

## **3.0 RESEARCH METHODOLOGY**

### **3.1 HYPHOTHESIS CONSTRUCTION**

#### **3.1.1 JOB SATISFACTION**

Job satisfaction refers to both general and specific work satisfactions. The Specific satisfactions include both intrinsic and extrinsic satisfaction as well as satisfaction with pay, job security, peers and co-workers, supervision and opportunities for personal growth on the job. The concept of job satisfaction has always been linked to job dimensions. Job dimensions include skill variety, task identity, task significance, autonomy, and feedback from the job. Teas (1981) found a positive relationship between job satisfaction and perceived closeness of supervision, performance, feedback, and other job dimensions. Stone and Porter (1973) discovered that variety and autonomy were significantly related to satisfaction with work. Keller et al. reported that skill variety, task identity, feedback from the job, and autonomy were positively related to work satisfaction and satisfaction with supervision.

Skill variety refers to the number of skills and talents the job requires. Task identity is the degree to which an employee does a job from beginning to end with a visible outcome, while task significance refers to the impact of that job on other people. Autonomy, on the other hand, relates to freedom and independence an employee has to determine his or her own work schedules and procedures.

In ISO 9000 system, employees' roles and responsibilities are clearly defined and documented. Step-by-step daily operations are to be performed in

accordance to Standard Operating Procedures and manual. There is little room of freedom for employees to choose the method he perceived the best.

Employees' daily duties are rather fixed and routine.

The clear documentation and procedures provide direct instructions to everyone involved in the company. The relationship between management and employees and between employees themselves is improved, since all the above relationship are clearly defined and documented (Tsiotras, 1996).

In summary, ISO 9000 system implementation supports the critical characteristics of job satisfaction variables i.e. feedback from the job and relationship with supervisors though it neglects other job dimensions such as skill variety, autonomy, task significance and job identity. Based on this I hyphotize that:

***H<sub>1</sub> : ISO 9000 system implementation will improve job satisfaction of employees.***

### **3.1.2 Motivation**

The term motivation is derived from the Latin word, *movere*, to move. Motivation can be defined as psychological forces that determine the direction of a person's behavior in an organization, a person's level of effort, and a person's level of persistence in the face of obstacles (Gareth et al., 2003). Motivation can come from intrinsic or extrinsic sources. Intrinsic motivation is behavior that is performed for its own sake. Jobs that are interesting and challenging are more likely to lead to intrinsic motivation that jobs that are boring and do not make use

of a person's skills and activities (Gareth et al., 2003). Hackman and Oldham developed the Job Characteristics Theory (JCT) which explains the relationship job and outcome relationship.

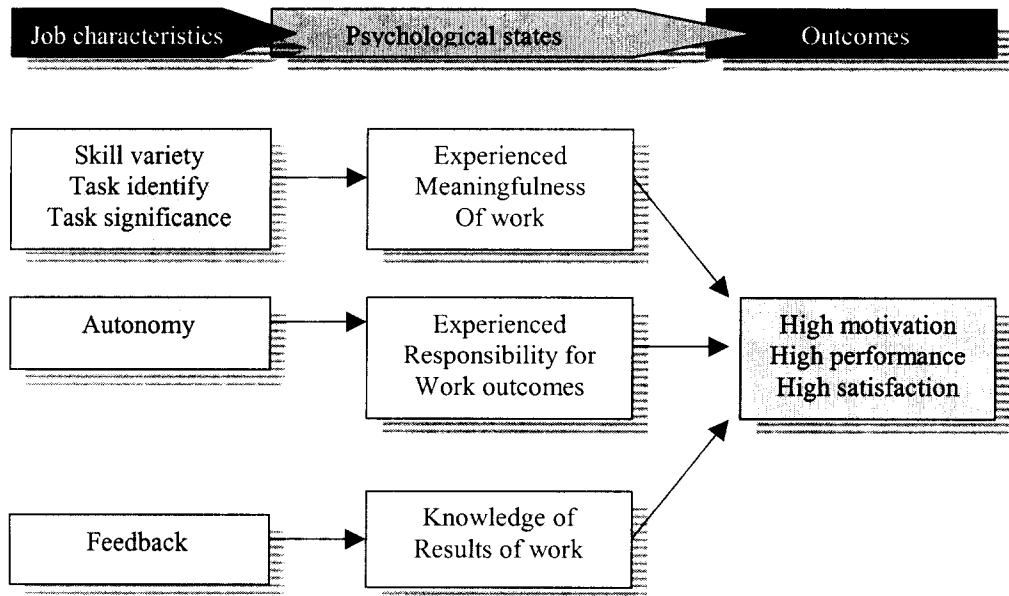


Figure 1: Job Characteristics Model

From the JCT above, the motivation is high when employees experienced meaningfulness of work, experienced responsibility of work outcomes and clear about the results of work performed.

Herzberg in his motivator-hygiene theory stated that people have two sets of needs : Motivator need and Hygiene need. Motivator needs are related to the nature of work and challenging it is. The motivation comes from interesting work,

autonomy, responsibility and sense of accomplishment. Hygiene needs are related to the physical context where the work is performed such as working conditions, job security, good relationship with co-workers and effective supervision.

ISO 9000 system provides the feedback of work and improves co-workers and supervision relationship however the nature of works becomes routine, insignificance and not challenging. Employees find there are many procedures that have to be followed and feel that ISO 9000 system is a bureaucratic documentation system (Lamprecht, 1993) rather than the substantial improvement in the nature of employees' job. Thus employees may not be motivated. The hypothesis is then constructed as :

***H<sub>2</sub> : ISO 9000 System Implementation will not improve employees internal Motivation***

### **3.1.3 ORGANIZATIONAL COMMITMENT**

Organizational commitment is defined as the degree of employees' effort for the company and employees' loyalty to the organization. Organizational commitment is usually measured using job satisfaction and motivation variables. Hackman and Lawler (1971) argued that intrinsic motivation, job satisfaction and commitment increase when two elements are present: 1) Higher order need strength is salient, 2) Employees experience a high degree of skill variety, task identity, task significance and autonomy.

ISO 9000 system is viewed as negatively related to job satisfaction and motivation. Job stress also increased in presence of ISO 9000 system.

Based on this, I thus hypothesize that:

***H<sub>4</sub> : ISO 9000 system implementation will not improve organizational commitment in employees.***

The summary of Hypotheses can be shown in the following table: -

Factor	Hypothesis
Job Satisfaction	<i>ISO 9000 system implementation will improve job satisfaction of employees.</i>
Motivation	<i>ISO 9000 System Implementation will not improve employees internal Motivation</i>
Organizational Commitment	<i>ISO 9000 system implementation will not improve organizational commitment in employees.</i>

Table 1: Table of Hypothesis

### 3.1.4 RELATIONSHIP DATA

The study also examined the relationship of demographic factors with variables being studied (job satisfaction, motivation, job stress and organizational commitment). The relationships being investigated were:

1. To what degree are selected demographic factors (gender, education, income) differs in term of job satisfaction as a result of the implementation of ISO 9000 system.

2. To what degree are selected demographic factors (gender, education, income) differs in term of motivation as a result of the implementation of ISO 9000 system.
3. To what degree are selected demographic factors (gender, education, income) differs in term of organizational commitment as a result of the implementation of ISO 9000 system.

### **3.2 RESEARCH DESIGN**

The instrument used in the study is a four pages questionnaire. The questionnaire is partly derived from a study conducted by Sim (1996) and partly is developed through review of the literature on factors affecting the dependent variables. The questionnaire consists of two sections.

Sections I measures the impact of ISO 9000 implementation from employees' perception. There were 28 questions in this section measuring four dependent variables. Table 2 shows the questions that represent each of the variables. The study uses the 5-point Likert-type scale with 1 indicating strongly disagree and 5 strongly agree. Respondents were asked to indicate their level of agreement on statements relating to ISO 900 System in the period before and after implementation.

Section II of the questions measures the demographic of respondents including level of age, level of education and income. A copy of the questionnaire is attached in Appendix I.

Table II summarizes the questions used to measure variables

<b>Job Variables</b>	<b>Question Numbers</b>
Job Satisfaction	1, 2, 3, 4, 5, 6, 7 & 8
Motivation	9, 10, 11, 12, 13, 14, 15, 16, 17, 18 & 19
Organizational Commitment	23, 24, 25, 26, 27 & 28
<b>Respondent Variables:</b>	
Age	
Education Level	
Income Level	
<b>Computed Variable:</b>	
Changes in Job Satisfaction before and after ISO 9000 implementation	
Changes in Motivation before and after ISO 9000 implementation	
Changes in Job Pressure before and after ISO 9000 implementation	
Changes in Level of Organizational Commitment before and after ISO 9000 implementation	

*Table II : Summary of variables*

### 3.3 SAMPLING DESIGN

The population of this study consists of employees of certified companies whom have experienced the company change from non-ISO to ISO 9000

System. The selected companies have been certified for at least 2 years to get accurate results. The list of certified companies was derived from SIRIM directory.

### **3.4 DATA COLLECTION PROCEDURE**

Questionnaires were distributed to employees of ISO 9000 certified companies with the help of people in the organizations. Questionnaires were also e-mailed to known respondents. Each questionnaire was accompanied by a cover letter explaining the study and requesting cooperation. The cover letter was prepared using Universiti Malaya letterhead and signed by the supervisor, Associate Professor Dr. Mohd Nazari Ismail to facilitate the data collection process.

### **3.5 DATA ANALYSIS TECHNIQUE**

Data were analyzed using Windows SPSS Software. The scale of the negative question was first converted to positive number where a score of '1' was converted to '5' and the score of '2' was converted to '4'. The scores of variables before and after ISO 9000 implementation were computed. The differences were then analyzed. The trend of differences of score across industries was also analyzed.

Reliability test was run to test the acceptable level of the questionnaires. A score of less than 0.6 is considered as unreliable and the variables are dropped from the studies. Next, Paired Sample t-Test



was conducted to compare means of before and after the implementation and to test the significant of the results.

One way ANOVA analysis was used to determine any significant different in result across demographic characters namely : gender, type of industry, level of income and level of education.

The demographic of the respondents was summarized using descriptive statistics. The correlation analysis was performed to examine any correlation between samples' background (age, level of education and level of income) to each variable.