Chapter 2
LITERATURE REVIEW

The purpose of this study is to compare the level of job satisfaction of employees in IT organisations with and without ISO 9000 certification. The literature review addressed the (a) theories of job satisfaction, (b) measurement of job satisfaction, (c) job satisfaction as criterion variable, (d) job satisfaction as predictor variable, (e) effects of ISO 9000 on job satisfaction (f) effects of organisation size on job satisfaction (g) past research on job satisfaction in Malaysia.

Theories of Job Satisfaction

Three theoretical frameworks of job satisfaction can be identified in the literature. One is based on content theories of job satisfaction, second is grounded in process theories of job satisfaction and the third is rooted in situational models of job satisfaction (Thompson & McNamara, 1997).

Content Theories

Content theorists assume that fulfillment of needs and attainment of values can lead to job satisfaction (Locke, 1976). Maslow’s (1954) need hierarchy theory and Herzberg’s motivator-hygiene theory (Herzberg, 1966) are examples of content theories.

Maslow’s Need Hierarchy Theory. According to Maslow’s (1954) view of individual needs, job satisfaction is said to exist when an individual's needs are met by the job and its environment. The hierarchy of needs focuses on five categories of needs arranged in ascending order of importance. Physiological, safety, belongingness and love are the lower-level needs in the
hierarchy. The higher-level needs are esteem and self-actualization. When one need is satisfied, another higher-level need emerges and motivates the person to do something to satisfy it. A satisfied need is no longer a motivator. Whaba and Bridwell (1976) did an extensive review of the research findings on the need hierarchy concept. The results of their review indicate that there was no clear evidence showing that human needs are classified into five categories, or that these categories are structured in a special hierarchy. Even though hardly any research evidence was discovered in support of the theory, it enjoys wide acceptance.

**Herzberg's Motivator-Hygiene Theory.** The study of job satisfaction became more sophisticated with the introduction of Herzberg's motivator-hygiene theory (Herzberg, 1966; Herzberg, Mausner, & Snyderman, 1959). This theory focuses attention upon the work itself as a principal source of job satisfaction. To Herzberg the concept of job satisfaction has two dimensions, namely intrinsic and extrinsic factors. Intrinsic factors are also known as motivators or satisfiers, and extrinsic factors as hygenies, dissatifiers, or maintenance factors. The motivators relate to job content (work itself) and include achievement, recognition, work itself, responsibility and advancement. The hygenies relate to job context (work environment) and involve, for example, company policy and administration, supervision, salary, interpersonal relations, and working conditions. Motivators are related to job satisfaction when present but not to dissatisfaction when absent. Hygenies are associated with job dissatisfaction when absent but not with satisfaction when present.

Before the emergence of the motivator-hygiene theory, only single scales had been used to measure job satisfaction. Scores on the high end of the scale reflected high levels of job satisfaction, whereas scores on the low end represented high dissatisfaction. Research based on the motivator-hygiene theory should apply different scales for job satisfaction and dissatisfaction because the opposite of job satisfaction is no job satisfaction and the opposite of job dissatisfaction is no job dissatisfaction (Iliacqua, Schumacher, & Li, 1995).
Assessing the motivator-hygiene theory, Locke, Fitzpatrick, and White (1983) pointed out that Herzberg's theory is method dependent. Herzberg used what is known as the critical incident technique in the development of his theory. This type of research approach has been the only one consistently leading to results confirming the theory. The results of other applied methods have indicated that hygienes indeed can be associated with job satisfaction and motivators with job dissatisfaction.

**Process Theories**
Process theorists assume that job satisfaction can be explained by investigating the interaction of variables such as expectancies, values, and needs (Gruneberg, 1979). Vroom's expectancy theory (1982) and Adams' equity theory (1963) are representative of the second framework.

**Vroom's Expectancy Theory.** Vroom's (1982) expectancy theory suggests that people not only are driven by needs but also make choices about what they will or will not do. The theory proposes that individuals make work-related decisions on the basis of their perceived abilities to perform tasks and receive rewards. Vroom established an equation with three variables to explain this decision process. The three variables are expectancy, instrumentality, and valence. Expectancy is the degree of confidence a person has in his or her ability to perform a task successfully. Instrumentality is the degree of confidence a person has that if the task is performed successfully, he or she will be rewarded appropriately. Valence is the value a person places on expected rewards.

Expectancy, instrumentality, and valence are given probability values. Because the model is multiplicative, all three variables must have high positive values to imply motivated performance choices. If any of the variables approaches zero, the probability of motivated performance also approaches zero. When all three values are high, motivation to perform is also high. Vroom's (1982) expectancy theory suggests that both situational and personality variables produce job satisfaction.
Adams' Equity Theory. The primary research on equity theory was done by Adams (1963). Equity theory proposes that workers compare their own outcome/input ratio (the ratio of the outcomes they receive from their jobs and from the organization to the inputs they contribute) to the outcome/input ratio of another person. Adams called this other person "referent." The referent is simply another worker or group of workers perceived to be similar to oneself. Unequal ratios create job dissatisfaction and motivate the worker to restore equity. When ratios are equal, workers experience job satisfaction and are motivated to maintain their current ratio of outcomes and inputs or raise their inputs if they want their outcomes to increase. Outcomes include pay, fringe benefits, status, opportunities for advancement, job security, and anything else that workers desire and receive from an organization. Inputs include special skills, training, education, work experience, effort on the job, time, and anything else that workers perceive that they contribute to an organization.

Situational Theories

Situational theorists assume that the interaction of variables such as task characteristics, organizational characteristics, and individual characteristics influences job satisfaction (Hoy & Miskel, 1996). Examples of models are the situational occurrences theory of job satisfaction (Quarstein, McAfee, & Glassman, 1992) and Glisson and Durick's (1988) predictors of job satisfaction.

Situational Occurrences Theory. The situational occurrences theory of job satisfaction was proposed by Quarstein, McAfee, and Glassman (1992). The two main components of the theory are situational characteristics and situational occurrences. Examples of situational characteristics are pay, promotional opportunities, working conditions, company policies, and supervision. Individuals tend to evaluate situational characteristics before they accept a job. Situational occurrences tend to be evaluated after accepting a job. Situational occurrences can be positive or negative. Positive occurrences include, for example, giving employees some time off because of exceptional work or placing a microwave in the work place. Negative occurrences include,
for example, confusing email messages, rude remarks from co-workers, and copiers which seem to break down a great deal. Quartstein et al. (1992) hypothesized that overall job satisfaction is a function of a combination of situational characteristics and situational occurrences. The findings of their study supported the hypothesis. According to the researchers, a combination of situational characteristics and situational occurrences can be a stronger predictor of overall job satisfaction than each factor by itself.

Predictors of Job Satisfaction. Glisson and Durick (1988) examined simultaneously the ability of multiple variables from three categories (worker, job, and organizational characteristics) to predict both job satisfaction and organizational commitment. They proposed that job tasks would be excellent predictors of job satisfaction, characteristics of workers poor predictors, and characteristics of the organization moderate predictors. Their findings supported the traditional emphasis on job characteristics as determinants of job satisfaction, and to a lesser extent, the more recent examinations of organizational determinants.

Measurement of Job Satisfaction

Unlike productivity, absenteeism, and turnover, job satisfaction is present only inside an individual’s mind and cannot be measured directly. Methods for indirectly measuring job satisfaction include observing employees, interviewing them, and asking them to complete a questionnaire. Many organizations and researchers favor questionnaires because personal observations and interviews are very time consuming (Cherrington, Nyal, & McMullin, 1989). Job satisfaction can be measured using either single-item, general, or dimension measures.

Single-Item Job Satisfaction Measure

A description of a single-item measure has been given, for example, by Robbins (1998): “All things considered, how satisfied are you with your job” (p. 151). Response alternatives can range from very dissatisfied to very satisfied.
Wanous, Reichers, and Hudy (1997) support the use of a single-item measure unless a study's inquiries or circumstances direct toward selecting a well-constructed scale. Kalleberg (1974) criticized single-items measures based on the measures' assumption that job satisfaction is unidimensional, when in fact it appears to be multidimensional. Evidence points toward an overestimation of job satisfaction when the construct is measured using a single-item measure.

**General Job Satisfaction Measure**

General job satisfaction scales, like single-item measures, are used to determine the overall level of job satisfaction. An instrument available to measure overall job satisfaction, for example, is the Brayfield-Rothe's Overall Job Satisfaction (OJS) index and Job in General Scale (JIG) (Ironson, Smith, Brannick, Gibson, & Paul, 1989).

**Overall Job Satisfaction (OJS).** The OJS is made up of a list of 18 statements about jobs where respondents are asked to mark the phrase (i.e. from strongly agree to strongly disagree) which best describe how they feel about their present job.

**Job In General Scale (JIG).** The JIG is made up of a list of descriptive phrases (i.e., "Better than most") or adjectives (i.e., "Rotten") beside which the respondents are asked to mark "Y" for "YES" if it describes their job in general, "N" for "NO" if it does not describe it, or "?" if they cannot decide whether or not the word or phrase describes their job.

**Dimension-Specific Job Satisfaction Measure**

If a study of job satisfaction is conducted to identify areas of dissatisfaction to improve upon them, dimension-specific levels of job satisfaction should be assessed. Numerous standardized reliable and valid instruments are available for this type of approach. Normative data has also been documented for the scales of the instruments described in the following paragraphs.
The Job Satisfaction Survey (JSS) (Spector, 1997) yields an overall satisfaction score and 9 dimension-specific scores. The dimension-specific scales include pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, co-workers, nature of work, and communication.

The Minnesota Satisfaction Questionnaire (MSQ) (Weiss, Dawis, England, & Lofquist, 1967) generates satisfaction scores for 20 dimensions. The dimensions are ability, achievement, activity, advancement, authority, company policies and practices, compensation, co-workers, creativity, independence, moral values, recognition, responsibility, security, social service, supervision-human relations, supervision-technical, variety, and working conditions. Various combinations of dimensions generate intrinsic, extrinsic, and general job satisfaction scores. The MSQ is available in a long and a short version. The long-form MSQ asks participants to respond to 100 items using a Likert response format. The 100 items represent 20 five-item scales. The short-form MSQ asks participants to respond to only 20 items. These 20 items are the items from the long-form MSQ that best represent each of the 20 scales.

The Job Descriptive Index (JDI) (Smith, Kendall, & Hulin, 1969) measures satisfaction levels of work, pay, promotion, supervision, and co-workers. Participants in studies utilizing the JDI are asked to indicate whether each statement does or does not describe their jobs. Agreement (yes) responses to positive items and disagreement (no) responses to negative items receive a score of 3; disagreement (no) responses to positive items and agreement (yes) responses to negative items receive a score of 0. The “?” responses, indicating the participant cannot decide is assigned a score of 1.
Job Satisfaction as Criterion Variable

Originally job satisfaction was studied as a predictor of behaviors such as performance, absenteeism, and turnover. More recently the interest has shifted toward identifying factors that influence or predict job satisfaction. Personal and work-related characteristics can influence job satisfaction (Locke, 1976; Spector, 1997).

Personal Characteristics

Personal characteristics such as gender, age, race, marital status, education and tenure are often included in job satisfaction studies to describe the participants and to determine relationships among the variables. Research evidence often shows the presence of relationships between the personal characteristics and job satisfaction, but the evidence tends to be mixed. Sometimes positive relationships are identified and sometimes negative ones for the same variables.

Gender. Research investigating the relationship between gender and job satisfaction uncovered three possibilities. First, females are more satisfied than males [i.e., Hoppock (1935)]. Second, males are more satisfied than females [i.e., Hulin & Smith (1964); Locke, Fitzpatrick, & White (1983)]. Third, no difference exists between males and females with respect to job satisfaction [i.e., D'Arcy, Syrotuik, & Siddique (1984); Golding, Resnick, & Crosby (1983); Liacqua et al. (1995)].

Grunenberg (1979) presented several reasons for the inconsistent results of the investigations concerning the relationship between gender and job satisfaction. Males and females might occupy different job levels in the same organization. Their promotion prospects might vary, as might pay and the level of need satisfaction in the same job. Women might perceive stronger social satisfaction in a position that requires few skills and offers limited promotion opportunities than men do and thus might experience greater job satisfaction than men.
Local studies too showed inconsistent results with regards to gender differences. Lee (1995) concluded that male engineers were more satisfied than female engineers. On the other hand, Lim (1990) argued that females in the medium sized metal-based firms registered a higher satisfaction level as compared to their males counterparts, whereas Liow (1994) found that there was no significant difference in overall job satisfaction between male and female employees in the electrical and electronics industry.

Thus, the general consensus concerning gender differences in job satisfaction is that there is little practical significance between the two sexes. Hulin and Smith (1964) indicated the differences in job satisfaction by gender are negligible when the factors of pay, tenure, and education are controlled statistically.

**Age.** Mixed evidence exists in the literature concerning the relationship between age and job satisfaction. Herzberg et al. (1957), after an extensive review of job satisfaction literature, concluded that the association is best described by a U-shaped function. Initially satisfaction is high, then decreases, and eventually, after hitting a low point, increases again with age.

Hulin and Smith (1965) indicated that job satisfaction increases in a positive linear fashion with respect to age. As workers grow older, they tend to be more satisfied with their jobs. Older workers have lower expectations than younger workers, and they tend to be better adjusted to the work situation. Quinn, Staines, and McCullough (1974) claimed that older workers are more satisfied with their work because they move into better work or more desirable positions across their careers.

Zeitz (1990) adopted a situational perspective of employee attitudes to investigate the relationship between age and work satisfaction among 434 employees of a Federal Government agency. The employees were categorized into three groups: nonprofessionals (mostly clerical personnel), non-elite professionals (not promoted to highest rank), and elite professionals (attainment of grade 13 or above). The results of the study show that the age-
satisfaction curves differed among the nonprofessionals, non-elite professionals, and elite professionals.

Local studies have shown similar results that employees aged between 30 to 39 had higher overall job satisfaction [Liow (1994); Rosnah (1993/94)]. Liow (1994) reported that work satisfaction and pay satisfaction were higher for age group of less than 29 years and 40 years and above. Juraidah (1988/89) studied job satisfaction among bank managers in Malaysia found that age has an influence on bank managers' satisfaction. Bank managers who were more than 30 years old were more satisfied than those less than 30 years old. Abdul Latif (1979) and Choo (1999) concluded that as age increases, job satisfaction will increase.

Race. Cultural differences exist across and within nations. The components of the cultural environment, generally, beliefs, values, customs and folkways vary from one ethnic groups to another. In the US, various cross-cultural studies have been conducted on whites and non-whites. Dredger and Miller (1968) suggested potential cultural differences between white and black female employees with respect to the the way they view their jobs. O'Reilly III and Roberts (1973) examined job satisfaction for white and non-white females across three occupational levels and the results suggested that the frame of reference one brings from his culture or sub-culture influenced the way he/she perceived his/her job.

Local research showed that there was a higher proportion of non-Malay employees who were satisfied with the organisational climate as compared to Malay employees [Tan (1986)]. Abdul Latif (1979) studied job satisfaction of employees at the plantation industries found that among the 3 races (Malay, Indians and Chinese), a large proportion of the Indians are relatively more satisfied with their work than the Chinese. However; the Malay respondents were equally divided into satisfied and less satisfied groups. Choo (1999) demonstrated the ethnic Chinese salespersons have higher level of job satisfaction as compared to other races. This could be due to the fact that the ethnic Chinese possesses the quality needed to be successful in the sales
profession which are aggressive accompanied with strong business acumen. However, Lim (1990) and Lee (1994) failed in proving any significant relationship between job satisfaction and ethnic races.

Marital Status. Wiltenauer's (1980) findings that between unmarried and married faculty members, there were no difference in their degree of satisfaction. Similarly Hashim (1988) studied job satisfaction among academic staff of universities in Malaysia concluded that the satisfaction level between the unmarried and married academic staff did not show any significant differences. Lim (1990) and Liow (1994) too reported that marital status had no significant influence on overall job satisfaction. However, Juraiah's (1988/89) study found that married bank managers were more satisfied than unmarried managers as they seemed to adapt more easily to their working community compared to unmarried bank managers. This is supported by Choo's (1999) findings of which married salespersons expressed higher level of job satisfaction. This is possibly due to higher level of satisfaction in life that may indirectly caused higher level of job satisfaction.

Education. A review of job satisfaction studies that included education as a variable indicates that the relationship between education and job satisfaction can be negative or positive. Carrell and Elbert (1974), for example, reported negative direct effects of education on job satisfaction. They concluded that younger workers, who have a higher level of formal education, may be dissatisfied with performing the routine tasks required in most jobs. DeSantis and Durst (1996) compared job satisfaction among public and private-sector employees. They identified many similarities between the two groups, but one of the clear differences concerned the education variable. The expected negative relationship between education and overall job satisfaction was much stronger for the private-sector employees than the public sector. DeSantis and Durst offered as a possible explanation that the private-sector individuals might be employed in unchallenging positions and might be experiencing larger gaps between expectations and realities.
However, analysis done on 11 studies of American workers by Quinn and Baldi de Mandilovitch (1980) indicated a positive relationship between the workers' educational level and overall job satisfaction.

Local studies too showed various outcomes. Liow (1994) showed that there was a negative correlation between level of education and job satisfaction, whereas Lee (1994) found that executives with higher level of education indicated higher level of job satisfaction. This could be due to the fact that executives with higher qualification generally held more senior positions with better pay and offices in TNB. Choo (1999) supported Lee (1994) as his findings showed that salespersons with higher education tend to have higher level of job satisfaction.

Tenure. Gruneberg (1979) already pointed out that the relationships between tenure, defined as length of service, and job satisfaction was unclear. It is possible that an increase in job tenure can be associated with a decrease in job satisfaction (DeSantis & Durst, 1996). It is also possible, as evidence provided by Bedeian, Ferris, and Kacmar (1992) has shown, that tenure and job satisfaction are positively related. However, Liow's (1994) findings showed that length of service had no significant influence on job satisfaction.

Tenure is an important topic deserving further study. Unlike related demographic variables such as age or sex, tenure has been judged a legal and defensible basis for disbursing organizational rewards and making staffing decisions (Gordan and Johnson, 1982).

**Work-Related Characteristics**

Job satisfaction can be affected by the work situation. Any aspect of the job and employing organization is part of the work situation. Based on an extensive review of the literature, Bruce and Blackburn (1992), Locke (1976), and Vroom (1982) identified challenging work, equitable rewards, supportive colleagues and working conditions as main determinants of job satisfaction (also cited in Robbins, 1998).
**Challenging work.** The work itself is the factor that correlates most highly with overall job satisfaction (Schneider, Gunnarson, & Wheeler, 1992). Employees' preference tends to be jobs that let them apply their abilities and skills and embody a diversity of tasks, freedom, and performance feedback. This preference makes work mentally challenging. Challenge has to be balanced. Not enough challenge can lead to boredom, but too much challenge and employees experience frustration and feelings of failure. An appropriate level of challenge will cause feelings of pleasure and satisfaction (Bruce & Blackburn, 1992; Locke, 1976; Vroom, 1982).

Based on local studies, Liow (1994), Rosnah (1993/94), Wong (1994), and Tan (1986) in comparing job dimensions found that respondents were more satisfied with factors related to work rather than the other job dimensions i.e. supervision, coworker, pay and promotion.

**Equitable rewards.** Pay and promotion are rewards employees tend to expect for their efforts. Pay and promotion lead to satisfaction when they are perceived as being fair. For pay to be fair, decisions on the amount to pay should reflect job requirements, people's abilities, and community pay standards. By the same token, employees encounter satisfaction when they perceive that promotion decisions are the result of fair policies and processes (Bruce & Blackburn, 1992; Locke, 1976, 1983; Vroom, 1982).

Research in Malaysia also indicated a similar outcome. Rosnah (1993/94) found that in comparing job dimensions, clerical employees in selected public agencies were more satisfied with factors related to human relations an work rather than those related to financial or monetary rewards. Yap (1989) found that doctors in Government Hospitals were dissatisfied with their compensation but satisfied with their role i.e. treating the sick. Liow (1994) too found that more employees in electrical and electronics industry were dissatisfied with their pay and promotion than with the nature of work, supervision and coworkers.
Supportive colleagues. Many individuals' social need can be satisfied through their favorable interaction with both coworkers and supervisors at work. Sympathetic and helpful coworkers can increase employee job satisfaction. Supervisors who interact favorably with employees assist in solving problems are aware of employees' challenges and are able to communicate effectively and provide constructive feedback periodically. These supervisory behaviors can lead to increased job satisfaction for employees (Bruce & Blackburn, 1992; Herzberg et al., 1957; Locke, 1976, 1983; Vroom, 1982).

In comparing different job dimensions, local respondents were more satisfied with job dimensions related to human relations in workplace rather than those related with financial or monetary rewards. Rosnah (1993/4) reported that coworker dimension was the source of the highest satisfaction followed by supervision. Similarly, Tan (1986), Wong (1994) and Liow (1994) found that generally employees were satisfied with their supervisors as well as their colleagues.

Supportive working conditions. People want to be comfortable and safe while they work. Appropriate lighting, temperature, and noise level are several aspects that keep people from being uncomfortable, and, therefore, from experiencing dissatisfaction. People want the tangible items that they need to work to perform their job well. In an office environment examples for tangibles are computers, copiers, fax machines, and phones. Furthermore, people prefer cleanliness to dirt and living close to their jobs over living far away (Bruce & Blackburn, 1992; Locke, 1976, 1983; Vroom, 1982).

Job Satisfaction as Predictor Variable

The level of employee job satisfaction can have an impact on organizations. Potential organizational consequences of job satisfaction involve performance, absenteeism, and turnover. These consequences have been discussed by many researchers (i.e., Bruce & Blackburn, 1992; Gruneberg, 1979; Locke, 1976; Spector, 1997; Vroom, 1982) interested in job satisfaction.
Job Satisfaction and Performance

During the 1930s-1950s, the notion existed that happy workers are productive workers. Research conducted based on that notion and with the goal to show a positive relationship between job satisfaction and job performance found little support for such a relationship (Vroom, 1982). Bruce and Blackburn (1992) presented the fact that a positive job satisfaction-performance relationship is possible, but so is the possibility of no relationship as well as a negative relationship. Spector (1997) pointed out the potentiality of a performance-satisfaction relationship in addition to the satisfaction-performance relationship. In his opinion, more evidence exists that better performers experience more job satisfaction because they receive rewards associated with good performance.

Considering the financial performance in terms of annual returns of the 100 best companies to work for in America, Grant (1998) recently asked the question: "Do employees make companies successful, or do successful companies make employees happy?". She concluded that causation exists in both directions. Interesting was also the presence of happy workers in companies which under performed as indicated by very low annual returns or losses.

Job Satisfaction and Absenteeism

Studies investigating the job satisfaction-absenteeism relationship have documented consistent, significant, but moderate negative relationships (Locke, 1976). Employees who are satisfied are less likely to be absent than employees who are dissatisfied. Absence is influenced by job satisfaction but also by, for example, pressure or lack of pressure to attend. Incentives for attendance or punishment for absence can decrease absenteeism. Liberal sick leave policies can cause employees, including the highly satisfied ones, to be absent.
Job Satisfaction and Turnover

According to Mobely (1982), a weak-to-moderate negative relationship exists between job satisfaction and turnover. High job satisfaction leads to low turnover. In general, dissatisfied workers are more likely to quit than those who are satisfied. But it is also a fact that some dissatisfied workers never leave, and some satisfied workers do take jobs in other organizations.

Both Mobely (1982) and Vroom (1982) advise to administer and readminister dimension-specific job satisfaction surveys. Dimension-specific instruments allow the identification of dissatisfaction concerning such factors as pay, job content, supervision, co-workers, and working conditions. Readministering instruments can identify changes and facilitate trend analysis.

Effects of ISO 9000 on Job Satisfaction

Extensive research has been conducted on the subject of job satisfaction over the last quarter century. Research findings suggest that job satisfaction is not a static state but is subject to influence and modification from forces within and outside an individual, that is his or her own personal characteristics and the immediate working environment. The introduction of ISO 9000 is likely to affect many different aspects of the employees' jobs and work. The results of ISO 9000 implementation are usually new quality policies, new operations processes, and new ways of evaluating performance outputs and these changes may have an effect on employees' daily work and their job satisfaction. While the employees are encouraged to take the responsibility for quality in their hands, it is not possible to expect quality service and reliable products if the work becomes unsatisfying.

However, many of those who have been instrumental in the promotion of TQM/ISO 9000 have stressed the importance of involving employees in actively solving problems which affect the quality of goods and services offered by the organisation. For example, Deming recommended that workers be "encouraged to make suggestions and to take a relatively high degree of
responsibility for overall performance". Crosby, Juran and Cryna and Feigenbaum all make similar recommendations. Among the anticipated benefits of such a approach are increases in employee involvement in problem solving and decision making, a more motivated work force, increased in job satisfaction, improved morale and involvement.

A review of empirical studies of job satisfaction by Locke (1976), Lawler (1973) and Smith (1969) indicates that working conditions which help in attaining interesting work, reasonable workload, pay and promotions, and in minimizing role conflict and ambiguity, will lead to job satisfaction. ISO 9000 is seen as a way of managing organisations to improve their customer satisfaction. But there is less agreement whether ISO 9000 result in an improvement of employees' job satisfaction. It should not be assumed that a workforce would necessarily welcome ISO 9000. What is seen as an unambiguously positive impact on employees may be seen by others as increasing pressure on employees by getting them to take on more work and responsibilities.

Past studies have shown mixed outcome. Study conducted by Guimaraes (1994) showed that employees reported higher job satisfaction after the implementation of ISO 9000. Adanur and Allen (1995) too reported that one of the benefits of ISO 9000 resulted from their study was more motivated employees besides better product quality, lower quality costs and more efficient operations. This is further supported by Sin's (1996) study of the impact of ISO 9000 on employees' perception, attitude and behaviour conducted among employees from the manufacturing industry in Singapore. The results revealed that there was a statistically significant improvement in the employees' job satisfaction besides personal benefits, job control and internal motivation after the ISO 9000 certification.

Casadesus and Gimenez (2000) who did a study on 288 Spanish companies concluded that influence of the ISO 9000 certification on human resource management proves that there are two aspects in which the certification has
quite positive effects i.e. improvement in job satisfaction and improvement in communication between management and employees.

On the contrary, Seddon (1997) pointed out that in addition to cost, ISO made customers unhappy, demoralized staff and took away opportunities to improve performance. McAdam & Canning (1999) examined the impact that ISO 9000 has had in the service sector and their findings showed that about two thirds (65%) of the respondents felt that employee performance had improved since the achievement of the ISO 9000 certification however, less than half (41%) considered that employee motivation had improved.

As studied by Lam (1995) on the impact of Total Quality Management (TQM) programmes which include the implementation of the ISO 9000 system on job satisfaction of 220 frontline supervisors in Hong Kong, his findings showed that TQM programmes does not necessarily enhance all aspects of employee job satisfaction. While respondents did not perceive any great change in pay and promotional opportunities, they said that they now had greater knowledge of the results of their work and the working relationships with their fellow employees had improved. However, on the whole, respondents claimed that TQM had not increased their overall job satisfaction and that their personal effectiveness had not been increased because of TQM.

The negative effect of ISO 9000 on job satisfaction could be due to the increase in rigidity when performing a job. In implementing the ISO 9000 system, employees are required to follow written rules and procedures to perform their jobs. There might be recognition of achieving the ISO 9000 certification for all the employees at the moment of obtaining the certificate. However, once the system is in place, it becomes a fixed rule of performing a job and the day-to-day responsibility of complying with the procedures. The advancement or personal growth in competence associated with the implementation might be felt by the management who engineered the implementation process but not for the employees. Hence, employees' job satisfaction is less likely to be improved.
Effects of Organisational Size on Job Satisfaction

Size, as a variable affecting job satisfaction, has been studied mostly in connection with different sized work groups within the same organisation. Various work groups, departments and factories have been studied as organisational subunits. It was found that smaller work units are associated with higher morale and greater job satisfaction.

Viteles (1953), in his summary of studies concerned with the influence of the size variable, concluded: "The size of work group affects output and attitudes, with both tend to be better in smaller-sized groups". A similar summary of the literature was made by Strauss and Sayles (1960): "Many studies have shown that employee morale is higher in small groups than in large ones". A survey in one community suggested that small plants with less than 500 employees permit more intimate personal contact, resulting in more cohesiveness among employees and management and a more favourable atmosphere (Cleland, 1955). Thus, research evidence on the relationship between subunit size and job attitudes and performance generally concludes that small subunits are superior to large ones.

Talacchi (1960) studies also showed a strong trend of job satisfaction decreasing as plant size increased. Kerr, Koppelmeier, and Sullivan (1951) found that the job satisfaction for 894 workers in 29 departments of two electronics plants was negatively correlated with the size of the department. Katzell, Barrett and Parker (1961) found a significant trend of employees in large warehouses to express lower job satisfaction than employees in small warehouses.

Despite the evidence cited above concerning the relationship of size and job attitudes, we cannot conclude that employees in smaller companies or organisations are more satisfied than larger ones. Porter (1963) pointed out that there are two possible limitations. First, the units of employees studied in most of these investigations were subunits of the same organisation rather
than a different organisation. When different sized groups are studied within the same organisation, the possible advantages that might accrue to the large units are probably greatly attenuated.

As for local studies conducted, Lim (1990) concluded that there was no significant difference in job satisfaction between employees in small and medium sized firms in the metal-based industry. Similarly, Liow's (1994) study too indicated that there is no significant difference in overall job satisfaction between employees in large and medium-sized electrical and electronics companies.

However, contrary to the above, Choo (1999) found that salespersons from large firms generally were more satisfied as compared to their counterparts in the medium firms. This could be due to the fact that large firms offer better career path, better job enrichment and job enlargement programs and training that could be the motivating factors. More profoundly during the regional economic turmoil, salespersons in large firms were generally more satisfied for job security reasons.

Past Research on Job Satisfaction in Malaysia

Studies that have been carried out to determine the level of employee’s job satisfaction locally were mostly case studies in nature thus their findings cannot be generalised.

Low (1985) carried out a study to determine the level of job satisfaction among the staff in various departments of a service-oriented organisation. Employees were found to be most satisfied with their coworkers and least satisfied with their pay and promotion. The results also showed that there was no homogeneity in the job satisfaction levels among staff of various departments. This is because a different set of factors had caused dissatisfaction in various departments.
Tam (1986) in his research on job satisfaction of public sector employees (specifically civilian employees in the Ministry of Defence) found that 91.3% of the respondents in the "division A" or executive category were satisfied with their work and only 43.8% of "division D" (general workers) category were satisfied with their work. He also found that 50.9% of the respondents were satisfied with their jobs and that 73.9% of the respondents preferred to remain in the public sector than of work in the private sector mainly, for reasons of work in the private sector mainly, for reasons of job security.

Yap (1989) found that 8.1% of doctors in government hospitals were dissatisfied with their jobs whereas Markandan (1984) found that 22.9% of teachers were dissatisfied with theirs. Although doctors in the government hospital had expressed high dissatisfaction with the level of rewards, fringe benefits, promotional chances and training opportunities, they also expressed satisfaction with their role in helping to treat the sick.

Lim (1990) examined the job satisfaction of employees in small and medium sized firms in the metal-based industry. Her study showed that there was no direct relationship between job satisfaction and size of organisation. It also indicated that occupational level was related to job satisfaction, for the mean score for employees in lower level jobs showed that they were less satisfied as compared to higher level job holders. The mean score for operators was 57.98% and for executive was 62.31%.

Yee (1991) has studied the relationship between leadership behaviour and job satisfaction among police officers. His findings revealed that an overwhelming majority of the respondents were satisfied with the immediate supervision received but comparatively fewer respondents were satisfied as far as overall job satisfaction was concerned. The finding that the majority of the respondents were satisfied with their immediate supervisor but less satisfied in terms of overall job satisfaction, confirms that apart from the role of leaders in affecting subordinate satisfaction, other organisation factors such as characteristics of job itself, remuneration, promotional prospects etc. also affect overall job satisfaction.
Chan (1992) in his research on job satisfaction of employees in selected large textile firms also found that employees in lower-level jobs were less satisfied compared to those in higher level jobs. The mean score for operators was 155.58, 169.62 for office staff, 173.28 for supervisors and 171.11 for executives. His findings also revealed that while employees in these firms were quite satisfied with their jobs, significant difference were observed in their job satisfaction levels for demographic factors i.e. gender, length of service, age, race and educational level.

Lee (1994) researched into various level of job satisfaction among Tenaga Nasional Berhad (TNB) executives. He found that executives at TNB in general did not exhibit high job satisfaction. This situation was serious at that time of economic boom in the region as good executives could have been lured into leaving TNB for better job opportunities. He also discovered that senior executives tend to exhibit higher level of job satisfaction. This could be due to the fact that TNB adopts traditional approach towards staff promotion where emphasis was placed on seniority or number of years of service rather than performance. Other studies that supported this was by Lee (1995). Lee (1994) also concluded positive correlation between job satisfaction and level of education and negative relationship between job satisfaction and organisational hierarchy among the executives in TNB.

Liow (1994) in his studies on job satisfaction of employees in the electrical and electronics industry showed that there was no significant difference in overall job satisfaction between employees in large and medium-sized firms. His findings too indicate that there was no significant difference in overall job satisfaction among employees of different occupational levels.

Khor (1998) carried out an empirical study of supervisory behaviour, role stress and job satisfaction of individual salesperson in small and medium business. The results obtained indicate that supervisory behaviour, namely consideration, initiation of structure, participation and feedback were positively related to the salesperson’s overall job satisfaction.
Choo (1999) researched into the level of job satisfaction among salespersons in Klang Valley and he found that there was a significant relationship between the level of job satisfaction with the flatness in terms of organisational structure, indicating non-hierarchical organisations were instrumental in facilitating communication and promptness in decision making which are mandatory in the sales profession. The findings pertaining to the influence of firm size on the degree of job satisfaction indicated salespersons from large firms were generally more satisfied as compared to those in smaller firms.

The above literature review showed that in local context, job satisfaction has been studied in private and government organisations. However no studies was done for the IT industry in Malaysia thus far. Therefore, the first significance of this study is to contribute towards further empirical research and in the field of Job Satisfaction in the IT industry which is lacking in the local literature.