows: Strongly Disagree, Disagree, Neither Agree Nor Disagree, Agree, Strongly Agree

Statistical Methodology and Analysis Procedures

Testing Scale Psychometric Properties

In order to determine whether a scale measures the intended variable, it is important to assess its reliability and validity (Netemeyer, Bearden, & Sharma, 2003). Although the measures employed in this study have been used in past research and demonstrated good reliability as well as validity, it is still necessary to test each scale's psychometric properties because scale validity and reliability are not portable between populations (Churchill, 1979). Therefore, Cronbach's coefficient alpha is used to assess whether a scale's reliability exceeds the suggested minimum levels of 0.70 (Nunnally & Bernstein, 1994). Principal component analysis and confirmatory factor analysis are also conducted to ensure a scale's unidimensionality. These analyses make sure the scale items measuring a construct loaded appropriately. As the rule of thumb regarding factor

loadings, a minimum factor loading of +/- .30 is necessary for an item to be included in the scale (Hair et al., 2010).

Statistical Methodology

The statistical methodology used to analyze the data in this study is multiple and hierarchical regression. Because the objective of this study is to predict statistical relationships and to explain underlying relationships among variables, multiple regression analysis is the technique of choice (Hair et al., 2010). In addition, since the study's model consists of multiple independent and dependent variables as well as mediating variables, several steps in hierarchical regression are necessary to test different hypotheses (Hair et al., 2010). Furthermore, multiple and hierarchical regression can be used any time there is theoretical or conceptual justification for predicting or explaining the dependent variable with the set of independent variables (Hair et al., 2010). Thus, because the relationships hypothesized in this study are grounded in theory rather than exploratory in nature, regression is an appropriate methodology.

It could be argued that structural equation modeling (SEM) is also appropriate in this study. However, there are three main reasons why SEM might not be a good choice. First, SEM is usually utilized when researchers want to compare different models to determine which model provides the best fit for the observed data. Because this study does not intend to compare different models, SEM is not necessary. Second, SEM requires much larger sample sizes than regression. Because the number of factors in this study is larger than six and some of which use fewer than three measured items as indicators, sample size requirements for using SEM may exceed 500 (Hair et al., 2010).

This large sample size requirement is impractical in this study. Third, SEM cannot deal with the problems of multicollinearity and outliers, whereas regression can (Hair et al., 1998; Neter, Wasserman, & Kutner, 1990). Because of these, the current study does not use SEM as a methodology for data analysis.

Determining Sample Size

When utilizing multiple and hierarchical regression, a common method of determining an appropriate sample size is to use the recommended ratios of observations to independent variables. According to Hair et al. (2010), the ratio of observations to independent variables should not fall below 5, although the desirable ratio is between 15 and 20 observations per predictor. This study has a total of 18 independent variables (including control variables). Thus, following the suggested ratios, a sample of between 270 (15 times 18 independent variables) and 360 (20 times 18 independent variables) would be desirable for generalizability.

Testing Hypotheses on the Antecedents of JE

The procedure used to test the hypotheses in this study is explained as follows. To test the relationships between the antecedents and JE (Hypothesis 1 to Hypothesis 13), the first three steps in hierarchical regression are used (see Table 3.11). In the first regression model (Model 1), the dependent variable is JE.

Table 3.11

Testing Hypotheses Using Hierarchical Regression

		Model (Dependent Variables)		
Step		Model 1 (Job Embeddedness)		Model 2 (Turnover Intention)
1	<i>Control Variables:</i> Age Gender Marital Status Number of Children Tenure			
2	Step 1 Variables +	<i>Testing H2,4,6,8,10,12:</i> POS Organizational Rewards Growth Opportunities Training Procedural Justice Job Characteristics		
3	Step 1 Variables +	Step 2 Variables +	<i>Testing H1,3,5,7,9,11,13:</i> POS	
4	Step 1 Variables +	Step 2 Variables +	Step 3 Variables +	Affective Commitment
5	Step 1 Variables +	Step 2 Variables +	Step 3 Variables +	<i>Testing H14:</i> Step 4 Variable + JE

In Step 1, the control variables (age, gender, marital status, and number of children, and tenure) are entered. In Step 2, the independent variables (supervisor support, organizational rewards, growth opportunity, training, procedural justice, and job characteristics) are entered. The mediating variable (POS) is entered into the model in Step 3.

The direct effects of the independent variables on the dependent variable (Hypotheses 2, 4, 6, 8, 10, and 12) can be examined in Step 2, after controlling for demographic variables. In this step, if the beta coefficient of an independent variable is statistically significant ($p < .05$), then the hypothesis regarding that independent variable is supported. In other words, that independent variable is related to JE.

The direct relationship between POS and JE as well as the mediating effects of POS can be assessed in Step 3. The relationship between POS and JE is determined by examining the significant level of the beta coefficient of POS in this model. It can also be detected by looking at the change in R-square from Step 2 to Step 3. If R-square change is significant ($p < .05$), then POS is related to JE, and Hypothesis 1 is supported. Also in Step 3, the mediation effects of POS can be determined by assessing changes from Step 2 to Step 3 in significant levels (beta coefficients) of the relationships between the independent variables and JE. This mediation test is explained in more detail in the following section.

Mediation Analysis

Mediation analysis is used to assess the impact of the presumed mediating variable on various relationships between specified independent variables and the

dependent variable. Hypotheses 3, 5, 7, 9, 11, and 13 in this dissertation propose mediating relationships. This study uses the four-step method developed by Baron and Kenny (1986) and Kenny, Kashy, and Bolger (1998) for mediation analysis. The following four conditions must be met in order for a mediating effect to exist.

First, each of the independent variables must exhibit a significant relationship with the dependent variable to ensure that there is an overall effect to be mediated. To check this condition, Step 2 of the hierarchical regression model is examined. If examination of the beta coefficient of the independent variable indicates statistically significant ($p < .05$) impacts on JE in the model, then the first condition of mediation is met.

Second, the independent variable must be significantly related to the proposed mediator (POS in this study). A linear regression model similar to the one used in Step 2 of the hierarchical regression is employed to test this condition with one exception. Instead of using JE as the dependent variable, the regression model uses POS as the outcome. This is necessary to establish the relationship between the independent variable and the mediator. If the beta coefficient value in this regression model is statistically significant, then the second condition of mediation is met.

Third, the mediating variable (POS) must demonstrate a significant relationship with the outcome variable (JE). As explained above, Step 3 of the hierarchical regression can be examined to check this condition. A significant change in R-square from Step 2 to Step 3 or a significant beta coefficient of POS in the model is necessary for this third condition to be met.

The fourth condition requires that the relationship between the independent variable and the dependent variable (JE) be significantly weaker or non-significant when the proposed mediator (POS) is included. A significantly weaker relationship indicates partial mediation while a non-significant relationship indicates full mediation. To check the fourth condition, both Step 2 and Step 3 of the hierarchical regression model need to be examined. If the relationship between the independent variable and JE is significantly less or becomes non-significant from Step 2 to Step 3, then the fourth condition is met.

In case the relationship between the independent variable and the dependent variable (JE) remains significant in Step 3 but at a lower value than it is in Step 2, the significance of the mediating relationship must be assessed. The Sobel (1982) test can be used to determine this. This is accomplished by multiplying the unstandardized path coefficients between the independent variable and the mediator (POS) and the mediator and the outcome variable (JE), and then dividing by the standard error of the path. The result is a Z-statistic. If this Z-statistic is significant ($p < .05$), then it indicates that partial mediation is taken place. If Z-statistic is not significant, then there is no mediation effect occurred.

Testing Hypothesis on the Consequence of JE

To test the hypothesis on the consequence of JE (Hypotheses 14), Step 5 in the hierarchical regression is needed. In this regression (Model 2), the dependent variable is intention to quit. In Step 4, the demographic variables (age, gender, marital status, tenure, and number of children), human resource practices (perceived supervisor support, organizational rewards, training, growth opportunities, and procedural justice), job

characteristics, POS, and affective commitment are entered. Then, JE is entered into the model in Step 5. The relationship between JE and intention to quit can be determined by examining the significant level of the beta coefficient of JE in the model. It can also be detected by looking at the change in R-square from Step 4 to Step 5. If R-square change is significant ($p < .05$), then JE is related to intention to quit, or Hypothesis 14 is supported.

CHAPTER IV

DATA ANALYSIS AND RESEARCH RESULTS

This chapter discusses the data analyses and hypotheses test results. First, a description of the actual data collected is presented. Next, scale dimensionality and reliability are discussed. Finally, the results of hypotheses testing are provided.

Sample

Of the 473 survey questionnaires distributed to company employees, a total of 325 (68.7%) were returned to the locked collection boxes. Twenty one (21) of the 325 were either incomplete (i.e., items were omitted) and/or had conflicting answers (e.g., subjects had the same answer to the item “It would be difficult for me to leave this organization” and the reverse-coded item “It would be easy for me to leave this organization”). The total number of usable surveys was 304, producing an effective response rate of 61.5 percent. This meets the minimum requirement of sample sizes which was 270 as discussed in Chapter III. The detailed demographic information about the respondents is provided in Table 4.1.

Table 4.1

Sample Demographic Information

	Number	Percentage
Gender:		
Male	203	66.9%
Female	101	33.1%
Marital Status:		
Single	67	22%
Married	237	78%
Number of Children:		
0	99	32.6%
1	84	27.6%
2	113	37.2%
3 or More	8	2.6%
Average Age = 34.40 years Standard Deviation = 8.72		
Average Tenure = 7.90 years Standard Deviation = 7.59		

Sample based on $n = 304$

Scale Verification

As explained in Chapter III, it is necessary to ensure that the scales used in this study are reliable and valid. This is accomplished by running internal reliability measures and performing factor analyses for scale dimensionality. The following section describes the processes utilized to verify the psychometric adequacy of the scales used in this study.

Scale Reliability Analysis

Scale internal reliability is measured using Cronbach’s coefficient alpha. All scales exceed the minimum level of 0.70 suggested by Nunnally and Bernstein (1994) (see Table 4.6). Thus, the scales used in this study demonstrate good reliabilities.

Table 4.2

Cronbach's Coefficient Alphas

Scale	Alpha
Job Characteristics	0.79
Organizational Rewards	0.89
Procedural Justice	0.79
Intention to Quit	0.84
Affective Commitment	0.83
Perceived Organizational Support (POS)	0.83
Perceived Supervisor Support (PSS)	0.88
Training	0.85
Growth Opportunities	0.88
Job Embeddedness (JE)	0.85

Scale Dimensionality Analysis

Two types of analysis are used to assess scale dimensionality. First, Principal Component Analysis (PCA) with Varimax rotation is conducted to preliminarily assess the convergent and discriminant validity of the scales. Second, Confirmatory Factor Analysis (CFA) with maximum likelihood estimation is performed to further verify the unidimensionality of the scales. A detailed discussion of these two analyses and their results is presented in the following sections.

Principal Component Analysis

Principal component analysis is a form of eigenvector analysis that seeks to extract the maximum variance from each variable. In PCA, convergent validity is evident if each measurement item loads highly on its respective component (Netemeyer et al., 2003; Hair et al., 2010). Discriminant validity is evident when the measurement items do not load on components in which they are not supposed to be associated (i.e., no cross-loading). Hair et al. (2010) suggested that loadings of above 0.30 are considered minimum and loadings of above 0.50 are considered meaningful.

Initially, PCA is performed for each individual scale. The results are showed in Table 4.3. Except for item Skill2 of the Job Characteristics scale, all items of each scale are loaded on one component and have loadings of above 0.50. Thus, these initial results support the convergent validity of the scales used in this study.

Principal component analysis is then performed for all scales together. Because this study is theory-based and the scales used in this study are established in the literature, a priori criterion is used to assign the number of factors to be extracted in PCA (Hair et al., 2010). Therefore, the number of factors to be extracted is fixed at 10 as this study has 10 scales which have been validated previously. The results of this analysis are presented in Table 4.4. Overall, items are loaded in patterns consistent with what has been reported in the literature. That is, items which belong to each scale are highly loaded on its distinct factor. However, there are ten items which are not significantly loaded on their respective factors (see Table 4.4). In addition, there are five items which cross-load on two or more factors. Given a large number of items used in this study, however, the problems of non-significant loadings and cross-loadings are not surprising. To further

Table 4.3

PCA for Each Individual Scale

Scale	Item	Loading
Job Embeddedness	JE1	.739
	JE2	.779
	JE3	.883
	JE4	.518
	JE5	.746
	JE6	.665
	JE7	.729
Job Characteristics	Skill1	.507
	Skill2	.065
	Task_id1	.508
	Taskid2	.621
	Task_si1	.734
	Task_si2	.637
	Auto1	.771
	Auto2	.804
	Feedbac1	.792
	Feedbac2	.766
Organizational Rewards	Reward1	.839
	Reward2	.901
	Reward3	.906
	Reward4	.572
	Reward5	.886
Procedural Justice	Justice1	.723
	Justice2	.675
	Justice3	.713
	Justice4	.734
	Justice5	.691
	Justice6	.600
	Justice7	.611

Table 4.3 (continued)

Scale	Item	Loading
Intention to Quit	Quit1	.911
	Quit2	.918
	Quit3	.915
	Quit4	.812
	Quit5	.544
Affective Commitment	Comm1	.804
	Comm2	.783
	Comm3	.783
	Comm4	.550
	Comm5	.745
	Comm6	.777
Perceived Organizational Support (POS)	POS1	.800
	POS2	.828
	POS3	.852
	POS4	.891
	POS5	.685
	POS6	.698
Perceived Supervisor Support (PSS)	PSS1	.871
	PSS2	.898
	PSS3	.925
	PSS4	.918
	PSS5	.772
	PSS6	.800
Training	Train1	.820
	Train2	.903
	Train3	.884
Growth Opportunities	Growth1	.864
	Growth2	.914
	Growth3	.883

Table 4.4

PCA for All Scales Together

Items	Factor									
	1	2	3	4	5	6	7	8	9	10
JE1	.419									
JE2	.648									
JE3	.669									
JE4	.756									
JE5	.733									
JE6						.514				
JE7	.432									
Skill1		.358								
Skill2										
Task_id1		.518								
Task-id2		.396								
Task_si1		.619								
Task_si2		.541								
Auto1		.732								
Auto2		.711								
Feedbac1		.659								
Feedbac2		.588								
Reward1			.691							
Reward2			.822							
Reward3			.776							
Reward4										
Reward5			.672							
Justice1				.817						
Justice2				.799						
Justice3	.414									
Justice4				.478						
Justice5	.366									
Justice6				.715						
Justice7	.473									
Quit1					-.751					
Quit2					-.864					
Quit3					-.760					
Quit4	-.352									
Quit5					-.465					
Comm1					.330	.350				
Comm2		.300				.370				
Comm3	.309	.303				.390				
Comm4						.531				
Comm5						.701				
Comm6						.808				
POS1	.403		.450					.365		
POS2							.626			
POS3							.617			
POS4							.611			
POS5							.426			
POS6	.443									

Table 4.4 (continued)

Items	Factor									
	1	2	3	4	5	6	7	8	9	10
PSS1								.390		
PSS2								.638		
PSS3								.780		
PSS4				.439			.423	.491		
PSS5				.384			.397			
PSS6								.433		
Train1									.391	
Train2									.708	
Train3									.907	
Growth1										.514
Growth2										.579
Growth3										.613
Eigenvalue	7.56	5.62	4.75	4.41	4.40	3.68	2.91	2.49	1.92	1.74
% of Variance	13.03	9.69	8.19	7.61	7.60	6.35	5.02	4.28	3.32	3.01
Cumulative %	13.03	22.72	30.91	38.52	46.11	52.47	57.50	61.78	65.10	68.11

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 13 iterations.

Values less than 0.30 were not included.

investigate the convergent and discriminant validity of the scales, confirmatory factor analysis is conducted and discussed in the following section.

Confirmatory Factor Analysis

Confirmatory factor analysis is performed using AMOS 18.0 (an add-on of SPSS-PASW software 18.0). Convergent validity is evident in CFA when the standardized regression weight² of each measurement item is significant and high (above 0.5 - Hair et al., 2010). Convergent validity can also be evident if the Average Variance Extracted (AVE) for a construct is greater than 0.5 (Fornell & Larcker, 1981; Hair et al., 2010). Evidence of discriminant validity exists if the AVE of a construct is greater than the shared variance, which is the squared correlation of the construct with all other constructs in the measurement model. Discriminant validity can also be assessed by looking at

modification indices. If modification indices are less than 4, then discriminant validity is evident because there is no cross-loading problem (Hair et al., 2010). In addition, several fit indices, such as Chi-square, Normed Chi-square, Root mean square error of approximation (RMSEA), and Comparative fit index (CFI), need to be considered to assess whether the measurement model fits well with the data.

Table 4.5 shows the standardized regression weight of each measurement item and the AVE for each construct. Overall, the convergent validity of all scales is evident because the standardized regression weights of all measurement items (except item Skill2) for each corresponding scale are significant and high (above 0.5). In addition, the AVE for each construct is greater than 0.5, suggesting further convergent validity of the scales.

The item Skill2 has a very low and non-significant standardized regression weight. This is consistent with the results from PCA in which this item did not significantly load on the Job Characteristics factor. The wording of this item (“The job is quite simple and repetitive” – reversed coded) might have created confusion for respondents and might not capture the skill variety aspect of the Job Characteristics scale. For example, although a respondent can strongly disagree with the statement “The job is quite simple and repetitive,” it does not mean the job is very complex and requires a lot of skills (for example, the job could be simple but not repetitive, or vice versa). This item in the current study, therefore, is not a good item and needs to be removed from the Job Characteristics scale. This removal in fact improves the reliability of the Job Characteristics scale (Cronbach’s coefficient alpha increased from 0.79 to 0.86).

Table 4.5

Standardized Regression Weights and Average Variance Extracted

Items	Constructs									
	Job Embeddedness	Job Characteristics	Organizational Rewards	Procedural Justice	Quit Intention	Affective Commitment	POS	PSS	Training	Growth Opportunity
JE1	.771									
JE2	.743									
JE3	.872									
JE4	.627									
JE5	.635									
JE6	.622									
JE7	.700									
Skill1		.495								
Skill2		-.105								
Task_id1		.476								
Task-id2		.504								
Task_si1		.746								
Task_si2		.591								
Auto1		.766								
Auto2		.839								
Feedbac1		.735								
Feedbac2		.764								
Reward1			.775							
Reward2			.866							
Reward3			.903							
Reward4			.531							
Reward5			.852							
Justice1				.840						
Justice2				.824						
Justice3				.477						
Justice4				.526						
Justice5				.519						
Justice6				.694						
Justice7				.552						
Quit1					.912					
Quit2					.969					

Table 4.5 (continued)

Items	Constructs									
	Job Embeddedness	Job Characteristics	Organizational Rewards	Procedural Justice	Quit Intention	Affective Commitment	POS	PSS	Training	Growth Opportunity
Quit3					.888					
Quit4					.740					
Quit5					.484					
Comm1						.836				
Comm2						.843				
Comm3						.794				
Comm4						.515				
Comm5						.505				
Comm6						.595				
POS1							.756			
POS2							.813			
POS3							.798			
POS4							.783			
POS5							.591			
POS6							.551			
PSS1								.706		
PSS2								.894		
PSS3								.917		
PSS4								.769		
PSS5								.530		
PSS6								.636		
Train1									.720	
Train2									.870	
Train3									.874	
Growth1										.799
Growth2										.847
Growth3										.893
Average Variance Extracted (AVE)	0.710	0.581	0.786	0.633	0.738	0.681	0.687	0.742	0.821	0.882

In addition, there are cross-loading problems with the item Reward4. The modification indices between this item and all other scales (Training, Growth Opportunity, Procedural Justice, PSS, Job Characteristics, POS, JE, Intention to Quit, Organizational Commitment) are very high, ranging from 13.87 to 26.64. Because these cross-loading problems affect the discriminant validity of the scales and create unreliable interpretation of the results (Hair et al. 2010), the item Reward4 is removed from the Organizational Rewards scale in this study. This removal also improves the reliability of this scale (Cronbach's coefficient alpha increased from 0.89 to 0.91).

Table 4.6 shows the comparisons between AVE for each scale and the squared correlations among scales. Discriminant validity of the scales is evident since the AVE of each scale is greater than all squared correlations (or shared variance) between that scale and other scales. These results also validate the previous research by Crossley et al. (2007) that although JE and affective commitment are very closely related, they are distinct constructs.

To further investigate the fit between the measurement model and the data, several fit indices are assessed. These indices are reported in Table 4.7. The measurement Model 1 consists of all original items and the measurement Model 2 removes 2 items, Skill2 and Reward4, as discussed above. Overall, both models show an acceptable fit with the data. According to Hair et al. (2010), the Normed Chi-square value should be less than 5.0 and the RMSEA should be less than 0.08 to demonstrate an acceptable fit between the model and the data. Both Model 1 and Model 2 meet these requirements. In addition, Model 2 has a slightly better fit than Model 1, thus justifying the removal of the two items Skill2 and Reward4. However, there are two fit indices

(Chi-square significant level and CFI) do not meet the levels suggested by Hair et al. (2010). This is not unexpected given the complexity of the measurement model used in this study.

Table 4.6
Average Variance Extracted (AVE) and Squared Correlations

Scales	1	2	3	4	5	6	7	8	9	10
1. Organizational Rewards*	0.849									
2. Growth Opportunity	0.331	0.882								
3. Training	0.209	0.314	0.821							
4. PSS	0.300	0.394	0.214	0.742						
5. Procedural Justice	0.192	0.275	0.254	0.270	0.633					
6. Job Characteristics*	0.196	0.277	0.163	0.352	0.212	0.657				
7. POS	0.342	0.394	0.312	0.506	0.336	0.304	0.687			
8. JE	0.229	0.292	0.212	0.278	0.261	0.296	0.371	0.710		
9. Affective Commitment	0.204	0.370	0.238	0.306	0.216	0.286	0.343	0.461	0.681	
10. Intention to Quit	0.176	0.324	0.220	0.280	0.212	0.216	0.345	0.437	0.434	0.738
<i>AVE values are bold in the diagonal</i>										
<i>* Item Reward4 was not included in Organizational Rewards scale and Item Skill2 was not included in Job Characteristics scale.</i>										

Table 4.7

Model Fit Indices

Statistic	Suggested Rule of Thumb	Obtained Value from Model 1*	Obtained Value from Model 2**
χ^2		4059.24	3710.10
Degrees of freedom		1550	1439
χ^2 Significant level	$p > .05$.000	.000
Normed χ^2	< 5.0	2.61	2.57
CFI	$> .90$.79	0.81
RMSEA	$< .08$.075	.074
<p>* Model 1 consisted of all original measurement items.</p> <p>** Model 2 removed items Skill2 and Reward4.</p> <p><i>Bold values indicate a value that has exceeded the recommended rule of thumb for that particular fit index.</i></p>			

In summary, the scales used in this study demonstrate both reliability and validity.

The hypotheses testing results will be discussed in the following section.

Results of Hypotheses Testing

The means, standard deviations and correlations of the study variables can be found in Table 4.8. JE is significantly and negatively correlated with intention to quit and positively correlated with all other variables (with the exception of gender). These results are expected and consistent with prior research. The following section will discuss the hypotheses test results.

Results on the Direct Antecedents of JE

Hypotheses 1, 2, 4, 6, 8, 10, and 12 propose direct relationships between several organizational factors and JE. To test these hypotheses, a three-step regression model is used. First, the control variables (tenure, age, number of children, gender, and marital status) are regressed on JE. The results from Table 4.9 show that in this first step, only tenure is positively and significantly related to JE.

Second, the direct effect variables, including PSS (Hypothesis 2), organizational rewards (Hypothesis 4), growth opportunities (Hypothesis 6), training (Hypothesis 8), procedural justice (Hypothesis 10), and job characteristics (Hypothesis 12), are regressed on JE. Hypothesis 2 states that PSS is positively related to JE. Results from Step 2 in Table 4.8 show that PSS is not significantly related to JE ($\beta = .083, p > .05$). Thus, Hypothesis 2 is not supported. Furthermore, the results show that organizational rewards (Hypothesis 4) are positively and significantly related to JE ($\beta = .153, p < .01$). Thus, this hypothesis is supported. Similarly, growth opportunities (Hypothesis 6), procedural justice (Hypothesis 10), and job characteristics (Hypothesis 12) are positively and significantly related to JE, suggesting that these hypotheses are supported. Training (Hypothesis 8), however, is not significantly related to JE, which means the hypothesis is not supported.

Third, the mediating variable (POS) is regressed on JE. This step is used to test the relationship between POS and JE (Hypothesis 1). The results show that POS is positively and significantly related to JE after controlling for the demographic variables, human resource practices and job characteristics ($\beta = .233, p < .01$). Thus, Hypothesis 1 is supported.

Table 4.8

Means, Standard Deviations, and Correlations

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Tenure	7.99	7.59	--													
2. Age	34.4	8.72	.84**	--												
3. Number of Children	1.07	.89	.61**	.74**	--											
4. Gender	--	--	-.11*	-.21**	-.07	--										
5. Marital Status	--	--	.37**	.49**	.69**	.00	--									
6. Organizational Rewards	3.04	.92	-.02	-.01	.06	-.09	-.05	--								
7. Growth Opportunity	3.59	.75	.05	.14*	.14*	-.07	.02	.57**	--							
8. Training	3.76	.70	.05	.09	.12*	-.13*	.04	.45**	.56**	--						
9. PSS	5.15	1.08	.12*	.15**	.13*	-.07	.06	.54**	.62**	.46**	--					
10. Procedural Justice	3.00	.63	.09	.14*	.06	-.09	.03	.43**	.52**	.50**	.52**	--				
11. Job Characteristics	4.99	.87	.18**	.18**	.23**	-.03	.13*	.44**	.52**	.40**	.59**	.46**	--			
12. POS	4.73	1.02	.16**	.16**	.15**	-.07	.02	.58**	.62**	.55**	.71**	.58**	.55**	--		
13. Affective Commitment	3.60	.70	.13*	.14*	.14*	-.00	.08	.45**	.60**	.48**	.55**	.46**	.53**	.58**	--	
14. JE	3.37	.65	.26**	.23**	.20**	-.00	.12*	.47**	.54**	.46**	.52**	.51**	.54**	.61**	.67**	--
15. Intention to Quit	2.46	1.21	-.13*	-.18**	-.15**	.03	-.07	-.42**	-.57**	-.46**	-.52**	-.46**	-.46**	-.58**	-.65**	-.66**

** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed).

Table 4.9

Regression Results with JE as the Dependent Variable

Steps	Dependent Variable: JE		
	Step 1	Step 2	Step 3
<i>Step 1: Control Variables:</i>			
Tenure	.215*	.261**	.226**
Age	.024	-.034	-.013
Number of Children	.068	-.085	-.100
Gender	.038	.082	.080
Marital Status	.027	-.054	-.070
<i>Step 2: Direct Effect Variables</i>			
PSS		.083	.000
Organizational Rewards		.153**	.113*
Growth Opportunities		.178**	.153*
Training		.100	.065
Procedural Justice		.158**	.121*
Job Characteristics		.192**	.179**
<i>Step 3: Mediating Variable</i>			
POS			.233**
Overall F	4.41**	24.94**	24.59**
R-Square	.073	.498	.518
Adjusted R-Square	.056	.479	.497
R-Square change	.073**	.426**	.019**

Standardized β coefficients used; $n = 304$; * $p < .05$; ** $p < .01$

In summary, among human resource practices, organizational rewards, growth opportunities, and procedural justice are positively and significantly related to JE, whereas PSS and training are not. Job characteristics and POS also show significant relationships with JE. The mediating effect of POS on the relationships between JE and

human resource practices and between JE and job characteristics will be discussed in the following section.

Results on the Mediating Effect of POS

Hypotheses 3, 5, 7, 9, 11, and 13 propose that POS mediates the relationships between human resource practices (PSS, organizational rewards, growth opportunities, training, and procedural justice) and JE, and between job characteristics and JE. As explained in the methodology section (Chapter III), the four-step process proposed by Baron and Kenny (1986) and Kenny et al. (1998) will be used to test these mediation hypotheses.

First, each of the independent variables (the five human resource practices and job characteristics) must exhibit a significant relationship with the dependent variable (JE). Because PSS and training are not significantly related to JE, as demonstrated in Step 2 (Table 4.9), the first condition of the mediation effect is not met for these two independent variables (PSS and training). Therefore, Hypothesis 3 (POS mediates the relationship between PSS and JE) and Hypothesis 9 (POS mediates the relationship between training and JE) are not supported. The remaining independent variables (organizational rewards, growth opportunities, procedural justice, and job characteristics) do show significant relationships with JE (Step 2 in Table 4.9), thus meeting the first condition of mediation.

Second, each of the independent variables must be significantly related to the mediator (POS). To test this, the independent variables are regressed on POS; the results can be found in Table 4.10. The three independent variables (organizational rewards,

growth opportunities, and procedural justice) that met the first mediating condition do demonstrate significant relationships with POS (Step 2 in Table 4.10), thus meeting the second condition of mediation. Job characteristics, however, are not significantly related to POS (Step 2 in Table 4.10), suggesting that Hypothesis 13 (POS mediates the relationship between job characteristics and JE) is not supported.

Third, the mediating variable (POS) must show a significant relationship with the dependent variable (JE). As demonstrated in the previous section (Step 3 in Table 4.9), POS was significantly related to JE. Therefore, this third condition of mediation is met.

Fourth, the relationship between each of the independent variables (organizational rewards, growth opportunities, and procedural justice) and the dependent variable (JE) must be significantly weaker or non-significant when the mediator (POS) is included. To check this fourth condition, the significant levels of the relationship between each independent variable and the dependent variable from Step 2 and Step 3 in Table 4.8 are examined. The results show that these independent variables (organizational rewards, growth opportunities, and procedural justice) are still significantly related to JE after POS is included (Step 3 in Table 4.9). In this case, the Sobel (1982) test can be used to determine whether the relationships between the independent variables and the dependent variable have significantly decreased.

For the relationship between organizational rewards and JE, the result of a Sobel test indicates a significantly weaker relationship when POS is added to the model ($Z = 2.39; p < .05$). Thus, POS mediates the relationship between organizational rewards and JE, as predicted in Hypothesis 5. However, because the relationship between

Table 4.10

Regression Results with POS as the Dependent Variable

Steps	Dependent Variable: POS	
	Step 1	Step 2
<i>Step 1: Control Variables:</i>		
Tenure	.086	.148*
Age	.000	-.090
Number of Children	.207*	.064
Gender	-.047	.013
Marital Status	.153	.068
<i>Step 2: Direct Effect Variables</i>		
Organizational Rewards		.169**
Growth Opportunities		.107*
Training		.150**
PSS		.357**
Procedural Justice		.159**
Job Characteristics		.054
Overall F	2.734*	45.923**
R-Square	.046	.647
Adjusted R-Square	.029	.633
R-Square change	.046*	.600**

Standardized β coefficients used; $n = 304$; * $p < .05$; ** $p < .01$

organizational rewards and JE is still significant after including POS, this relationship is only partially, not fully, mediated by POS.

Similarly, a Sobel test shows a significant weaker relationship between procedural justice and JE when POS is included in the model ($Z = 2.36$; $p < .05$). This means that Hypothesis 11, which states that POS mediates the relationship between procedural justice and JE, is supported. Again, because the relationship between procedural justice

and JE is still significant after POS is entered into the regression, this relationship is only partially, not fully, mediated by POS.

For the relationship between growth opportunities and JE, however, the result of a Sobel test does not demonstrate a significantly weaker relationship when POS is entered into the model ($Z = 1.67; p > .05$). Therefore, Hypothesis 7, which proposes that POS mediates the relationship between growth opportunities and JE, is not supported.

In summary, results from mediation tests show that POS mediates the relationship between JE and organizational rewards and between JE and procedural justice. POS, however, does not mediate the relationships between JE and PSS, growth opportunities, training, and job characteristics.

Result on the Relationship between JE and Intention to Quit

Hypothesis 14 proposes that JE is negatively related to intention to quit. To test this hypothesis, a five-step regression model is used. First, the control variables are regressed on intention to quit in Step 1. Second, human resource practices and job characteristics are entered in Step 2. Third, POS is entered in Step 3. Next, affective commitment is entered in Step 4. Last, JE is entered in Step 5.

Step 5 in Table 4.11 shows that JE is negatively and significantly related to intention to quit after controlling for the demographic variables, human resource practices, job characteristics, POS, and affective commitment ($\beta = -.339, p < .01$). The significant change in R-square from Step 4 to Step 5 in Table 4.11 also indicates that JE

Table 4.11

Regression Results with Intention to Quit as the Dependent Variable

Steps	Dependent Variable: Intention to Quit				
	Step 1	Step 2	Step 3	Step 4	Step 5
<i>Step 1: Control Variables:</i>					
Tenure	.067	-.010	.025	.066	.129
Age	-.185	-.082	-.104	-.122	-.120
Number of Children	-.109	.023	.038	.016	-.010
Gender	.005	-.034	-.031	-.012	.008
Marital Status	-.063	.014	.030	.009	-.008
<i>Step 2:</i>					
Organizational Rewards		-.045	-.005	.006	.041
Growth Opportunities		-.277**	-.251**	-.137*	-.125*
Training		-.135*	-.100	-.057	-.050
PSS		-.146*	-.062	-.034	-.044
Procedural Justice		-.111	-.073	-.056	-.021
Job Characteristics		-.088	-.075	-.014	.025
<i>Step 3:</i>					
POS			-.237**	-.180**	-.121
<i>Step 4:</i>					
Affective Commitment				-.381**	-.248**
<i>Step 5:</i>					
JE					-.339**
Overall F	2.170	18.754**	18.563**	22.931**	25.582**
R-Square	.037	.428	.448	.521	.567
Adjusted R-Square	.020	.405	.423	.498	.545
R-Square change	.037	.391**	.020**	.074**	.046**

Standardized β coefficients used; $n = 304$; * $p < .05$; ** $p < .01$

did indeed influence intention to quit beyond affective commitment. Thus, Hypothesis 14 is supported.

In summary, eight of the fourteen hypotheses in this study are supported. The summary of the test results for all hypotheses is listed in Table 4.12.

Table 4.12

List of Hypotheses Test Results

Hypothesis	Expected Relationship	Test Result
H1 POS is positively related to JE.	Positive	Supported
H2 PSS is positively related to JE.	Positive	Not Supported
H3 POS mediates the relationship between PSS and JE.	Mediation	Not Supported
H4 Organizational rewards are positively related to JE	Positive	Supported
H5 POS mediates the relationship between organizational rewards and JE	Mediation	Supported
H6 Growth opportunities are positively related to JE	Positive	Supported
H7 POS mediates the relationship between growth opportunities and JE.	Mediation	Not Supported
H8 Training is positively related to JE.	Positive	Not Supported
H9 POS mediates the relationship between training and JE.	Mediation	Not Supported
H10 Procedural justice is positively related to JE	Positive	Supported
H11 POS mediates the relationship between procedural justices and JE.	Mediation	Supported
H12 The combination of five core job characteristics is positively related to JE.	Positive	Supported
H13 POS mediates the relationship between the five core job characteristics and JE.	Mediation	Not Supported
H14 JE is negatively related to intention to quit.	Negative	Supported

Post-Hoc Tests

Because there are some items that did not load on their respective scales or cross-loaded on other scales in PCA (see Table 4.4), these potentially problematic items are deleted and regressions are reran. All hypotheses are then retested with the new scales. The results of these hypotheses testing, however, did not significantly change from the previous ones. That is, the same eight of the study's fourteen hypotheses are supported in these post-hoc tests.

CHAPTER V

DISCUSSION AND CONCLUSION

The purpose of this chapter is to discuss the results of the hypotheses tests and to present conclusions based on these results. Specifically, this chapter will include a discussion of results, contributions of the study, limitations of the study, recommendations for future research, and conclusion.

Discussion of Results

As presented in Chapter I, the purpose of this dissertation was to address three research questions: (1) What are the organizational, job, and supervisory factors that influence job embeddedness? (2) How do these factors influence JE? and (3) Does JE affect employee voluntary turnover in the country of Vietnam?

Based upon these questions, the four specific objectives of the study were: (1) to examine how human resource practices (perceived supervisor support [PSS], organizational rewards, growth opportunity, training, and organizational justice) impact JE; (2) to investigate how job characteristics (skill variety, task significance, task identity, autonomy, and feedback) influence JE; (3) to explore whether perceived organizational support (POS) mediates the relationships between these factors and JE; and (4) to test the relationship between JE and employee intention to quit in the country of Vietnam.

Fourteen (14) hypotheses were developed and then tested using a sample of 304 employees from a state-owned company in Hanoi, Vietnam. Empirical results supported eight of these hypotheses. Because there could be some cultural differences as well as some unique features of the sample that influence the findings of this study, the following sections will integrate a detailed explanation of the study's objectives and hypotheses with a discussion of the Vietnamese culture and the sample.

Objective # 1: Direct Relationships between HR Practices and JE

Hypotheses 2, 4, 6, 8 and 10 proposed that human resource practices (PSS, organizational rewards, growth opportunities, training, and procedural justice) are positively related to JE. The empirical results from this study supported three of these hypotheses. First, organizational rewards were found to be positively and significantly related to JE (Hypothesis 4). This means rewards that are valuable to employees make them more embedded into their jobs. Among the three dimensions (*links* – the connections or relationships an employee has with other people in the organization; *fit* – the compatibility an employee perceives with the job and the organization; and *sacrifice* – the perceived cost of material and psychological benefits an employee has to give up if quitting) of JE, organizational rewards seem most likely to be related to the sacrifice dimension. A possible explanation for this is that the more rewards (both tangible such as pay and intangible such as recognition) an employee receives from the organization, the more losses or sacrifice he or she will experience by quitting. Because of these losses and sacrifice, the employee will be more likely to stay with his or her current job. This finding is consistent with the previous research conducted in the U.S. in which

organizational rewards were found to enhance employees' attachment to their organization (e.g., Allen et al., 2003; Griffeth et al., 2000; Arthur, 1994). Thus, Vietnamese and American employees are similar in perceiving rewards as an important factor that keeps them staying on their jobs and with the organization.

Second, growth opportunities were found to directly influence JE (Hypothesis 6). Employees will be more embedded into their jobs if the organization provides them reasonable opportunities for promotion and development. An explanation for this relationship is that growth opportunities could be related to the fit dimension of JE. Because opportunities for development and promotion may allow (or at least increase the likelihood) employees to attain their career goals, employees would feel a greater fit with the organization which offers them these opportunities. Growth opportunities could also be related to the sacrifice dimension of JE. Because growth opportunities give employees chances to obtain better positions and better salaries, leaving an organization that provides these things would represent a significant loss and sacrifice for employees. Therefore, the more opportunities for growth, the more likely employees will be embedded into their jobs. This finding is also consistent with prior research in which human resource practices that signal investment in employees and their development (e.g., opportunities for growth) have been shown to increase employees' attachment to their organization (Miller & Wheeler, 1992; Shaw et al., 1998; Allen et al., 2003). Thus, on this aspect, the finding of this study showed no difference between the Vietnamese and American employees.

Third, procedural justice was found to be positively and significantly related to JE (Hypothesis 10). This means that employees will be more embedded into their jobs if

they perceive greater fairness in the procedures used by the organization to allocate outcomes. There are two possible explanations for this relationship. First, because fairness of procedures used in distributing outcomes could be viewed as a benefit from the organization, employees would give up or sacrifice this benefit if they choose to leave (Yao et al., 2003). Thus, procedural justice could be related to the sacrifice dimension of JE. Second, procedural justice could also be related to the fit dimension of JE. If the organization treats an employee unfairly, then it is less likely the employee will “fit” in this organization. Therefore, in the case of fair treatment from the organization, employees would be embedded into their jobs because they would fit with the organization and because they would have to sacrifice if they quit.

The remaining two hypotheses (Hypotheses 2 and 6) testing the direct relationships between human resource practices and JE were not supported. Hypothesis 2 proposed that PSS is positively related to JE. Contrary to the study’s expectation, the empirical results did not indicate a significant relationship between PSS and JE. Support from supervisors did not enhance the links, fit, and sacrifice to embed employees into their jobs. This finding is inconsistent with previous studies in which PSS was found to increase employees’ job embeddedness and attachment to the organization (e.g., Giosan, 2003; Rhoades & Eisenberger, 2002; Maertz et al., 2007; Singh & Billingsley, 1996). One potential explanation for this inconsistency is that the current study examined how PSS and several other organizational and job factors (e.g., organizational rewards, growth opportunities, procedural justice, and job characteristics) jointly influence JE, whereas previous studies examined PSS individually rather than simultaneously with other

factors. Because of the inclusion of other factors with PSS, the relationship between PSS and JE in this study, therefore, may have become non-significant.

This finding is also inconsistent with the high collectivistic and strong relational orientation in the Vietnamese culture (Hofstede, 2001). In this culture, the relationship between employees and supervisors is very important and usually is critical to employees' decision to stay or leave the organization (Lu, 2010). The possible explanation for this inconsistency is that employees might not report honestly the level of supervisor support in the survey. Because reporting negatively about supervisors (i.e., low supervisor support) would be very socially undesirable in the Vietnamese culture, employees might not be willing to honestly answer about their supervisors. As the Vietnamese people are indirect in expressing their opinions and loss of face is unbearable for them (Puffer, 2004), it could be uneasy for employees to report negatively about their supervisors. In fact, there is possible evidence because the mean for the PSS scale is slightly higher than the means of other scales used in this study. This potential dishonesty may have affected the relationship between PSS and JE in the current study.

Hypothesis 6, which proposed that training is positively related to JE, also was not supported. As argued in Chapter II, training helps employees obtain knowledge and skills, which then make them fit better into their jobs. Training can also imply better salaries and future promotions, which also would embed employees more into their jobs. However, empirical results from this study did not support this hypothesis. Previous research found that training may help organizations to retain their employees (Hequet, 1993), but at the same time training may also make employees more marketable and therefore more attractive to other employers (Lynch, 1991). This could be the

explanation for the relationship between training and JE as well. On one hand, training may make employees fit better into their jobs and provide more benefits (such as better salaries and promotions) in the future, which would embed employees more into their current jobs. On the other hand, training may provide employees with knowledge and skills that enable them to seek job opportunities at other organizations, thus making them less likely embedded into their current jobs. Therefore, it is not inconsistent with prior research that training was not found to be related to JE in this study.

It should be noted that while training did not influence JE, growth opportunities did. Although both training and growth opportunities signal investments in human capital, training focuses mainly on employees' current jobs, whereas growth opportunities emphasize future jobs (Fitzgerald, 1992). This difference could be the explanation for the dissimilar impact of training and growth opportunities on JE. Because Vietnamese people are more long-term oriented (Hofstede, 2001) and because growth opportunities could be seen as future benefits and goals for employees to aim for, they are more likely to embed into their jobs in order to achieve these future opportunities.

In summary, among the five human resource practices examined in this study, organizational rewards, growth opportunities, and procedural justice were found to influence JE, whereas PSS and training were not. These findings are consistent with prior research except the finding on the relationship between PSS and JE. The findings also indicate some cultural similarities and differences between Vietnam and the U.S., as well as some unique features of the sample used in this study. Overall, the human

resource practices investigated in this study explained roughly 40.6% of the variance in JE, which is a substantial amount.

Objective # 2: Direct Relationship between Job Characteristics and JE

Hypothesis 12 proposed that job characteristics (skill variety, task identity, task significance, autonomy, and feedback) are positively related to JE. The empirical results from this study supported this hypothesis. This means that if an employee perceives the job characteristics as favorable (such as high autonomy and significance), then s/he will be more embedded into the job. There are three possible reasons for this relationship. First, employees could feel a better fit with their jobs if they perceive the job characteristics are favorable (Ehrhart, 2006). Second, job characteristics create intrinsic motivation, which makes employees more involved and engaged in their jobs (Fried & Ferris, 1987; Hackman & Oldham, 1980). Last, because favorable job characteristics represent losses and sacrifice for employees if they quit, employees will be more likely to stay on their jobs. Overall, job characteristics explained 2.0% more variance in JE when controlling for human resource practices, which is statistically significant and meaningful in social and behavioral research (McClelland & Judd, 1993).

Objective # 3: Direct and Mediating Effects of POS

The current study investigated both direct and mediating effects of POS on JE. Hypothesis 1, which was supported, stated that POS is positively related to JE. This means that the greater the support from the organization, the more embedded employees will be into their jobs. Consistent with social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960), employees who perceive strong support from their

organization will be more likely to feel obligated to stay on their jobs in order to “repay” the organization. This finding is consistent with the prior research conducted in the U.S. in which POS was found to be positively related to JE (Giosan, 2003). Thus, similar to the American culture, the social exchange theory also holds true in the Vietnamese culture.

This study also proposed that POS mediates the relationships between human resource practices and JE (Hypotheses 3, 5, 7, 9, and 11) and between job characteristics and JE (Hypothesis 13). The empirical results supported only two of these hypotheses. First, Hypothesis 5 proposed that POS mediates the relationship between organizational rewards and JE. This study found that POS partially mediates this relationship. This means that organizational rewards are not only directly, but also indirectly related to JE via POS. The finding is also consistent with previous research in which better rewards lead to greater POS (e.g., Eisenberger et al., 1999; Rhoades & Eisenberger, 2002), which then leads to higher JE. Based on social exchange theory, the explanation for this mediating relationship is that more rewards imply more support from the organization, which creates employees’ feelings of obligation. This obligation then makes employees embedded into their jobs in order to contribute back to the organization.

Second, the study also found that POS partially mediates the relationship between procedural justice and JE (Hypothesis 11). Thus, procedural justice not only directly, but also indirectly influences JE through POS. Again, the explanation for this mediating relationship is based on social exchange theory. Because fair treatment by the organization implies that the organization cares about its employees and values their contributions (Rhoades & Eisenberger, 2002; Rhoades et al., 2001; Hutchison, 1997b),

employees would feel an obligation to stay on their jobs and contribute back to the organization (Allen et al., 2003; Rhoades & Eisenberger, 2002). Thus, procedural justice influences POS, which then embeds employees more into their jobs.

It is important to note that POS partially, not fully, mediated both the relationships between organizational rewards and JE, and between procedural justice and JE. That is, organizational rewards and procedural justice can be direct as well as distal antecedents of JE. As explained above, organizational rewards and procedural justice can directly influence the sacrifice dimension of JE because employees would feel losses if they quit the organization that provides them good rewards and fair treatment. Good rewards and fair treatment also mean the organization cares and supports employees, which then make them feel obligated to stay on their jobs because of the influence of the norm of reciprocity. Thus, organizational rewards and procedural justice can influence JE directly and indirectly via POS.

The remaining mediating hypotheses (Hypotheses 3, 7, 9, and 13) were not supported. Hypothesis 3 proposed that POS mediates the relationship between PSS and JE. Because PSS did not influence JE (Hypothesis 2) as discussed above, there was no relationship between PSS and JE to be mediated by POS.

Hypothesis 7, which proposed that POS mediates the relationship between growth opportunities and JE, also was not supported. Although growth opportunities were found to significantly influence both JE and POS, the empirical results did not show a significant mediating effect of POS on the relationship between such opportunities and JE. In other words, growth opportunities are a direct, not an indirect or distal, antecedent of JE. Although this result is somewhat inconsistent with the finding of Allen et al.

(2003) in which POS was found to mediate the relationship between growth opportunities and employee attachment to the organization (e.g., organizational commitment), there is a rationale explanation for this finding. Opportunities for promotion and development directly make employees stay on their jobs because of potential benefits in the future rather than because of the employees' perception of whether the organization supports them. Therefore, growth opportunities can have a direct relationship with JE, not indirectly through the mediation of POS.

The mediation effect of POS on the relationship between training and JE, as proposed in Hypothesis 9, was not supported either. Because training was not found to be related to JE (Hypothesis 6), there was no relationship to be mediated by POS. Therefore, training did not have direct as well as indirect relationship with JE.

The last mediating hypothesis (Hypothesis 13), which also was not supported, proposed that POS mediates the relationship between job characteristics and JE. Because the empirical results from this study did not show a significant relationship between job characteristics and POS, there could be no mediating effect of POS on the relationship between job characteristics and JE. Although this finding is contrary to the study's expectation, there is a possible reason to explain the non-significant relationship between job characteristics and POS. Because employees might believe that most of the job characteristics come from the job itself, not from the organization's intervention, these job characteristics do not influence employees' perception of organizational support. Therefore, instead of influencing JE via the mediation of POS, job characteristics directly make employees more embedded into their jobs.

In summary, POS was found to mediate the relationships between organizational rewards and JE and between procedural justice and JE. Perceived organizational support, however, does not mediate the relationships between other human resource practices (PSS, growth opportunities, and training) and JE and between job characteristics and JE. Thus, whereas human resource practices do influence JE directly and indirectly via the mediation of POS, job characteristics only affect JE directly. On the whole, all of these organizational factors explain almost 50% of the variance in JE, which is both statistically and practically significant.

Objective # 4: Relationship between JE and Intention to Quit

Hypothesis 14, which proposed that JE is negatively related to intention to quit, was supported. The more embedded employees are in their jobs, the less likely they are to quit. This could be because of the connections employees have with other colleagues in the organization (*links*), and/or because of the compatibility employees perceive with their jobs and organization (*fit*), and/or because of the benefits employees have to give up if quitting (*sacrifice*), which enmesh employees into their jobs and keep them from leaving the organization. This finding is consistent with prior research in which JE was found to be negatively related to turnover intention (e.g., Mitchell et al., 2001; Besich, 2005). The result of this study, therefore, revalidates the important role of JE in influencing employee voluntary turnover in different countries and cultures.

Contributions of the Study

This study makes several important contributions to the area of employee JE that are relevant for both academic researchers and managerial practitioners. For

academicians, the results of this research enhance the understanding of the antecedents and the consequences of JE. For practitioners, by comprehending how employees embed into their jobs, managers can find ways and conditions to retain valuable employees. The following sections will discuss these contributions in more detail.

Academic Contributions

The primary contribution of this dissertation is that it provides a partial explanation of how JE develops. The empirical results show that both human resource practices and job characteristics directly influence JE, and that some human resource practices indirectly affect JE via the mediation of POS. This finding is very important because it helps researchers broaden their understanding not only about the organizational factors that influence JE, but also about how these factors exert that influence. First, by adding several organizational, supervisory, and job factors into the theoretical framework of JE, this study expands the research by Giosan (2003) which mainly focused on personal factors (demography and personality) impacting JE. In addition, this study examines the effects of several human resource practices on JE, thus expanding the research by Allen (2006) which only investigated the influence of socialization tactics on the JE of newcomers. Second, this study provides an explanation for how (directly or indirectly) the organizational and job factors influence JE. Certain human resource practices and job characteristics influence JE directly, whereas others impact JE indirectly via the mediation of POS. These findings are important contributions to the literature because no previous studies have done this. This study,

therefore, enhances significantly the research on the antecedents of JE which has been just at the beginning stage.

Another significant contribution of this dissertation is that it validates the importance of the JE construct in a different culture and context other than in the U.S. Conducted in Vietnam, this study found JE influences employee turnover intention beyond organizational commitment and other organizational factors. Adding to a very limited number of previous studies conducted outside of the US (e.g., Ramesh, 2007; Tanova & Holtom, 2008; Mallol et al., 2007, this study again validates the importance of JE as a major determinant of employee voluntary turnover intention from a cross-cultural perspective. This study, therefore, provides support for the generalizability of the JE construct across different cultures.

Practitioner Contributions

This dissertation has four important implications for managers in organizations. First, because JE is a major determinant of employee intention to quit, the more employees embed into their jobs, the less likely they are to leave the organization. Thus, managers need to focus on factors that will most effectively enhance JE. These factors should strengthen the links employees have with others in the organization, enhance their fit with their jobs and the organization, and represent greater sacrifice or losses for employees if they quit. By finding and focusing on these factors, managers can increase the likelihood that their valuable employees will stay longer with the organization.

Second, this study found several organizational factors that can influence JE. Because human resource practices, including organizational rewards, growth

opportunities, and procedural justice, directly affect JE, managers need to focus on these practices if they are to make employees more embedded into their jobs and therefore remain with the organization. Developing a unique and effective organizational reward system that highly satisfies employees' needs can create more sacrifice for employees if they quit, thus making them more embedded into their jobs. For example, cafeteria or customized benefit packages that satisfy the needs of each individual can be a strong incentive to keep employees embedded into their jobs. Furthermore, providing employees with opportunities for advancement and development can enhance the fit between employees and their jobs and the organization, therefore increasing employee JE as well. Such things as promotion from within policies and leadership training programs can be good ways to provide employees with opportunities for growth. Finally, making the procedures used to distribute outcomes fair to employees will also help them be more embedded into their jobs. If the criteria and process of performance appraisal, for example, are specific, objective, and clear to employees, then managers can enhance employees' perception of fair treatment by the organization. This procedural justice can be seen as a benefit to employees and can make them feel fit with the organization, thus embedding them more into their jobs.

Third, job characteristics were found to influence JE directly. Employees will be more embedded into their jobs if they perceive that their job characteristics, including skill variety, task identity, task significance, autonomy, and feedback, are favorable. Managers, therefore, need to focus on these aspects when designing jobs if they are to embed employees more into their jobs and keep them from leaving the organization. For example, job rotation can help employees obtain more skills, while job enrichment can

enhance both task significance and autonomy for employees. Providing ongoing feedback to employees can also be important in helping them know how well they are doing.

Last, because the study found that organizational rewards and procedural justice influence employee JE indirectly via the mediation of POS, managers need to understand that employees' perception of support from the organization plays a very important role in embedding them into their jobs. To enhance employees' perception of organizational support, managers need to communicate clearly to employees that the organization cares about them and values their contributions. Rewarding employees well and treating them fairly in the procedures used to distribute outcomes, for example, would help convey this message. By doing this, managers would increase the likelihood that employees feel an obligation to stay on their jobs and contribute back to the organization.

Limitations of the Study

This dissertation, as does any empirical research, has certain limitations. First, the design of the study could contribute to some of these limitations. Because the study was cross-sectional in that it asked participants to complete a questionnaire at one point in time, it is impossible to draw conclusions about causal relationships. In addition, because only a single organization was involved, the findings could be limited to the current sample, rather than generalizable. Furthermore, because the dissertation utilized a questionnaire with self-reported answers, it is solely dependent on the honesty of the individual respondents in providing their information. For example, respondents might not answer truthfully because of social desirability, especially questions about supervisor

support as discussed above. Thus, it is almost impossible to verify whether the information provided is accurate or not. Another limitation comes from the measures used in this study, in which there are few non-significant and cross-loading items as indicated in principal component analyses. There also are questions of common method variance (i.e., some portion of the variance in a measure can be attributed to the method used). Common method variance can cause spurious relationships, making it difficult for researchers to determine the true relationships between variables (Doty & Glick, 1998; Kline, Sulsky, & Rever-Moriyama, 2000). As with other organizational research, this common method variance is almost impossible to eliminate completely, especially studies involving self-report surveys.

Second, even though the model of this study explained about 50% of variance in JE, clearly a number of important variables are missing. For example, other human resource practices, such as hiring and selection process or participation in decision making, could also be antecedents of JE. Furthermore, although the study included affective commitment as a control variable to assess the effect of JE on intention to quit, other key control variables such as job satisfaction and job alternatives, should be investigated. However, because the current model of this study is already complex, it was impractical to include these additional variables (for example, the survey questionnaire would be too long for respondents to complete).

Third, because this study combined the five core job characteristics (skill variety, task identity, task significance, autonomy, and feedback) into a single index, it is impossible to separate the effects of each individual job characteristic on JE. Understanding the impact of each specific job characteristic on JE would help practicing

managers better design jobs. In addition, this study examined the effects of organizational, supervisory, and job factors on the overall JE, not on the separate dimensions (links, fit, and sacrifice) of JE. Because of this, it is not possible to assess how these factors influence each dimension of JE. Although theoretically all of these could be investigated in this study, it is not practically feasible to accomplish in one study because many more hypotheses would need to be developed and tested.

Last, as mentioned above, a few findings in this study are somewhat inconsistent with previous research. For example, the nature of the relationship between PSS and JE in this study and that in Giosan's study (2003) are not consistent. Because this study is the first to investigate several organizational, supervisory, and job factors simultaneously influencing JE, and is the first to do this in a non-Western country (Vietnam), interpretations and applications of the findings need to be cautious. Future research should replicate this study in order to better understand the relationships among variables investigated in this dissertation.

Recommendations for Future Research

As implied in the study limitations section, several areas need further research. First, future studies can explore additional human resource practices, such as employee recruitment and selection, in order for us to see the "bigger picture" and better understand the monological network of JE. Well designed and conducted recruitment and selection programs, for example, can acquire employees who fit better into their jobs and the organization, thus making them more embedded into their jobs.

Second, future research should examine the effect of each job characteristic (skill variety, task identity, task significance, autonomy, and feedback) on JE. Certain job characteristics could be more important than others in making employees embedded into their jobs. Thus, finding how these job characteristics separately affect JE can help managers focus more on the important aspects of the jobs when designing them. In addition, future research should investigate the effects of organizational, supervisory, and job factors on each separate dimension (links, fit, and sacrifice) of JE. Finding out these specific effects would help us better understand how these factors influence JE. For example, whether growth opportunities are related to links, fit, or sacrifice dimensions of JE would help us explain more clearly how these opportunities influence JE.

Third, future studies should use longitudinal designs to better predict causal relationships among variables. For example, data on job characteristics and JE can be collected at different points in time, such as before and after designing jobs. This would allow us to examine whether changes in job characteristics actually cause changes in employee JE. Furthermore, future research should replicate this study by using different samples, from different organizations, in different cultures, in order to increase the generalizability of the findings. The replications of this study would also help us elucidate the inconsistencies between this study and the previous studies, and better understand the relationships among variables investigated in this study.

Conclusion

In summary, this study contributes significantly to the JE research which is a relatively new concept in the literature. The results of this study not only revalidate the

importance of JE construct in voluntary turnover research, but also provide an explanation as to how JE develops in organizations. Specifically, human resource practices and job characteristics play direct roles in influencing JE. On the other hand, POS plays a mediating role in impacting JE. Additionally, employees are more likely to stay longer with the organization if they feel embedded into their jobs. The results of this study also help practitioners find ways and conditions to retain valuable employees.

As with most research, there are certain limitations in this study. However, in spite of these limitations, the framework and the findings of this study provide a theoretical foundation to guide and enhance future research. This will ultimately help researchers and practitioners better understand the antecedents and consequences of JE.

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