

Summer 1992

Causal Analysis of a National Study of Sales Personnel Turnover Functionality

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CAUSAL ANALYSIS OF A NATIONAL STUDY OF
SALES PERSONNEL TURNOVER FUNCTIONALITY

by
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A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of
the Requirements for the Degree of

DOCTOR OF PHILOSOPHY
INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY
August, 1992

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ABSTRACT

CAUSAL ANALYSIS OF A NATIONAL STUDY OF SALES PERSONNEL TURNOVER FUNCTIONALITY

**Eric J. Vanetti
Old Dominion University, 1992
Director: Dr. Donald D. Davis**

A causal model of the antecedents of turnover functionality was developed and tested in a national field study of sales representatives from a Fortune 50 company. Turnover functionality was defined in terms of the difference between the performance levels of leavers and stayers in the host organization. Questionnaire data were collected from 1,732 salespeople, and it was predicted that the hypothesized model would be confirmed by the obtained data. Several forms of supporting evidence for the model were obtained. First, the hypothesized model provided a better, more parsimonious fit to the obtained data than did two plausible alternative models. Second, fit indices indicated acceptable overall fit for the hypothesized model. Third, 10 of 12 hypothesized paths in the model were supported. Fourth, exploratory analyses failed to improve upon the overall model fit. However, the model accounted for little variance in turnover functionality. Several potential explanations for these findings are explored, including the need for future research in this area to reconsider the manner in which turnover functionality is operationalized.

Acknowledgments

I would like to extend special thanks to Dr. Donald D. Davis. Your direction throughout the course of this study was invaluable. Much of what I take with me from the graduate school "experience" I learned from you. I am deeply indebted to you, and I wish you and Debbie the best in life.

This study would not have been possible without the support I received from several individuals in the host organization. In particular, I would like to thank Dr. Thomas Ruddy, Dr. Suzanne Fenwick, Richard Randazzo and Elizabeth Janak. Each of you made unique and significant contributions to my degree completion, and I greatly appreciate the help you provided.

I would also like to express my thanks to Betty Rodriguez, and to my remaining committee members, Dr. Robert McIntyre and Dr. Peter Mikulka. Betty's understanding and patience during the final year of this project helped me stay focused and kept the entire process in perspective.

Finally, thanks to the many family members and friends who encouraged me throughout this seemingly endless journey. Your words often provided the motivational push necessary for continuing during the frustrating periods. I'm very glad it's over.

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Introduction

American industry constantly faces the challenge of attracting and retaining highly qualified employees. For several years researchers have attempted to help organizations meet these challenges. For example, more than 1,000 research studies and articles have appeared in recent years examining the phenomenon of employee turnover with an emphasis on reducing unwanted attrition (Muchinsky and Morrow, 1980; Steers and Mowday, 1981). Researchers and practitioners alike are paying greater attention to turnover as it has become one of the most important business concerns of our time. Nonetheless, there is still much to be learned about the true nature of the employee turnover process.

Although much research has shown that various job-related attitudes, behaviors and personal characteristics affect turnover frequency, very little evidence exists regarding the antecedents of turnover functionality. To date, only three known attempts to study the empirical relationship between work-related factors and turnover functionality are available (Hollenbeck and Williams, 1986; Johnston and Futrell, 1989; Phillips, Griffeth, Griffin, Johnston, Hom and Steel, 1989). These studies are limited, however, due to their use of small samples to study the influence of few variables. Moreover, these previous studies of turnover functionality have not been strongly rooted in theories of turnover.

The present study attempted to advance current understanding of both the theoretical and applied nature of the turnover functionality construct by: (1) developing a comprehensive causal model of the antecedents of turnover

functionality that was derived from theory, and (2) testing the applicability of the hypothesized model in a national field study of more than 1,000 salespeople from a Fortune 50 company.

Traditional Approach to the Study of Turnover

Arguably two of the most important factors contributing to the increased interest in turnover are its high costs and its potentially detrimental impact upon employee morale and productivity. These types of negative outcomes of turnover are especially troublesome for marketing organizations. The overall success of any such firm ultimately depends upon the ability of its salesforce to locate prospects and to develop a strong customer base (Behrman and Perreault, 1984). To accomplish this end, the firm must attract, select, and train individuals who have the aptitude and motivation necessary to become successful sales representatives, then retain these individuals over time (Albaum and Churchill, 1979). A recent analysis of turnover costs completed in the organization acting as host for the present study estimated that when one salesperson quits, the average annual costs incurred by the organization for recruiting, training and managing a new sales trainee, coupled with the costs associated with lost sales opportunities from an empty sales territory, exceed \$98,000. With some companies losing greater than half their salesforce annually (Lucas, Parasuraman, Davis and Enis, 1987), turnover can have a staggering negative impact on organizational profitability and survival.

Given that the costs associated with employee turnover can be so significant, it is not surprising that the underlying assumption of most turnover research to date has been that turnover is inherently bad and should always be reduced (Staw, 1980). However, this traditional negative view of turnover has been challenged in recent years. Several authors have suggested

that this perspective of turnover overstates the negative effects of an individual's departure from an organization (Abelson and Baysinger, 1984; Boudreau, 1983; Boudreau and Berger, 1985; Dalton, Krackhardt and Porter, 1981; Dalton and Todor, 1979; Dalton and Todor, 1982; Mobley, 1982; Muchinsky and Tuttle, 1979; Porter and Steers, 1973; Staw, 1980).

Dalton and Todor (1979) argue that turnover can have positive consequences for a company. Specifically, when a poor performer leaves an organization, it can provide the firm with an opportunity to replace the individual with a more effective worker. The authors stress the importance of distinguishing between functional turnover (i.e., turnover among poor performers) and dysfunctional turnover (i.e., turnover among high performers). As stated by Dalton, Krackhardt and Porter (1981), functional turnover represents the situation where an individual wants to leave an organization and the organization is unconcerned because the performance of the individual has been evaluated as negative. On the other hand, dysfunctional turnover describes the situation where individuals want to leave an organization but the organization wants to retain them. Two factors important to this perspective of turnover should be noted: (1) it expands upon the traditional view of turnover by taking into account the level of performance of the employee in question; and (2) both functional and dysfunctional turnover describe voluntary forms of the phenomenon in that it is the employee's desire to leave the organization.

Johnston and Futrell (1989) argue that the distinction between functional and dysfunctional turnover presents an accurate representation of the organizational impact of turnover because it provides for an assessment of the importance to the organization of leavers based on their level of performance. In other words, the impact on an organization of the voluntary

departure of a high-performing individual will be considered to be more significant than that of a low-performing leaver. These challenges to the traditional view of employee turnover point to the need for researchers to study not just turnover frequency, but the nature, or functionality, of turnover as well.

Turnover Functionality Defined

Hollenbeck and Williams (1986) define turnover functionality as the difference between the performance levels of leavers and stayers in a given organization. Turnover functionality is important as a research construct because it does not treat all forms of turnover as equally costly to an organization as has the traditional approach to turnover research. Instead, turnover cost is viewed as a joint product of both the frequency of employee turnover and the performance levels of leavers relative to stayers. Because turnover functionality is defined in this manner, it has been suggested that attempts to model the turnover functionality construct should include variables hypothesized to relate to both turnover rate and performance (Hollenbeck and Williams, 1986; Johnston and Futrell, 1989). The present study represents the first known attempt to integrate theories of turnover and work performance into a causal model of the antecedents of turnover functionality. Specifically, the following research questions are addressed: (a) Can empirical support be obtained for a general model of turnover functionality?; and (b) What are the specific causal antecedents of turnover functionality?

Causal Model Development

A general model of turnover functionality examined in the present study is shown in Figure 1. Plus and minus signs on each path indicate the direction of the hypothesized relationships among the model variables. The numbered

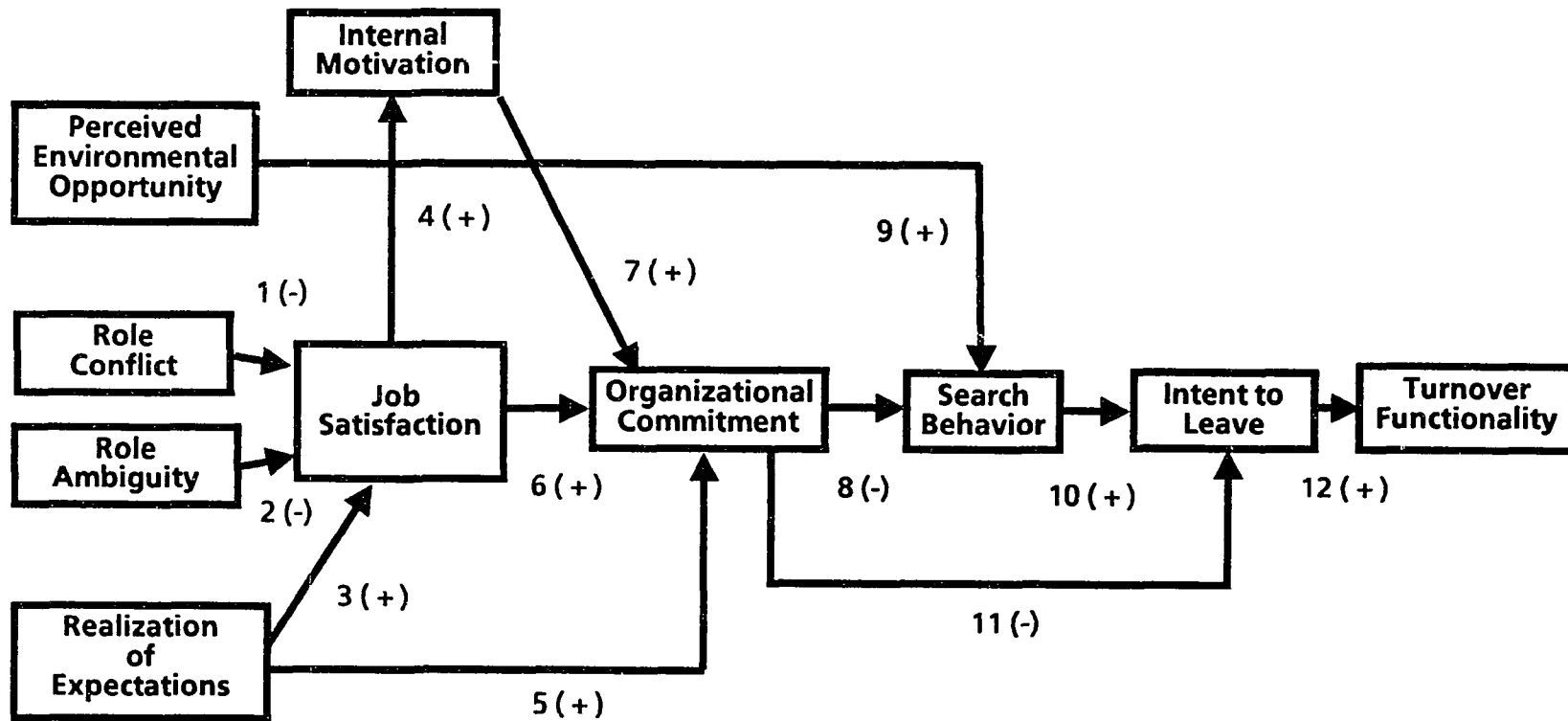


Figure 1: General theoretical model of turnover functionality.

paths among the variables structure the following literature review. The theoretical and empirical support for each variable and path in the model is discussed.

Paths 1 and 2: Influence of role perceptions on job satisfaction.

Consistent with theory regarding the antecedents of salesperson' work performance, we believe that perceptions of role conflict and role ambiguity are negatively related to job satisfaction. Behrman and Perreault's (1984) role stress model of salesperson' performance and satisfaction provides specific theoretical support for paths 1 and 2 in Figure 1. These authors view sales representatives as "boundary role people" in the sense that they are required to interact with various individuals beyond the formal "boundaries" of their organization. Behrman and Perreault argue that the variety of role characteristics and activities that can result from such boundary spanning create a stressful working situation which, in turn, may influence certain job outcomes (e.g., job satisfaction and performance).

Behrman and Perreault (1984) suggest that one key aspect of role stress for sales representatives is role conflict, defined here as the incompatibility of demands or expectations associated with the role of salesperson (Rizzo, House and Lirtzman, 1970). Sales representatives interact daily with individuals who place incompatible demands on them. For example, the demands of customers are often incompatible with those of the sales manager. Although a customer may be interested in purchasing a specific product, sales representatives may feel pressure from their manager to sell the customer a different product because of a promotional incentive that is linked to the manager's compensation plan. If salespeople frequently encounter such conflicting demands, they will likely experience some degree of role conflict

and may become less satisfied with their job (Walker, Churchill and Ford, 1977).

Behrman and Perreault (1984) also state that role ambiguity is a key aspect of role stress for salespeople. Role ambiguity was defined in the present study in terms of the predictability of the outcomes of one's behavior and the existence of guidelines regarding what constitutes appropriate on-the-job behavior (Rizzo et al., 1970). Role ambiguity exists when employees are unsure about what others expect from them on the job, or when uncertainty exists about the consequences associated with different aspects of their role performance. For example, if salespeople do not understand a supervisor's performance expectations, or how job performance will be evaluated, they should experience greater role ambiguity and reduced levels of overall job satisfaction (Walker et al., 1977).

Several studies provide empirical support for the hypothesized paths between role conflict and job satisfaction, and role ambiguity and job satisfaction among salespeople. Behrman and Perreault (1984) found that salesperson' role perceptions account for almost 40% of the variance in job satisfaction. In addition, Dubinsky and Hartley (1986) report significant negative correlations between role conflict and job satisfaction and between role ambiguity and job satisfaction.

Johnston, Parasuraman, Futrell and Black (1990) investigated the antecedents and consequences of salesperson organizational commitment during early employment. A longitudinal field study was designed to examine how changes in leadership behavior, role stress and job satisfaction during the first 2-3 years of employment influenced the organizational commitment of 102 entry-level retail food sales representatives. Using a structural modeling approach, the authors found a significant negative relationship between role

conflict and global job satisfaction which was operationalized as a composite of the five Job Descriptive Index (JDI) subscales (Smith, Kendall and Hulin, 1969).

Klenke-Hamel and Mathieu (1990) tested the Bedeian and Armenakis (1981) model of the interrelationships between role stress (defined as role conflict and role ambiguity), tension, overall job satisfaction and intent to leave within four different samples of employees (blue collar, staff, engineers and university faculty). Although different measures were employed, role conflict and role ambiguity were defined in the same theoretical manner as in the present study. Using path analysis, the authors found a significant negative relationship between role ambiguity and job satisfaction in all four samples, and a significant negative relationship between role conflict and job satisfaction in all but the faculty sample. Further empirical support for paths 1 and 2 is also available (Bagozzi, 1980; Churchill, Ford and Walker, 1976; Dubinsky and Mattson, 1979; Dubinsky and Skinner, 1984; Fry, Futrell, Parasuraman and Chmielewski, 1986; Kemery, Mossholder and Bedeian, 1987).

In summary, the above findings support the hypothesized negative relationships between employee role perceptions and job satisfaction. Specifically, it was hypothesized that the greater the amount of role conflict or role ambiguity that employees perceived, the less satisfied they would be with their job overall.

Path 3: Influence of realization of expectations on job satisfaction.

Porter and Steers (1973) offer the concept of met expectations as the central explanatory factor in the employee withdrawal process. Porter and Steers argue that employees bring to work their own unique set of expectations for the job. The authors hypothesize that employees will become increasingly

likely to leave if the organization does not meet their expectations regarding valued rewards (e.g., pay, opportunities to advance). Specifically, when employees' expectations about valued rewards are not sufficiently met by the employing organization, job satisfaction diminishes and the likelihood of turnover increases (Chisholm, Gauntner and Munzenrider, 1980; Dunnette, Arvey and Banas, 1973; Farr, O'Leary and Bartlett, 1973; Hom, 1980; Ilgen and Seely, 1974; Wanous, 1973). Met expectations was defined in the present study as the degree to which employees' pre-employment expectations were realized within the host organization (Bluedorn, 1982b).

The proposed model in Figure 1 integrated the concept of met expectations with Behrman and Perrault's (1984) role stress model to provide a partial explanation of the antecedents of job satisfaction. Specifically, I hypothesized that employees would evaluate pre-employment expectations against the actual experience they encountered in the organization. The extent to which these expectations were realized would then directly impact their level of job satisfaction. In other words, if employees' expectations were sufficiently met by the organization, they would experience greater overall satisfaction with the job.

Empirical support for path 3 can be found in Michaels and Spector's (1982) partial test of the Mobley, Griffeth, Hand and Meglino (1979) model of employee turnover using data collected from 112 employees of a community mental health center. A significant positive correlation was obtained between pre-employment expectations and overall job satisfaction. In addition, path analytic results revealed a significant path between these same two variables.

Results similar to those of Michaels and Spector (1982) were obtained by Hom, Griffeth and Sellaro (1984) in their test of Mobley's (1977) original

model of the employee turnover process. Hom et al. measured all constructs in the Mobley model in their survey of 192 hospital employees; they collected turnover data one year later. The predicted positive relationship between met expectations and employee job satisfaction was confirmed by a regression analysis of Mobley's original model, and by a path analysis of a revised version of Mobley's original model.

In summary, a positive relationship between pre-employment expectations and subsequent job satisfaction was expected.

Path 4: Influence of job satisfaction on internal motivation to perform.

Different perspectives on the nature of the relationship between employee job satisfaction and motivation can be found in the literature. For example, Comer and Dubinsky (1985, p. 45) suggest that motivation acts as an antecedent to satisfaction. These researchers argue that the more motivated employees are to perform, the more satisfied they will be with the job. On the other hand, Walker, et al. (1977) adopt Vroom's (1964) expectancy theory perspective which suggests that employees' level of job satisfaction directly impacts their motivation to perform the job.

The latter perspective on the relationship between job satisfaction and motivation was adopted in the present study. Integrating expectancy theory with the previously discussed concept of met expectations, it was hypothesized that the realization of valued expectations would lead to an increase in overall job satisfaction which, in turn, would increase an employee's internal motivation to perform the job (see Figure 1).

Empirical support for path 4 is found in Bagozzi (1980) and Pearce (1983). The former obtained a significant positive correlation between overall job satisfaction and motivation in a sample of 122 industrial salesmen, while the latter found a positive relationship between these same two constructs in

her investigation of the differences in job attitudes among paid and volunteer workers.

In the present study, job satisfaction was defined as employees' overall affective response to their job (Mobley et al., 1979), and motivation was defined as the degree to which employees were self-motivated to perform effectively on the job (Hackman and Oldham, 1975). I hypothesized that job satisfaction and motivation would be positively related.

Paths 5, 6 and 7: Influence of realization of expectations, job satisfaction and internal motivation on organizational commitment. As noted by Mowday, Steers and Porter (1979), the construct of organizational commitment can be viewed from either a behavioral or an attitudinal perspective. Accepting Porter, Steers, Mowday and Boulian's (1974) definition of organizational commitment as the strength of an employee's involvement in, and identification with an organization, the attitudinal perspective was adopted in the present study. As an attitude, the construct of organizational commitment can be distinguished from job satisfaction in the sense that the former refers to the affective response of employees to the organization as a whole, as opposed to an affective response to their job (Williams and Hazer, 1986).

Attempts to model the causal process of turnover generally hypothesize that organizational commitment occurs sometime after the experience of job satisfaction and sometime prior to the voluntary withdrawal decision (Bluedorn, 1982a). The placement of organizational commitment in Figure 1 as an outcome of attitudinal variables (job satisfaction and motivation) and the realization of pre-employment expectations is consistent with the work of Marsh and Mannari (1977), who proposed that the location of organizational commitment is somewhere in the cognitive space between the experience of

job (dis)satisfaction and the voluntary separation decision. Figure 1 depicts the hypothesis that employee realization of expectations, job satisfaction and internal motivation are all positively related to organizational commitment. Empirical support to date appears to justify these three hypothesized relationships.

Two studies (Lachman and Aranya, 1986; Mottaz, 1988) provide empirical support for the positive effect of the realization of expectations on organizational commitment (hypothesized path 5). Lachman and Aranya examined the relationship between job attitudes and turnover intentions among certified public accountants from several different work settings (accounting firms, non-profit organizations and sole practitioners) and found a significant positive relationship between the realization of expectations and organizational commitment among respondents from all three settings.

Mottaz (1988) investigated the influence of work rewards (intrinsic, extrinsic-social, and extrinsic-organizational rewards) and work values (the importance assigned by the respondent to various work rewards) on respondents' organizational commitment in a random sample of 1,385 workers representing a variety of occupations from six organizations. The attainment of work rewards was viewed here as an indication of the degree to which respondents realized their expectations. In other words, employees' pre-employment expectations are met, at least in part, through the attainment of valued work rewards. Using regression analysis, Mottaz found that work rewards accounted for a much greater percentage of the explained variance in organizational commitment than did work values. Specifically, the attainment of supervisory assistance and promotional opportunities were both significant predictors of organizational commitment.

Mathieu and Hamel (1989) offer empirical support for hypothesized path 6. The authors tested a causal model of the antecedents of organizational commitment using a path-analytic approach in a field study of 161 professional and 450 non-professional employees. Although the resulting variable interrelationships varied markedly across the two samples, significant path coefficients were obtained between job satisfaction and organizational commitment for both the professional and non-professional samples.

Parasuraman (1982) assessed the influence of personal, attitudinal and behavioral variables on the behavioral intentions to leave among 160 non-supervisory plant workers in a food processing company. Although the relationship between overall job satisfaction and organizational commitment was not investigated, significant positive correlations were obtained between each facet of job satisfaction (based on responses to the JDI) and organizational commitment.

In a similar study, Johnston, Varadarajan, Futrell and Sager (1987) investigated the relationship between organizational commitment, job satisfaction and turnover among new sales representatives. The authors administered a questionnaire to the sales representatives of a consumer products manufacturer within the first four months on the job (time 1), and then administered it again six months later (time 2) to these same individuals. The final sample included a total of 89 matched responses. The results at time 1 revealed significant positive correlations between organizational commitment and salesperson satisfaction with work, co-workers and supervision. Similar results were obtained at time 2, with an additional significant positive correlation found between organizational commitment and satisfaction with promotional opportunities. Additional support for the hypothesized positive relationship between job satisfaction and

organizational commitment can be found in several other research studies (Arnold and Feldman, 1982; Bartol, 1979; Bluedorn, 1982a; Dubinsky and Hartley, 1986; Flynn and Solomon, 1985; Marsh and Mannari, 1977; Michaels and Spector, 1982; Williams and Hazer, 1986).

Tyagi's (1982) investigation of sales representatives' intrinsic and extrinsic motivation to perform provides empirical support for hypothesized path 7. Questionnaire data were collected from 116 salespeople in a medium-sized Midwestern insurance company in order to examine specific relationships between organizational climate and motivational components, based on the expectancy-valence theory of employee motivation. A significant positive correlation was obtained between a two-item measure of motivation (defined as the respondent's rating of the expectancy that hard work would lead to high productivity and good job performance) and organizational commitment (defined as identification with the organization).

In summary, it was hypothesized that the realization of expectations, overall job satisfaction and internal motivation to perform would each positively influence an employee's level of organizational commitment. Specifically, the greater the realization of pre-employment expectations, the greater the level of overall job satisfaction or the greater the level of internal motivation, the more commitment the employee should feel toward the organization.

Paths 8 to 12: Relationships among factors that mediate the experience of job (dis)satisfaction and an employee's withdrawal decision. Expanding upon Price's (1977) effort to model the influence of organization structure, economic, and social psychological variables on the voluntary separation process, Mobley (1977) presented a framework of specific variables

hypothesized to mediate the experience of job (dis)satisfaction and the decision to remain in, or leave an organization.

Mobley (1977) posits that the experience of dissatisfaction leads an employee to begin thinking about quitting. Thoughts of quitting are then evaluated in terms of the expected utility of engaging in search behavior versus the cost of quitting. If the employee believes that alternative job opportunities are available and that the cost of leaving the current organization is low, search activity is stimulated. Based on the outcome of this search activity, information regarding alternative job opportunities is evaluated by comparing each alternative to the present job. To the extent that a given alternative compares favorably to the present job, a behavioral intention to quit is stimulated. This intention to leave is then followed by the actual withdrawal of the employee from the organization. In the present study, perceived environmental opportunity was defined as the perceived availability of, and expected ease of locating, jobs external to the organization (Price, 1977). Search behavior was defined by a self-report measure of the intensity with which the employee had looked for other jobs (Zimmerman, 1989). Intent to leave was defined as the strength of an employee's intention to leave the organization within the next year (Seashore, Lawler, Mirvis and Cammann, 1982).

Fishbein and Ajzen (1975, pp. 335-383) offer a theoretical foundation for simplifying the Mobley (1977) model to its most salient components. Specifically, the model is reduced to the following hypotheses: dissatisfaction leads to job search, job search leads to a comparison of alternatives with the present job, the comparison of alternatives leads to an intent to stay or leave, and intent to stay or leave results in actual staying or leaving behavior. In their discussion of the controversy regarding the causal relationship between

attitudes and behavior, Fishbein and Ajzen argue that behavioral intentions act as an intervening step between an individual's attitudes and behavior. Specifically, Fishbein and Ajzen predict that an employee's intent to leave (behavioral intention) will intervene between his/her dissatisfaction (one component of a larger "attitudinal" construct) and actual withdrawal behavior (turnover). Thus, both Fishbein and Ajzen and Mobley provide theoretical support for the portion of Figure 1 leading from job satisfaction to turnover functionality by emphasizing the role of search behavior and intentions in providing a link between attitudes (job satisfaction and organizational commitment) and behavior (stay/leave).

Neither Fishbein and Ajzen (1975) nor Mobley (1977) address the inclusion of organizational commitment as a direct antecedent of withdrawal behavior. However, indirect support is offered by both theories. First, in the most general sense, both theories suggest that attitudes (e.g., job satisfaction, organizational commitment) manifest themselves prior to actual behavior, but neither theory specifies a causal order with respect to the relationships between such attitudes. Second, organizational commitment can be postulated as an additional mediating step between (dis)satisfaction and withdrawal although not explicitly recognized as such by either theory. In other words, one might argue that thoughts of leaving an organization are not common for an employee who is both satisfied with his/her job and highly committed to the organization. On the other hand, a dissatisfied, non-committed employee may entertain such thoughts on a regular basis, and may act on such cognitions by searching for acceptable alternative employment opportunities. Thus, as shown in Figure 1, job satisfaction was hypothesized in the present study as an antecedent of organizational commitment, and commitment as an antecedent of search behavior. While it may be argued

that this relationship between satisfaction and commitment is actually reversed (Bateman and Strasser, 1984) or non-existent (Curry, Wakefield, Price and Mueller, 1986), the majority of conceptual (Reichers, 1985) and empirical evidence supports the relationship hypothesized in Figure 1. In addition, further support for the placement of job satisfaction as a more distal antecedent of turnover functionality than commitment is found in several multivariate studies which report that the latter is a stronger predictor of intent to leave than the former (Ingram and Lee, 1990; Johnston et al., 1987; McFarlane-Shore and Martin, 1989; Mobley, 1982; Motowidlo, 1983; Sager, 1990).

As noted by Mobley (1977) in his presentation of the variables hypothesized to mediate the experience of job (dis)satisfaction and the decision to stay/leave, very little empirical research has been completed investigating these hypothesized linkages. For example, only one study was located that examined the relationship between organizational commitment and search behavior (hypothesized path 8), and the support offered was indirect in nature. Mowday, Koberg and McArthur (1984) cross-validated Mobley's (1977) intermediate linkages model of employee turnover using 267 entry-level employees from three hospitals, and 302 entry-level clerical and administrative staff employees drawn from four state and county government agencies. Although search behavior was not directly assessed in the study, significant negative correlations were obtained between organizational commitment and intention to search in both samples.

Empirical evidence for path 9 can be found in Bluedorn's (1982a) test of an integrated model of turnover. Bluedorn gathered data at two points in time from two samples of primarily female employees from a large insurance

company. Path analysis revealed a significant positive relationship between perceived environmental opportunities and job search behavior.

Further support for path 9 was obtained by Spencer, Steers and Mowday (1983). The authors partially replicated Mobley, Horner and Hollingsworth (1978) using a sample of classified university employees. For 83 employees who indicated they were engaged in search activity, their perception of alternative opportunities (operationalized as the probability of finding an acceptable alternative job) correlated positively with their search behavior.

Although several studies have obtained empirical evidence of a relationship between intent to search and intent to leave, evidence of a relationship between actual search behavior and intent to leave (hypothesized path 10) is scarce. In their previously discussed test of Mobley's (1977) model, Hom et al. (1984) obtained a significant positive correlation between search and intent to turnover. However, path analytic results did not support a causal link between these two variables. In addition to the Hom et al. study, Bluedorn's (1982a) test of an integrated turnover model obtained a significant relationship between search and intent.

In summary, the limited available empirical evidence offers some support for hypothesized paths 8, 9 and 10. Thus, it was expected that: (a) the greater employees' organizational commitment, the less they would engage in search behavior, (b) the greater the perceived environmental opportunity, the more likely employees would be to search for alternative jobs, and (c) the more employees searched for alternative jobs, the greater would be their intent to leave within the next year.

The hypothesized negative relationship between organizational commitment and intent to leave (hypothesized path 11) is supported by findings from several studies. For example, Arnold and Feldman's (1982)

multivariate analysis of the determinants of job turnover among 654 accounting professionals determined that level of organizational commitment, along with age and perceived availability of alternative jobs, significantly influenced employees' turnover intentions. A significant multiple correlation was obtained between these three variables and intention to leave.

Results from Mowday et al.'s. (1984) cross-validation of Mobley's (1977) intermediate linkages model also support path 11. A significant positive correlation was obtained between organizational commitment and intent to stay in the clerical sample, and significant negative correlations were obtained between organizational commitment and desire to leave in both the clerical and hospital samples. In addition, the influence of organizational commitment on actual turnover was indirect in nature; organizational commitment did not significantly increase the amount of explained variance in turnover when added to an equation consisting of withdrawal cognitions (i.e., intent to stay, intent to search and desire to leave). Results from several other studies also support path 11 (Hom, Katerberg and Hulin, 1979; Johnston et al., 1987; Johnston et al., 1990; Lachman and Aranya, 1986; McFarlane-Shore, Newton and Thornton, 1990; Michaels and Spector, 1982; Parasuraman, 1982; Williams and Hazer, 1986).

In summary, the above findings support the hypothesized negative relationship between organizational commitment and intent to leave. Specifically, the greater commitment employees feel toward the organization, the lower their intent to leave the organization will be.

Many studies can be found that provide empirical support for the relationship between intent to leave and either performance or turnover (Bluedorn, 1982a; Dalessio, Silverman and Schuck, 1986; Dougherty, Bluedorn

and Keon, 1985; Griffeth and Hom, 1988a; Griffeth and Hom, 1988b; Hom et al., 1979; Hom et al., 1984; Jackofsky and Slocum 1987; Johnston, Futrell, Parasuraman and Sager, 1988; Keller, 1984; Kraut, 1975; Michaels and Spector, 1982; Miller, Katerberg and Hulin, 1979; Mobley et al., 1978; Mossholder, Bedeian, Norris, Giles and Feild, 1988; Motowidlo, 1983; Mowday, Koberg and McArthur, 1984; Newman, 1974; Parasuraman, 1982; Price and Mueller, 1981a; Spector and Michaels, 1986; Waters and Roach, 1979; Williams and Hazer, 1986). However, only three studies to date have investigated the relationship between intent to leave and the construct of turnover functionality (hypothesized path 12).

Hollenbeck and Williams (1986) used a sample of 112 retail salespeople from a major Northeastern department store to test the utility of work attitudes as predictors of turnover functionality. A non-significant negative correlation was obtained between motivation to leave (a three-item measure of the respondent's intent to leave) and turnover functionality. In addition, taken together, the attitudinal variables (i.e., job satisfaction, organizational commitment, job involvement and motivation to turnover) failed to predict turnover functionality.

In a related study, Johnston and Futrell (1989) investigated turnover functionality with a sample of 103 entry-level salespeople from a national consumer goods manufacturer. Based on the results of a mail survey, the authors found that leadership role clarification was the only significant predictor of turnover functionality. Propensity to leave, measured by four items that assessed an employee's chances of quitting within three months, six months, one year or two years, did not predict turnover functionality.

One possible reason for the lack of an observed relationship between intent to leave and turnover functionality in the Johnston and Futrell (1989)

study may have been the nature of the study sample. As entry-level sales representatives, many of the respondents were likely to be in their first full-time occupational role, as well as in the exploration stage of their career (Cron and Slocum, 1986). As such, they may not have encountered enough experiences within the host organization to determine the requirements for success within the job/organization, or to form established attitudes toward the job/organization. Thus, the entry-level nature of the respondents may have restricted within-sample variation on the predictors of interest. This potential restriction was reduced in the present study through the use of a more heterogeneous sample that represented a greater range of tenure and career experiences.

Finally, Phillips et al. (1989) investigated organizational and personal factors believed to differentiate between high and low performing stayers and leavers in a sample of 89 nurses. The nurses were administered a survey following the completion of their third week on the job. Three to four months later supervisory performance ratings were collected. One year after the survey was administered turnover data were collected for each of the nurses. Although intention to leave was not significantly correlated to either job performance or actual turnover, a multivariate discriminant analysis revealed that low performing leavers had a greater intention to quit than did high performing stayers. Thus, support was obtained for the existence of a relationship between intention to leave and turnover functionality, at least with respect to cases of organizationally functional turnover (i.e., low performing leavers and high performing stayers).

Two limitations of the Phillips et al. (1989) research addressed by the present study were: (1) the use of supervisory ratings of performance in the operationalization of turnover functionality, and (2) the use of a sample that

was unfamiliar with both the job and the organization (i.e., the nurses had been on the job for three weeks at the time of survey administration). The present study attempted to increase the amount of variability in the turnover functionality measure by using a standardized, objective measure of sales performance. In addition, the present study sample consisted of employees with longer tenure who had enough experience within the host organization to develop specific attitudes toward the factors of interest.

In summary, the limited research evidence to date regarding the nature of the relationship between intent to leave and turnover functionality is inconclusive at best. Given the volume of available literature supporting a positive relationship between intent to leave and withdrawal (one-half of the functionality equation), and the belief that sales representatives who overachieve their sales budget (i.e., high performance and high income potential) are less likely to seek alternative employment than poor performing representatives, the present study hypothesized a positive relationship for path 12. In other words, it was expected that the greater employees' intent to leave within the next year, the more functional in nature would be their withdrawal decision (i.e., high performers who intend to leave will decide to remain in the organization while they are performing well, and low performers with high intent to leave will decide to leave in search of better opportunities).

Summary of Hypotheses

The primary hypothesis of this study is that the model of turnover functionality depicted in Figure 1 will be confirmed by the obtained data. The following specific paths are hypothesized:

H1: Employee role conflict and job satisfaction will be negatively related. The greater the amount of role conflict employees perceive, the less satisfied they will be with their jobs overall.

H2: A negative relationship will be obtained between employee role ambiguity and job satisfaction. The greater the amount of role ambiguity employees perceive, the less satisfied they will be with their jobs overall.

H3: A positive relationship will be obtained between realization of expectations and job satisfaction. The greater the extent to which employees realize their pre-employment expectations, the more satisfied overall they will be with their jobs.

H4: Employee job satisfaction and internal motivation will be positively related. Specifically, the greater the level of employees' overall job satisfaction, the more motivated they will be to perform their jobs.

H5: A positive relationship will be found between the realization of expectations and organizational commitment. The greater the realization of pre-employment expectations that employees experience, the more organizational commitment they will feel toward the organization.

H6: Employee job satisfaction and organizational commitment will be positively related. The greater the level of overall job satisfaction, the more organizational commitment employees will feel toward the organization.

H7: Employee motivation and organizational commitment will be positively related. The greater the internal motivation to perform well, the more organizational commitment employees will feel toward the organization.

H8: Organizational commitment and search behavior will be negatively related. The greater the level of commitment to the organization, the less employees will search for alternative job opportunities.

H9: A positive relationship will be obtained between perceived environmental opportunity and search behavior. The greater the perceived availability of alternative job opportunities, the more likely employees will be to engage in job search behavior.

H10: Search behavior and intent to turnover will be positively related. The more employees engage in search behavior, the greater will be their intent to turnover within the next year.

H11: A negative relationship will be obtained between organizational commitment and intent to turnover. The greater the level of organizational commitment, the lower will be employees' intent to turnover within the next year.

H12: A positive relationship is expected between intent to turnover and turnover functionality. The greater an employee's intent to leave the organization within the next year, the more likely that his/her withdrawal decision will be of a functional nature (i.e., high performers staying, or low performers leaving).

Development of Alternative Theoretical Models

In order to assess the goodness-of-fit of Figure 1 adequately, it was necessary to hypothesize plausible alternative models for comparison purposes (see Anderson and Gerbing, 1988). Two such models were developed. Figure 2 represents an "unconstrained" alternative model that hypothesizes two paths (i.e., perceived environmental opportunity to job satisfaction, and job satisfaction to intent to leave) in addition to the 12 paths in the original model. Figure 3, on the other hand, represents a "constrained" alternative model in that two of the paths from the original model (i.e., realization of expectations to organizational commitment, and organizational commitment to intent to leave) are restricted. The rationale for the development of these alternative models is discussed below.

Unconstrained theoretical model. Consistent with the work of March and Simon (1958, p. 93), Price (1977, pp. 66-91) hypothesizes that an individual's level of job satisfaction interacts with environmental opportunity to determine whether an employee will remain with, or voluntarily separate from, an organization. Price's model suggests that regardless of job satisfaction level, an employee will be likely to remain with an organization when little or no outside opportunity is perceived to exist. This original model has been tested several times in various types of samples (Bluedorn, 1979; Martin, 1979; Price and Bluedorn, 1980). In each case, the original interactive model did not receive support, although a revised model was supported. The theoretical rationale for this repositioning of opportunity is captured by Schneider's (1976) discussion of the 'greener grass' phenomenon: the more attractive that available external jobs appear to be, the less satisfied employees will be with their current job. This relationship is depicted by path 1 in Figure 2.

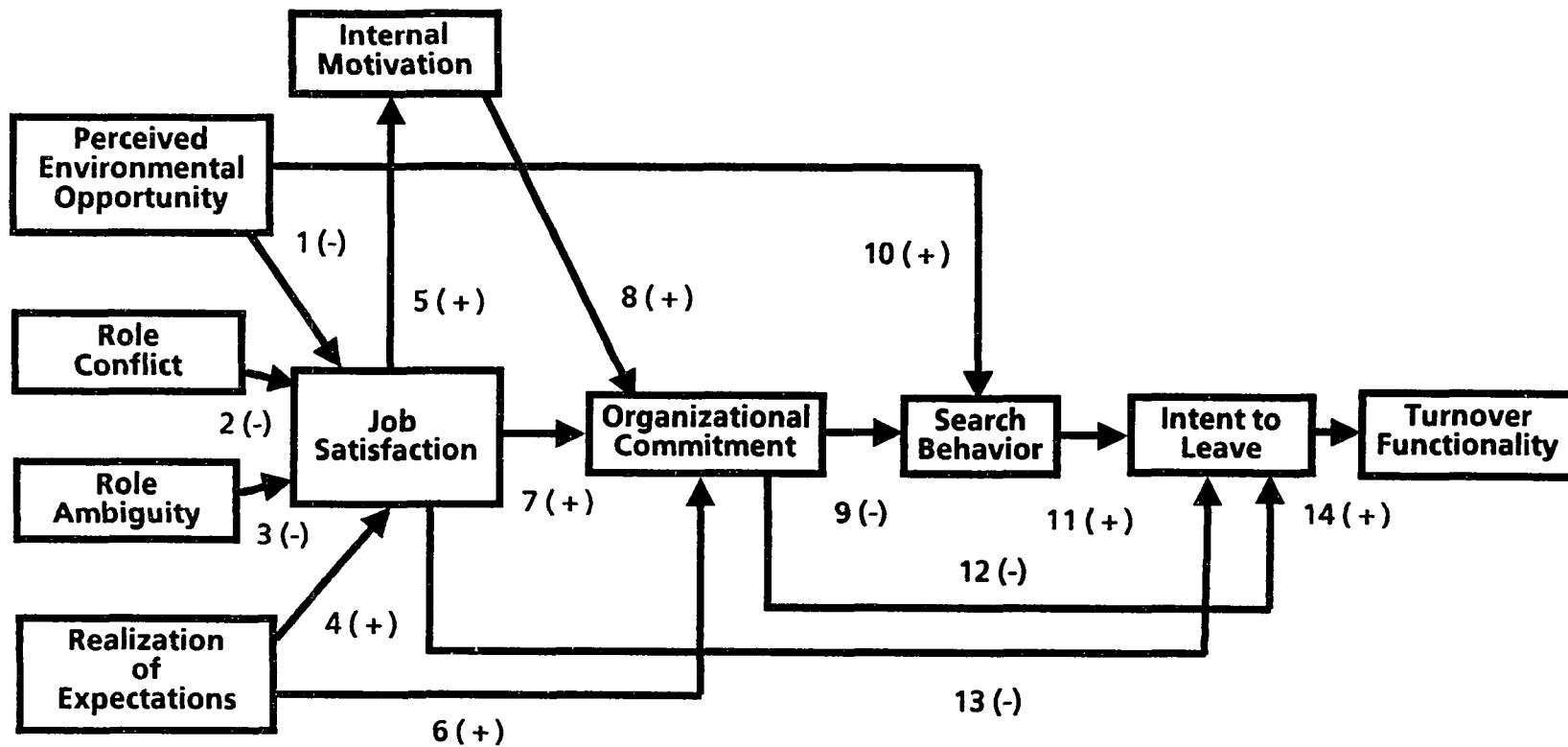


Figure 2: Unconstrained theoretical model.

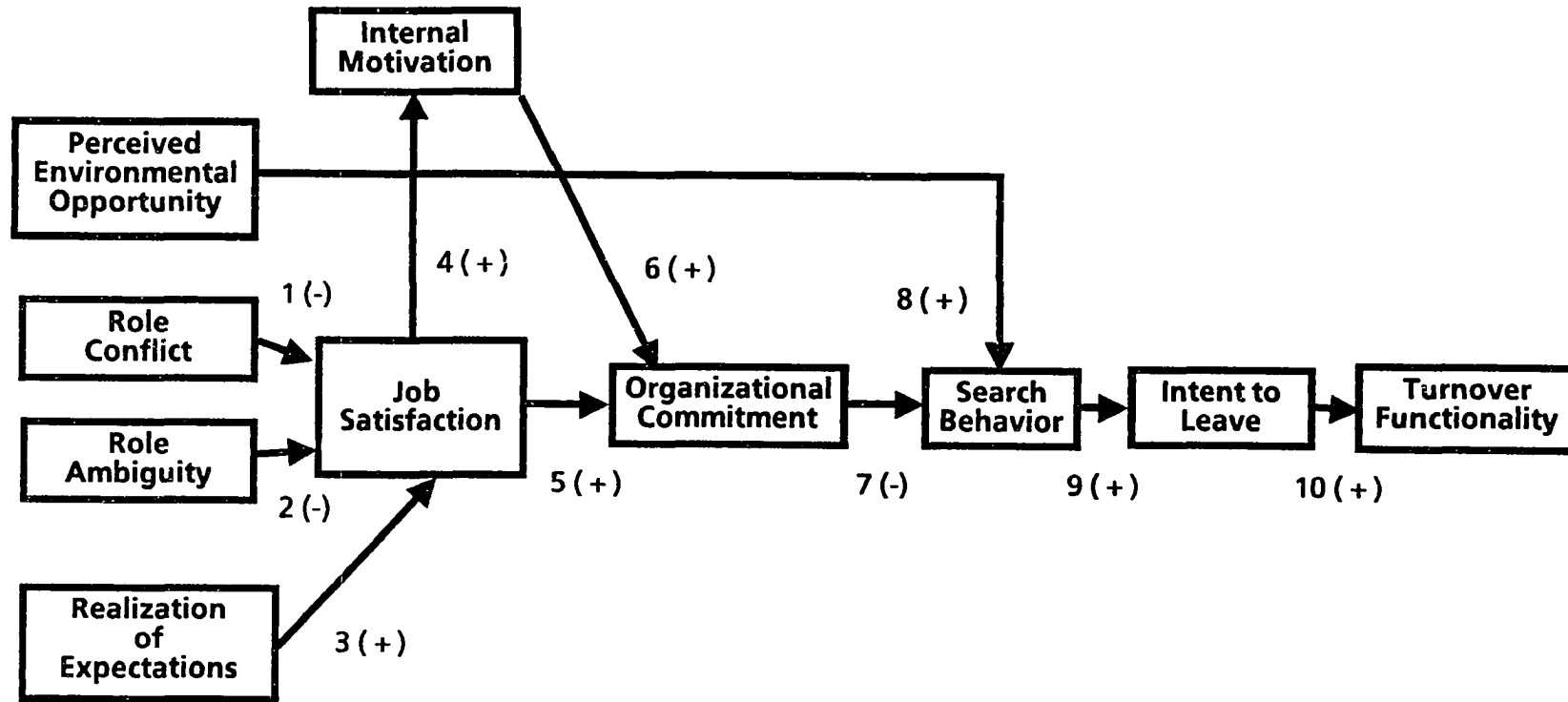


Figure 3: Constrained theoretical model.

There is uniform empirical support for use of the revised version of Price's (1977) model in the development of Figure 2 (Bluedorn, 1979; Martin, 1979; Price and Bluedorn, 1980). For example, Bluedorn (1979) failed to confirm Price's original interactive model using a sample of more than 6,100 United States Army officers. Instead, an additive model (with perceived environmental opportunity repositioned as an antecedent of job satisfaction) was supported. Path analytic results confirmed the revised model.

In addition to path 1, Figure 2 also hypothesizes a negative relationship between job satisfaction and intent to leave (path 13). The theoretical support for a direct relationship between these two variables is based upon the previously discussed work of Fishbein and Ajzen (1975) and Mobley (1977). Although research evidence suggests organizational commitment is a stronger predictor of intent to leave than is job satisfaction, based on the above two theories, it was believed that satisfaction might still add significantly to the prediction of behavioral intent. Thus, this path was added to Figure 2.

Findings from Dalessio et al. (1986) offer empirical support for path 13 in Figure 2. Using path analysis to re-analyze data sets from Mobley et al. (1978), Miller et al. (1979), Coverdale and Terborg (1980) and Mowday et al. (1984), Dalessio and his associates obtained significant negative path coefficients between overall job satisfaction and intent to quit for three of the five samples included in the analysis. In addition, Mobley et al.'s original hypothesis that job satisfaction would indirectly effect turnover through its influence on withdrawal cognitions (i.e., intent to turnover) was supported. Further empirical support for path 13 can be found in the work of numerous other researchers (Dubinsky and Hartley, 1986; Griffeth and Hom, 1988b; Hom et al., 1979; Hom et al., 1984; Johnston et al., 1987; Kemery et al., 1987;

Klenke-Hamel and Mathieu, 1990; Lounsbury, Gordon, Bergermaier and Francesco, 1982; Martin, 1979; Michaels and Spector, 1982; Miller et al., 1979; Mobley et al., 1978; Motowidlo, 1983; Parasuraman, 1982; Schulz, Bigoness and Gagnon, 1987; Ward, 1988; Waters and Roach, 1979).

In summary, two additional paths were hypothesized in Figure 2. First, a negative relationship was expected between perceived environmental opportunity and job satisfaction. Specifically, the greater the perceived availability of external opportunities, the less satisfied overall employees were expected to be with their jobs. Second, a negative relationship was hypothesized between job satisfaction and intent to leave. The more satisfied overall employees were with their jobs, the less likely they would be to leave within the next year.

Constrained theoretical model. Figure 3 is the most restricted of the three hypothesized models. Specifically, Figure 3 constrains path 5 and path 11 from Figure 1, the theoretical model of interest. Thus, Figure 3 represents an attempt to provide an adequate, yet more parsimonious, explanation of the hypothesized relationships among the antecedents of turnover functionality. These two paths were constrained because it was believed that organizational commitment may only indirectly effect intent to leave (through its influence on search behavior) and, likewise, that realization of expectations may only indirectly impact organizational commitment (through its direct effect on job satisfaction). Empirical evidence for the ten hypothesized paths in Figure 3 was presented earlier.

Summary

Although much research has been conducted on various work and attitudinal factors and how they relate to turnover frequency, evidence regarding the specific antecedents of turnover functionality is limited. The

present study contributed to this area of research by developing and testing a causal model of the antecedents of turnover functionality in a field study involving the salesforce of a Fortune 50 company.

Method

Sample

The population of sales representatives from two positions in a Fortune 50 company headquartered in the northeast United States was invited to participate in the study. Based on company records, the population of these two positions at the time of initial questionnaire administration was 2,255 sales representatives. The decision was made to focus on these positions because they accounted for 80% of the company's total salesforce and 85% of the company's past salesforce turnover.

Based on a job analysis conducted in the host organization prior to the onset of the present study, the two positions were found to be very similar in terms of the knowledge, skills and abilities necessary for successful job performance. For purposes of the present study, the positions were referred to as positions 1 and 2. Position 1 consists of entry-level sales representatives, while position 2 is the first promotional level above position 1.

Responses were received from 1,732 individuals occupying the positions of interest, for an overall response rate of 76.8%. Sixty-seven respondents were dropped because performance data could not be obtained due to a failure to indicate their employee identification number on the questionnaire. An additional 236 respondents were dropped because they had not been in a sales territory long enough to establish performance measures. Of the remaining 1,429 respondents, 331 had incomplete questionnaire data. The decision was made to include only those respondents whose performance could be tracked and who provided complete data. The final sample used for

model testing purposes included 1,098 sales personnel (see Results section, pp. 55-56 for a comparison of the final sample to the respondents who were eliminated). Table 1 summarizes the demographic characteristics of the final study sample. Prior to data analyses, the 1,098 respondents with complete data were randomly divided into two samples, A and B (n = 549 for both samples). Sample A served as the primary model testing sample, while sample B latter was used for cross-validation purposes.

Procedure

Phase 1: Model development. The salesforce of the host organization was dispersed across 65 independent districts spread throughout five geographical regions across the United States. The company had established a target of 16% overall turnover for each district salesforce. To obtain stable turnover estimates, turnover reports for each district were reviewed for the 30 months prior to the beginning of the study, and the 30-month average rate of turnover across the two focal positions was computed for each district. These turnover rates were then compared to the 16% target. Based upon conversations with each of the five region personnel managers, districts with a turnover rate of less than 14% were categorized as low in turnover, districts with a turnover rate of 14% to 18% were considered average in turnover, and districts with a rate above 18% were categorized as high in turnover. Three districts (one district with high turnover, one district with average turnover and one district with low turnover) were then selected from each region for inclusion in the first phase of the study.

The five regional personnel departments were contacted and asked to provide, for each of the three districts selected from their region, exit interview data for all individuals who had terminated voluntarily from the two positions of interest within the previous 24 months. Exit interviews were

Table 1
Demographic Characteristics of the Final Study Sample

| Variable | % of Sample | Mean | SD | Median |
|-----------------|--------------------|-------------|-----------|---------------|
| Gender | | | | |
| Male | 58 | --- | --- | --- |
| Female | 42 | --- | --- | --- |
| Race | | | | |
| Majority | 77 | --- | --- | --- |
| Minority | 23 | --- | --- | --- |
| Position | | | | |
| 1 | 38 | --- | --- | --- |
| 2 | 62 | --- | --- | --- |
| Age | --- | 30.8 yrs. | 7.7 yrs. | 27 yrs. |
| Org. Tenure | --- | 60.7 mths. | 5.6 mths. | 36 mths. |

Note. SD = standard deviation.

reviewed for 89 former position 1, and 47 former position 2 sales representatives. The average tenure of the position 1 representatives was 33 months; their average final formal performance appraisal rating was 2.67 on a five-point scale. For position 2 leavers, the average tenure was 57 months; their average final performance appraisal rating was 3.15. In addition to the exit interview records, roundtable interviews were conducted with incumbent sales representatives from both positions in seven of the 15 districts that participated in Phase 1. During these interviews participants were asked to identify the primary causes of turnover among sales personnel in their district.

Interview data were collected and analyzed in order to take a "grounded theory" approach (Glaser and Strauss, 1967) to creation of the hypothesized model depicted in Figure 1. The findings revealed that the majority of sales representatives left for one or more of the following reasons: dissatisfaction with the job, dissatisfaction with pay or low income potential resulting from poor sales performance, dissatisfaction with advancement opportunities, dissatisfaction with after-sale support personnel, dissatisfaction with supervision (e.g., personality conflicts, poor communication with manager, lack of performance feedback), or personal reasons (e.g., marriage, relocation). Of these primary reasons for leaving the host organization, only personal reasons were not included in the model because they were considered uncontrollable by management.

Phase 2: Questionnaire administration. In April, 1990 the questionnaire shown in Appendix A was mailed to all 65 sales districts, along with pre-addressed, postage-paid envelopes to allow for direct return mailing of completed questionnaires to an outside vendor. An outside vendor was chosen to encourage candid questionnaire responses. A letter from the Senior

Vice President of Sales requesting each district manager's cooperation with the present study accompanied the questionnaires.

The questionnaire was administered by the sales managers of the representatives in the two positions of interest during weekly sales team meetings held in each district. Because absence from team meetings typically occurs only when a representative is ill or has a customer appointment that cannot be rescheduled, it was believed that the greatest response rate would be obtained by administering the survey at these meetings.

A cover letter attached to each questionnaire provided information regarding the purpose of the study, general instructions about how to complete the questionnaire and a guarantee of confidentiality. In addition, instructions for proper questionnaire administration were provided. Specifically, the sales managers were instructed to: (1) distribute a copy of the questionnaire to each sales representative in attendance, (2) read the attached cover letter to the sales representatives prior to questionnaire administration, and (3) designate one sales representative to collect and mail all completed questionnaires directly to an outside vendor for data entry in the pre-addressed mailing envelope that was supplied. Reliance on sales representatives rather than sales managers for the return of completed questionnaires was done to insure confidentiality and increase candidness of responses. The representatives were given one hour to complete the questionnaire.

A letter was sent to all district managers three weeks following the initial questionnaire mailing, along with a copy of the questionnaire and a pre-addressed mailing envelope. The letter requested that the district managers ensure the questionnaire was administered within five working days by the appropriate sales manager(s) to all position 1 and 2

representatives who were not in attendance at the initial administration meetings. In addition, the letter instructed the sales manager(s) to designate one sales representative to collect and mail the completed questionnaires using the provided envelope.

Phase 3: Collection of dependent measures. For 20 months following questionnaire administration, company records were reviewed monthly to obtain turnover frequency and performance data for each respondent. A total of 217 respondents voluntarily left the host organization during this period.

To provide a temporally stable measure of performance, a monthly average percent of budget achieved was calculated for each respondent. For stayers, this average was based on the 12 months following questionnaire administration. For leavers, this average was determined by performance over the 12 months prior to withdrawal. This measure was selected because of its objective and "standardized" nature. It was standardized in the sense that prior to the distribution of territory assignments or budget allocations, each sales representative's annual budget was adjusted for performance differences that may result from: (1) past sales revenue performance in the territory, (2) new business potential in the territory, (3) level of the sales representative (i.e., position 1 or position 2), and (4) sales experience of the representative. For example, the majority of customers for position 2 representatives have business needs that require primarily higher priced, more technologically advanced product lines, while the majority of customers for position 1 representatives are interested in lower priced, less advanced products. This implies that representatives in position 2 have an opportunity to generate greater total revenue than representatives in position 1. Annual sales budgets are adjusted for such potential differences in an attempt to

make budgets and territories equitable across sales representatives. The average percent of budget achieved was transformed into standard scores (z-scores) to differentiate between functional (positive z-score) and dysfunctional (negative z-score) cases. These z-scores were computed separately for samples A and B.

Measures

Outcome variable. As suggested by Hollenbeck and Williams (1986), the present study operationalized turnover functionality as the product of performance and turnover frequency:

$$\text{Performance} \times T_{\text{frequency}} = T_{\text{functionality}}$$

As described above, performance was defined as the monthly average percent of budget achieved by each respondent over a 12 month period. Turnover frequency was assessed by reviewing company records to determine whether or not respondents had left the organization voluntarily during the course of the study. Stayers were coded as +1 and leavers as -1. Defined in this manner, turnover functionality is positive under two conditions: (a) when a good performer (positive z-score) stays, (+) (+) = (+), or (b) when a poor performer (negative z-score) leaves (-) (-) = (+). On the other hand, turnover functionality is negative when a good performer leaves, (+) (-) = (-), or when a poor performer stays, (-) (+) = (-).

Antecedents of Turnover Functionality. A 127-item questionnaire (see Appendix A) consisting of demographic information, items developed as a result of Phase 1 results (items 1-44 were of interest to the host organization and were not included in the present analysis), and scales drawn from previous research were used to assess the hypothesized antecedents of turnover functionality. Scale reliability information based on data from the present study is presented in Tables 2 and 3 in the Results section.

(a) **Perceived environmental opportunity**. Two items were adopted from Thompson and Terpening's (1983) original three-item scale to assess perceived environmental opportunity. These two items measure the perceived availability of alternative jobs in the respondent's immediate job market. The third item was not employed because it was felt that it assessed a different construct (i.e., the relative favorability of the alternative opportunities compared to the present job).

One item (item 73) used a five-point response scale ranging from Very Difficult (1) to Very Easy (5). The second item (item 84) was dichotomous in nature and asked respondents to select one of two statements which best described their perception of the current job market. The scale score was calculated by adding one point to, or subtracting one point from, the response to item 73 based on the response to item 84. If respondents perceived more job vacancies than applicants in their job market, one point was added to the item 73 response. If respondents perceived more applicants than job vacancies in the job market, then one point was subtracted from item 73. Thus, the final scale score combined the responses to items 73 and 84. Scale scores ranged from 0 to 6, with higher scores representing greater perceived opportunity.

(b) **Role conflict**. Rizzo et al's. (1970) eight-item scale (items 60, 61, 63, 65, 67, 68, 70 and 72) was used to assess role conflict. This scale employed a seven-point response format ranging from Very False (1) to Very True (7). An average overall scale score was calculated, with higher scores representing greater role conflict.

(c) **Role ambiguity**. Rizzo et al's. (1970) scale of six negatively-worded items (items 59, 62, 64, 66, 69 and 71) was used to measure role ambiguity. The scale employed a seven-point response format ranging from Very False (1)

to Very True (7). All items were reverse-scored and an average overall scale score was calculated, with higher scores representing greater role ambiguity.

These two role perception measures have been employed extensively over the last 20 years, and psychometric support for both scales is well documented (Cook, Hepworth, Wall and Warr, 1981). Recent concerns have been raised, however, regarding the construct validity of these two scales (McGee, Ferguson and Seers, 1989; Tracy and Johnson, 1981). Specifically, the argument has focused on the possibility that these two scales measure a single underlying construct, role stress, because interpretations regarding the content of the scales are believed to be confounded by the fact that the items assess the presence of role conflict (positively worded items) and the absence of role ambiguity (negatively worded items). Results of Kelloway and Barling's (1990) confirmatory factor analysis of these two scales and the Beehr, Walsh and Taber (1976) Role Overload scale, which also employs positively and negatively worded items, supported the construct validity of the Rizzo et al. (1970) scales across two independent samples. For both samples, the authors found that a three-factor model (role conflict, role ambiguity and role overload) fit the data better than three alternative models: (1) a one factor role-stress model, (2) a two factor model consisting of role-stress and a method factor (all negatively worded items), or (3) a two factor model consisting of positive and negative item method factors. In addition, Netemeyer, Johnston and Burton's (1990) confirmatory factor analysis evidence supported the convergent and discriminant validity of these two scales. Composite reliabilities of .78 for role conflict and .83 for role ambiguity, along with a significant improvement in goodness-of-fit of a two-factor structure (role conflict and role ambiguity) over a unidimensional

model, offered support for both the convergent and discriminant validity of the measures.

(d) Met expectations. An 11-item (items 85 through 95) version of a scale developed by Lachman and Aranya (1986) was used to assess the extent to which respondents' pre-employment expectations were realized within the host organization. Each of the individual scale items represented a form of reward or support that is typically offered in sales organizations (Ingram and Bellenger, 1983).

The response format for this scale is based on Heller and Porter's (1966) deficiency scale approach. For each item, realization of expectations was measured by the difference in responses to two questions: (a) when you started this job, how much did you expect there to be?, and (b) how much is there now?. Respondents answered both questions by circling a number between 0 and 12, where lower numbers represented minimum amounts and higher numbers represented maximum amounts of the form of reward or support in question. Difference scores were obtained for each item by subtracting (a) from (b), and an overall scale score was calculated by averaging the difference scores. Higher (more positive) scores represent greater realization of expectations.

(e) Job satisfaction. Smith et al.'s. (1969) 72-item (items 96a through 100r) Job Descriptive Index (JDI) was used to assess job satisfaction. Five facets of job satisfaction were tapped by individual JDI subscales, including satisfaction with: (a) work (18 items), (b) pay (nine items), (c) promotion opportunities (nine items), (d) supervision (18 items), and (e) co-workers (18 items). Each item is an adjective, and respondents indicated whether it described the job facet in question by responding either Y (yes), ? (uncertain) or N (no). As suggested by Smith et al., Yes, Uncertain and No responses were

scored 3, 1 and 0 respectively. Negatively-worded items were reverse scored, and facet scores were obtained by averaging across the items on each subscale.

Not only is the JDI one of the most widely used measures of job satisfaction, but its psychometric properties are also well documented. Smith et al. (1969) report Spearman-Brown reliability coefficients for the five subscales ranging from .80 (pay) to .88 (co-workers), and Ivancevich (1976) and Reinharth and Wahba (1975) both obtained results similar to those of Smith et al. with independent samples of salespeople. Although recent evidence (Roznowski, 1989) has suggested that the measurement properties of the JDI might be improved by updating some of the items due to changes that have occurred both in jobs and organizations since its initial development, the original scales were kept intact for the present study in order to preserve the comparability of findings with those of previous research.

For analysis purposes, the five facets were treated as separate indicators of a global job satisfaction construct for two reasons. First, empirical evidence has demonstrated that the JDI can be represented by a higher order factor, with the five facets representing component factors (Howell, Bellenger and Wilcox, 1987; Parsons and Hulin, 1982). Second, treating the five JDI facets as determinants of overall job satisfaction is consistent with past research regarding the job satisfaction of sales personnel (Howell et al., 1987; Teas, 1983).

A sixth facet of job satisfaction, satisfaction with after-sale support, was developed for use in the present study. Data collected during Phase 1 indicated that this factor was a potentially important influence on the satisfaction of salespeople in the host organization. A five-item scale (items 21, 23, 25, 30 and 40) was used to assess this facet, with responses ranging

from Strongly Disagree (1) to Strongly Agree (5). This scale was treated as a sixth indicator of overall job satisfaction.

(f) Internal motivation. Hackman and Oldham's (1975) original six-item Internal Work Motivation scale (items 51 through 56) taken from the Job Diagnostic Survey (JDS) was used to measure internal motivation. A seven-point response format ranging from Disagree Strongly (1) to Agree Strongly (7) was used, with one item reverse-scored. An overall score was obtained by calculating the mean response across all six items; higher scores represent greater motivation to perform well on the job.

Since its development, mixed evidence has been obtained regarding support for the original five-factor structure of the JDS (Dunham, 1976; Katz, 1978; Lee and Klein, 1982; Pierce and Dunham, 1978). Most recently, Idaszak and Drasgow (1987) obtained six-factor solutions for two independent samples of employees; five factors supporting the hypothesized structure and a sixth factor representing the negatively worded, reverse-scored JDS items. These authors presented a revised JDS consisting of rewritten reverse-scored items and suggested the use of this revised version in future research. However, Kulik, Oldham and Langner (1988) contrasted the original and revised versions of the JDS using a confirmatory analytic strategy and found that while the revised scale conformed more closely to the original five-factor structure, no difference existed between the two versions in terms of overall fit or in their ability to predict internal motivation, the construct of interest here.

(g) Organizational commitment. The nine-item (items 75 through 83) short form of the Organizational Commitment Questionnaire (Porter et al., 1974) was used to assess respondents' organizational commitment. Responses were made on a seven-point scale, ranging from Strongly Disagree (1) to

Strongly Agree (7). A scale score was obtained by averaging across the nine items, with higher scores indicating greater commitment. Brooke, Russell and Price's (1988) confirmatory factor analysis of measures of job satisfaction, job involvement and organizational commitment supported the discriminant validity of the scale. Further evidence of the scale reliability and validity is also available (Price and Mueller, 1981b; Price and Mueller, 1986).

(h) Search behavior. A single-item (item 126) measure of the intensity of respondents' job search behavior was adopted from Zimmerman (1989) for use in the present study. The item possessed ordinal level scale properties, with responses made on a five-point scale ranging from Completed Applications for Other Jobs (1) to None (5). The structural equation modeling estimation procedure employed in the present study assumes that measured variables are continuous in nature. However, as noted by Bentler and Chou (1987), methods based on the assumption of continuous data can be used safely with ordinal data when the variable(s) in question have four or more categories. Because search behavior consisted of five response categories, it was included in the present analyses without modification. The item was reversed so higher scores represent more intensive search activity.

(i) Intent to leave. A modified version of a three-item scale adopted from the Michigan Organizational Assessment Questionnaire (MOAQ; Seashore et al., 1982) was used to assess respondents' intent to leave (items 57 and 58). One item was dropped from the original scale due to its redundancy with another questionnaire item. Responses were given on a seven-point scale, ranging from Strongly Disagree (1) to Strongly Agree (7). The mean value across both items determined the scale score, with higher scores representing greater intent to leave the host organization. Seashore et al., (1982) reported evidence of discriminant validity ($r = -.58$ with the MOAQ

measure of overall Job Satisfaction, and $r = -.27$ with the MOAQ measure of Job Involvement) for the original scale.

Data Analysis

Anderson and Gerbing's (1988) two-step approach for evaluating structural equation models was employed in the present study. Anderson and Gerbing discuss the analysis of two conceptually distinct models: (1) a confirmatory measurement submodel which specifies the relationships between observed measures (questionnaire subscales in the present study) and their underlying latent constructs, and (2) a confirmatory structural submodel which specifies theoretical causal relationships between the latent constructs. The authors recommend an independent assessment of the fit of the measurement submodel to the observed data prior to the simultaneous estimation and evaluation of the "full" model (the combined measurement and structural submodels). Anderson and Gerbing contend that to interpret the theoretical constructs of interest meaningfully, one must assess the dimensionality of the observed indicators of each construct prior to estimating the structural relationships among those constructs. This two-step approach provides the researcher with several advantages relative to the traditional one-step approach to model testing. First, it allows one to test the statistical significance of the relationships between latent constructs and their observed indicators. This information can then be used to modify the observed indicators prior to assessing the overall fit of the full model. Second, an assessment can be made as to whether any possible theoretical structural model will adequately fit the observed data prior to beginning model testing. Third, an analytic strategy is provided for comparing the relative goodness-of-fit of competing theoretical models.

Confirmatory factor analyses. The first step in Anderson and Gerbing's (1988) approach involves determining how well the initial measurement model accounts for the observed data. This step involves the respecification of "problem" indicators based upon both statistical and theoretical considerations until a model with acceptable overall fit is obtained. Further support for the acceptability of the measurement model is offered by assessing the convergent and discriminant validity of the observed indicators.

Due to the very large number of questionnaire items ($n = 127$) in the present study, computational constraints were avoided by dividing the complete measurement model into separate exogenous and endogenous submodels for analysis purposes. In addition, due to the large number of JDI items ($n = 72$) and the fact that the use of the JDI scales as measures of global job satisfaction is well established and supported by numerous research studies, these items were not included in the endogenous measurement submodel. Thus, the endogenous model consisted of items from the satisfaction with after-sale support, internal motivation, organizational commitment, search behavior and intent to leave subscales, while the exogenous model was comprised of items from the perceived environmental opportunity, role conflict, role ambiguity and met expectations scales. The z-score measure of turnover functionality was not included in the measurement model analyses.

Based on responses from sample A, the exogenous and endogenous measurement submodels were evaluated by means of the following analytical process. First, the original exogenous measurement submodel was estimated. Second, goodness-of-fit indices (discussed in more detail below) were examined to determine how well the model accounted for the data. Third, specific indicators were respecified by deleting items from the model.

Respecification decisions were made by first examining LISREL estimates regarding the statistical significance of each indicator. Non-significant or weak indicators (relative to the other indicators of the construct of interest) were deleted from the model. The pattern of standardized residuals and modification indices provided by LISREL were then reviewed to assess the unidimensionality of each indicator. Items that were multidimensional in nature were also deleted from the model. Fourth, the model was retested after each respecification until an acceptable degree of overall fit was obtained. Finally, the resulting exogenous measurement submodel was cross-validated based on the covariance matrix from sample B. This process was then repeated in order to fit the endogenous submodel to the observed data.

After completing the confirmatory factor analyses for the measurement submodels, the convergent and discriminant validity of each submodel was assessed (Anderson and Gerbing, 1988). Convergent validity was assessed by determining whether the individual indicators were significantly related to their presumed latent construct (i.e., path coefficient greater than twice its standard error; t-value greater than 2.0). Discriminant validity was assessed by determining whether the confidence interval (\pm two standard errors) around the correlations between the latent constructs represented in the model included 1.0.

Construction of multiple indicators. To ensure that the hypothesized models of interest were adequately overidentified for model testing purposes, it was necessary to construct multiple indicators for two latent variables, Met Expectations and Organizational Commitment. This was done by means of the procedure described by both Brooke et al. (1988) and by Mathieu (1991). Based on the factor loadings resulting from the exogenous measurement model analyses, Met Expectations items were paired in the

following manner. First, the item with highest loading on the Met Expectations factor was paired with the item with the lowest loading on the factor to form an indicator. The second highest loading item was then paired with the second lowest loading item to form a second indicator. The remaining five items were then randomly assigned to the two indicators to create one five-item and one four-item subscale. Two of the original 11 Met Expectations items were deleted as a result of the confirmatory factor analyses. This same procedure was then applied to the results of the endogenous measurement model analyses to create two Organizational Commitment subscales.

Linear structural relations analyses. The second step in the Anderson and Gerbing (1988) approach involves determining the validity of the full model by estimating and testing a sequence of nested structural models. A given model (M_2) is said to be nested within another model (M_1) when one or more of the parameters estimated in M_1 are constrained (not estimated) in M_2 . Anderson and Gerbing recommend estimating five structural submodels: (1) a saturated submodel (M_s) in which all unidirectional paths between the latent constructs are estimated, (2) a structural null submodel (M_{sn}) in which all paths relating the latent constructs to one another are constrained, (3) the primary theoretical model of interest (M_t) which is represented in the present study by Figure 1, (4) the "next most likely" unconstrained alternative theoretical model (M_u), represented by Figure 2, which estimated two parameters that were constrained in M_t , and (5) the "next most likely" constrained alternative theoretical model (M_c), represented in the present study by Figure 3, which constrained two parameters that were estimated in M_t . These five structural submodels were nested in the following sequence, $M_{sn} < M_c < M_t < M_u < M_s$, with M_{sn} and M_s being the most and least

restrictive models, respectively. This nested models approach allows the researcher to determine which of the competing hypothesized models best accounts for the covariances observed between the latent constructs by conducting a series of model contrasts (chi-square difference tests). For a given contrast of two alternative models, a chi-square difference test provides a statistical test of the significance of the parameters constrained in the more restricted model. In order to calculate a normed fit index (NFI; Bentler and Bonett, 1980) used to evaluate the fit of the above nested models, a sixth submodel (an overall null model) was also estimated. This null model accounted solely for the manifest indicator variances.

Prior to evaluating the relative fit of the hypothesized models of interest, a comparison is made between the saturated (M_s) and structural null (M_{sn}) submodels. A significant chi-square difference between the overall fit of these two models suggests that enough covariance exists between the latent constructs to allow for model testing. In other words, a non-significant difference between the least and most restrictive models suggests that no theoretical model nested within these two extremes could provide acceptable fit to the observed data. Given sufficient construct covariation, the researcher proceeds with the model contrasting process.

The research questions were addressed by applying the second step of Anderson and Gerbing's (1988) model testing approach to the covariance matrix of sample A with LISREL VII (Joreskog and Sorbom, 1989). Because perceived environmental opportunity, search behavior and turnover functionality were single-item measures, the reliability of these indicators could not be calculated. Anderson and Gerbing suggested that such single-item indicators be handled conservatively by assuming a reliability of .90. This approach was used for perceived environmental opportunity and search

behavior. The error variance associated with these two indicators was set equal to 1-.90, multiplied by the variance of the indicator (Joreskog and Sorbom, 1989). The measurement of turnover functionality was assumed to be perfectly reliable ($r_{xx} = 1.0$), however, because objective performance data and turnover frequency information were used in its construction.

After first comparing the saturated and structural null submodels as described above, a sequence of nested model comparisons were made based upon the decision-tree framework presented by Anderson and Gerbing (1988). The results of the decision-tree approach, in conjunction with indices of model fit, provided the information necessary for determining which of the three alternative models best fit the observed data. In an attempt to further improve overall fit, this model was trimmed by eliminating non-significant paths from the model, and by adding new paths to the model based on both empirical and theoretical considerations. The "best" alternative model and the trimmed model were both cross-validated using sample B.

Goodness-of-fit indices. Four indices were used to evaluate the fit of the exogenous and endogenous measurement submodels, as well as the three alternative theoretical structural models: (1) the chi-square likelihood ratio statistic provided by LISREL, (2) the goodness-of-fit index (GFI) provided by LISREL, (3) the normed fit index (NFI; Bentler and Bonett, 1980), and (4) the relative normed fit index (RNFI; Mulaik, James, Van Alstine, Bennett, Lind and Stilwell, 1989).

LISREL provides a probability value associated with the chi-square test statistic. A significant chi-square value suggests that the model in question does not fit the observed data adequately. However, as noted by Bentler and Chou (1987) and by Anderson and Gerbing (1988), the value of the chi-square statistic is directly influenced by sample size. In fact, with samples as large as

those in the present study, significant values can be obtained when only a trivial difference exists between the model and the data. For this reason, greater emphasis was placed on the values of the other three indices to make decisions regarding acceptable model fit.

The GFI is an index of the relative amount of observed variances and covariances among indicators collectively accounted for by the hypothesized model (Joreskog and Sorbom, 1989). Thus, GFI yields a measure of the proportion of total observed data fit by the model of interest. GFI values typically range between 0 and 1, with values greater than .90 considered indicative of good model fit.

The NFI represents the percentage of covariation among indicators explained by the model in question compared to an overall null model that accounts solely for observed-measure variances. Computationally, NFI is defined as the ratio of the overall null chi-square minus the hypothesized model chi-square, divided by the overall null chi-square. Thus, NFI evaluates the degree to which the model in question reduces the lack of fit from the maximum possible lack of fit obtained in the overall null model. As with GFI, NFI values greater than .90 are considered indicative of good model fit.

As suggested by Anderson and Gerbing (1988), NFI was also used in the present study to compare the relative fit of the nested structural models. For a given comparison of two competing structural models, NFI yields a percentage difference in covariation explained by the models in question. This value is computed as the ratio of the chi-square of the more restricted submodel minus the chi-square of the less restricted submodel, divided by the overall null chi-square. Thus, this NFI value indicates the loss of explanation resulting from constraining certain paths in the more restricted of the two models.

Mulaik et al. (1989) note that goodness-of-fit indices such as GFI and NFI are sometimes heavily influenced by the fit of the measurement portion of the full model and do not always assess the fit of the causal model accurately. This fact makes it possible to have misspecified relationships among the latent variables and still obtain acceptable GFI or NFI values for the full model. As a result, Mulaik et al. propose the use of the relative normed fit index (RNFI). The RNFI provides an assessment of the relative fit of the structural model among the latent constructs independent of the fit of the measurement model. In other words, this index assesses the extent to which competing structural models account for the total variance that remains in a given covariance matrix after the measurement model has been fitted. Computationally, RNFI is defined as the ratio of the structural null chi-square minus the theoretical model chi-square, divided by the structural null chi-square minus the saturated model chi-square minus the quantity of the difference in degrees of freedom for the theoretical and saturated models:

$$\text{RNFI} = (X^2_{M_{sn}} - X^2_{M_t}) / [X^2_{M_{sn}} - X^2_{M_s} - (df_{M_t} - df_{M_s})]$$

Results

Preliminary Analyses

Test of multivariate normality. An important assumption of structural equation modeling is that data fit a multivariate normal distribution (Bentler and Chou, 1987). Although simulation evidence suggests that maximum-likelihood parameter estimates are often acceptable even when data are non-normal (Muthen and Kaplan, 1985), the chi-square value and standard errors become less reliable. PRELIS, a companion program to LISREL VII (Joreskog and Sorbom, 1989), was used to assess the multivariate normality assumption. A value of 1.076 was obtained for Mardia's coefficient (Mardia, 1970). This statistic is interpreted as a standard score with values ≤ 2 indicating a normal distribution. Thus, it was concluded that the obtained data did not violate the assumption of multivariate normality.

Test of linearity. Another assumption of structural equation modeling is that the modeled variables are linearly related. To test the assumption of linearity, two analyses were completed. First, turnover functionality was regressed onto all of the predicted antecedents. As suggested by Anscombe (1973) and by Pedhazur (1982, pp. 36-39), the resulting standardized residuals (error terms) for each observation were plotted against the predicted dependent variable scores. Visual inspection of this plot indicated that the regression was linear (i.e., a rectangular shaped plot was obtained). Second, respondents were rank ordered from low to high on turnover functionality. The respondents were then divided into three groups (low, moderate, and high turnover functionality) of approximately equal size, and mean scores on

each predictor were calculated for the three groups. A one-way analysis of variance was then completed on each predictor comparing the mean scores of the three groups. Significant differences were obtained between the low and moderate groups on two of the predictors, perceived environmental opportunity and realization of expectations. However, in both instances the mean differences were very small (i.e., less than one-fifth of a standard deviation) and it was decided that these differences were not practically significant. No differences were obtained between the groups on the other predictors. Based on the results of these two analyses, it was concluded that the obtained data did not violate the assumption of linearity.

Impact of outliers. As a result of plotting the standardized residuals, 26 observations that could be considered outliers (i.e., residual values of >2 , or <-2) were identified. A correlational analysis was conducted comparing the final study sample ($n = 1,098$) to the sample with the outliers excluded ($n = 1,072$) to determine the extent to which these outliers influenced the modeled variable interrelationships. Specifically, tests of significance were completed for the difference between the outlier and non-outlier sample intercorrelations for the 12 hypothesized paths shown in Figure 1. No significant differences were obtained, and the decision was made to include the outliers in all subsequent analyses.

Sample representativeness. Several analyses were completed to determine the representativeness of the study sample relative to the total population of sales reps. First, chi-square analyses were used to examine representativeness with respect to gender, position and racial composition. A significant finding for position composition, $\chi^2(1, N = 1,732) = 53.62$, $p < .001$, indicated that the study sample contained a larger proportion of

position 2 reps than did the total sales population (62.2% vs. 53.5%). The sample was representative with respect to gender and racial composition.

Second, the mean age and tenure of respondents and non-respondents were compared. Results showed that respondents ($M = 67$ months) were significantly more tenured than non-respondents ($M = 45.5$ months), $t(2,273) = 6.59, p < .01$. This finding was not surprising given the greater-than-expected representation of position 2 representatives in the study sample. In other words, because position 2 is one promotional level above position 1, the average position 2 representative is generally more tenured than the average position 1 representative. Non-significant results were obtained for age. In summary, with the exception of position composition, the above findings indicated that the demographic characteristics of the study sample satisfactorily represented those of the total salesforce in the two positions of interest.

Analyses were also completed to determine if position differences influenced the modeled variable interrelationships. First, tests of significance were completed for the difference between position 1 and position 2 intercorrelations for the 12 hypothesized paths shown in Figure 1. One statistically significant difference was obtained: The positive relationship between job satisfaction and organizational commitment was stronger for position 1 representatives ($r = .57$) than for position 2 representatives ($r = .50$), ($z = 2.11, p < .04$). However, the absolute difference between these correlations was small, and both of the within-group correlations were significant and in the hypothesized direction. The intercorrelation tables for positions 1 and 2 are shown in Appendix B.

Second, mean difference tests were conducted comparing position 1 and 2 respondents on each of the modeled variables. The results indicated that

position 2 representatives were significantly greater than position 1 respondents on role conflict, search behavior, intent to leave and job performance, and position 1 respondents were significantly greater than position 2 representatives on organizational commitment. Three steps were completed to assess the impact of these differences on the hypothesized variable interrelationships. First, scores for each model variable were standardized within each position subsample to eliminate mean differences across positions. Second, variable intercorrelations were calculated for each position based on the standardized subsample data. Third, tests of significance were completed for the difference between these position 1 and position 2 intercorrelations for the 12 hypothesized paths in M_t . No significant differences were obtained.

Based on the results of the analyses described above, it was concluded that position differences would not influence the relationships among the constructs of interest or the results of subsequent model tests.

Correlational analyses were also used to determine if the final sample of respondents differed from respondents who were eliminated due to missing information (i.e., missing employee identification number, unavailable performance data, or incomplete questionnaire data). Two significant differences were obtained. First, the correlation between organizational commitment and search behavior was significantly stronger for respondents with missing information ($r = -.44$) than for the final study sample ($r = -.32$), ($z = 2.86$, $p < .005$). Second, the relationship between search behavior and intent to leave was also significantly stronger for respondents with missing information ($r = .61$) than for those from the final sample ($r = .48$), ($z = 3.65$, $p < .001$). These two findings indicate that the hypothesized paths leading from lower organizational commitment to a subsequent increased intention

to leave were stronger for respondents who were dropped due to missing information, suggesting that the analyzed sample may provide a more conservative test of these model paths. However, for both paths, each within-group correlation was significant and in the hypothesized direction. Thus, it was concluded that the relationships among the modeled variables did not differ for these two groups, and that subsequent model tests would not be biased by the elimination of cases with missing information. The intercorrelations for these two groups of respondents are provided in Appendix B.

Descriptive statistics. The intercorrelations, means, standard deviations and internal consistency reliability estimates (coefficient alpha) for each of the observed indicators are presented in Table 2 for sample A, and in Table 3 for sample B. As shown in these tables, both the pattern and magnitude of correlations, means and standard deviations were very similar across the two samples. Although many of the variables were highly intercorrelated, turnover functionality was virtually uncorrelated with all other measures.

Confirmatory Factor Analyses. Prior to testing the relationships hypothesized in the structural submodels, the properties of the scales used to operationalize the latent constructs were examined by estimating the exogenous and endogenous measurement models using LISREL VII (Joreskog and Sorbom, 1989). As discussed in the Method section, the JDI subscales, single-item constructs (perceived environmental opportunity and search behavior) and turnover functionality were not included in this analysis.

Although the results for the hypothesized exogenous measurement model indicated a moderately good fit, $X^2(294, N = 549) = 958.75, p < .001$ (GFI = .876), examination of the normalized residuals and modification indices calculated by LISREL revealed that one role conflict item (Q70), and two met

Table 2
Descriptive Statistics for Sample A

| Variable | PEO | RC | RA | ME1 | ME2 | PAY | SUP | PROM | WORK | COW | AFTER | MOT | OC1 | OC2 | SEARCH | INTENT | TOF | \bar{X} | SD |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-----------|------|
| PEO | * | | | | | | | | | | | | | | | | | 3.89 | 1.39 |
| RC | .155 | (.83) | | | | | | | | | | | | | | | | 4.14 | 1.18 |
| RA | -.037 | .326 | (.72) | | | | | | | | | | | | | | | 2.93 | 0.84 |
| ME1 | -.060 | -.278 | -.259 | (.78) | | | | | | | | | | | | | | -1.83 | 2.37 |
| ME2 | .009 | -.265 | -.274 | .786 | (.76) | | | | | | | | | | | | | -1.22 | 2.57 |
| PAY | -.100 | -.296 | -.177 | .467 | .375 | (.78) | | | | | | | | | | | | 1.19 | 0.79 |
| SUP | .085 | -.222 | -.232 | .346 | .399 | .166 | (.88) | | | | | | | | | | | 2.38 | 0.66 |
| PROM | .045 | -.225 | -.210 | .466 | .415 | .287 | .228 | (.84) | | | | | | | | | | 1.41 | 0.91 |
| WORK | -.088 | -.354 | -.245 | .370 | .332 | .340 | .274 | .281 | (.70) | | | | | | | | | 1.72 | 0.49 |
| COW | -.050 | -.260 | -.269 | .241 | .240 | .247 | .263 | .221 | .375 | (.82) | | | | | | | | 2.41 | 0.54 |
| AFTER | -.132 | -.478 | -.274 | .209 | .202 | .226 | .204 | .131 | .285 | .328 | (.83) | | | | | | | 3.21 | 0.82 |
| MOT | -.030 | -.036 | -.197 | .118 | .104 | .081 | .035 | .058 | .232 | .159 | .040 | (.72) | | | | | | 5.74 | 0.79 |
| OC1 | -.059 | -.352 | -.273 | .456 | .388 | .381 | .188 | .298 | .469 | .293 | .261 | .351 | (.67) | | | | | 4.92 | 1.02 |
| OC2 | .009 | -.337 | -.348 | .455 | .420 | .349 | .217 | .322 | .489 | .309 | .302 | .360 | .771 | (.71) | | | | 5.62 | 0.99 |
| SEARCH | .095 | .221 | .155 | -.264 | -.234 | -.253 | -.112 | -.225 | -.248 | -.148 | -.114 | -.093 | -.332 | -.298 | * | | | 2.14 | 1.31 |
| INTENT | .086 | .408 | .185 | -.377 | -.337 | -.412 | -.196 | -.336 | -.472 | -.242 | -.224 | -.148 | -.555 | -.509 | .550 | (.86) | | 3.86 | 1.66 |
| TOF | .003 | .054 | -.018 | .023 | .018 | -.022 | .046 | .016 | .003 | .025 | -.049 | -.026 | -.005 | .019 | -.040 | -.050 | (1.0) | 0.00 | 1.00 |

Note. *Single-item indicators. All correlations > .164 are significant at $p < .05$. Reliability coefficients (r_{xx}) are on the diagonal.
 PEO = perceived environmental opportunity; RC = role conflict; RA = role ambiguity; ME1 = met expectations; ME2 = met expectations;
 PAY = satisfaction with pay; SUP = satisfaction with supervision; PROM = satisfaction with promotional opportunities; WORK =
 satisfaction with work; COW = satisfaction with co-workers; AFTER = satisfaction with after-sale support; MOT = internal motivation;
 OC1 = organizational commitment; OC2 = organizational commitment; SEARCH = search behavior; INTENT = intent to leave;
 TOF = turnover functionality.

Table 3
Descriptive Statistics for Sample B

| Variable | PEO | RC | RA | ME1 | ME2 | PAY | SUP | PROM | WORK | COW | AFTER | MOT | OC1 | OC2 | SEARCH | INTENT | TOF | \bar{X} | SD |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-----------|------|
| PEO | * | | | | | | | | | | | | | | | | | 3.88 | 1.38 |
| RC | .173 | (.77) | | | | | | | | | | | | | | | | 4.13 | 1.05 |
| RA | .015 | .336 | (.68) | | | | | | | | | | | | | | | 2.88 | 0.80 |
| ME1 | .012 | -.239 | -.229 | (.77) | | | | | | | | | | | | | | -1.77 | 2.34 |
| ME2 | .052 | -.278 | -.270 | .770 | (.76) | | | | | | | | | | | | | -1.08 | 2.51 |
| PAY | -.145 | -.303 | -.254 | .415 | .366 | (.77) | | | | | | | | | | | | 1.13 | 0.78 |
| SUP | .030 | -.256 | -.175 | .341 | .404 | .082 | (.84) | | | | | | | | | | | 2.44 | 0.58 |
| PROM | .005 | -.254 | -.277 | .474 | .382 | .302 | .281 | (.83) | | | | | | | | | | 1.43 | 0.88 |
| WORK | -.069 | -.335 | -.308 | .350 | .329 | .308 | .247 | .368 | (.71) | | | | | | | | | 1.70 | 0.49 |
| COW | -.029 | -.249 | -.238 | .188 | .169 | .169 | .246 | .235 | .334 | (.83) | | | | | | | | 2.40 | 0.55 |
| AFTER | -.121 | -.455 | -.266 | .241 | .221 | .223 | .148 | .181 | .325 | .278 | (.82) | | | | | | | 3.24 | 0.78 |
| MOT | -.035 | -.045 | -.177 | .105 | .118 | .168 | .035 | .167 | .255 | .165 | .079 | (.69) | | | | | | 5.84 | 0.72 |
| OC1 | -.076 | -.296 | -.312 | .361 | .276 | .282 | .202 | .287 | .494 | .234 | .276 | .295 | (.66) | | | | | 4.99 | 0.98 |
| OC2 | .029 | -.310 | -.390 | .359 | .297 | .247 | .185 | .343 | .510 | .242 | .259 | .319 | .741 | (.73) | | | | 5.75 | 0.98 |
| SEARCH | .095 | .202 | .064 | -.225 | -.162 | -.241 | -.093 | -.255 | -.258 | -.082 | -.142 | .013 | -.264 | -.272 | * | | | 1.94 | 1.21 |
| INTENT | .143 | .381 | .259 | -.414 | -.372 | -.385 | -.232 | -.393 | -.496 | -.167 | -.306 | -.162 | -.501 | -.469 | .405 | (.86) | | 3.67 | 1.66 |
| TOF | -.041 | -.005 | -.016 | .056 | .059 | .049 | .061 | .038 | -.068 | -.091 | .026 | .042 | .004 | .014 | .029 | -.018 | (1.0) | 0.00 | 1.00 |

Note. *Single-item indicators. All correlations $> .164$ are significant at $p < .05$. Reliability coefficients (r_{xx}) are on the diagonal. PEO = perceived environmental opportunity; RC = role conflict; RA = role ambiguity; ME1 = met expectations; ME2 = met expectations; PAY = satisfaction with pay; SUP = satisfaction with supervision; PROM = satisfaction with promotional opportunities; WORK = satisfaction with work; COW = satisfaction with co-workers; AFTER = satisfaction with after-sale support; MOT = internal motivation; OC1 = organizational commitment; OC2 = organizational commitment; SEARCH = search behavior; INTENT = intent to leave; TOF = turnover functionality.

expectations items (ME5 and ME9) were problematic. Thus, the exogenous measurement model was recalculated after eliminating these three items. These revisions yielded an improved model fit, $X^2(225, N = 549) = 693.27$, $p < .001$ (GFI = .90).

To further examine the properties of the exogenous measurement model, the convergent and discriminant validity of each subscale were determined (Anderson and Gerbing, 1988). The standardized loadings, t-values and standardized residuals for each exogenous subscale item are presented in Table 4.

With respect to convergent validity, acceptable levels of reliability were obtained for each subscale (see Table 2), and all standardized item loadings were significant ($t > 2.0$; $p < .001$). This evidence suggested that each of the retained items were acceptable indicators of their respective latent constructs. Examination of the intercorrelations among the exogenous constructs shown in Table 5 provided evidence of the discriminant validity of these scales. Specifically, none of the confidence intervals ($+/- 2$ standard errors) constructed around the correlations in Table 5 contained a value of 1.0 (Anderson and Gerbing, 1988). Thus, it was concluded that the convergent and discriminant validity of the exogenous measurement model was acceptable.

Similar results were obtained for the endogenous measurement model. Relatively good model fit was obtained for the hypothesized model, $X^2(221, N = 549) = 768.72$, $p < .001$ (GFI = .887). However, the normalized residuals and modification indices suggested that model fit might be improved by eliminating one item (Q83) from the organizational commitment scale. Thus, the endogenous model was revised, resulting in a better overall fit to the data, $X^2(200, N = 549) = 658.78$, $p < .001$ (GFI = .90).

Table 4
Confirmatory Factor Analysis Results for Exogenous Measurement Model

| Subscale/Items | Standardized Loading | t-Value | Standardized Residual |
|-------------------------|-----------------------------|----------------|------------------------------|
| Role Conflict | | | |
| Q60 | .650 | 15.956 | .578 |
| Q61 | .612 | 14.813 | .625 |
| Q63 | .614 | 14.880 | .622 |
| Q65 | .598 | 14.397 | .642 |
| Q67 | .761 | 19.701 | .421 |
| Q68 | .772 | 20.088 | .404 |
| Q72 | .540 | 12.718 | .709 |
| Role Ambiguity | | | |
| Q59 | .439 | 9.743 | .807 |
| Q62 | .601 | 13.983 | .639 |
| Q64 | .280 | 6.019 | .922 |
| Q66 | .648 | 15.311 | .580 |
| Q69 | .793 | 19.646 | .372 |
| Q71 | .660 | 15.656 | .565 |
| Met Expectations | | | |
| ME1 | .595 | 14.654 | .645 |
| ME2 | .656 | 16.572 | .569 |
| ME3 | .814 | 22.361 | .337 |
| ME4 | .670 | 17.034 | .550 |
| ME6 | .531 | 12.783 | .718 |
| ME7 | .678 | 17.284 | .540 |
| ME8 | .494 | 11.755 | .756 |
| ME10 | .811 | 22.222 | .342 |
| ME11 | .708 | 18.314 | .499 |

Note. All t-values are significant at $p < .001$; one-tailed test.

Table 5
Intercorrelations Among Exogenous Constructs

| Construct | PEO | RC | RA | MET |
|-----------|-----------------|-----------------|-----------------|-----|
| PEO | --- | | | |
| RC | .168 (.045) | --- | | |
| RA | -.076 (.047) | .363 (.046) | --- | |
| MET | -.040 (.045) | -.351 (.044) | -.300 (.047) | --- |

Note. Standard errors are given in parentheses. PEO = perceived environmental opportunity; RC = role conflict; RA = role ambiguity; MET = met expectations.

The convergent and discriminant validity of the endogenous measurement model was assessed in the same manner described above for the exogenous model. Table 6 presents the standardized loadings, t-values and standardized residuals for each endogenous subscale item. All of the standardized item loadings were significant ($t > 2.0$; $p < .001$), providing evidence of adequate convergent validity. In addition, acceptable levels of reliability were obtained for each subscale (see Table 2). Furthermore, the correlations and standard errors for the endogenous variables shown in Table 7 supported the discriminant validity of these scales.

In summary, revisions were made to the hypothesized measurement models based on the normalized residuals and modification indices suggested by the confirmatory factor analyses. These revisions improved the fit of both measurement models and yielded overall fit indices that were considered adequate for structural model testing. In addition, both of the revised measurement models exhibited acceptable convergent and discriminant validity.

Structural Model Analyses

The fit indices for the six submodels described in the Method section (see pp. 47-48) are presented in Table 8. The initial comparison between the structural null and saturated submodels revealed a significant difference, $X^2(39, N = 549) = 1,217.80, p < .001$. This finding suggested that enough covariation existed among the latent constructs to warrant comparing the relative fit of the three hypothesized models of interest.

Comparison of theoretical models. Following Anderson and Gerbing's (1988) decision-tree framework, the theoretical model shown in Figure 1 (M_t) was first compared to the saturated submodel (M_s). A statistically significant difference was obtained, $X^2(27, N = 549) = 86.17, p < .001$. However, the NFI

Table 6
Confirmatory Factor Analysis Results for Endogenous Measurement Model

| Subscale/Items | Standardized Loading | t-Value | Standardized Residual |
|----------------------------------|-----------------------------|----------------|------------------------------|
| After-Sale Support | | | |
| Q21 | .724 | 18.374 | .476 |
| Q23 | .835 | 22.351 | .303 |
| Q25 | .760 | 19.607 | .423 |
| Q30 | .626 | 15.242 | .608 |
| Q40 | .590 | 14.164 | .652 |
| Internal Motivation | | | |
| Q51 | .798 | 20.325 | .364 |
| Q52 | .867 | 22.600 | .249 |
| Q53 | .346 | 7.738 | .880 |
| Q54 | .367 | 8.235 | .865 |
| Q55 | .538 | 12.607 | .711 |
| Q56 | .273 | 6.019 | .926 |
| Organizational Commitment | | | |
| Q75 | .456 | 10.726 | .792 |
| Q76 | .815 | 22.429 | .335 |
| Q77 | .377 | 8.715 | .858 |
| Q78 | .627 | 15.647 | .607 |
| Q79 | .823 | 22.767 | .322 |
| Q80 | .766 | 20.466 | .413 |
| Q81 | .680 | 17.363 | .538 |
| Q82 | .604 | 14.927 | .635 |
| Intent To Leave | | | |
| Q57 | .835 | 22.225 | .302 |
| Q58 | .906 | 24.753 | .179 |

Note. All t-values are significant at $p < .001$; one-tailed test.

Table 7
Intercorrelations Among Endogenous Constructs

| Construct | AFTER | MOT | OC | SEARCH | INTENT |
|-----------|-----------------|-----------------|-----------------|----------------|--------|
| AFTER | --- | | | | |
| MOT | .073 (.050) | --- | | | |
| OC | .346 (.044) | .508 (.038) | --- | | |
| SEARCH | -.125 (.046) | -.139 (.046) | -.362 (.040) | --- | |
| INTENT | -.256 (.047) | -.273 (.047) | -.609 (.033) | .597 (.031) | --- |

Note. Standard errors are given in parentheses. AFTER = satisfaction with after-sale support; MOT = internal motivation; OC = organizational commitment; SEARCH = search behavior; INTENT = intent to leave.

Table 8
Summary of Fit Indices for Structural Submodel Contrasts

| Submodel | df | X ² | GFI | NFI | RNFI |
|------------------------------------|-----|----------------|------|------|------|
| Overall Null | 136 | 3,056.21 | .441 | - | - |
| Structural Null (M _{SN}) | 120 | 1,502.12 | .718 | .509 | - |
| Constrained (M _C) | 110 | 515.57 | .906 | .831 | .830 |
| Theoretical (M _T) | 108 | 370.49 | .926 | .879 | .950 |
| Unconstrained (M _U) | 106 | 346.45 | .929 | .887 | .969 |
| Saturated (M _S) | 81 | 284.32 | .941 | .907 | - |

Note. N = 549. All chi-square values are significant at $p < .001$.

GFI = goodness-of-fit index; NFI = normed fit index;

RNFI = relative normed fit index.

value (.028) comparing the relative fit of these two models indicated that the difference between them was not practically significant. In other words, M_s explained only 2.8% more covariation than did M_t at the expense of 27 degrees of freedom. Thus, M_t was retained because it provided an adequate, yet more parsimonious, explanation of the data.

Next, the constrained theoretical model, M_c , was compared to M_t . Once again a statistically significant difference was found, $\chi^2(2, N = 549) = 145.08$, $p < .001$. The obtained NFI value (.047) also supported this finding. Specifically, M_t accounted for almost 5% more covariation in the obtained data than did M_c while using only two additional degrees of freedom. This outcome resulted in a decision to retain M_t .

The final comparison made in the decision-tree framework was between M_t and the unconstrained theoretical model, M_u . A significant statistical difference was found, $\chi^2(2, N = 549) = 24.04$, $p < .001$, but the difference in the explanatory power of these two models was very small as evidenced by the obtained NFI value (.008). Thus, given that M_u explained less than 1% more covariation in the obtained data than did M_t while using two additional degrees of freedom, M_t was retained and accepted as the "best" fitting of the three hypothesized models.

The above decisions are confirmed by a review of the fit indices summarized in Table 8. While the overall fit of both M_t and M_u were clearly superior to that of M_c , little difference existed in terms of the relative fit of the former two models. The fact that M_t provided a more parsimonious, yet equally adequate, explanation of the data supported its acceptance as the best fitting model.

Confirmatory analysis. After M_t was identified as the best of the three alternative models, a confirmatory analysis was completed to test the fit of M_t

using the data from sample A. First, an assessment was made of how well the observed indicators measured the latent constructs in M_t by examining the standardized lambda coefficients and residuals ($1-R^2$) presented in Table 9. High lambdas and correspondingly low residuals were obtained for all indicators except the job satisfaction scales. However, further examination of the job satisfaction indicators revealed that the loadings obtained in the present study were consistent with those from a recent LISREL analysis of the JDI (Netemeyer et al., 1990). In addition, the t-values associated with the job satisfaction indicators ranged from 8.227 to 10.813 ($p < .01$), offering support for their convergent validity. This evidence suggested that all of the observed indicators shown in Table 9 served as satisfactory measures of their respective latent variables in M_t .

Second, with respect to the overall fit of the model, the chi-square for M_t was significant, $\chi^2(108, N = 549) = 370.49, p < .001$, suggesting the model did not fit the data. However, the other fit indices shown in Table 8 indicated good model fit. For example, the GFI indicated that approximately 93% of the total observed data was fit by M_t , and the RNFI suggested that, independent of the measurement model, the structural model provided a strong fit to the obtained data. The inconsistency between the chi-square value and the other fit indices was due to the size of the present sample. As noted by Bentler and Chou (1987), with large samples even the best models often don't fit because the sample-size multiplier that transforms the fit function into a chi-square variate multiplies a minimal lack of fit into a large statistic.

Although the fit indices suggested good overall fit for M_t , a closer examination of the model revealed some problem areas. As shown in Figure 4, which presents both the unstandardized and standardized (in parentheses)

Table 9

Standardized Lambdas and Residuals for Observed Indicators

| Indicator | Lambda | Residual |
|-----------|--------|----------|
| PEO | .948 | .101 |
| RC | .913 | .166 |
| RA | .848 | .281 |
| ME1 | .929 | .137 |
| ME2 | .846 | .284 |
| PAY | .557 | .690 |
| PROM | .504 | .746 |
| SUP | .429 | .816 |
| WORK | .625 | .610 |
| COW | .480 | .769 |
| AFTER | .472 | .778 |
| MOT | .850 | .277 |
| OC1 | .876 | .233 |
| OC2 | .870 | .242 |
| SEARCH | .949 | .100 |
| INTENT | .928 | .139 |
| TOF | 1.00 | 0.00 |

Note. PEO = perceived environmental opportunity; RC = role conflict; RA = role ambiguity; ME1 = met expectations; ME2 = met expectations; PAY = satisfaction with pay; PROM = satisfaction with promotional opportunities; SUP = satisfaction with supervision; WORK = satisfaction with work; COW = satisfaction with co-workers; AFTER = satisfaction with after-sale support; MOT = internal motivation; OC1 = organizational commitment; OC2 = organizational commitment; SEARCH = search behavior; INTENT = intent to leave; TOF = turnover functionality.

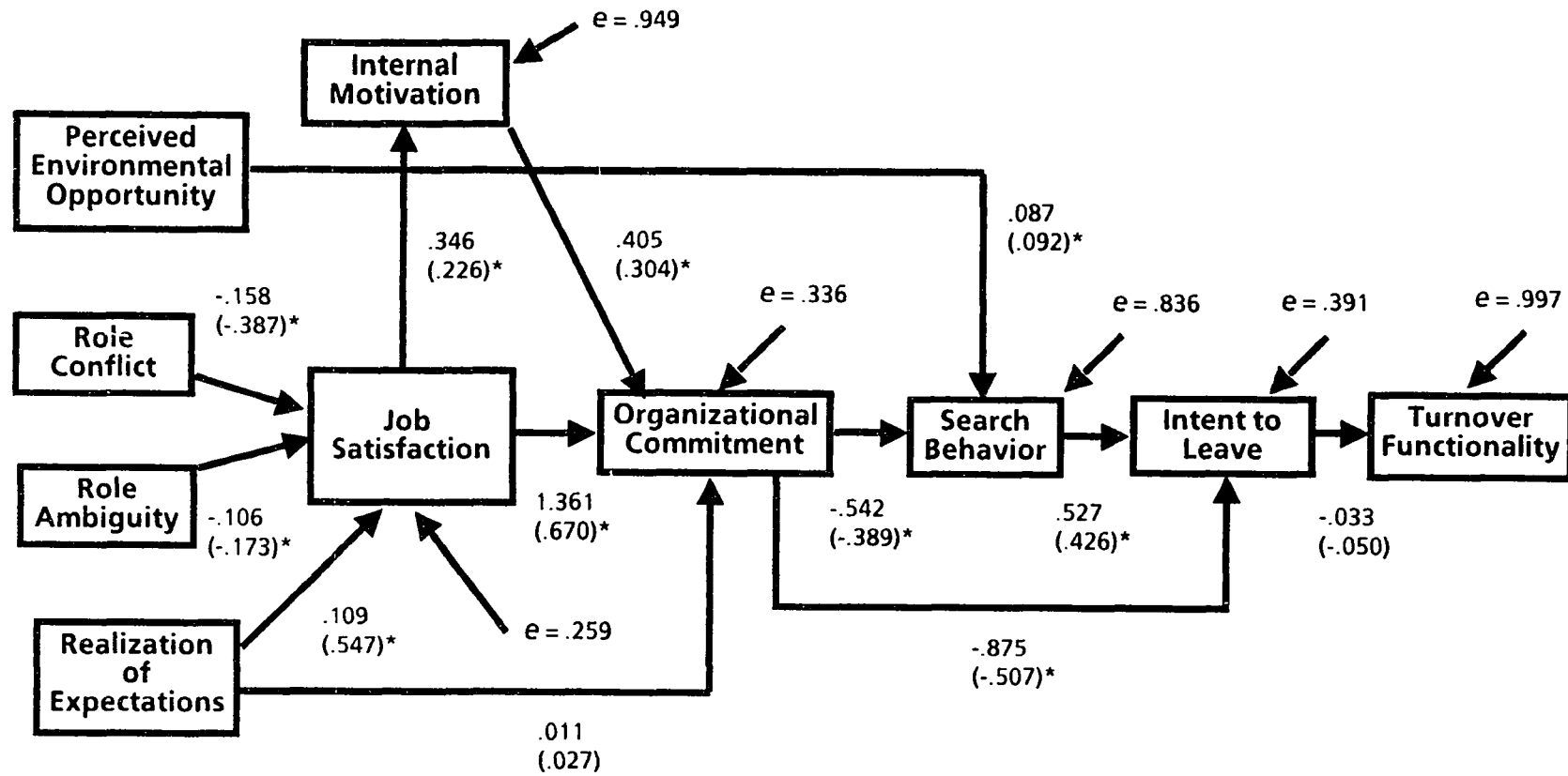


Figure 4: Path coefficients and residuals for original theoretical model (M_t). Standardized coefficients are in parentheses. * $p < .05$

path coefficients for M_t and the standardized residual variances for the endogenous variables (denoted by e), two of the twelve hypothesized linkages were not statistically significant: The relationship between met expectations and organizational commitment and, more importantly, the relationship between intent to leave and turnover functionality. In addition, the residual values indicated that the hypothesized model explained relatively large proportions of variation in many of the endogenous constructs, but predicted less than one percent of the variance in turnover functionality.

Because the overall fit of M_t was good, the model's generalizability was investigated by cross-validating M_t using sample B data. The results of the cross-validation were similar to the findings for the original test of the model. Not only was the overall chi-square significant, $\chi^2(108, N = 549) = 450.23, p < .001$, but as shown in Figure 5, the same two non-significant paths were obtained. In addition, the residual for turnover functionality indicated that the model did not explain any of the variance in this construct within sample B. Due to the effects of shrinkage within the cross-validation sample, slightly weaker support was obtained for the overall fit of M_t (GFI = .912; NFI = .853; RNFI = .883) than was found with sample A.

Taken as a whole the findings from the confirmatory analysis of M_t suggested that although the model provided an acceptable overall fit to the data, it did not predict the primary variable of interest, turnover functionality. As a result of these findings, exploratory analyses were undertaken to improve the overall fit of M_t and to provide a better understanding of the relationship between intent to leave and turnover functionality.

Exploratory analyses. The initial exploratory analysis attempted to improve the fit of M_t while maintaining the variable interrelationships originally hypothesized. Thus, revisions to M_t were made in two steps. First,

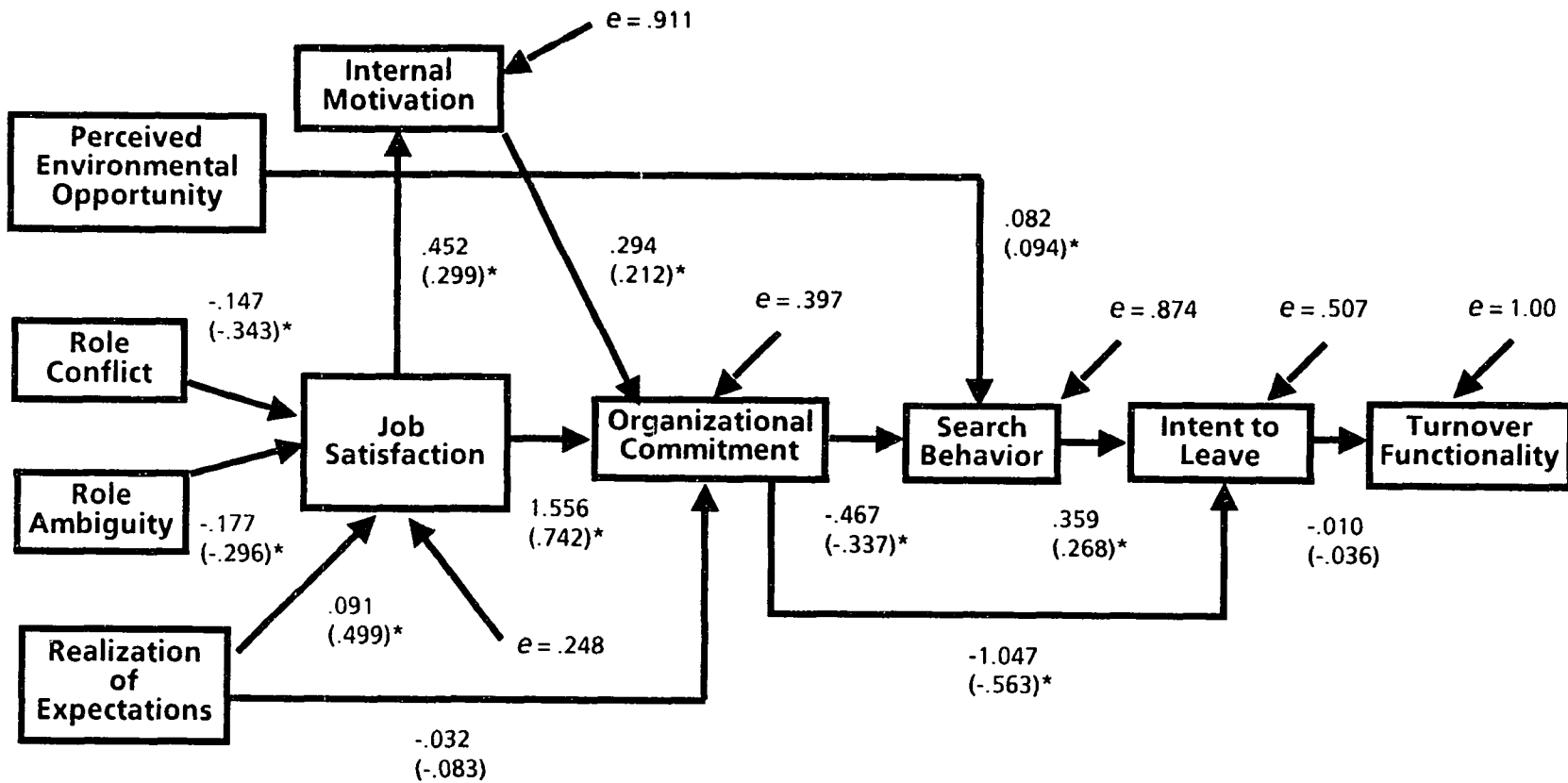


Figure 5: Path coefficients and residuals for cross-validation of M_t . Standardized coefficients are in parentheses. * $p < .05$

the non-significant path from met expectations to organizational commitment was eliminated. The path from intent to leave to turnover functionality was retained because no other variable was linked directly to turnover functionality in the original model, and because previous research has consistently shown intention to leave to be one of the strongest predictors of actual turnover (Mobley et al., 1979; Steel and Ovalle, 1984). Second, paths omitted from the original model were added to the revised M_t if: (a) they were consistent with the theory advanced previously, and (b) the modification indices provided by the original test of M_t suggested them as potential sources of misspecification. This revision led to the inclusion of two new paths: (1) a hypothesized negative path from job satisfaction to intent to leave, and (2) a hypothesized positive path from role conflict to intent to leave.

The results for the test of the trimmed model using sample A are shown in Figure 6. The fit indices for the revised model were almost identical to that of the original model, $X^2(107, N = 549) = 341.52, p < .001, GFI = .93$, indicating that the revisions to M_t did not improve the fit of the overall model. Furthermore, although the two added paths in the revised model were both supported, the obtained residual value indicated that the additional paths did not add significantly to the model's ability to predict intent to leave. In the original model 61% of the variance in intent to leave was explained by organizational commitment and search behavior, while the inclusion of role conflict and job satisfaction in the revised model explained only 2% additional variance in intent to leave. Finally, as with the original model, the revised version of M_t failed to predict turnover functionality. Specifically, the hypothesized path between intent to leave and turnover

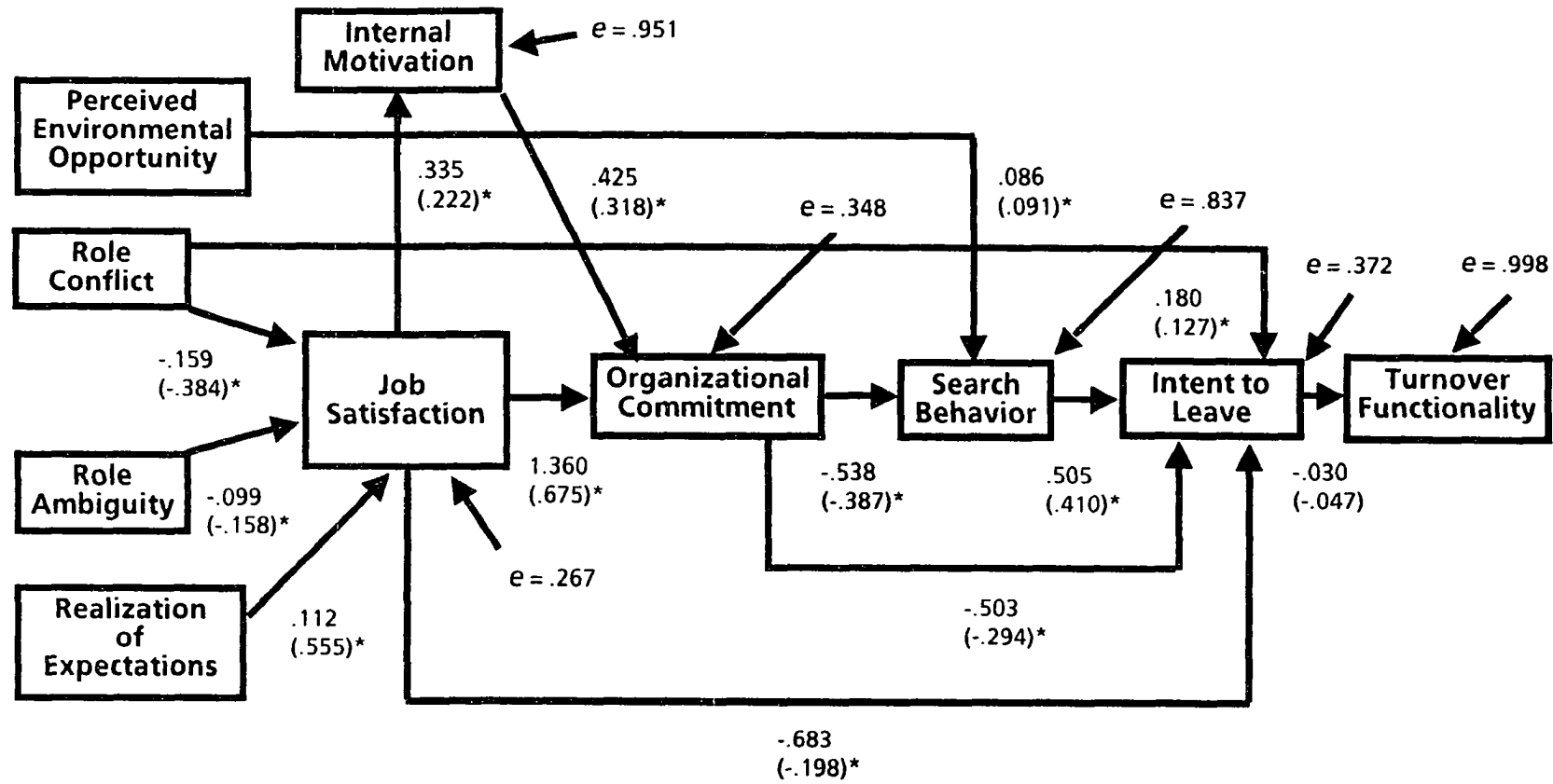


Figure 6: Path coefficients and residuals for trimmed M_t . Standardized coefficients are in parentheses. * $p < .05$

functionality was not significant, and the revised model accounted for much less than 1% of the variance in turnover functionality.

Given the above findings for the trimmed model, a second exploratory analysis was performed to determine if a modeled variable other than intent to leave might predict turnover functionality. Specifically, the original M_t model was revised by eliminating path 5, and by hypothesizing role conflict as an additional antecedent of turnover functionality. Modification indices resulting from the previous exploratory analysis suggested that this variable may be a direct antecedent of turnover functionality. The results for this model are shown in Figure 7.

Overall, the results of this analysis were consistent with previous analyses. For example, a significant chi-square value was obtained, $\chi^2(108, N = 549) = 368.66, p < .001$; the overall model fit was good (GFI = .93). In addition, non-significant relationships were obtained between role conflict and turnover functionality, and between intent to leave and turnover functionality. Finally, the revised model still accounted for less than 1% of the variance in the outcome variable.

Summary of Results

The goal of the present study was to obtain empirical support for the hypothesized model of salesperson' turnover functionality shown in Figure 1. Several forms of supporting evidence were obtained. First, results indicated acceptable convergent and discriminant validity for the scales employed; these scales were adequate measures of the latent constructs represented in the model. Second, results also suggested that the original hypothesized model provided a better, more parsimonious fit to the obtained data than two plausible alternative models. Third, fit indices indicated that the overall model provided a good fit to the obtained data. Fourth, 10 of the 12

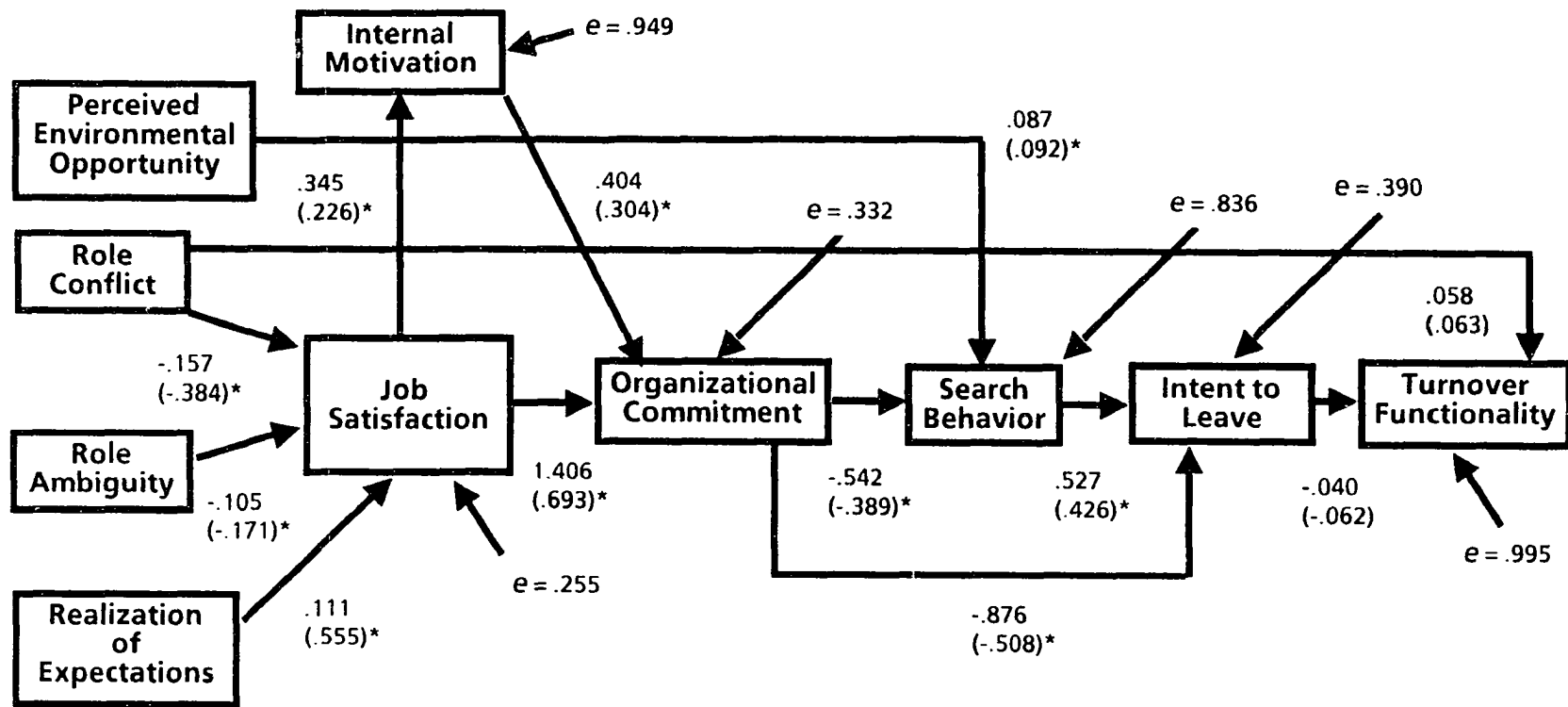


Figure 7: Path coefficients and residuals for second exploratory analysis. Standardized coefficients are in parentheses. * p < .05

hypothesized paths in the original model were supported. Finally, exploratory analyses failed to improve upon the overall fit of the original model. Most importantly, however, despite the evidence suggesting the fit of the hypothesized model, it accounted for little variation in the construct of interest, turnover functionality.

Discussion

The present study was conducted to address the following question: Can empirical support be obtained for a general model describing turnover functionality? Two primary findings were obtained: (1) evidence of good overall fit was obtained for the hypothesized model, M_t , and (2) the hypothesized model accounted for little variance in turnover functionality. These findings and relevant conclusions are discussed in more detail in the next section.

Primary Findings and Conclusions

Overall fit of hypothesized model. The present findings provide support for the overall fit of the general model of turnover functionality shown in Figures 1 and 4. Evidence for this conclusion comes from the confirmation of 10 of the 12 hypothesized model paths. Fit indices indicated not only acceptable overall fit for the hypothesized model, but also that it provided a better fit to the obtained data than did the two plausible alternative models shown in Figures 2 and 3.

These findings of relatively strong overall model fit were not surprising. The model linkages in the present study represented variable interrelationships that have been well researched in both the turnover and work performance literature and, as discussed previously, numerous studies have provided support for their existence. Thus, one might expect that support would be obtained for these individual linkages. In addition, because the construct of interest was operationalized in terms of both turnover and

performance, it also was not surprising to find that these linkages were integrated successfully into a model of turnover functionality.

Based on these findings, it was concluded that turnover functionality can be modeled in terms of its causal antecedents, and that the hypothesized model developed in the present study represents an important first step in that direction. Opportunities for improvement of this model certainly exist. Most notably, the question arises as to why the model explained such a minimal amount of the variance in turnover functionality.

Hypothesized model's prediction of turnover functionality. The key linkage in the a priori model between intent to leave and turnover functionality was not supported by the results of the present study. Furthermore, almost none of the variance in the outcome variable was explained by the model. Based on these findings, it was concluded that, although the hypothesized model did fit the obtained data, it was not effective at predicting turnover functionality. Several potential explanations for these findings and implications for future research in this area are discussed next.

(a) Study sample. One possible explanation for the present findings is that something unique about the study sample influenced the relationship between intent to leave and turnover functionality. This possibility was examined by first comparing the findings from the present study to those of previous turnover research. For example, to ensure that sufficient variance in actual turnover was obtained in the present study to allow for testing a causal model of turnover functionality, the turnover rate among the final sample of respondents was compared to the rates reported in several previous studies. The 19.8% withdrawal rate obtained in the present study was greater than the rate reported in all but one (Johnston et al., 1988) of the studies used for

comparison purposes (Hollenbeck and Williams, 1986; Hom and Griffeth, 1991; Mobley et al., 1978). Thus, it was concluded that the inability to predict turnover functionality was not due to insufficient variability in actual turnover.

A second potential explanation for how the study sample may have influenced the relationships among the modeled variables relates to the significant chi-square value that was obtained for respondent position. Although the preliminary analyses noted previously suggested that position differences should not have influenced the results of subsequent model tests, it is possible that the overrepresentation of position 2 respondents in the final sample created differences among the variable interrelationships that were not detected at the level of analysis of the overall sample. This possibility was examined by testing the hypothesized model separately for each position. Although the overall model fit obtained for position 2 respondents (GFI = .92) was slightly better than for position 1 respondents (GFI = .89), the overall results were consistent with findings from analyses based on the total sample; neither test provided support for the linkage between intent to leave and turnover functionality. Based on these results, position differences do not appear to have influenced the hypothesized model's ability to predict turnover functionality.

(b) Parameter identification. As shown previously, evidence of satisfactory subscale reliability and validity was obtained in the present study. However, the lack of support for the key linkage in the model may have been due to a measurement problem resulting from the fact that intent to leave was assessed by only two indicators, and turnover functionality by a single indicator. As noted by Bentler and Chou (1987), difficulty is often encountered in attempting to fit models that include latent variables defined

by fewer than three indicators. Thus, it is possible that the lack of empirical support for the linkage between intent to leave and turnover functionality was due to such a parameter identification error. Unfortunately, multiple indicators of these two variables were not available in the present study, and it was not possible to assess the extent to which this problem impacted the obtained results. Moreover, it can be strongly argued that the construct of turnover functionality can be exhaustively defined by the single indicator representing it, just as is true, for example, in the measurement of gender. However, future efforts to model turnover functionality may attempt to include three or more indicators for this latent factor.

(c) Model specification. As discussed by Pedhazur (1982; pp. 35-36), specification errors are committed when a given model is not theoretically defensible. This type of error can result from three forms of misspecification: (1) omitting relevant variables from the model, (2) including irrelevant variables in the model, or (3) specifying a linear regression among the modeled variables when the nature of the relationship is curvilinear.

With respect to the omission of a key variable that may be related to salesperson' functionality, the hypothesized model in the present study did not include demographic variables (e.g., age, tenure, sales experience) that have been shown to be related to the turnover or performance of sales representatives. In addition, organizational variables (e.g., leadership, resource availability, supervisory support, normative constraints) that may impact both the withdrawal decision and salesperson' performance were not studied. Although one would not expect that demographic variables would be more powerful predictors of turnover functionality than the attitudinal and behavioral variables included in the model, organizational predictors of turnover functionality are less well understood and may provide a fruitful

avenue for further research. As a result, it is possible that this type of specification error impacted the present findings. However, this type of error is sometimes difficult to avoid in practice. Specifically, practical limitations associated with causal modeling techniques prohibit the inclusion of large numbers of variables for model testing purposes, and it becomes increasingly more difficult to fit a given model to data as more variables are added to the model (Bentler and Chou, 1987). Thus, researchers must attempt to balance the desire to include all relevant variables in the model of interest against the practical constraints associated with causal modeling techniques.

With respect to other forms of misspecification, it is doubtful that the inclusion of irrelevant variables or an underlying curvilinear relationship among the modeled variables influenced the results of the present study. First, the theoretical and empirical support presented for each of the variables under study justified their inclusion in the hypothesized model. Second, as previously discussed, the assumption of linearity was tested and supported based on data collected in the present study.

(d) Operationalization of turnover functionality. One plausible alternative explanation for why the hypothesized model explained little variance in turnover functionality relates to the complex nature of the variable itself. Several possibilities are discussed here.

First, the original model hypothesized that intent to turnover would act as a direct antecedent of turnover functionality, which was defined in terms of both actual turnover and performance. Although the results of previous research have established the existence of a strong, positive relationship between intent to leave and actual turnover, the relationship between intent to leave and performance is likely to be in the opposite direction. Indirect support for such a negative relationship between intent to leave and

performance is offered by the results of a meta-analysis of the relationship between actual turnover and performance (McEvoy and Cascio, 1987). A sample size-weighted average correlation of $-.28$ was obtained, suggesting that turnover is greater among poorer performers. Given this finding, and the nature of the relationship between intent to leave and actual turnover, one might hypothesize that the former would also be negatively related to performance. Data from the present study supported this hypothesis. Specifically, a significant positive correlation ($r = .22$) was obtained between intent to leave and turnover, and a significant negative correlation ($r = -.13$) was obtained between intent to leave and performance. Thus, it is possible that the opposing directions of a positive relationship between intent to leave and turnover and a negative relationship between intent to leave and performance acted to cancel each other out. If so, this may account for the lack of support for the hypothesized linkage between intent to leave and turnover functionality. This possibility implies that future research might benefit from hypothesizing as direct antecedents of turnover functionality constructs that are related to both turnover and performance in the same direction. This possibility also raises serious questions concerning the operationalization of turnover functionality.

Second, as suggested by Ajzen and Fishbein (1977), in order for attitudes to successfully predict behaviors, the two must have identical targets. These authors argued that attitudes targeted toward the job (e.g., job satisfaction and motivation) will best predict job-related behavior such as job performance, and that attitudes focused on the organization (e.g., organizational commitment) will best predict organization-targeted behavior such as turnover.

In the present study, turnover functionality was operationalized as a function of both job-targeted (performance) and organization-targeted (withdrawal) behaviors. However, each of the hypothesized antecedents was targeted toward either the job or the organization, but not both. For example, intent to leave, which was hypothesized as the direct precursor of the outcome variable, is targeted toward organization-related behavior (i.e., the decision to remain with or leave the organization). This focus may have contributed to the inability of this variable to predict turnover functionality. This possibility implies that future consideration might be given to operationalizing turnover functionality as either a job-targeted outcome or an organization-targeted outcome. Causal models would then include hypothesized antecedents with a similar focus.

Third, the manner in which turnover functionality is operationalized allows for the identification of functional and dysfunctional subgroups of respondents. As explained previously, functional respondents are defined as high performing stayers and low performing leavers, while dysfunctional cases consist of high performing leavers and low performing stayers. Given this fact, it is possible that the model assessments made based upon the overall study sample masked important differences that occur at this subgroup level. In other words, relationships among the modeled variables may vary for different types of withdrawal decisions. In order to test this possibility empirically, the study sample was divided into functional ($n = 596$) and dysfunctional ($n = 502$) cases and the hypothesized model was examined separately for each group.

Consistent with the results for the overall sample, acceptable overall model fit was obtained for both the functional ($GFI = .91$) and dysfunctional ($GFI = .90$) subgroups, but only 1% of the variance in turnover functionality

was explained by either subgroup analysis. Although the key linkage between intent to leave and turnover functionality was also not supported in either subgroup, the magnitude of the path coefficient was more than twice as large for the dysfunctional cases (-.096) than for the functional respondents (-.041). In addition, the linkages from role ambiguity to job satisfaction, and from job satisfaction to internal motivation were supported in the dysfunctional subgroup only. These findings suggest that: (1) subsequent attempts to model the construct of turnover functionality may need to consider different antecedents depending on whether the decision is functional or dysfunctional in nature, and (2) as a predictor of turnover functionality, job satisfaction may play a more important role in determining the withdrawal decisions of high performing leavers and low performing stayers, than for low performing leavers or high performing stayers. In any event, these results suggest that combining functional and dysfunctional turnover into a single construct may not be appropriate.

Finally, the difficulty in predicting turnover functionality encountered in the present study may have resulted from an inappropriate operationalization of the construct. Instead of defining functionality, as first suggested by Hollenbeck and Williams (1986), by regarding turnover and performance as outcomes of the same variables, it may be more effective to model functionality by treating performance as a moderator of the antecedents of actual turnover. In other words, functionality would be operationalized by hypothesizing differences among the antecedents of turnover for high and low performers. An exploratory attempt to operationalize turnover functionality in this manner was made by dividing the overall sample into high (above average performance vs. budget) and low

(below average performance vs. budget) performers, and testing M_t separately within each group using actual turnover as the dependent variable.

Similar results were obtained from these two model tests. For example, for high performers the overall model fit was good (GFI = .92) and a small amount of the variance in turnover (3.4%) was accounted for. Acceptable overall fit (GFI = .91) was also obtained for the low performers, and slightly more variance in turnover was explained by the model (5.1%). Consistent with the results from model tests predicting turnover functionality, the hypothesized linkage between met expectations and organizational commitment was not supported in either subgroup. In addition, a non-significant path coefficient was obtained for the linkage between perceived environmental opportunity and search behavior in the low performing group. Thus, based on data from the present study, the suggested reoperationalization of turnover functionality was not supported. However, given that research attempts to date have been unable to identify key variables that predict turnover functionality, the success of future research in this area may depend on similar efforts to reconsider the manner in which this construct is defined.

Implications of Study Findings

Theoretical implications. The results of the present study point to four primary theoretical implications. First, this study developed and provided preliminary empirical support for a conceptual framework for modeling turnover functionality. Although this framework is flawed with respect to the hypothesized linkage between intent to leave and turnover functionality, it does provide a foundation upon which future research can build in order to further our understanding of the nature of this construct.

Second, the results of the present study indicate that attitudinal and psychological variables traditionally regarded as impacting both turnover and performance relate to these two outcomes in different ways. For example, a significant positive relationship was obtained between intent to leave and turnover, but a significant negative relationship was found between intent to leave and performance. This suggests that in order to better understand the theoretical construct of turnover functionality in terms of the factors that act as its antecedents, future research may need to consider reoperationalizing the construct.

Third, the exploratory analysis suggested that antecedents of turnover functionality may differ for functional and dysfunctional forms of withdrawal. These findings provide preliminary insight into the specific predictors of turnover functionality. A gap exists in this area of the literature, and future research can only serve to enhance our understanding of the turnover functionality construct.

Fourth, the results of the present study may have been influenced by some of the inherent difficulties associated with causal analysis (e.g., number of indicators for latent variables; operationalization of constructs). This implies that the results of the present study might be used to assist others in improving both the methodological and analytical strategies of future research attempts in this area.

Practical implication. In light of the present findings, one might ask why an organization should be concerned with turnover functionality research. I believe this research is practically important because it can help managers and practitioners identify factors that differentiate among functional and dysfunctional forms of withdrawal. Knowledge of such factors may assist an organization in developing action plans with the objective of maximizing the

number of functional withdrawal decisions (i.e., high performing stayers and low performing leavers), and minimizing the number of dysfunctional withdrawal decisions (i.e., high performing leavers and low performing stayers). To the extent this objective is accomplished, the result for a given organization would be a more effective and productive workforce.

Study Contribution

The primary contribution of the present study was that it represented the first attempt to model the construct of turnover functionality in terms of its causal antecedents. In addition, this study: (1) provided direction for the improvement of future turnover functionality models, (2) provided preliminary evidence that the predictive power of such models might be improved at the subgroup (functional vs. dysfunctional) level of analysis, (3) suggested the need for considering alternative ways of operationalizing the construct of turnover functionality, and (4) suggested avenues for future research that may improve our understanding of, and ability to predict, turnover functionality. Moreover, the data collected in this study were from a field study of a very large sample representing the salesforce of a Fortune 50 company, which not only made possible the cross-validation of results, but also enhances the external generalizability of the findings.

Two uncontrollable factors that may have impacted the present findings should be mentioned: (1) a base salary increase for the salesforce of the host organization, and (2) a weak national economy. Previous work conducted to determine the reasons for sales turnover within this organization found that many former sales representatives had left due to the decreased income potential that resulted from low performance. As a result, the organization increased the base salary of sales representatives hoping to encourage more good performers to remain in the organization. One impact of this change

may have been to increase respondents' satisfaction with pay which, in turn, may have increased their level of overall job satisfaction, and resulted in increased organizational commitment and propensity to stay in the organization. However, coupled with the relatively high national unemployment rate at the time, the salary increase may have affected not only the attitudes of the respondents, but may also have influenced more low performers to remain with the host organization than would have occurred if a salary increase had not been implemented.

Summary

Much work remains to be done, but the present study has established a foundation for directing future efforts aimed at providing a better understanding of turnover functionality. In addition to the previously mentioned ideas, several other research opportunities exist. For example, one might hypothesize that the needs of employees will vary with the stage of their career (Cron and Slocum, 1986), and that this variability will influence attitudes, performance and withdrawal decisions. Thus, one might investigate how the career stage of an employee impacts the relationships among the antecedents of functionality.

Researchers might also consider the application of a survival analysis methodology (Morita, Lee and Mowday, 1989; Peters and Sheridan, 1988) to the study of turnover functionality. By plotting survivor functions for functional and dysfunctional groups of employees, insight could be gained into at what points in time after hire these different forms of withdrawal decisions are most likely to occur, and whether they differ across time.

Possibly the most promising opportunity for advancing our knowledge of the antecedents of withdrawal-related behavior is with respect to the investigation of organizational variables and their impact on such decisions.

Consistent with past turnover and work performance research, the present study concentrated on psychological, perceptual and attitudinal variables that are known to be related to both withdrawal and performance, but that explain small amounts of the variance in these outcomes. Incorporating important organizational factors into the model developed here may not only improve our overall knowledge of the antecedents of turnover functionality, but also enhance understanding of how such organizational factors interact with attitudinal and psychological variables to impact turnover and performance. These organizational factors might then become the key action levers for developing strategies to retain good performers and improve workforce effectiveness.

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APPENDIX A:

Study Questionnaire

Sales Representative Attitude Questionnaire

PLEASE READ THIS PAGE BEFORE BEGINNING THE QUESTIONNAIRE

This questionnaire provides you with an opportunity to express your feelings about various aspects of your job and the company. It has been developed as part of a long-term effort designed to improve our understanding of the factors that impact salesforce retention. It should take about 45 minutes of your time to complete the questionnaire.

To protect the confidentiality of your responses, we have arranged for the direct mailing of your completed questionnaire to an outside vendor for keypunching and safekeeping. However, we still need you to indicate your employee number and location in the spaces provided below. This will allow us to follow-up with individuals who are unable to respond to this initial mailing. The responses you provide will be grouped with those of other Sales Representatives in your position (e.g., all Marketing Reps nationwide will be grouped together). **YOUR RESPONSES WILL BE STRICTLY CONFIDENTIAL AND NO INDIVIDUAL WILL BE IDENTIFIED IN ANY REPORT PROVIDED TO MANAGEMENT.**

Before beginning, your Sales Manager will designate one Sales Representative to collect and mail all completed questionnaires using the pre-addressed envelope that has been provided. Before mailing the completed questionnaires, the designated Sales Representative should ensure that all respondents have indicated their employee number and location below.

If you have any questions about the study please feel free to contact either Eric Vanetti (8*223-3545) or Thomas Ruddy (8*223-3954). Thank you for your time and your cooperation.

Employee Number: _____

Location: _____

DO NOT TURN THE PAGE TO BEGIN UNTIL YOU HAVE INDICATED YOUR EMPLOYEE NUMBER AND LOCATION ABOVE.

DEMOGRAPHIC INFORMATION

Tenure: _____ Years

Position (circle one): Marketing Rep Account Rep Printing Systems Rep

Time employed in a sales occupation: _____ Years

Age: _____ Years

Gender (circle one): Male Female

Race (circle one): American Indian Asian Black Hispanic White

Were you recruited directly out of college? Yes No

Did you have previous selling experience when hired? Yes No

Listed below are several factors believed to be related to the retention of Sales Representatives. Using a total of 50 points, please indicate the relative importance of these factors in your decision to remain with the company. You may distribute the points in any fashion, but the total must equal 50. For example, if the only factor that impacts your decision to stay is your "overall compensation", then you would give this factor all 50 points. On the other hand, you may choose to differentially weight the importance of various factors (e.g., 10 pts. for "job security", 10 pts. for "sales training", and 30 pts. for "advancement opportunities").

| <u>Retention Factor</u> | <u>Points</u> |
|---------------------------|----------------|
| Overall Compensation | _____ |
| Co-Workers | _____ |
| Work Itself | _____ |
| Advancement Opportunities | _____ |
| After-Sale Support | _____ |
| Job Security | _____ |
| Management/Supervision | _____ |
| Sales Training | _____ |
| Income Potential | _____ |
| Recognition/Rewards | _____ |
| Other : | _____ |
| _____ | _____ |
| Total | 50 pts. |

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Pages 109-120

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Additional Comments:

Thank you for your time and cooperation.

APPENDIX B:

Correlations

Position 1 Respondents

Position 2 Respondents

Respondents with Missing Data

Respondents with Complete Data

Correlations: Position 1 Respondents (N = 654)

| Variable | PEO | RC | RA | MET | SAT | MOT | ORG | SEARCH | INTENT | TOF | \bar{X} | SD |
|----------|-------|-------|-------|-------|-------|-------|-------|--------|--------|------|-----------|------|
| PEO | 1.00 | | | | | | | | | | 3.84 | 1.37 |
| RC | .120 | 1.00 | | | | | | | | | 3.89 | 1.06 |
| RA | -.027 | .315 | 1.00 | | | | | | | | 2.91 | 0.84 |
| MET | .054 | -.241 | -.257 | 1.00 | | | | | | | -1.68 | 2.55 |
| SAT | -.058 | -.502 | -.344 | .598 | 1.00 | | | | | | 2.12 | 0.43 |
| MOT | -.035 | -.110 | -.180 | .175 | .233 | 1.00 | | | | | 5.78 | 0.75 |
| ORG | -.022 | -.365 | -.311 | .442 | .568 | .394 | 1.00 | | | | 5.49 | 0.97 |
| SEARCH | .121 | .239 | .075 | -.309 | -.358 | -.084 | -.383 | 1.00 | | | 1.80 | 1.19 |
| INTENT | .141 | .433 | .241 | -.455 | -.583 | -.193 | -.563 | .559 | 1.00 | | 3.44 | 1.73 |
| TOF | .038 | -.037 | -.050 | .061 | .040 | -.054 | .023 | -.054 | -.083 | 1.00 | 0.00 | 1.00 |

Note. PEO = Perceived Environmental Opportunity; RC = Role Conflict; RA = Role Ambiguity; MET = Met Expectations; SAT = Job Satisfaction; MOT = Internal Motivation; ORG = Organizational Commitment; SEARCH = Search Behavior; INTENT = Intent to Leave; TOF = Turnover Functionality.

Correlations: Position 2 Respondents (N = 1,078)

| Variable | PEO | RC | RA | MET | SAT | MOT | ORG | SEARCH | INTENT | TOF | \bar{X} | SD |
|----------|-------|-------|-------|-------|-------|-------|-------|--------|--------|------|-----------|------|
| PEO | 1.00 | | | | | | | | | | 3.89 | 1.39 |
| RC | .171 | 1.00 | | | | | | | | | 4.23 | 1.11 |
| RA | -.034 | .344 | 1.00 | | | | | | | | 2.92 | 0.84 |
| MET | -.023 | -.352 | -.298 | 1.00 | | | | | | | -1.68 | 2.60 |
| SAT | -.111 | -.543 | -.424 | .571 | 1.00 | | | | | | 2.07 | 0.43 |
| MOT | -.013 | -.054 | -.175 | .104 | .197 | 1.00 | | | | | 5.80 | 0.75 |
| ORG | -.004 | -.323 | -.351 | .416 | .497 | .348 | 1.00 | | | | 5.29 | 0.89 |
| SEARCH | .118 | .232 | .114 | -.219 | -.309 | -.095 | -.340 | 1.00 | | | 2.09 | 1.30 |
| INTENT | .108 | .369 | .228 | -.380 | -.524 | -.165 | -.538 | .509 | 1.00 | | 3.74 | 1.69 |
| TOF | .021 | -.011 | -.024 | .019 | .001 | -.008 | .039 | -.037 | -.051 | 1.00 | 0.00 | 1.00 |

Note. PEO = Perceived Environmental Opportunity; RC = Role Conflict; RA = Role Ambiguity; MET = Met Expectations; SAT = Job Satisfaction; MOT = Internal Motivation; ORG = Organizational Commitment; SEARCH = Search Behavior; INTENT = Intent to Leave; TOF = Turnover Functionality.

Correlations: Respondents with Missing Data (N = 634)

| Variable | PEO | RC | RA | MET | SAT | MOT | ORG | SEARCH | INTENT | TOF | \bar{X} | SD |
|----------|-------|-------|-------|-------|-------|-------|-------|--------|--------|------|-----------|------|
| PEO | 1.00 | | | | | | | | | | 3.85 | 1.37 |
| RC | .136 | 1.00 | | | | | | | | | 4.05 | 1.08 |
| RA | -.063 | .336 | 1.00 | | | | | | | | 2.95 | 0.87 |
| MET | -.021 | -.365 | -.295 | 1.00 | | | | | | | -1.46 | 2.48 |
| SAT | -.117 | -.569 | -.404 | .601 | 1.00 | | | | | | 2.15 | 0.45 |
| MOT | .000 | -.130 | -.159 | .136 | .253 | 1.00 | | | | | 5.80 | 0.73 |
| ORG | .012 | -.350 | -.309 | .430 | .516 | .372 | 1.00 | | | | 5.44 | 0.92 |
| SEARCH | .164 | .305 | .080 | -.294 | -.370 | -.159 | -.441 | 1.00 | | | 1.89 | 1.27 |
| INTENT | .134 | .406 | .260 | -.455 | -.572 | -.200 | -.558 | .609 | 1.00 | | 3.39 | 1.76 |
| TOF | -.044 | -.044 | -.077 | .014 | -.001 | -.007 | .047 | -.086 | -.087 | 1.00 | 0.00 | 1.00 |

Note. PEO = Perceived Environmental Opportunity; RC = Role Conflict; RA = Role Ambiguity; MET = Met Expectations; SAT = Job Satisfaction; MOT = Internal Motivation; ORG = Organizational Commitment; SEARCH = Search Behavior; INTENT = Intent to Leave; TOF = Turnover Functionality.

Correlations: Respondents with Complete Data (N = 1,098)

| Variable | PEO | RC | RA | MET | SAT | MOT | ORG | SEARCH | INTENT | TOF | \bar{X} | SD |
|----------|-------|-------|-------|-------|-------|-------|-------|--------|--------|------|-----------|------|
| PEO | 1.00 | | | | | | | | | | 3.88 | 1.39 |
| RC | .163 | 1.00 | | | | | | | | | 4.13 | 1.12 |
| RA | -.012 | .330 | 1.00 | | | | | | | | 2.90 | 0.82 |
| MET | .020 | -.278 | -.279 | 1.00 | | | | | | | -1.81 | 2.63 |
| SAT | -.077 | -.505 | -.395 | .567 | 1.00 | | | | | | 2.05 | 0.42 |
| MOT | -.032 | -.040 | -.189 | .128 | .185 | 1.00 | | | | | 5.79 | 0.76 |
| ORG | -.026 | -.346 | -.353 | .418 | .529 | .357 | 1.00 | | | | 5.32 | 0.93 |
| SEARCH | .095 | .213 | .114 | -.223 | -.300 | -.049 | -.315 | 1.00 | | | 2.04 | 1.26 |
| INTENT | .114 | .394 | .223 | -.376 | -.524 | -.158 | -.544 | .481 | 1.00 | | 3.76 | 1.66 |
| TOF | -.018 | .026 | -.018 | .039 | .010 | .032 | .010 | -.010 | -.038 | 1.00 | 0.00 | 1.00 |

Note. PEO = Perceived Environmental Opportunity; RC = Role Conflict; RA = Role Ambiguity; MET = Met Expectations; SAT = Job Satisfaction; MOT = Internal Motivation; ORG = Organizational Commitment; SEARCH = Search Behavior; INTENT = Intent to Leave; TOF = Turnover Functionality.

Autobiographical Statement

Eric James Vanetti was born in Louisville, Kentucky on January 9, 1961. He received a Bachelor of Science degree in Psychology and Business Administration from Southern Oregon State College in June, 1985. In May, 1987 he earned a Master of Science degree in Psychology from Old Dominion University in Norfolk, Virginia.

In February, 1989 Eric began an internship with Xerox Corporation in Rochester, New York and has worked there ever since. In June, 1991 he was promoted to his current assignment, Manager, Organization Development and Research.