

## **Chapter 5**

### **CONCLUSION AND RECOMMENDATIONS**

This chapter concludes the study on employee job satisfaction in the IT industry. It represents a summary of the findings, discusses some of the implications of the study and makes some recommendations for further research.

The objectives of the study are to examine (i) the overall job satisfaction of employees in the IT industry, using the Overall Job Satisfaction Index (OJS) developed by Brayfield and Rothe (1951); (ii) the level of their satisfaction on each of the five job dimensions i.e. work, supervision, coworker, pay and promotion using the Job Descriptive Index (JDI) developed by Smith, Kendall and Hulin (1969); (iii) whether there is any significant relationship between the job satisfaction of these employees in IT organisations with and without ISO 9000; (iv) whether there is any significant relationship between the job satisfaction of these employees and the size of the organisation they work in; (v) the effects of various demographic variables on the job satisfaction of these employees. The study tests the following two hypotheses:-

*Hypothesis 1:* There is no significant difference in the overall job satisfaction between employees in the IT organisations with and without ISO 9000.

*Hypothesis 2:* There is no significant difference in the overall job satisfaction between employees in the IT organisations of small & medium sized and of large sized.

## Summary of the Findings

Both the JDI and the OJS used in the study had a high level of internal reliability. The intercorrelation among the items in each measuring instrument were low enough to indicate good discrimination among the five dimensions of JDI and among the 18 statements of the OJS. Stepwise regression analysis on the JDI and the OJS showed that the work, pay and supervision accounted for 53.7% of the variance in the OJS. The correlation between the JDI and OJS was 0.6553.

The study indicates that the majority of the employees (82.9%) in the IT industry are satisfied with their jobs. In fact, the overall job satisfaction mean score of the OJS (61.83) was higher than the neutral point of 54 while that of the JDI (139.70) was higher than the balanced attitude score of 107. Studies conducted by Liow (1994) to determine the overall job satisfaction of employees in the Electrical and Electronics Industry and Lim (1990) to determine the overall job satisfaction of employees in small and medium-sized firms in the metal-based industry found that the overall job satisfaction mean scores (OJS) for the respective industries were 61.17 and 58.98 respectively. This study shows that employees in the IT industry enjoy higher job satisfaction than do employees in the electrical & electronics and metal-based industries.

The study also found that more employees were dissatisfied with their promotion (55.2%) and pay (46.7%) dimensions than their work (20.0%), supervision (12.4%) and coworker dimensions (11.4%). The job dimension mean scores for employees with respect to each of the four job dimensions, namely, coworker (41.77), supervision (38.91), work (33.57) and pay (13.15) were higher than the respective balanced attitude scores. Only the mean score for the promotion dimension (12.29) was lower than its balanced attitude score (13.0).

A t-test was applied to statistically analyse differences in job satisfaction mean scores with respect to organisations ISO status and an analysis of variance of one-way classification was employed to analyse differences in job satisfaction mean scores in the three organisation sizes. The effect of demographic variables, namely gender and marital status on job satisfaction was tested using t-test whereas demographic variables namely age, race, level of education, length of service and number of organisations joined prior to current job were tested using analysis of variance of one-way classification.

### **Findings Related to Hypotheses**

The following findings resulted from analysing data that correlated to the hypotheses.

#### Hypothesis 1

The results using OJS as the measure of the overall job satisfaction indicate that there was no significant difference in the overall job satisfaction between employees in organisations with and without ISO 9000 certification however the results show otherwise when JDI is used as the measure of overall job satisfaction. In other words, the findings obtained from OJS and JDI were inconsistent. This could be due to the difference in the objective of each measuring instrument with JDI being specific in that it measures the individual job dimensions namely work, supervision, coworker, pay and promotion and not in measuring overall job satisfaction, whereas the OJS is general in that it measures overall job satisfaction. It is worthy of note that the stepwise regression on the five job dimensions of the JDI revealed that the work dimension alone appeared to be able to explain 48.0% of the variance in the OJS. Together with pay and supervision dimensions, it appeared to be able to explain 53.7% of the variance in the OJS. However, coworker and promotion dimensions were found to have no significant association ( $p = 0.05$ ) with the OJS. According to McCormick and Ilgen (1942), many specific and diverse job dimensions (varying from five to twenty) may be needed to describe most of the predictable variance in job satisfaction.

Taking the B-R OJS as the measure of overall job satisfaction, it is concluded that ISO 9000 certification has no influence on the overall job satisfaction of employees in the IT industry. This finding is in agreement with past study conducted by Lam (1995) on front-line supervisors in Hong Kong. According to Lam (1995), TQM program inclusive of ISO 9000 system implementation, had not increased the overall job satisfaction and that their personal effectiveness had not been increased because of TQM/ISO 9000.

The results also indicate that there was no significant difference in most of the job dimensions satisfaction i.e. pay satisfaction, promotion satisfaction, coworker satisfaction and supervision satisfaction. However, this study showed that there was a significant difference in work satisfaction between employees in IT organisation with ISO 9000 and those in IT organisations without ISO 9000. Thus it is concluded that employees in IT organisations with ISO 9000 were more satisfied with their work than were employees in organisations without ISO 9000. These findings indicate that the nature of work in organisations with ISO 9000 were better than in organisations without ISO 9000. This could be due to employees now have clearer responsibilities and more defined authority especially in the interface between various departments with the implementation of the ISO 9000. Employees too would have greater knowledge of the results of their work with the implementation of ISO 9000.

### Hypothesis 2

The results indicate that there was no significance difference in overall job satisfaction among employees in different organisation sizes. This means that organisational size has no influence on the overall job satisfaction of employees. This finding is not in agreement with past studies by Bengé (1944) and Talacchi (1960), possibly because the employees in the large organisations were working in smaller subunits. According to Porter (1965), the effect of one type of size, i.e. total organisational size may be confounded by the effects of another type of size, i.e. size of subunits within the organisation.

The results also indicate that there was no significant difference in all the job dimensions i.e. work satisfaction, supervision satisfaction, coworker satisfaction, pay satisfaction and promotion satisfaction among employees in small & medium sized organisations and large sized organisations.

### **Effects of Demographic Variables**

In so far as the effect of demographic variables on job satisfaction is concerned, the results indicate that:

(i) There was no significant difference in overall job satisfaction between male and female employees. With regards to the five job dimensions, gender had no significant influence on work, supervision, coworker, pay and promotion satisfaction. Gender per se was not a crucial factor. Rather, it was the formation of variables which covaried with gender such as pay, promotion opportunities, job level, societal prejudices and other more profoundly factors inherited in Asian business culture.

(ii) Marital status had no significant influence on overall job satisfaction and on all job dimensions i.e. work, supervision, coworker, pay and promotion satisfaction. Thus, employees who were married and unmarried indicate no difference in level of overall job satisfaction as well as in all dimensions of job.

(iii) Employees' age too had no significant influence on overall job satisfaction. Age had no influence on work, supervision, coworker and promotion satisfaction but had a significant influence on pay satisfaction. Employees aged 40 years and above had higher pay satisfaction than those aged below 40 years. Generally, age per se was not the absolute determinant for job satisfaction, but rather it was the disposition of variables which covaried with age such as higher pay and higher position in firms.

(iv) Race had no significant influence on overall job satisfaction as well as on all the five job dimensions i.e. work, supervision, coworker, pay and promotion satisfaction. Thus this indicate that all races perceive no difference in the level of job satisfaction in the IT industry.

(v) There was no significant difference in the overall job satisfaction among employees of different educational levels. The educational level had no significant influence on all job dimensions as well i.e. work, supervision, coworker, pay and promotion satisfaction.

(vi) Length of service had no significant influence on overall job satisfaction, work satisfaction, supervision satisfaction, coworker satisfaction, pay satisfaction and promotion satisfaction.

(vii) Number of companies joined prior to current job too had no significant influence on overall job satisfaction and all the five job dimensions i.e. work satisfaction, supervision work, coworker satisfaction, pay satisfaction and promotion satisfaction.

### **Implications of the Study**

Based on the findings, some implications of the study are as follows:

(i) The findings indicate that employees in the IT industry had a high overall job satisfaction. This shows that the employees in the industry are generally satisfied with their jobs. It is important for managements to know this so that they can optimize their human resource planning and hence enhance productivity in this key industry.

(ii) The findings also indicate that the employees in this industry have low promotion satisfaction and pay satisfaction as compared with their satisfaction on other dimensions of the job. Management should take note of this fact and devise a promotion and reward system that will enhance the job satisfaction of employees in this industry.

(iii) As the findings indicate that IT organisation with ISO 9000 has a significant influence on work satisfaction, management of non ISO 9000 certified IT organisations may want to consider implementing ISO 9000 in their organisations as it enhance employee involvement in problem solving and decision making, thus create employee perceptions of meaningful work.

(iv) The findings indicate that age had a significant influence on pay satisfaction. Hence, management ought to take this factor into consideration when recruiting employees.

### **Recommendations for Further Research**

Based on the findings of this study, the following suggestions for further research are made:

First, to conduct a study on job satisfaction on employees before and after the ISO 9000 implementation. This will provide a better indication to the effect of the ISO 9000 on job satisfaction.

Second, study targeting on a specific group of employees in the IT industry e.g. IT engineers is recommended since they are the majority of the workforce in the IT industry.

Finally, studies on the relationship between job satisfaction and factors such as job performance, absenteeism and turnover in this industry are recommended.