

## **EMPLOYEE TURNOVER: BAD ATTITUDE OR POOR MANAGEMENT?**

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### **Abstract**

Employee turnover is giving sleepless nights to human resource managers in many countries in Asia. A widely-held belief in these countries is that employees have developed bad attitudes due to labor shortage. Employees are believed to job-hop for no reason or even for fun. Unfortunately, despite employee turnover being such a serious problem in Asia, there is dearth of studies investigating it; especially studies using a comprehensive set of causal variables are rare. In this study, we examined three sets of antecedents of turnover intention in companies in Singapore: demographic, controllable, and uncontrollable. Singapore companies provide an appropriate setting as their turnover rates are among the highest in Asia. Findings of the study suggest that the extent of controllable turnover is much greater than uncontrollable turnover and that poor management practices are the major source of employee turnover.

## **EMPLOYEE TURNOVER: BAD ATTITUDE OR POOR MANAGEMENT?**

Voluntary turnover is a major problem for companies in many Asian countries such as Hong Kong, South Korea, Malaysia, Singapore, and Taiwan (Barnett, 1995; Chang, 1996; Syrett, 1994). For example, in 1995 (the last year for which comparative data were available), the average monthly resignation rates were 3.4%, 2.9%, and 2.7% in Singapore, South Korea, and Taiwan, respectively (Barnard & Rodgers, 1998). In a recent forum of the human resource professional bodies of Hong Kong, Malaysia, and Singapore in Malaysia, participants were unanimous in their view that job-hopping had become so rampant in these countries that it had become a culture (Asia Pacific Management News, 1997). Similarly, employee turnover is very prevalent in China as well (Adweek, 1993; MacLachlan, 1996).

In Singapore, reports in popular press highlighting the costs and disruptions associated with job-hopping continue unabated, and companies continue to call for help with this pressing issue<sup>1</sup>. The extent of the problem can be gauged from the fact that the issue of job-hopping was brought up in the country's parliament. In fact, there is a deep concern at the national level that job-hopping is adversely affecting Singapore's competitiveness (Chang, 1996; The Straits Times, 1996). Foreign investors, particularly manufacturers, are concerned about the frequency of job-hopping (Asian Finance, 1988; The Straits Times, 1996).

The average annual turnover data for selected industries and occupations in Singapore are presented in Table 1. Although employee turnover rates show marginal declines from 1995 to 1997, they are at alarmingly high levels. For example, the Singapore hotel industry had an average annual turnover rate of 57.6% in 1997 with some hotels reporting three-digit annual turnover rates. Similarly, the average annual turnover rates in the retail industry have fluctuated between 74.4% and 80.4% over the three-year period between 1995 and 1997. Cheng and Brown (1998) reported employee turnover ranging from 48 to 120 per cent in the Singapore hotel industry.

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<sup>1</sup> The recent economic crisis has had only marginal impact on employee turnover as the resignation rates for the third quarter of 1998 published by the Ministry of Manpower (Singapore) show. The data are contrary to the popular belief in Singapore that employee turnover has declined greatly since the onset of the economic crisis. A Member of Parliament (Singapore) also noted in the Parliament that job-hopping is still prevalent (The Straits Times, 1999).

According to the report of a task force on job-hopping in Singapore, more than two-thirds of the organizations indicated that they had suffered a productivity loss of greater than 10% as a result of the high employee turnover (National Productivity Board, Singapore, 1988). In addition to low productivity, the survey reported high cost of recruitment and poor quality of products and services due to high turnover. Even more important, high turnover was found to be the major source of poor morale in many organizations.

Surprisingly, there is dearth of research studies examining this important issue in Asia and popular perceptions or misperceptions or “informal theories” on employee turnover abound in both academic and practitioner circles. Campbell & Campbell (1997) identified two major problems with “informal theories” on employee turnover. First, they are untested and as a result prone to errors. Second, according to the widely-held “informal theories” by practitioners in Singapore, most of the employee turnover in their companies is attributable to two external factors: labor shortage and bad employee attitudes. Thus, to the degree that managers hold these “informal theories”, turnover becomes a serious but intractable issue. The authors noted that while human resource managers were acutely aware of the problem and its associated ramifications, they typically have developed no real strategies for combating turnover.

This study has three main objectives. First, we want to distinguish between job-hopping and turnover intention. Despite over 1500 studies in the turnover literature (Shaw et. al, 1998), job-hopping has been mentioned in only a few studies in previous research. Further, there has been no attempt to develop a measure for this important construct. In this study, we define job-hopping and develop a scale to measure it. Second, most of the studies on turnover were conducted in the Western organizational contexts. Thus, findings of these studies may not be applicable to organizations in Asia due to vast differences in the economic, social, and cultural environments (Cotton & Tuttle, 1986). Further, the limited research that exists on Asia has used a limited number of variables in a few organizational settings, thus raising concerns of model specification error and generalizability. In this study, we include a comprehensive list of independent variables some of which are relatively unexplored in turnover literature even in the West such as procedural and distributive justice, and examine their relationships with turnover intention in three different industries. Last, we want to partition the effects of demographic variables (such as age and gender), uncontrollable variables (such as perceived

ease of movement and job-hopping), and controllable variables (such as satisfaction with pay and organizational commitment) on turnover intention. The partitioning of the effects would lead to better diagnosis of the turnover problem.

The rest of the paper is organized as follows. We first define job-hopping followed by discussion of the employee turnover model used in the study along with statements of the hypotheses. This is followed by a section on methods. Finally, we present and discuss our results along with implications and limitations of the study.

### **Definition of Job-hopping<sup>2</sup>**

Our definition of job-hopping has two parts. First, people switch jobs because they have an itch to try out new things or simply because it is fun doing so. Ghiselli (1974) was the first to document a concept similar to job-hopping which he termed as 'hobo syndrome'. He defined the hobo syndrome as 'the periodic itch to move from a job in one place to some other job in some other place' (p. 81). Ghiselli argued that this wanderlust is derived from instinctive impulses and does not seem to result from organized logical thought, but rather from the internal impulsiveness of individuals. The second part of job-hopping consists of social influences or turnover culture. Abelson (1993) defined turnover culture as the shared cognition by organizational members that influence their decisions regarding job movement. Turnover culture makes hopping from one job to the other an acceptable behavior. If an employee has not changed his or her job for a long time, he or she feels increasing pressure to do so because of social influences/turnover culture.

## **THEORY AND HYPOTHESES**

The framework for the study is presented in Figure 1. It includes three sets of independent factors: demographic, controllable, and uncontrollable. Turnover intention is the dependent variable in our study. Turnover intention has been used very often in past research. Shore and Martin (1989) noted that turnover intention is an appropriate dependent variable because it is linked with actual turnover. Bluedorn (1982) and Price and Mueller (1981) even recommended use of turnover intention over actual turnover because actual turnover is more

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<sup>2</sup> The definition of job-hopping may vary from one country to the other. For this study, we have defined it in the way most people in Singapore think of job-hopping. The definition was derived from interviews with several human resource managers and employees.

difficult to predict than intentions as there are many external factors that affect turnover behavior. In the following discussion, we provide a theory underpinning our framework and propose testable hypotheses. Our discussion is organized around three sets of independent factors.

### **Demographic Factors**

Demographic factors that have been found to have stable relationship with turnover intention in past research include age, tenure, level of education, level of income, and job category (managerial or non-managerial). Several studies have reported negative relationship between turnover intention and three demographic factors, age, tenure, and income level (e.g., Arnold & Feldman, 1982; Cotton & Tuttle, 1986; Gerhart, 1990; Mobley et. al, 1979; Price & Mueller, 1986; Wai & Robinson, 1998; Weil & Kimball, 1995, and others). Amount of education, on the other hand, is found to be positively associated with turnover suggesting that the more educated employees quit more often (Berg, 1991; Cotton & Tuttle, 1986). Finally, Wai and Robinson (1998) and Price and Mueller (1986) found that non-managerial employees are more likely to quit than managerial employees.

Findings of the studies on the relationship between gender and turnover are mixed, however. While Cotton and Tuttle (1986) and Weisberg and Kirschenbaum (1993) found females more likely to leave than males, Berg (1991), Miller and Wheeler (1992), and Wai and Robinson (1998) reported no relationship between gender and turnover. Recently, Elaine (1997) and Summers and Hendrix (1991) found males more likely to quit than females. In Singapore, we expect males to quit more likely than females. This is because, despite the increasing participation rates of females in workforce, females work basically to supplement the family income. Males are the breadwinner for the family and have greater achievement-orientation than females (Elaine, 1997). Consequently, males may leave the current job in favor of a more attractive job if their expectations are not met. In view of the above, we hypothesize as follows:

*H1: Demographic factors are associated with turnover intention.*

*Specifically:*

*H1a: Age is negatively associated with turnover intention.*

*H1b: Males have greater intention to leave than females.*

*H1c: Level of education is positively associated with turnover intention.*

*H1d: Tenure of an employee in a company is negatively associated with his or her intention to leave.*

*H1e: Level of income is negatively associated with turnover intention.*

*H1f: Non-managerial employees have greater intention to quit than managerial employees.*

### **Controllable Factors**

Job satisfaction (satisfaction with pay, satisfaction with nature of work, and satisfaction with supervision), organizational commitment, and organizational justice (distributive and procedural) are the controllable factors in our framework (see Figure 1). We term them controllable factors in that organizations have control over them.

The relationship between job satisfaction and turnover is one of the most thoroughly investigated topics in the turnover literature. Many studies report a consistent and negative relationship between job satisfaction and turnover (e.g., Cotton & Tuttle, 1986; Arnold & Feldman, 1982; Bluedorn, 1982; Mobley, 1982; Price, 1977, and many others), as dissatisfied employees are more likely to leave an organization than satisfied ones. Turnover studies in Singapore that supported the negative relationship between job satisfaction and turnover include Lam et al. (1995), Koh and Goh (1995), and Aryee et al (1991).

Although past research suggests a stable negative relationship between job satisfaction and turnover, job satisfaction alone has been found to account for small percentage of the total variance in a turnover model – less than 15% (Blau & Boal, 1989).

The fact that the relationship (between job satisfaction and turnover) is not stronger does not suggest that satisfaction should not be measured. It does suggest that measures of satisfaction must be combined with other measures to effectively predict and understand turnover (Mobley, 1982:45).

A scrutiny of past research on job satisfaction suggests that most of the studies have examined the effect of overall satisfaction on turnover with only a few investigating the relationship between turnover and the specific aspects of job satisfaction such as pay, supervision, and nature of work. Koh and Goh (1995) noted that the use of overall satisfaction conceals the vital effects of different job facets on turnover.

Koh and Goh's (1995) study is the only one in Singapore that investigated the effects of various types of job satisfaction on turnover intention. They classified job satisfaction into eight categories: supervision, company identity, kind of work, amount of work, physical working conditions, co-workers, financial rewards, and career future. There are three major limitations of their study, however. First, they subsumed organizational commitment (company identity) within job satisfaction. Thus, their findings have confounded the effects of job satisfaction and organization commitment. The second major problem of their study is that some of their measures had reliabilities as low as .43. Low reliabilities of scales make their findings suspect. The last major limitation of their study concerns generalizability of their findings. The authors examined non-managerial clerical employees in the banking industry which is a highly selected group of employees.

In our study, we included three facets of job satisfaction – pay, nature of work, and supervision – that we consider relevant in the Singapore context. First, based on personal experiences and innumerable anecdotes, we find that pay is considered one of the most important factors influencing employee turnover in Singapore. Singaporeans, especially the younger generation, are thought to be very materialistic, and as a result they are believed to hop from one job to the other for a few extra dollars (Campbell & Campbell, 1997).

Second, the nature of work is becoming an important consideration because of greater affluence as well as higher education levels of Singaporeans. The previous generation did not pay much attention to the kind of work they were doing. Koh and Goh (1995) found that satisfaction with the nature of work was negatively associated with turnover intention in their sample of clerical employees in the banking industry. We believe that the relationship will hold for other jobs and industries too.

Third, Debrah (1993) noted that a supervisor with poor interpersonal skills and who is also inflexible very quickly drives employees away. The author emphasized the critical role of supervision in retaining employees in Singapore companies.

In view of the above arguments, we hypothesize as follows:

*H2: Job satisfaction is negatively associated with turnover intention.*

*Specifically:*

*H2a: Satisfaction with pay is negatively associated with turnover intention.*

*H2b: Satisfaction with nature of work is negatively associated with turnover intention.*

*H2c: Satisfaction with supervision is negatively associated with turnover intention.*

Before Porter et al.'s (1974) study, scholars focused on job satisfaction as the major cause of turnover. However, Porter et al.'s study highlighted the importance of organizational commitment in explaining turnover. In their study, they demonstrated that organizational commitment was a better predictor of turnover than job satisfaction. Since then organizational commitment has been frequently explored in the turnover literature, and like job satisfaction, has been shown to be negatively related to turnover (e.g., Wong, Chun & Law, 1996; Arnold & Feldman, 1982; Bluedorn, 1982; Porter et al., 1974, and many others). Aryee et al.'s (1991) study in Singapore on professional accountants also showed a negative relationship between organizational commitment and turnover intention. Similarly, Wong et al. (1996) in their longitudinal study of 485 graduate students in Hong Kong found organizational commitment a strong predictor of turnover. Several other scholars (Arnold & Feldman, 1982; Ben-Bakr et al., 1994; Kim et al., 1996; Tett & Meyer, 1993) have also found organizational commitment an important predictor of turnover. Hence, the following hypothesis:

*Hypothesis 3: Organizational commitment is negatively associated with turnover intention.*

In the past two decades, there has been an increasing amount of research on organizational justice. Organizational justice is a term used to describe fairness in the workplace. It is concerned with the ways in which employees determine if they have been treated fairly in their jobs and the ways in which this determination influences other work-related variables (Moorman, 1991). There are two forms of organizational justice: distributive justice, which describes the fairness of the outcomes an employee receives; and procedural justice, which describes the fairness of the procedures used to determine those outcomes (Folger & Greenberg, 1985). Previous research mostly on American samples has shown that organizational justice affects turnover intention negatively (Randall & Mueller, 1995; Dailey & Kirk, 1992; Berg, 1991; Price & Mueller, 1986). We think that the justice issues are important for employees in Singapore too.

*Hypothesis 4a: Distributive justice is negatively associated with turnover intention.*

*Hypothesis 4b: Procedural justice is negatively associated with turnover intention.*

### **Uncontrollable Factors**

Perceived alternative employment opportunities (PAEO) and job-hopping are two uncontrollable factors in our framework in Figure 1.

PAEO refers to an individual's perception of the availability of alternative jobs in the organization's environment (Price & Mueller, 1986), and it is the function of labor market conditions. Employees perceive more alternative job opportunities when the job market is tight and less alternative job opportunities when there is unemployment. It should be noted, however, that PAEO is not the same thing as actual labor market conditions. Past research suggests that both PAEO and labor market conditions are positively associated with turnover (Hulin et. al, 1985; Steel & Griffeth, 1989). Although labor shortage is considered one of the most important factors contributing to employee turnover in Singapore, no study has yet examined the effect of PAEO on turnover intention.

*Hypothesis 5: Perceived alternative employment opportunities are positively associated with turnover intention.*

Job-hopping (or bad attitude) is the second uncontrollable factor in the turnover framework. According to popular belief in both academic and practitioner circles, job-hopping is considered one of the most important factors causing turnover. The following quote by a human resource manager, after one of the executives in the company left, reflects job-hopping tendencies in Singapore:

“He worked for only three months and complained that we didn't use his brain or talent enough; the job is not interesting; the pay is not enough ... so he quit.”

Another quote by Chew (1993) is typical of the perceptions Singaporeans have of job-hopping:

“In the past, clerical employees used to look for an alternative job before resigning the current one. Nowadays, they resign from their jobs even before securing another one.”

We propose the following hypothesis on job-hopping:

*Hypothesis 6: Job-hopping is positively associated with turnover intention.*

### **Controllable Versus Uncontrollable Turnover**

The common perception or misperception in Singapore companies, especially among human resource managers, is that labor shortage and resulting employee attitudes are two of the most important factors causing high employee turnover (Debrah, 1993; 1994; Cheng & Brown, 1998; Koh & Goh, 1995). The argument is that since there is a labor shortage, employees have plenty of jobs available. Consequently, they can afford to switch jobs for a few extra dollars. Many employees are believed to job-hop for no reason or even for fun. For example, an employee changes his or her job because some of his or her friends or relatives have done so. Employees may job-hop over trivial things such as a dislike for the hairstyle of the boss. Or, if an employee faces a minor problem (e.g., minor disagreement with the boss or other colleagues), he or she may simply resign. HR managers think that Singaporeans have developed a turnover culture or bad attitude (Debrah, 1993:1994).

Our argument is that labor shortage and job-hopping explain only part of the reality at best. It is true that labor shortage compounds the problem of employee turnover. But, turnover intention is not triggered by perceived alternative employment opportunities alone. In a recent comprehensive study of human resource practices in over 200 largest companies in Singapore, Khatri (1998a; 1998b) found that human resource management was considered a relatively unimportant function in most of the companies and that human resource managers did not have sufficient training and technical expertise in human resource management. The assumption of senior management in the majority of the companies was that any manager could manage human resource. Consequently, human resource management function was poorly managed in most of the companies. The author noted (1998a: 13): "...job-hopping which is the most serious HR problem in Singapore may be attributed more to poor recruitment and selection practices than to the tight labor market." Cheng and Brown (1998) argue that the fact that employee turnover varies to such a great extent between hotels that face the same external environment indicates that turnover is controllable to a significant extent.

*Hypothesis 7: The most of the employee turnover in Singapore companies is controllable. The extent of uncontrollable turnover is less than the extent of controllable turnover.*

### **Implicit or Informal Theories of Employee Turnover**

Employers and employees share some common causes of employee turnover in Singapore. Among demographic factors, the majority of Singaporeans hold the view that the young and more educated change jobs more often than the old and less educated. Labor shortage (or perceived alternative employment opportunities) and job-hopping among the uncontrollable factors stand out in the perceptions of most people as important factors causing turnover (Debrah, 1993;1994). Further, most Singaporeans consider satisfaction with pay, a controllable factor, one of the most important causes of turnover intention (Debrah, 1994; Koh & Goh, 1995). We do not propose any hypotheses on implicit theories of employee turnover. However, we would like to explore to what extent these implicit theories are valid. Specifically, how much of the variance in the turnover model do age, level of education, perceived alternative employment opportunities, job-hopping, and satisfaction with pay explain? If these factors explain a lot of unique variance, we can say that there is a lot of truth in implicit theories on employee turnover held by Singaporeans.

## **METHODS**

### **Sampling and Data Collection**

Data were collected using a questionnaire that contained measures of job satisfaction (satisfaction with pay, satisfaction with nature of work, and satisfaction with supervision), organizational commitment, organizational justice (distributive and procedural), job-hopping, perceived alternative employment opportunities, and turnover intention. In addition, the questionnaire included questions on demographic characteristics of the respondents.

The Ministry of Labor, Singapore, publishes quarterly resignation rates by occupations and industries. These quarterly resignation reports provided us the starting point. Both manufacturing and services sectors are important for the Singapore economy. Consequently,

we included industries from both manufacturing and services in our sample. Within each sector, we selected one industry with the highest resignation rates and the other with the lowest resignation rates over the last four years (see Table 2). In the manufacturing sector, the food and beverage industry had the highest resignation rates and the marine and shipping the lowest. On the other hand, in the services sector, the retail industry had the highest resignations and the banking the lowest.

We wrote letters to human resource managers of companies in the above four industries to allow us access to survey their employees. In all, we wrote to 48 companies in the food and beverage industry, 25 in the marine and shipping, 14 in the retail industry, and 6 in the banking industry (only fully-licensed banks)<sup>3</sup>. A copy of the questionnaire was enclosed with the cover letter. We followed up the letter with telephone calls. Some companies requested for another copy of the survey. We faxed copies of the cover letter and the questionnaire to these companies. About a dozen companies from various industries showed interest and ultimately five of them agreed to participate in the study. The participating companies are as follows: two from the food and beverage industry, two from the retail industry, and one from the marine and shipping industry. Despite our best efforts, all six banks declined to participate in the study, which is understandable because the banking industry in Singapore is in turmoil as a result of the recent Asian economic crisis.

Questionnaires were administered with the help of human resource managers of each organization. Employees were informed that the purpose of the exercise was to assess their feelings and thoughts on various aspects of their jobs and that as such there were no right or wrong answers to questions included in the survey. Respondents were assured of the strict confidentiality of their responses and were told that the completed questionnaires would be sent directly to researchers and that no one in their organization would ever see the completed questionnaires. To increase the response rate and to encourage objective and truthful responses, an envelope was provided along with each questionnaire so that employees could insert the completed questionnaire in the envelope, seal the envelope, and return it to the box placed in the human resource department. In order to avoid any direct contact between

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<sup>3</sup> Companies were selected from the 'Singapore 1000' directory which contains the largest 1000 companies in Singapore. We selected the fully-licensed banks because banks that are not fully-licensed are mostly from other countries and are staffed by employees from their own countries.

employees and the human resource department, the box was located at a place where employees could return the completed questionnaires anonymously. Employees were also given the choice of mailing the completed questionnaire directly to researchers at the address provided.

The data were collected between June and September 1998. In the food and beverage industry (most companies in the food and beverage industry are small), 123 questionnaires were distributed to the employees in the two selected companies, and 94 of the completed questionnaires were returned. 200 questionnaires were distributed in the marine and shipping company and 116 of them were returned. Out of 250 questionnaires in the two retail companies, 212 were completed. Eight questionnaires from the food and beverage industry, four from the marine and shipping, and fifteen from the retailing industry were incomplete and thus were discarded. After discarding the unusable questionnaires, the response rates were 70%, 56%, and 79%, respectively, for the food and beverage industry, the marine and shipping industry, and the retail industry. The overall response rate was 69%.

To test if the responses from two companies in the food and beverage industry and the same number of companies from the retail industry can be combined, we performed t-tests on the mean scores of all the variables under study. In both industries, there were no statistically significant differences in the mean scores. Thus, we pooled responses of two companies in the food and beverage industry. Similarly, we pooled the responses of two companies in the retail industry.

### **Measures**

For demographic factors, respondents were asked to indicate their age (in years), tenure (in years), gender, title, monthly gross income, and education level.

We used three items each for measuring satisfaction with pay, satisfaction with nature of work, and supervision. The items were adapted from the Minnesota Satisfaction Questionnaire and the Index of Organizational Reactions Questionnaire (see Appendix for the scales). Three scales showed satisfactory reliabilities with Cronbach alphas of .65, .85, and .67, respectively, for satisfaction with pay, nature of work, and supervision. We performed

factor analysis to test the discriminant validity of the three scales. Results of the factor analysis showed that the items in the scales loaded on three respective factors unambiguously.

We used Porter et al.'s 15-item Organizational Commitment Questionnaire to measure organizational commitment. Reliability statistics (inter-item correlations and cronbach  $\alpha$  if the item is deleted) showed that five of the reverse-scaled items marginally decreased the reliability of the scale. We found one more item redundant as far as the reliability of the scale was concerned. Thus, we had a 9-item scale. However, on further scrutiny, one more item in the questionnaire was excluded as it showed overlap with the turnover intention items. The 8-item OCQ used in our analysis is appended (see Appendix 1). The scale showed good reliability ( $\alpha = .82$ ). Factor analysis of the 8-item OCQ scale showed only one factor indicating the unidimensionality of the construct.

We used Magner et al.'s (1994) four-item distributive justice scale to measure distributive justice and their five-item procedural justice scale to measure procedural justice. Both scales have been used often in past research and have shown satisfactory psychometric properties. Distributive and procedural justice scales had Cronbach alphas of .88 and .95, respectively, in our study. Further, factor analysis resulted into two factors and the items in the two scales loaded on the respective factors.

The perceived alternative employment opportunities (PAEO) scale contained six items and was adapted from Mowdey et al (1984), Billings and Wemmerus (1983), Arnold and Feldman (1982), and Michaels and Spector (1982). The scale showed good reliability ( $\alpha = .76$ ) and unidimensionality (single factor in the factor analysis).

We used the 3-item turnover intention scale from the Michigan Organizational Assessment Questionnaire (Cummann et al, 1979). The scale has been used widely in past research. The Cronbach  $\alpha$  was .87 in our study.

There is no existing measure of job-hopping. Consequently, we developed our own measure. We conducted interviews with practitioners, academicians, and employees to generate questions. The items generated from the interviews were pilot-tested. Based on the results of

the pilot study, we finalized a three-item scale to measure job-hopping. Three items in the scale are: “To me, switching jobs is kind of fun”; “I switch jobs because my colleagues do so”; and “I tend to change jobs for no apparent reason”. The scale showed satisfactory reliability ( $\alpha = .70$ ). Further, we performed factor analysis to test the discriminant validity of the job-hopping and turnover intention scales. As shown in Table 3, items of the two scales loaded unambiguously on two respective factors.

## RESULTS

### Demographic Characteristics

The demographic characteristics and descriptive statistics of the sample are presented in Tables 4 and 5, respectively. The average ages of respondents were 29, 38, and 34 years, respectively, for the food and beverage, marine and shipping, and retail industries. The average tenure for the marine and shipping industry was 8.4 years as compared to 2.6 years for the food and beverage industry. Thus, the respondents from the food and beverage industry were much younger and had much shorter tenure than their counterparts in the marine and shipping industry.

While respondents from the marine and shipping industry were predominantly males (76%), they were predominantly females (69.5%) in the retail industry. The food and beverage industry had more or less the same proportion of males and females.

The sample from the food and beverage industry had more managers (63.5%)<sup>4</sup>. The retail industry, on the other hand, had more non-managers (75.4%). The proportion of managerial and non-managerial employees in the marine and shipping industry was about the same.

The food and beverage industry sample contained a greater percentage of degree holders (47.9%) than the other two industries (retail industry, 7.9%; marine & shipping, 14.4%). This is partly because the food and beverage industry had a greater percentage of managers in the

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<sup>4</sup> The food and beverage industry fills lower level jobs with foreign workers and the majority of them do not know English and thus were not able to complete the questionnaire. That is why, the sample from the food

sample as compared to the other two industries. The income level of respondents in the marine and shipping industry and the food and beverage industry was higher than that of respondents in the retail industry.

### **Multi-collinearity Diagnosis**

When independent variables are correlated, the possibility of multicollinearity cannot be ruled out. We computed tolerance indices to diagnose if multicollinearity was a major problem in our study. Results of multiple regression and tolerance indices are presented in Table 6. It is observed from the table that tolerance indices for all variables across three industries were high and well above the acceptable limit of 0.10. Only in two cases were the tolerance indices close to the acceptable limit (organizational commitment in the food and beverage industry with an index of .250 and the level of income in the marine and shipping industry with an index of .175). In short, multicollinearity did not pose any significant problem.

### **Hypotheses Testing**

We ran multiple regression to test Hypotheses 1 to 6 (Table 6), and hierarchical regression analyses to test Hypothesis 7 (Tables 7 to 9). We performed the above analyses for each of the three industries and the total sample. Further, hierarchical regression analyses was also performed to estimate the validity of implicit theories on employee turnover (Tables 10 & 11). The latter analysis was performed only on the total sample.

The main objective of using a multi-industry sample was to find out if the findings from one industry could be generalized to other industries.

Results of multiple regression in Table 6 provide a modest support to Hypothesis 1 which states that demographic factors are associated with turnover intention. Out of six demographic factors in the study, five were significant in the total sample, three in the marine and shipping industry, and two in the retailing industry. None of the six demographic factors was significant in the food and beverage industry. Furthermore, demographic factors explain

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and beverage industry had more managers. Further, we were not interested in studying foreign workers any

variation ranging from 15.6% to 20% when entered first in the regression model and variation ranging from 2.6% to 7.4% when entered in the last step (see Tables 7 to 9). Overall, the findings suggest that demographic factors do have unique effects on turnover intention.

Hypothesis 1a, which states that age is negatively associated with turnover intention, received a weak support.  $\beta$  was marginally significant ( $p < .10$ ) in only one of the four cases (the retailing industry) (see Table 6). Hypothesis 1b, which states that males have greater intention to leave than females, was supported in three of the four cases.  $\beta$ 's were highly significant ( $p < .01$ ) in the retail and the marine and shipping industries and in the total sample.

Hypothesis 1c, which states that level of education is positively associated with turnover intention, received a poor support.  $\beta$  was marginally significant ( $p < .10$ ) only in the total sample. The relationship between tenure and turnover intention was significant in three cases (the food and beverage industry, the marine and shipping industry, and the total sample) but in the opposite direction to what was hypothesized (Hypothesis 1d states that tenure is negatively associated with turnover intention). Hypothesis 1e (the amount of income is negatively associated with turnover intention) was supported in three of the four cases (the marine and shipping industry, the food and beverage industry, and the total sample).

Results in Table 6 indicate that managerial employees showed greater intention to leave than did non-managerial employees in the retail industry and the total sample. The findings thus contradict Hypothesis 1f, which states that non-managerial employees have greater intention to leave than managerial employees.

Hypothesis 2 (job satisfaction is negatively associated with turnover intention) received a modest support. Satisfaction with pay (Hypothesis 2a) was significantly negatively associated with turnover intention in the retail industry and the total sample. Hypothesis 2b (satisfaction with nature of work is negatively associated with turnover intention) was not supported in any of the four cases. Satisfaction with supervision (Hypothesis 2c) was statistically significant in the predicted direction in the retail and the food and beverage industries.

Hypothesis 3, which states that organizational commitment is negatively associated with turnover intention, received a strong support.  $\beta$ 's were highly significant in the predicted direction in all cases.

While Hypothesis 4a on distributive justice received only a weak support ( $\beta$  was marginally significant in only one case, the total sample), Hypothesis 4b garnered a relatively good support ( $\beta$ 's were significant in three of the four cases).

Hypotheses 5 and 6 pertain to two uncontrollable factors: PAEO and job-hopping.

Hypothesis 5, which states that perceived alternative employment opportunity is positively associated with turnover intention, received a weak support at best.  $\beta$  was marginally significant ( $p < .10$ ) in the predicted direction in the food and beverage industry and the total sample. Hypothesis 6 (job-hopping is positively associated with turnover intention) received a good support in the retail industry, the food and beverage industry, and the total sample ( $\beta$ 's were highly significant). Job-hopping had no relationship with turnover in the marine and shipping industry.

Hypothesis 7 contrasts controllable and uncontrollable turnover and states that the extent of controllable turnover in Singapore is greater than the extent of uncontrollable turnover. We tested this hypothesis using hierarchical regression analyses. The results are presented in Tables 7 to 9. To detect unique variances contributed by three sets of factors (demographic, controllable, and uncontrollable), each set of factors was entered once in the first step and another in the last. When uncontrollable factors were entered in the first step, they explained variation ranging from 13.5% in the total sample to 24.1% in the food and beverage industry. However, the variance explained ranged from as low as 1% in the marine and shipping industry to 13.2% in the retailing industry when uncontrollable factors were entered in the last step. The variance explained by controllable factors when they were entered in the first ranged from 44.9% in the retail industry to 58.2% in the marine and shipping industry. The variance explained by controllable factors, when they were entered in the last step, was still very substantial, ranging from 24.4% in the retail industry to 37.6% in the total sample. It is obvious from the above analyses that unique variation due to controllable factors is much greater than uncontrollable factors. Thus, Hypothesis 7 received a strong support.

We performed another set of hierarchical analyses to test the validity of implicit theories on employee turnover. Five independent factors that comprise implicit theories are age, level of education, perceived alternative employment opportunities, job-hopping, and satisfaction with pay. These five factors were entered once in the first step and the remaining factors in the second step and vice versa. Results in Tables 10 and 11 are quite revealing. The five factors explained 41.0% of the variance when entered in the first step and 6.9% when entered in the second step. The rest of the factors explained 59.5% when entered first and 25.4% when entered second. There is a big difference in the unique variance explained by the five factors (6.9%) and the rest of the factors (25.4%). The results appear to suggest that implicit theories on employee turnover are more fiction than reality.

## **DISCUSSION AND CONCLUSIONS**

The above findings suggest that age and level of education are unimportant in predicting employee turnover in Singapore. In other words, there is not much evidence for the popular belief that younger and more educated Singaporeans have greater intention to leave.

Contrary to our hypothesis, tenure was positively associated with turnover intention in the food and beverage and the marine and shipping industries. This finding is indicative of the turnover culture. If an individual has been in one job for a long time, he or she starts feeling a need to change his or her job perhaps because so many people are doing so. Similarly, contrary to our prediction, managers showed greater intention to leave than non-managers in the retail industry. In other two industries, there were no significant differences between managers and non-managers. The level of income influenced turnover intention negatively in the food and beverage and the marine and shipping industries. Income and turnover intention were unrelated in the retail industry.

Satisfaction with pay was important only in the retail industry. Thus, pay was not an important concern for employees in the food and beverage and the marine and shipping industries. As noted above, the average income of employees in the food and beverage and the marine and shipping industries was higher than the average income of employees in the retail industry. Satisfaction with nature of work was insignificant across all industries. Thus, the nature of work was not a good predictor of turnover intention in Singapore. Supervision

mattered only in the food and beverage industry. The employees in the food and beverage industry had much greater proportion of the degree holders (47.9% as compared to 7.9% and 14.4% in other two industries). Thus, it appears that with more education, the expectation for better supervision goes up.

Procedural justice was found more important than distributive justice. Distributive justice, in fact, was unimportant. Procedural justice was of concern in the retail and the marine and shipping industries. As discussed later, organizational commitment was the most important predictor of turnover intention in our study.

Perceived alternative employment opportunities were a poor predictor of turnover intention at best. On the other hand, we found that job-hopping was highly significant in the food and beverage and the retail industries. Both industries are well known for their high employee turnover.

We began with the question, “Employee turnover: bad attitude or poor management?” Now it is possible for us to answer this question. Our analyses suggest that employee turnover problem in Singapore is more due to poor management than bad employee attitudes. Factors under the control of management were found to explain much greater variance in the turnover model than were factors not under the control of management. While controllable factors (satisfaction with pay, satisfaction with nature of work, satisfaction with supervision, organizational commitment, distributive justice, and procedural justice) contributed a unique variance of 37.6% in the turnover model for the total sample, uncontrollable factors (job-hopping and perceived alternative employment opportunities) added a meager 5% of the unique variance. The unique variance of demographic factors (age, gender, level of education, tenure, level of income, job title) was even smaller than uncontrollable factors (3.8%).

Findings of the study suggest that controllable factors contribute much more to the employee turnover problem than uncontrollable factors. Our findings are consistent with Debrah (1994) who found lack of coherent and systematic HR policies and practices as the major contributing factor to the job-hopping problem for operative employees in the hotel industry in Singapore. Thus, human resource managers in Singapore need to overcome their fatalistic thinking and feelings of helplessness in the face of employee turnover (Campbell & Campbell, 1997). There is a lot they can do to overcome this major human resource problem. They need to think of

strategies to combat employee turnover. Doing so would also raise their status in the company (Cunningham & Debrah, 1995).

Informal or implicit theories on employee turnover exist in Singapore (Campbell and Campbell, 1997). We noted that that five factors - age, education, perceived alternative employment opportunities, job-hopping, and satisfaction with pay – are an integral part of informal theories on employee turnover in Singapore. We examined the contribution of these factors as a group to the turnover model to test the validity of the implicit theories. We found that the five factors explained unique variance to the extent of 6.9%. On the other hand, the less known or unknown factors (as far as implicit theories are concerned) explained 25.4% of the unique variance in the turnover model. Thus, our findings run contrary to conventional wisdom. That is, the five factors believed to be the most important determinants of employee turnover are not all that important. The implication is quite clear. Both researchers and practitioners need to move beyond implicit theories and conduct systematic studies to nail down the critical problem of employee turnover in Singapore.

The classification of turnover antecedents into demographic, controllable, and uncontrollable factors provides a good diagnosis of the employee turnover problem. Thus, we would suggest further research work on the framework proposed by us. The framework is simple and thus can be useful to practitioners as well.

Further, based on our study, we would suggest that future studies on employee turnover include a comprehensive list of independent variables to overcome specification errors. For example, if we had included, say only one variable (satisfaction with nature of work) in the study, the variable would have shown highly significant relationship with turnover ( $r = -.46$ ,  $p < .01$ ). However, when it is entered in the model in conjunction with other variables, its relationship with turnover intention is insignificant in all the industries. This has happened because satisfaction with nature of work is spuriously correlated with turnover intention. In other words, it showed highly significant and negative zero-order correlation with turnover intention because it was related to other variables that affect turnover intention. The possibility that many studies in previous research might have reported these spurious relationships cannot be ruled out. The implication is that findings from studies with a limited set of antecedents need to be interpreted with caution.

One important contribution of our study pertains to the definition and measurement of a new construct - job-hopping. We have developed a three-item scale showing satisfactory psychometric properties (good reliability and discriminant validity). Future studies can examine the scale in a variety of settings to establish its reliability and validity.

We found job-hopping common in the retail and the food and beverage industries (job-hopping explained 13% and 5% of the unique variance, respectively, in the turnover model).

We found organizational commitment by far the most important factor influencing turnover intention. Unfortunately, not many companies in Singapore take it seriously. One plausible explanation for the lack of interest in organizational commitment is that companies in Singapore rely mostly on control-based management philosophy (Khatri, 1998a). The control-based management emphasizes compliance/obedience over commitment, written rules over informal norms, and authority over participation. We think that employee turnover in Singapore can be brought down by focusing on organizational commitment. For example, Debrah (1994) found an evidence of a move towards enhancing employee commitment to combat employee turnover in their sample of eleven hotels in Singapore. Organizational commitment can be enhanced by proactive socialization of employees (Aryee, 1991), by gradually moving away from control-based management philosophy to commitment-based philosophy, and by managing appropriately the organizational culture (Debrah, 1993).

Finally, we would like to note the limitations of our study. First, although we did our best to construct appropriate measures and took all possible precautions in administering the questionnaires, self-report biases cannot be ruled out completely. Second, since we have used a cross-sectional methodology and correlational/regression analyses, we have assumed the causal direction. Thus, the reader needs to use caution as far as the causality is concerned.

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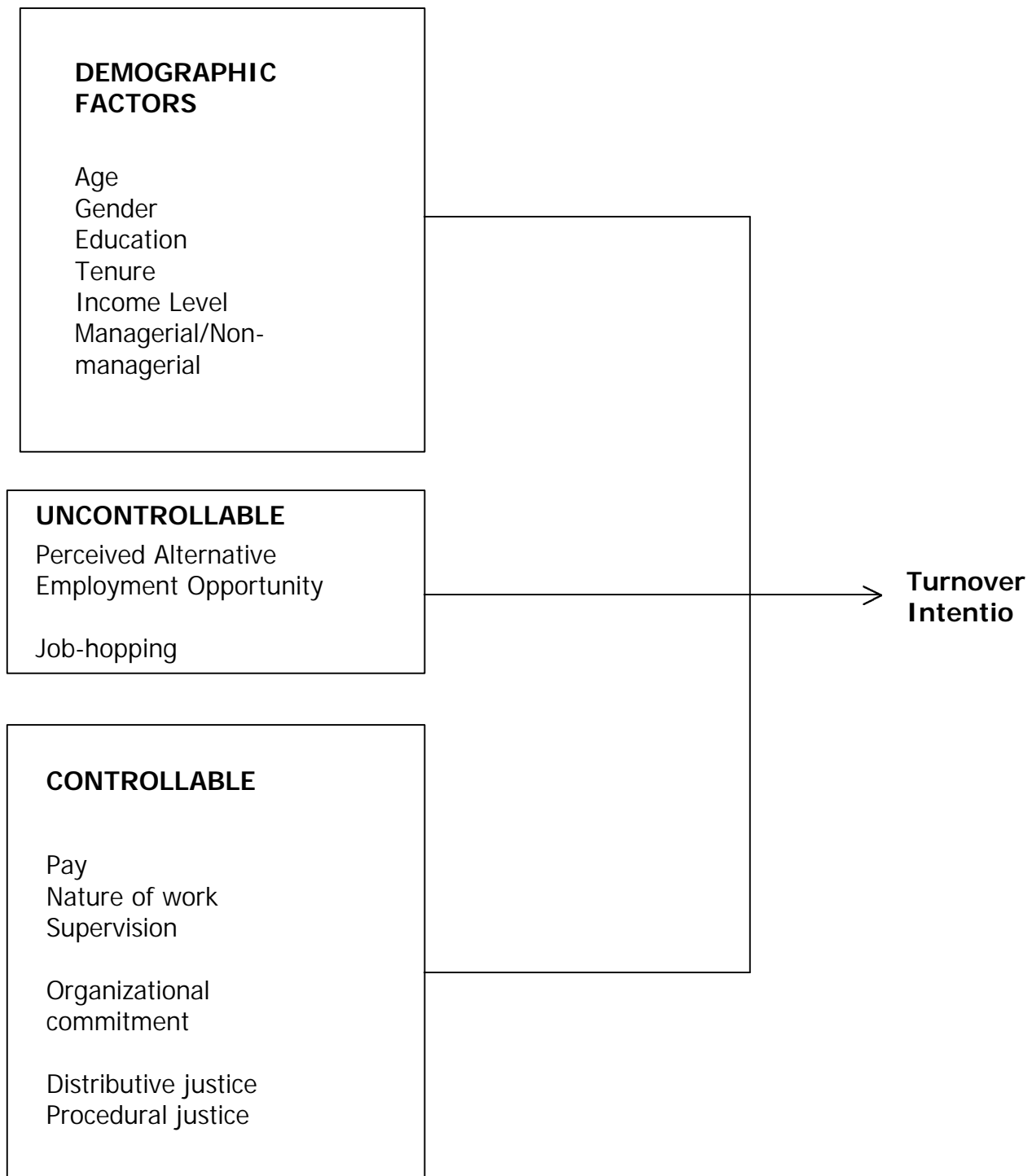
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**FIGURE 1: EMPLOYEE TURNOVER MODEL**



**Table 1: The Average Annual Turnover Rates by Industry and Occupational Group**

		1995 (%)	1996 (%)	1997 (%)
<b>Industry</b>	Manufacturing	36.0	33.6	30.0
	Construction	27.6	25.2	27.6
	Retail Trade	80.4	75.6	74.4
	Hotels & Restaurants	67.2	54.0	57.6
	Transport & Communications	22.8	21.6	20.4
	Banking & Finance	22.8	25.2	22.8
<b>Occupation</b>	Professional/Technical/Managerial	21.6	21.6	22.8
	Clerical, Sales & Service	48.0	44.4	44.4
	Production & Transport	37.2	33.6	32.4

Source: The quarterly reports of the Ministry of Manpower, Government of Singapore, 1998.

**Table 2: Average Annual Turnover Rates of the Industries Selected for the Study**

Sector	Industry	1995 (%)	1996 (%)	1997 (%)	1998 (%) (First Quarter)
Manufacturing	Food & Beverages	34.8	36	33.6	46.8
	Marine & Shipping	32.4	27.6	22.8	22.8
<b>Services</b>	Retailing	80.4	75.6	74.4	76.8
	Banking	22.8	25.2	22.8	20.4

Source: The quarterly reports of the Ministry of Manpower, Government of Singapore, 1998.

**Table 3: Factor Analysis of Turnover Intention and Job-hopping**

Items	Factor 1	Factor 2
<b>Turnover Intention</b>		
	<b>.92</b>	.08
1. I probably look for a new job in the next year.		
	<b>.90</b>	.17
2. I will likely actively look for a new job in the next year.		
	<b>.83</b>	.17
3. I often think about quitting.		
<b>Job-Hopping</b>	<b>.11</b>	<b>.83</b>
1. I switch jobs because my colleagues do so.		
	.13	<b>.80</b>
2. I tend to change jobs for no apparent reasons.		
	.14	<b>.73</b>
3. To me, switching jobs is kind of a fun.		
Eigenvalues	2.83	1.45
Percentage of Variance Explained	39.44	31.94

**Table 4: Demographic Characteristics Industry-wise**

Variable	Food & Beverages	Marine & Shipping	Retailing	Total Sample
Average Age (years)	29.1	38.0	34.0	34.3
Average Tenure (years)	2.6	8.4	6.6	6.4
	%	%	%	%
Gender:				
Male	<b>50.7</b>	<b>75.9</b>	30.5	48.1
Female	49.3	24.1	<b>69.5</b>	<b>51.9</b>
Title:				
Non-Managerial	36.5	<b>50</b>	<b>75.4</b>	<b>58.9</b>
Managerial	<b>63.5</b>	<b>50</b>	24.6	41.1
Education:				
Primary	1.4	4.5	17.9	10.5
Secondary ('O', 'A', & Diploma)	<b>50.7</b>	<b>81.1</b>	<b>74.2</b>	<b>71.5</b>
Tertiary	47.9	14.4	7.9	18
Income Level				
Under \$1000	0	1.8	9.9	5.5
\$1000-\$1500	12.2	11.9	<b>42.9</b>	27.4
\$1501-\$2000	28.8	16.5	24.2	22.7
\$2001-\$3000	<b>46.6</b>	<b>33.0</b>	16.5	<b>27.8</b>
\$3001-\$4000	5.5	13.8	5.5	7.9
\$4001-\$5000	1.4	14.7	0.5	4.9
More than \$5000	5.5	8.3	0.5	3.8



**Table 5: Zero-order Correlations of Variables in the Study**

	Means	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Age	34.28	8.47	1.00														
2. Gender	-	-	-.24**	1.00													
3. Education	-	-	-.22**	-.22**	1.00												
4. Tenure	6.37	6.06	.49**	-.07	-.23**	1.00											
5. Income	-	-	.31**	-.41**	.53**	.23**	1.00										
6. Title	-	-	.07	-.30**	.60**	-.01	.72**	1.00									
7. Pay	2.99	.74	.23**	-.06	.09	.14**	.35**	.21**	1.00								
8. Work	3.45	.79	.18**	-.04	-.04	.13*	.19**	.07	.32**	1.00							
9. Boss	3.25	.81	.10	.03	-.06	.07	.09	.01	.30**	.45**	1.00						
10. OC	3.41	.61	.24**	-.11*	-.02	.11*	.31**	.17**	.51**	.49**	.44**	1.00					
11. DJ	3.20	.86	.04	-.01	-.02	.02	.09	.02	.37**	.33**	.40**	.48**	1.00				
12. PJ	3.30	1.02	.03	.01	-.03	-.04	.09	.04	.42**	.37**	.41**	.53**	.61**	1.00			
13. PAEO	3.04	.63	-.16**	-.10	.28**	-.24**	.10	.06	-.17**	-.16**	-.10	-.15**	-.07	-.17**	1.00		
14. JH	1.75	.67	.03	-.01	-.13*	.05	-.20**	-.15**	-.04	-.19**	-.08	-.20**	-.05	-.10	.07	1.00	
15. TI	2.53	.97	-.20**	-.06	.11*	-.05	-.18**	-.04	-.41**	-.46**	-.45**	-.60**	-.37**	-.46**	.27**	.29**	1.00

\* p<.05

\*\* p<.01 OC = Organizational Commitment; DJ = Distributive Justice; PJ = Procedural Justice; JH = Job-hopping; TI = Turnover Intention  
PAEO = Perceived Alternative Employment Opportunities.





**Table 6: Multiple Regression and Tolerance Indices Industry-wise and for the Total Sample**

Variable	Food & Beverages		Marine & Shipping		Retailing		Total Sample	
	$\beta$	Tol. Index	$\beta$	Tol. Index	$\beta$	Tol. Index	$\beta$	Tol. Index
Age	.066	.581	-.099	.380	-.113*	.707	-.031	.554
Male	-.034	.651	.243***	.556	.186***	.922	.132***	.793
Education	.154	.384	.079	.535	.066	.403	.100*	.418
Tenure	.140*	.766	.321***	.541	.035	.704	.121***	.634
Income Level	-.188*	.407	-.307**	.175	-.155	.332	-.173**	.259
Managerial/Non-managerial	.037	.524	.066	.366	.213**	.330	.134**	.404
Satisfaction with Pay	-.071	.508	.020	.373	-.218***	.714	-.142***	.596
Satisfaction with Nature of Work	-.126	.580	-.159	.424	-.046	.735	-.068	.665
Satisfaction with Supervision	-.245**	.574	.043	.496	-.119*	.710	-.046	.684
Organizational Commitment	-.363**	.250	-.368***	.411	-.290***	.608	-.398***	.471
Distributive Justice	.109	.443	-.146	.375	.054	.768	-.089*	.607
Procedural Justice	-.077	.490	-.222*	.283	-.109*	.704	-.132***	.532
Perceived Alternative Employment Opportunities	.142*	.725	.125	.651	.002	.709	.111***	.792
Job-Hopping	.234***	.676	-.036	.842	.397***	.789	.206***	.848
R <sup>2</sup>	.637		.663		.647		.663	
Adjusted R <sup>2</sup>	.565		.606		.606		.646	
F	8.900		11.532		15.472		38.569	
Sig. F	.000		.000		.000		.000	
N	86		112		197		395	

\*p<=.10

\*\*p<=.05

\*\*\*p<=.01

Tol. Index: Tolerance Index

**Table 7: Multiple Regression Industry-wise and for the Total Sample: Model 1**

Variable	Food & Beverages		Marine & Shipping		Retailing		Total Sample	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
<b>Step 1: Demographics</b>								
Age	-.033	.169	-.220	.200	-.158*	.189	-.071	.156
Male	.059		.235*		.296***		.182***	
Education	.470***		.234*		.115		.312***	
Tenure	.115		.329***		.063		.191***	
Income Level	-.437***		-.451**		-.403***		-.552***	
Managerial/Non-managerial	-.098		-.028		.345**		.106	
<b>Step 2: Uncontrollable Factors</b>								
Perceived Alternative Employment Opportunities	.271***	.177	.336***	.099	.012	.215	.219***	.132
Job-Hopping	.347***		.025		.484***		.285***	
<b>Step 3: Controllable Factors</b>								
Satisfaction with Pay	-.071	.291	.020	.364	-.218***	.244	-.142***	.376
Satisfaction with Nature of Work	-.126		-.159		-.046		-.068	
Satisfaction with Supervision	-.245**		.043		-.119*		-.046	
Organizational Commitment	-.363**		-.368***		-.290***		-.398***	
Distributive Justice	.109		-.146		.054		-.089*	
Procedural Justice	-.077		-.222*		-.109*		-.132***	
R <sup>2</sup>	.637		.663		.647		.663	
F	8.900		11.532		15.472		38.569	
Sig. F	.000		.000		.000		.000	
N	86		112		197		395	

\*p<=.10

\*\*p<=.05

\*\*\*p<=.01

**Table 8: Multiple Regression Industry-wise and for the Total Sample: Model 2**

Variable	Food & Beverages		Marine & Shipping		Retailing		Total Sample	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
<b>Step 1: Controllable Factors</b>								
Satisfaction with Pay	-.043	.558	-.002	.582	-.209***	.449	-.125***	.570
Satisfaction with Nature of Work	-.195**		-.162*		-.079		-.108**	
Satisfaction with Supervision	-.168*		.097		-.150*		-.047	
Organizational Commitment	-.495***		-.412***		-.378***		-.449***	
Distributive Justice	.042		-.177*		.076		-.072	
Procedural Justice	-.058		-.229**		-.163**		-.160***	
<b>Step 2: Demographics</b>								
Age	.068	.029	-.125	.069	-.042	.066	-.001	.042
Male	.062		.239***		.227***		.151***	
Education	.186		.091		.017		.136**	
Tenure	.125		.296***		.031		.114**	
Income Level	-.159		-.261*		-.207*		-.217***	
Managerial/Non-managerial	-.051		.047		.203*		.119**	
<b>Step 3: Uncontrollable Factors</b>								
Perceived Alternative Employment Opportunities	.142*	.050	.125	.012	.002	.132	.111***	.051
Job-Hopping	.234***		-.036		.397***		.206***	
R <sup>2</sup>	.637		.663		.647		.663	
F	8.900		11.532		15.472		38.569	
Sig. F	.000		.000		.000		.000	

N	86	112	197	395
*p<=.10	**p<=.05	***p<=.01		

**Table 9: Multiple Regression Industry-wise and for the Total Sample: Model 3**

Variable	Food & Beverages		Marine & Shipping		Retailing		Total Sample	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
<b>Step 1: Uncontrollable Factors</b>								
Perceived Alternative Employment Opportunities	.286***	.241	.357***	.135	.136*	.212	.231***	.174
Job-Hopping	.386***		.085		.422***		.332***	
<b>Step 2: Controllable Factors</b>								
Satisfaction with Pay	-.069	.370	.007	.455	-.264***	.371	-.143***	.451
Satisfaction with Nature of Work	-.123		-.126		-.061		-.067	
Satisfaction with Supervision	-.220**		.075		-.129*		-.060	
Organizational Commitment	-.393***		-.427***		-.321***		-.398***	
Distributive Justice	.064		-.164		.053		-.092**	
Procedural Justice	-.079		-.209*		-.118*		-.131***	
<b>Step 3: Demographics</b>								
Age	.066	.026	-.099	.074	-.113*	.064	-.031	.038
Male	-.034		.243***		.186***		.132***	
Education	.154		.079		.066		.100*	
Tenure	.140*		.321***		.035		.121***	
Income Level	-.188*		-.307**		-.155		-.173**	
Managerial/Non-managerial	.037		.066		.213**		.134**	

R <sup>2</sup>	.637	.663	.647	.663
F	8.900	11.532	15.472	38.569
Sig. F	.000	.000	.000	.000
N	86	112	197	395

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\*p<=.10      \*\*p<=.05      \*\*\*p<=.01

**Table 10: Multiple Regression of the Total Sample:  
Implicit Theories (Model 1)**

Variable	Total Sample	
	$\beta$	$\Delta R^2$
<b>Step 1: The Five Factors in Implicit Theories</b>		
Age	-.033	.410
Education	-.155***	
Satisfaction with Pay	-.484***	
Perceived Alternative Employment Opportunities	.104**	
Job-Hopping	.353***	
<b>Step 2: The Other Factors</b>		
Male	.132***	.254
Tenure	.121***	
Income Level	-.173**	
Mgial	.134**	
Satisfaction with Nature of Work	-.068	
Satisfaction with Supervision	-.046	
Organizational Commitment	-.398***	
Distributive Justice	-.089**	
Procedural Justice	-.132***	
R <sup>2</sup>	.663	
F	22.934	
Sig. F	.000	
N	395	

\*p<=.10 \*\*p<=.05

\*\*\*p<=.01

**Table 11: Multiple Regression of the Total Sample:  
Implicit Theories (Model 2)**

Variable	Total Sample	
	$\beta$	$\Delta R^2$
<b>Step 1: Other Factors</b>		
Male	.165***	.595
Tenure	.065	
Income Level	-.189***	
Mgial	.160***	
Satisfaction with Nature of Work	-.111**	
Satisfaction with Supervision	-.040	
Organizational Commitment	-.503***	
Distributive Justice	-.071	
Procedural Justice	-.182***	
<b>Step 2: The Five Factors in Implicit Theories</b>		
Age	-.031	.069
Education	.100*	
Satisfaction with Pay	-.142***	
Perceived Alternative Employment Opportunities	.111***	
Job-Hopping	.206***	
R <sup>2</sup>	.663	
F	11.205	
Sig. F	.000	
N	395	

\*p<=.10    \*\*p<=.05    \*\*\*p<=.01

## Appendix 1

### Job Satisfaction

#### *Satisfaction with Pay*

(Index of Organizational Reactions Questionnaire; Smith, 1976)

1. Considering what it costs to live in this area, my pay is: (1=*Very inadequate*, 5=*More than adequate*)
2. For the job I do, I feel that the amount of money I make is: (1=*Extremely good*, 5= *Very poor*) (reverse-coded)
3. Does the way pay is handled around here make it worthwhile for a person to work especially hard? (1=*It definitely encourages hard work*, 5=*It definitely discourages hard work*) (reverse-coded)

#### *Satisfaction with Nature of Work*

(Minnesota Satisfaction Questionnaire; Weiss et al., 1967)

*Very dissatisfied (1) - Very Satisfied (5)*

- (1) The chance to try my own methods of doing the job, (2) the chance to do something that makes use of my abilities, and (3) the freedom to use my own judgment.

#### *Satisfaction with Supervision*

(Index of Organizational Reactions Questionnaire; Smith, 1976)

1. Do you ever have the feeling you would be better off working under different supervision? (Rate overall supervision) (1=*I almost always feel this way*, 5= *I never feel this way*)
2. The supervision I receive is the kind that: (1=*Greatly discourages me from giving extra effort*, 5=*Greatly encourages me to give extra effort*)
3. How does the way you are treated by those who supervise you influence your overall attitude toward your job? (1=*It has a very unfavorable influence*, 5=*It has a very favorable influence*)

### **Organizational Commitment (Porter et al., 1974)**

*Strongly Disagree (1) - Strongly Agree (5)*

- (1) I am willing to put in a great deal of effort beyond that normally is expected in order to help this organization to be successful, (2) I talk up this organization to my friends as a great organization to work for, (3) I feel very little loyalty to this organization. (reverse-coded), (4) I find that my values and the organization's values are very similar, (5) I am proud to tell others that I am part of this organization, (6) this organization really inspires the very best in me in the way of job performance, (7) I am extremely glad that I chose this organization to work for over others I was considering at the time I joined, and (8) I really care about the fate of this organization.

### **Distributive Justice (Magner et al., 1994; Folger & Konovsky, 1989)**

*Strongly Disagree (1) – Strongly Agree (5)*

- (1) I received the evaluation that I deserved, (2) the evaluation reflected the quality of my performance, (3) an independent observer from outside the organization would have made a similar judgment about my performance, and (4) I consider the evaluation to be fair.

### **Procedural Justice (Magner et al., 1994)**

The rules, procedures and policies used to evaluate my performance was:

Improper-Proper; Unfair-Fair; Inappropriate-Appropriate; Unjust-Just; Inequitable- Equitable. Scale: 1-5

### **Job-Hopping**

Strongly Disagree (1) - Strongly Agree (5)

- (1) To me, switching jobs is kind of a fun, (2) I switch jobs because my colleagues do so, and (3) I tend to change jobs for no apparent reasons.

### **Turnover Intention (Cummann et al, 1979)**

*Strongly Disagree (1) - Strongly Agree (5)*

- (1) I will likely actively look for a new job in the next year, (2) I often think about quitting, and (3) I probably look for a new job in the next year.

**Perceived Alternative Employment Opportunities** (Mowday et al., 1984; Billings & Wemmerus, 1983; Arnold & Feldman, 1982; Michaels & Spector, 1982; Peters et al., 1981 and Coverdale & Terborg, 1980)

*Strongly Disagree (1) - Strongly Agree (5)*

- (1) If I quit my current job, the chances that I would be able to find another job which is as good as, or better than my present one is high, (2) if I have to leave this job, I would have another job as good as this one within a month, (3) there is no doubt in my mind that I can find a job that is at least as good as the one I now have, (4) given my age, education, and the general economic condition, the chance of attaining a suitable position in some other organization is slim (reverse-coded), (5) the chance of finding another job that would be acceptable is high, and (6) it would be easy to find acceptable alternative employment.