USE OF INFORMATION TECHNOLOGY, ORGANIZATIONAL CULTURE AND EMPLOYEE JOB SATISFACTION AMONGST STAFF ACADEMIC AND NON-ACADEMIC STAFF IN UNIVERSITI UTARA MALAYSIA

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ABSTRACT

Many organizations have experienced some kind of changes in the way they do things. Structural changes, for example, have bearings on how employees feel about their work. So do changes in technology, vision and social interaction. Because these factors in the work environment have implications to employees' attitudes toward work, the main aim of the present study was to investigate such implication. In particular, the present study attempted to examine the influence of these factors on job satisfaction through testing five hypotheses developed. Toward this end, a survey was carried out that involved distribution of questionnaires to 380 employees of Universiti Utara Malaysia, who comprise both academic and non academic staff and who were randomly selected as participants.

The findings reveal that use of IT, social networking and organizational goals and vision significantly influence job satisfaction, and thus supporting the hypotheses formulated. It is further revealed that amongst the three independent variables, organizational vision and goals appear to be the most important predictor of job satisfaction.

The findings have important implications to practice and future research, which are highlighted here. In addition, the study's limitations are also discussed.

ACKNOWLEDGMENT

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CHAPTER ONE

INTRODUCTION

For many of us, our job is not only the only main source of income, but it is also an important life domain in other ways. Work occupies a large part of our day, is our main source of social standing, helps to define who a person is, and affects our health both physically and mentally. Because work plays a central role in many people's lives, satisfaction with one's job is an important component in overall well-being.

Job satisfaction has been defined as a pleasurable emotional state resulting from the appraisal of one's job (Locke, 1976) and an affective reaction to one's job (Cranny, Smith, & Stone, 1992). Weiss (2002) has argued that job satisfaction is an attitude but points out that researchers should clearly distinguish the objects of cognitive evaluation which are affect (emotion), beliefs and behaviors. In a similar vein, Glick (1992) defines the job satisfaction as an affective response by individuals resulting from an appraisal of their work roles in the job that they presently hold. Job satisfaction is commonly defined as the extent to which employees like their work (Agho, Muller, & Price, 1993). It is an attitude based on employee perceptions, whether negative or positive, of their jobs or work environments (Pool, 1997). Job satisfaction has also been defined as the feelings a worker has about his or her job or job experiences to previous experiences, current expectations, or available alternatives (Balzer, Kihm, Smith, Irwin, Bachiochi, Robie, Sinar, & Parra, 1997).

Because job satisfaction arises from things within and around the organization, many have come up with proposals as to what makes people satisfied with their job. For example, Herzberg (1959) proposes that job satisfaction is influenced by either external or internal factors. External factors are those things that are external to the job, such as rules and procedures, money, supervision, etc., while those that are internal to the job are things like recognition, advancement and self-actualization. Some of these factors have been tested before by various scholars (Murray, 1999; Opara, Etnyre, & Arob, 2005).

Although studies on job satisfaction are rather abundant, research on job satisfaction is still needed as current jobs are undergoing major structural changes due to globalization, as companies and organizations need to come up with more innovative ways of making them more productive. Furthermore, various management scholars have shown that if job satisfaction is not addressed effectively in the organization, it will lead to other negative behavioral outcomes, such as absenteeism (Steers, Porter, & Bigley, 1996), dysfunctional work behavior (McNeely & Meglino, 1994) and ultimately turnover (Judge, 1993). If these behavioral outcomes manifest in the organization, the well-being of the whole organization is adversely affected. For example, organizations have to employ new people to replace those who have left, especially those whose talents and skills are critical to the organization's success and survival. Organizations have to also bear other costs, such as decreased morale and poor productivity, when employees engage in dysfunctional work behaviors such as sabotaging the organization's facilities and resources.

Because organizations have to compete more effectively in a globalized world, changes in the way jobs are structured are subsequently affected. Factors such as use of

information technology, organizational visions and goals, and social networks are some work dimensions that have implications to the way people view their jobs as a result of structural changes (such as leaner organization, flat structures, and autonomous workgroups) that have taken place in the organization. It has been argued that use of new technology at work changes the way jobs are structured.

According to Oldham and Hackman (1980) in their job characteristics model, when jobs are perceived to be enriching and enhancing as a result of the new technology used at work, people will be more satisfied with their job. On the other hand, when the new technology results in the degradation of jobs, this will have negative impact on how people view their jobs. Hence, in the new world order where use of information technology has become the norm rather than an exception, studies need to be carried out to see the extent of it in impacting workers' perception about their job, i.e. job satisfaction.

For the new technology to deliver positive impacts on organizational performance, such as job satisfaction, it must also be seen to be easy to use. Many have argued that perceived ease of use is one of the important characteristics of a good technology (Adams, Nelson, & Todd 1992; Hu, Chau, Sheng, & Tam, 1999). One can logically say that to get the best results in the performance of the organization, the technology should be user friendly as this will make the job accomplishment more efficient and hence the users more satisfied. This is because crucial information needed to perform the job will not delay task assignment; and the time spent could be better used to carry out other tasks that are more or of equally important.

In addition to technology, social relationships at work also influence how people perceive their job. Co-workers rendering assistance in terms of providing information needed to accomplish work is an important social support at work. In the day and age when changes in the environment are impacting the way business is being run, social networking becomes an important consideration in the accomplishment of job. At work this implies that people rely each other for information and other resources needed, and as social networking developed on trust is secured this impacts the way people see their job.

With respect to the goals of the organizational vision, undoubtedly changes in the business environment impact the strategies and goals of the organization for businesses, and if properly implemented, these strategies will lead to organizational success through the development of competitive advantage in the organization (Cors, Eagan, & Courter, 2003). One can logically say that when employees understand the goals and visions of the organization, they will be able to produce best results in job performance because the goals and visions provide them with a sense of direction and target to meet. And when people know where they are going, they will be able to know how to get there and this will shape their attitudes toward their job.

RESEARCH OBJECTIVES

Based on the above discussions, it is apparent that a study on organizational factors, such as use of IT at work, organizational vision and goals, and social networking at work, and how these influence job satisfaction of employees need to be carried out. Hence, the present study aims to accomplish the following specific research objectives:

a) To find out the relationship between IT use and job satisfaction;

b) To examine the relationship between social networking at work and job satisfaction;

c) To examine the relationship between organizational vision and goals and job satisfaction;

d) To investigate which of these factors is the strongest predictor of job satisfaction.

SCOPE OF STUDY

In order to achieve the research objectives set, the present study was conducted amongst academic and non-academic staff of Universiti Utara Malaysia (UUM). The choice of study location was seen to be appropriate since UUM has just undergone a major structural overhaul that saw major changes in the way jobs are designed. Secondly, UUM, like any other organizations, use the new information technology considerably in its operation, and this affects the way people or employees in this university interact with one another.

Toward the end, the present study adopted a survey approach in which questionnaires were distributed to the subjects of the study, who were selected randomly. The whole data collection took three weeks to complete from the middle of July until the first week of August 2008.

SIGNIFICANCE OF STUDY

The present study is significant in two ways i.e. both theoretical and practical. Theoretically speaking, this research is significant as it attempts to add to existing knowledge by studying the effect of IT and organization culture on job satisfaction, and

to verify previous studies on these issues. If these findings are correct, then they will have implications to organizational practitioners and managers in that they can be used to help managers to enhance employees' level of job satisfaction at work. Specifically, managers can make sure that the use of information technology at work will not degrade but rather enhance the way job is done, that organizational vision and goals are communicated clearly to the employees, and that social networking at work is improved. If managers are able to implement these, then job satisfaction of the employees can be increased. .

OUTLINE OF THESIS

This thesis contains five main chapters. In this chapter, i.e. the introductory chapter, a discussion on the research problem and why the study needs to be carried out has been presented. Specifically, this chapter has raised the issue of the importance of job satisfaction at work and its implications to the organization if it is not addressed effectively. The second chapter deals with related literatures on the topic of job satisfaction and work-related dimensions that are purportedly able to influence it. In this chapter, previous studies relevant to the topic under study and related theories of job satisfaction will be reviewed. The idea here is to assist readers to understand what has been done on the topic and to highlight gaps that are still in existent about the topic. Furthermore, a review of the existing literature is important in the formulation of research hypotheses. In the third chapter, a detailed discussion on how the present study was carried out will be offered. Issues like sampling, data collection, instrumentation, and data analysis will be presented in detail. Next, the fourth chapter deals with the results of the study based on the data that have been collected. Descriptive and inferential results

will be presented. This chapter also will demonstrate whether the research hypotheses formulated are supported or rejected. The last chapter discusses in detail the findings of the study by relating them to the existing literature. Here, a discussion on the study's limitation and implications for future research and practice will also be offered.

CHAPTER TWO

LITERATURE REVIEW

In the last chapter, an argument has been made as to why the present study needs to be conducted. Specifically, the chapter has outlined the research objectives, its scope, and its theoretical and practical significance of study. In this chapter an exposition of the literature on the main concepts used in this study i.e. information technology, organizational vision and social networking, which make up organizational culture and job satisfaction will be presented. Then attempts will be made to present previous studies' findings on how information technology and culture influence job satisfaction.

JOB SATISFACTION

Job satisfaction has long been recognized as an important concept in management literature as it has bearings on how people behave and perform at work. As such, it has been heavily researched. According to Hoole and Vermeulen (2003), the popularity of this field of study is also due to its relevance to the physical and mental well-being of employees. Furthermore, Robbins (2005, p. 2) postulates that managers have a humanistic responsibility to provide employees with jobs that are challenging, rewarding and satisfying. According to Alavi and Askaripur (2003, p. 591), there are at least three reasons why managers must focus on the job satisfaction of its employees: (1) Evidence suggests that satisfied individuals do not leave the organization; (2) Satisfied employees have better health and have longer life expectancy; and (3) Job satisfaction in the

workplace also affects individuals' private lives which in turn has an effect on absenteeism and other important work-related attitudes and behavior. Connolly and Mayer (2003) also maintain lack of job satisfaction has been associated with symptoms like anxiety, depression and poor physical and psychological health, which have concomitant consequences for absenteeism and commitment.

Job satisfaction has been defined in a variety of ways. For example, Spector (2007) refers to job satisfaction as the degree to which people like their jobs. Some people enjoy work and find it to be central part of life, while others hate to work and do so only because they must. Robbins (2005, p. 24) defines job satisfaction as "a collection of feelings that an individual holds towards his or her job." This definition implies that when a person has a high level of job satisfaction, he/she will hold a positive feeling toward his/her job and vice versa. Similarly, Locke (1983, p. 1300) defined the job satisfaction as "pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences."

So what makes an individual satisfied with his/her job? Theories abound as to why this is so. Generally speaking, there is no one single theory that specifically talks about job satisfaction. But to understand what makes people satisfied and why, theories of motivation are normally used as there is a close link between motivation and satisfaction. Theories of motivation can be categorized into two: needs theories and process theories. Whilst the first group of theories talks about what makes people motivated and hence satisfied, the second group talks about why and how people are motivated and hence satisfied.

One of the needs theories often used to explain job satisfaction is Herzberg's two factor theory. According to Buitendach and De Witte (2005), factors that make people satisfied or not satisfied can be arranged in two dimensions, namely, extrinsic and intrinsic factors. Extrinsic factors include things like pay, promotion opportunities, co-workers, supervision and recognition, while intrinsic factors include personality, education, intelligence and abilities, age and marital. Despite the clear demarcation between these two groups of factors, Spector (1997) argues that job satisfaction is not determined independently by any one group factor; in fact, more often that not different factors both intrinsic and extrinsic work together to influence one's job satisfaction level.

In this thesis, job satisfaction is defined as level of feeling and emotion that interchanged between employee and his/her job and such definition is invoked because of important job satisfaction in performance at all.

ORGANIZATIONAL CULTURE

Essentially, organizational culture is defined as shared value inside organization that provides a wide range of value unity and cooperation to achieve common goals of organization Gareth R. Jones, (2004) According to Robbins and Judge (2007), organization culture refers to a system of shared meaning held members that distinguishes the organization from other organizations. Kilmann et al. (1985, p. 380) define organizational culture as "shared philosophy, ideology, value, assumption, beliefs, hope, behavior and norms that bound the organization together,"

Although the concept of organizational culture was popularized in the early 1980s, its roots can be traced back to the early human relations view of organizations that

originated in the 1940s. Human relations theorists viewed the informal, nonmaterial, interpersonal, and moral bases of cooperation and commitment as perhaps more important than the formal, material, and instrumental controls stressed by the rational system theorists (Baker, 2002). The human relations perspective drew its inspiration from even earlier anthropological and sociological work on culture associated with groups and societies (see Durkheim, 1964; Geertz, 1973; Mead, 1934; Weber, 1947, 1958). The 1980s witnessed a surge in popularity to examine the concept of organization culture as managers became increasingly aware of the ways that organizational culture can affect employees and organization (Lund, 2003).

In the present study, in order to examine the influence of organization culture on job satisfaction, two components of organization culture that are related to effective job satisfaction are considered i.e. clear organization vision and goals, and social networks. We will analyze these two cultural components to establish the degree to which they influence effective employees' job satisfaction in the following sections.

Organization Vision and Goals

According to Kanter, Stein, and Jock (1992), organizational vision leads to the generation of a clear organizational purpose that assists in goal achievement. Others have suggested that clear organizational vision and goals engender a sense of involvement and contribution among employees (Davenport, Jarvenpaa, & Beers, 1996; O' Dell & Grayson, 1998; Popovich, 1998). This study proposes that clear organizational vision and goals have a positive impact on employee job satisfaction. Thus it needs to define what organization's vision and goals are.

According to Robbins and Judge (2007), organizational vision is a long-term strategy for how the organization can to attain a goal or goals, and they add that vision provides a sense of continuity for followers by linking the present with a better future for the organization. Zietlow, Hankin, and Seidner (2007) note that organization goals inform members of the organization about what the organization is planning to do over a several-year period.

The role of organization vision and goals is very important. Barker, Sullivan, and Emery (2005) maintain that the most important function of the vision is to energize people to act in a way that is consistent with unit goals, to be innovative to change, so that organization can lead to success and excellence. Vision will create culture of commitment to values and success and provide meaning to the people in the organization. In other words, the vision provides a stimulus toward excellence through goals setting and defines expectation that challenge staff to stretch and reach (Yearout, Miles, & Koonce, 2001).

Organization Vision and Goals and Job Satisfaction

In this section, some empirical and research works on organization vision, goals and job satisfaction will be presented. The main intent here is to examine, based on previous research, the extent of influence organization vision and goals has over job satisfaction. These reviews are important as they serve a basis for the present study's research frame work and hypotheses formulation later on in the next chapter.

Testa (1999) hypothesized that an individual's appraisal or satisfaction with the vision may affect his or her appraisal of the work environment overall (i.e. job

satisfaction). In his study among 740 shipboard and shore side management and supervisory personnel from 30 departments of a large US headquartered cruise line, he found that organizational vision was significantly and positively related to job satisfaction. Indeed, he found that organizational vision accounted for 33 per cent of the variance in job satisfaction.

Silverthorne (2004) found the impact of organization culture on   job satisfaction, as he mentions in results clearly organization culture can play an important role in the level of the job satisfaction of employees. His study was done in Taiwan for three companies, his samples contained 120 subject randomly from each companies, the ratio of sample was contained 90 males and 30 females.   .

Social Networking

People have used the social network metaphor for over a century to connote complex sets of relationships between members of social systems at all scales, from interpersonal to international. In 1954, J. A. Barnes started using the term systematically to denote patterns of ties that cut across the concepts traditionally used by the public and social scientists: bounded groups (e.g., tribes, families) and social categories (e.g., gender, ethnicity). Scholars such as S. D. Berkowitz, Stephen Borgatti, Ronald Burt, Kathleen Carley, Martin Everett, Katherine Faust, Linton Freeman, Mark Granovetter, David Knoke, Peter Marsden, Nicholas Mullins, Anatol Rapoport, Stanley Wasserman, Barry Wellman, Douglas R. White, and Harrison White expanded the use of social networks (Freeman, 2006)**.**

Wasserman and Faust (1994) talk about social network extensively and they mention that the social network perspective encompasses theories, models, and application that are expressed in terms of relation concepts or processes. That is, relations defined by linkages among units are a fundamental component of network theories. Along with growing interests in the use network analysis, a consensus about the central principles underlying the network perspective has been reached (Wellman, 1988). These include:

- Actors and their actions are viewed as interdependent rather than independent, autonomous units.

- Relation ties between actors are channels for transfer or "flow" of resources.

- Network models focusing on individuals view the network structural environment as providing opportunities for or constraints on individual action.

- Network models conceptualize structure (social, economic, political, and so forth) as lasting patterns of relation among actors.

Social Networking and Job satisfaction

Social networking has affected organization (Dougherty, Cheung, & Florea, 2008). Higgins and Kram (2001, p. 269) define social networking, following Granovetter's seminal work in defining relationship (tie) strength, as the level of emotional affect, reciprocity, and frequency of communication with those in the developmental network. They also pointed out that strong ties involve bonds with one's network characterized by considerable interdependence and reciprocity, and a high level of motivation of network members to help each other. Based upon the two core concepts of developmental

relationship diversity and developmental relationship strength, Higgins and Kram generated four categories of developmental networks:

1. Entrepreneurial networks, which reflect both strong ties and a high range of relationships;

2. Opportunistic networks, which reflect weak ties and a high range of relationships;

3. Traditional networks, reflecting strong ties along with a low range of relationships; and

4. Receptive networks, reflecting both weak ties and a low range of relationships

From the above definition, it is easy to imply that social network can impact on the relations between employees and this can have an effect on their work performances. Because social networking partly defines the working atmosphere of the organization, it has bearing on the attitudes people have toward their job (Kim & Lee, 2006). Von Krogh (1998) argues that trust and openness in organizational culture promote job satisfaction among employees and that trustworthy behavior enhances communication speed by empowering coworkers to freely share personal knowledge and concerns. Nonaka (1990) observes that loyal and trusting relationships eliminate deception, cheating, and the tendency among employees to blame others for organizational failures. According to Cohen and Prusak (2001), high levels of employee trust can lead to better job satisfaction, shared goals, and lower transaction costs. Andrews and Delahaye (2000) also found that in the absence of trust, formal performance practices were insufficient to encourage individuals to share assistance with others in the same work environment. Roberts (2000)

also found empirical support for the relationship between employee trust and job satisfaction.

INFORMATION TECHNOLOGY

Information technology is often abbreviated as IT and it refers to anything related to computing technology, such as networking, hardware, software, the Internet, or the people that work with these technologies. Many companies now have IT departments for managing the computers, networks, and other technical areas of their businesses. IT jobs include computer programming, network administration, computer engineering, Web development, technical support, and many other related occupations. Since we live in the "information age," information technology has become a part of our everyday lives. That means the term "IT," already highly overused, is here to stay (http://www.techterms.com/definition/it).

IT nowadays permeates every corner of our lives. In the business sector, IT has a big impact on the organization performance (Martinez & Kuri, 2007). The impact of using IT in any organization or firm can be categorized in two main levels (Ravij, Chang & Kao 2002): software and hardware. While computer software consists of the programs, or lists of instructions, that control the operation of a computer, the hardware consists of information processing units such as input, process, output, and storage.

The term "information technology" evolved in the 1970s. Its basic concept, however, can be traced to the World War II alliance of the military and industry in the development of electronics, computers, and information theory. After the 1940s, the

military remained the major source of research and development funding for the expansion of automation to replace manpower with machine power.

Since the 1950s, four generations of computers have evolved. Each generation reflected a change to hardware of decreased size but increased capabilities to control computer operations. The first generation used vacuum tubes, the second used transistors, the third used integrated circuits, and the fourth used integrated circuits on a single computer chip. Advances in artificial intelligence that will minimize the need for complex programming characterize the fifth generation of computers, still in the experimental stage.

The first commercial computer was the UNIVAC I, developed by John Eckert and John W. Mauchly in 1951. It was used by the Census Bureau to predict the outcome of the 1952 presidential election. For the next twenty-five years, mainframe computers were used in large corporations to do calculations and manipulate large amounts of information stored in databases. Supercomputers were used in science and engineering, for designing aircraft and nuclear reactors, and for predicting worldwide weather patterns. Minicomputers came on to the scene in the early 1980s in small businesses, manufacturing plants, and factories.

In 1975, the Massachusetts Institute of Technology developed microcomputers. In 1976, Tandy Corporation's first Radio Shack microcomputer followed; the Apple microcomputer was introduced in 1977. The market for microcomputers increased dramatically when IBM introduced the first personal computer in the fall of 1981. Because of dramatic improvements in computer components and manufacturing, personal

computers today do more than the largest computers of the mid-1960s at about a thousandth of the cost.

Computers today are divided into four categories by size, cost, and processing ability. They are supercomputer, mainframe, minicomputer, and microcomputer, more commonly known as a personal computer. Personal computer categories include desktop, network, laptop, and handheld.(Saettler, Paul. 1990; Shelly, Gary, Cashman, Thomas, Vermaat, Misty, and Walker, Tim. 1999).

Information Technology and Job Satisfaction

The relationship between the use of Information Technology (IT) and organization performance has been widely researched over the recent years. The results have shown a significant and positive correlation between IT and organization performance by many researchers (Harris & Katz, 1991; Mukhopadhyay et al., 1995; Newman & Kozar, 1994), but some did not find such relationship to exist (Brynjolfsson & Hitt, 1998; Davern & Kaffman, 2000).

The positive effect of IT on work performance is not surprising since the majority of scholars concur that the use of technology enhances skill requirement, job complexity, job challenges, feedback, autonomy and independence of workers. Studies conducted by many scholars (for example Blauner, 1964; Collins & King, 1988; Millman & Harwick, 1987; Riche, 1982; Zisman, 1978) find that technology and automation increases operators skills and enhances the opportunity to learn more and improve the productivity. Riche (1982) and Zisman (1978) mentioned that application of technologies like office automation, robots, microelectronics and telecommunications have increased employees'

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productivity and improved quality. Because the use of IT enhances one's skill and changes the way the job is designed in such a way it enhances job challenge and variety, it is not reasonable to speculate the effect of IT on people's attitudes toward their job (Oldham & Hackman, 1981). Rubenowitz and Rundblad (1987) find the use of computer systems and monitors increase not only productivity but employee satisfaction alike. Middle managers perceived automated office system makes their job more enriching and satisfying (Millman & Hartwick, 1987). A survey conducted by Kim and Loadman (1994) that involved 2054 teachers indicated that teacher job satisfaction is associated with intrinsic and extrinsic rewards. Intrinsic rewards are the professional autonomy and job challenges, interaction with colleagues and students. Extrinsic rewards associated with satisfaction are working condition and salary. The findings are further supported by a survey done by Klecker and Loadman (1996) when a high positive linear correlation was found between a teacher empowerment and teacher job satisfaction.

Ali and Ali (2005) attempted to examine the interaction effects of these selected organizational contexts—structure, technology, and organizational climate—on organizational performance, specifically job satisfaction. A total of 85 questions were included in the final set of the questionnaire, assessed on a 7- point Likert scale. The total sample size in this study was 345, which was almost 20% of the total of 1768 employees of 18 power plants in Peninsular Malaysia, Sabah, and Sarawak: 14 owned by the national power producer, Tenaga Nasional Berhad (TNB), and 4 private or state-owned power plants. The finding of this study was shows some significant findings derived from the interactions among the three independent variables (technology, structure, and organizational climate). In examining the effect of technology on job satisfaction,

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automation was found significantly predictive of job satisfaction. Technology was indicated to have influenced employees' job satisfaction when its variable, specialization, indicated higher scores along with job satisfaction.

A different study by Sharma and Bhaskar (1991) in determining job satisfaction among engineers in India revealed similar results where they found work technology to be positively and significantly related to job satisfaction. The findings are consistent with the literature on organization theory (Thompson, 1967), citing technology as an organizational context that has great influence on organizational effectiveness.

SUMMARY

This chapter has presented an exposition of previous study on effect of organization culture and using of information technology on job satisfaction. In general, the previous literature seems to indicate that organizational culture via organizational vision and social networking and use of IT seem to have significant and positive bearings on how individuals view and perceive their job at work. Based on the literatures, the following diagram will outline the framework of the present study (refer to Figure 2.0).

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┌─────────────────┐
│  Organizational │────────┐
│      vision     │        │
└─────────────────┘        │
                           │      ┌──────────────────┐
┌─────────────────┐        │      │                  │
│     Social      │───────────────▶   Job satisfaction │
│   networking    │        │      │                  │
└─────────────────┘        │      └──────────────────┘
                           │
┌─────────────────┐        │
│    Use of IT    │────────┘
│                 │
└─────────────────┘
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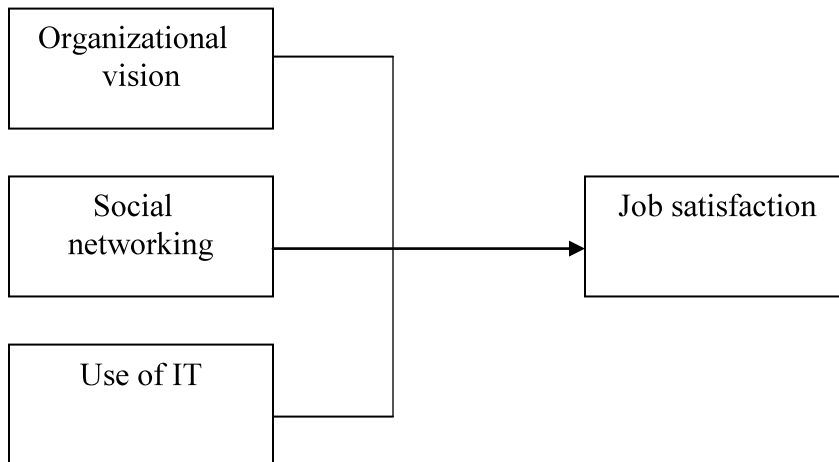
Figure 2.0. The research framework

In the next chapter, a detailed discussion on how the present study was carried out. In particular, it will spell out how the hypotheses of the present study were formulated, and how the data were collected, the respondents were chosen, the variables measured and the data analyzed.

CHAPTER THREE

RESEARCH METHOD

In the last chapter, literature reviews on the impact of organization culture and use of information technology on job satisfaction have been presented. In this chapter a discussion on how the research hypotheses were formulated will be offered. In addition, this chapter also explains how the present study was carried out, and how the data collected will be analyzed.

HYPOTHESES DEVELOPMENT

As mentioned in chapter two, many studies have found the impact of organization culture on job satisfaction (Dirani 2006, Long & Swortzel, 2007; Lund, 2003; Santos, Gonçalves, & Jesus, 2007; Tietjen & Myers, 1998). In this study, organizational culture consists of two important dimensions: organizational goals and vision, and social network. In his study that investigated the effect of organizational culture on job satisfaction, Lund (2003) found that the culture of the organization has a significant effect on dimensions of job satisfaction, such as co-workers, pay, promotional opportunities and supervisor. Furthermore Testa (1999) found that organizational goals and vision is related significantly to job satisfaction. This is because vision and goals of the organization provide a sense of direction to the employees and according to the path goal theory of leadership, employees will form a favorable attitude toward the leaders (and hence the

organization) when they are shown "the way" to move forward (Alderfer, 1969; Maslow, 1943; Murray, 1938). Hence, based on this argument, the following hypothesis is offered:

H1: Clear understanding of organization vision and goals exerts a positive effect on employee job satisfaction.

The second dimension of organizational culture is social networking. According to Kim and Lee (2006), the environment of work and the relation between employee and others, and how they communicate inside or with people outside the organization. Comparative research related to coworker relationships has primarily focused on employees' values. Initial efforts to quantitatively measure values across cultures indicated a convergence across the industrialized world (Inkeles & Levinson 1969). However, Andrews and Delahaye (2000) found that in the absence of trust, formal performance practices were insufficient to encourage individuals to share assistance with others in the same work environment. Roberts (2000) also found empirical support for the social network between employee trust and job satisfaction.

Based on the above arguments, the following hypothesis is presented:

H2: The level of social networking is positively associated with employee's satisfaction.

In the age where information technology at work has become the norm rather than an exception, changes in the way work is done are unavoidable (Blake, 2000). The way work is restructured will likely to have an effect on work outcomes and attitudes of

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employees toward their job (Shadur, Kienzle, & Rodwell, 1999). Indeed, as revealed by Sussan and Recascino (2006), the use of technology, such as electronic mail and internet, which has become the norm in many workplaces, has an important bearing on workplace behavior and attitudes of employees, such as job satisfaction.

One of the main reasons for adopting the new IT at work is because it facilitates work performance. Kim and Lee (2006) mentions that a company must, of course, provide technology to their employees to help them perform their jobs. According to job characteristics model (Oldham & Hackman, 1980), employee satisfaction will result, if jobs are redesigned, in such a way that they are perceived to be enriching and stimulating. Hence, to the extent that by the use of IT will be able to make jobs more enhancing and enriching, then employee satisfaction will result and the following hypothesis is offered:

H3: The level of employees' utilization of IT application has positive effect on employee satisfaction.

Since it was hypothesized that each independent variable of organizational culture and use of IT affects job satisfaction separately, it was further hypothesized that job satisfaction can be better explained by the combined effects of these independent variables simultaneously. This is because many have suggested that job satisfaction is influenced by a variety of factors (see for example Cameron & Freeman, 1991; Konradt, Christophersen, & Kuelz, 2006; Lund, 2003; Santos, Gonçalves, & Jesus, 2007; Sussan & Recascino, 2006; Testa, 1999). Based on this argument, the following hypothesis is offered:

H5: Job satisfaction is significantly explained by the combined effects of organization vision and goals, social networking, and use of IT application at work.

RESEARCH DESIGN

To reiterate, this study aims to investigate factors that influence job satisfaction among University Utara Malaysia employees. In particular, this study seeks to find out whether organizational vision and goals, social networking, and IT utilization have any impact on employees' perception toward their job. Toward this end, a survey was employed as the main research design for the present research. Survey was used in the present study because it is the most widely used technique in education and behavioral science (Sekaran, 2005). In addition, the use of survey can provide related information on the organizational context and how it may be related to job satisfaction. In the present study, the survey approach involved distribution of questionnaires to the respondents who have been randomly selected to participate (more on this later).

Population and Sampling

In the present study, the population was identified as all employees working in UUM, who include both academic staff and non-academic staff. In the present study, the research sample was selected via random sampling technique. According to Sekaran (2005), this technique of sampling is more common since using this sampling gives every element in the population a known and equal chance of being selected as a subject. Furthermore, the random sampling has the least bias and offers the most generalizability.

Based on the formal record obtained from the Registrar's Department of UUM, the population consists of 2600 elements, in which 1184 are academic staff members and 1410 are non-academic staff members.

Considering that social surveys generally suffer from poor response rate (Harris & Williams, 2003), it was decided that a slightly bigger sample size was determined. In the end, three hundred respondents of non-academic staff were given questionnaires in Bahasa Malaysia due to their level of education while 300 questionnaires in English-language were distributed to academic staff. Out of these, 217 responses were returned from the non academic staff and 163 questionnaires from academic staff members. The total number of responder were 380 both academic and non academic, According to Krejcie and Morgan (1970, cited in Sekaran, 2005), for that population size, a sample size of 340 is big enough for making generalization to the whole population. In considering that social surveys generally suffer from poor response rate (Williams, 2003), so the number of 380 of respondents is big enough to generalization the results.

MEASURES

In the present study there were four main variables investigated i.e. organizational vision and goals, social networking, and IT utilization (use of IT), which were the independent variables, and job satisfaction which was the dependent variable. The following describes in detail how each of the variables was measured.

Organizational Vision and Goals

According to Zietlow, Hankin, and Seidner (2007), organization vision is a mental image of what successful attainment of mission would look like or how the world would be different if and when the organization's mission is accomplished. Organization goals are defined as either the program or the statement of the organization's plan of action, telling what it intends to do over a several-year period. Many have suggested that clear organizational vision and goals engender a sense of involvement and contribution among employees (Davenport, Jarvenpaa, & Beers, 1996; O ' Dell & Grayson, 1998). In the present study five items are asked to the respondents, who were to indicate their level of agreement or disagreement on a 5-point Likert scale ranging from '1' "strongly disagree" to '5' "strongly agree" on statements such as: "This university has an organization vision," "I understand the goals of this university," and "Overall, organizational vision and goals are clearly stated in this university." The five items of these statements were adapted from research by Gold, Malhotra, and Segars (2001), and Kim & Lee (2006) who have used the same items in their survey.

Social Networking

Social networking, which is the tendency to connect and interact with other people, is a social behavior but it also may be viewed as a psychological or personality variable. Maslow (1970) discusses that social networking is not only used in organizations but as observed by Luo (2000, p. 20), "Networking is used at all levels of social life, from the smallest, everyday aspects to the most important events in a person's life". In business, social networking is often viewed as a useful way to achieve company goals (Neergard &

Madsen, 2005). Though, it is expected that having a favorable attitude toward social networking is needed before engaging in its use for business purposes (Taormina & Lao, 2007). In general terms, a social network could be broadly defined as an arrangement of the differentiated elements linked to each other by multitude of ties, according to their content (information, advice, friendship, trust, etc.) (Agapitova, 2003). In this study four items are asked to the respondents, who were to indicate their level of agreement or disagreement on a 5-point Likert scale ranging from '1' "strongly disagree" to '5' "strongly agree" on statements such as: "I have full confidence I the skill of co-worker",' "I trust the expertise of co-workers," and "If I face difficulties at work they will try to help me out."

Use of IT

In the present study, use of IT was defined as the extent of time of using computer at work, and to what extent employees are using emails and information system in the university, and in what way they are familiar with computer and its applications. In this study eight are asked to the respondents, in first items the respondents have to identify the percentage of using computer at work, in second items the question asked about the possibility of working without a computer, who were to indicate their level of possibility in three level, yes can work without computer, or technically can but using computer will Abbreviated the time and no the using computer is part of job. In third, forth, fifth and sixth items were asked to the respondents, who were to indicate their level of using or no using on a 5-point Likert scale ranging from '1' " never use " to '5' " always use " on statements such as: "I use the Internet, e-mail, and electronic bulletin boards at work" and "I

use UUM intranet at work". In the last two items were asked to the respondents, who were to indicate their level of agreement or disagreement on a 5-point Likert scale ranging from '1' "strongly disagree" to '5' "strongly agree" on statements such as: "In UUM, information systems and software are designed to be user-friendly" and "It is easy to use information systems without extra training"

Job Satisfaction

In the present study, job satisfaction is defined as an overall summary of affective feeling regarding one's job, and it may reflect different facets of job satisfaction such as satisfaction with the types of tasks, co-workers, or pay levels (Danziger & Dunkle 2005). A variety of instruments for measuring job satisfaction are developed, an instrument on a study of satisfaction in the academic profession by Ng (1971) was used. In this study one general statement of job satisfaction is asked to respondents, who are to indicate their level of satisfaction on the job from '1' "not very satisfied with job" to '5' "very satisfied with job".

Demographic Information

In addition to the above items, the respondents were also asked to furnish some details about their personal selves. Questions on age, gender, marital status, educational level and type of job category were asked. All of these variables were measured on a categorical scale.

DATA COLLECTION

To collect data for the present study, questionnaires were used as the main data collection technique because they are an efficient data collection mechanism when the researcher knows exactly what is required and how to measure the variables of interested (Sekaran, 2005). In the present study 380 questionnaires were distributed amongst academic and non-academic staff members at the Universiti Utara Malaysia personally by researcher. For example, the researcher gave the questionnaires to non-academic staff through their supervisors who were then responsible in collecting the questionnaires from their subordinates after a day or two. The total number of questionnaires for non-academic staff was 217. The questionnaires for non-academic staff were distributed to nine departments in UUM, i.e. the Department of Academic Affairs (30 questionnaires); the Bursar Department (15), the Chancellery Department (15); the College of Business (30); the College of Arts and Sciences (30); the College of Law, Government and International Studies (30); the Library (40), and the Computer Centre (7). And for academic staff the total number of questionnaires distributed was 163. The questionnaires for academic staff were distributed to the three main colleges in UUM, i.e., College of Business, College of Arts and Sciences, and College of Law, Government and International Studies.

A number of problems were encountered by the researcher when distributing the questionnaires. For example, the main problem in distributing the questionnaires to the academic staff was that they were more often than not were not in their own offices. But those who have some kind of message box posted outside their rooms were easily accessible as the questionnaires were left in these boxes for the academic staff to fill in. It was a risky attempt in the beginning because the academic staff members might not be

aware of the questionnaire left in the box. But in the end, the researcher managed to obtain 120 questionnaires after they were given a few days to complete before the researcher collected them again.

QUESTIONNAIRE DESIGN

The questionnaire contained five sections: Section A asked about use of information technology and computer application at work; Section B about organization vision and goals; Section C about employees' level of job satisfaction; Section D about social networking; and finally Section E about demographic information. In addition to these questions, an introduction letter was attached to the questionnaire. The main intent of this letter was to inform the subjects of the study about the purpose of the study and to persuade them to participate. Nonetheless, participation was voluntary and they could, at any time, withdraw from the project if they wished to. The letter also highlighted that the subjects' anonymity and confidentiality would be guaranteed.

The questionnaires were translated from English into Malay, so as to make it easy for the subjects to understand what was asked, especially those that were distributed to the non-academic staff members whose level of education is not that high. But for academic staff members, the questionnaires were presented in English. Some expert advice was solicited for the translation from English into Malay, to make sure that the translation was appropriately done in that the meanings were not lost during the translation process.

DATA ANALYSIS

To help with data analysis, the Statistical Package for Social Sciences was used. To test the research hypotheses formulated earlier, a number of different statistical analyses and tests were employed.

Firstly, to test H1 to H5, correlation tests were used. This kind of statistical test is appropriate given that the variables are measured on at least an interval scale. Secondly, a multiple regression analysis was conducted to test the last hypothesis. This test is appropriate to examine the combined effects of all independent variables on a single dependent variable. In addition to these tests, descriptive analyses were also run to get some background information of all the variables involved. For example, central tendencies measures of means and standard deviations were run to describe the general characters of all the independent variables. Frequency analyses were run to describe the profile of the respondents of the study.

SUMMARY

This chapter has presented in detail description how the present study was carried out to meet its objectives i.e. to examine the effects of use of IT and organizational culture on employee job satisfaction. This chapter has highlighted particular issues on sampling and sampling procedures, data collection, instrumentation/measurement of variables, questionnaire design and data analysis. In the next chapter, the result of the study based on data collection will be presented.

CHAPTER FOUR

RESEARCH FINDINGS

In the last chapter, a discussion on how the survey was carried out was offered. Here, the results of the survey based on the data collected are presented. Toward this end, this chapter will present some background information of the respondents first before it goes on to present some descriptive results of the variables involved. Then, the chapter will offer readers the results of the hypotheses testing.

BACKGROUND OF RESPONDENTS

Table 4.1 presents the respondents' background. As shown from the table, the majority of the respondents were made up of more females than males (55.0%), were highly educated (43.9%), were married (72.6%), and were non-academic staff (57.1%). The profile of the respondents of this study seems to mirror the general population of all staff members at Universiti Utara Malaysia. Hence, there is no reason to suspect that the findings of the present study are not generalizable to the overall population.

Table 4.1

Respondents' Background (n = 380)

	Percentage	Frequency
Gender		
Male	171	45.0
Female	209	55.0
Age		
20-29	81	21.3
30-39	140	36.8
40-49	119	31.3
50 and above	40	10.5
Marital status		
Single	104	27.4
Married	276	72.6
Level of education		
Secondary	63	16.6
Diploma	80	21.1
Bachelor	70	18.4
Masters	152	40.0

Others	15	3.9
Occupation		
Academic staff	163	42.9
Non-academic staff	217	57.1

RELIABILITY ANALYSIS

Reliability refers to the stability and consistency with which the instrument is measuring the concepts and helps to assess the goodness" of measure (Sekaran, 1992). The reliability coefficient between ".50 to .60" is sufficient and acceptable (Hair et al., 1998; Nunnally, 1978). Accordingly, an internal consistency analysis was conducted to test the reliability values of the questionnaire instruments. As a rule of thumb, a value of Cronbach's alpha .70 is considered good.

In the present study reliability analyses were run on four main measures, i.e. use of IT, organization vision and goals, social networking, and job satisfaction. Table 4.2 highlights the reliability coefficients of all measures. As can see from table, use of IT was measured by 4 items and the reliability coefficient (Cronbach's alpha) of use of IT measures was. 674. The reliability of perceived ease of IT use measured on 2 items was reported at .604. The reliability of organization vision and goals measured on 5 items was reported at. 901. The reliability of social networking measured on 4 items was reported at .856. What do the reliability coefficients mean? As can be seen, in general the measures were somewhat reliable.

Table 4.2

Reliability of Measures

Measures	Cronbach's Alpha
Use of IT	.674 (4 items)
Organizational vision and goals	.901 (5 items)
Social networking	.856 (4 items)

DESCRIPTIVE STATISTICS OF MAIN VARIABLES

Table 4.3 highlights descriptive statistics of the main variables of the present study i.e. use of IT, organizational vision and goals, social networking, and job satisfaction. As can be seen from the table, the respondents generally perceived that they were satisfied with their job (mean = 4.00, SD = .823). With respect to use of IT, in general they also indicated high level of using IT in their work (mean = 3.946, SD = .660). They also indicated that they were clear with the organizational vision and goals (mean = 3.854, SD = .711), and had a strong social networking with their co-workers (mean = 3.875, SD = .674). With respect to job satisfaction, the respondents seemed to be strongly satisfied with their job.

Table 4.3

Descriptive Statistics of Main Variables (n = 380)

Variables	Mean	Standard Deviation (SD)
Job satisfaction[1]	4.002	.823
Use of IT[2]	3.946	.660
Organizational vision and goals[3]	3.854	.711
Social networking[3]	3.875	.674

Note. [1]1 = not very satisfied, 2 = not satisfied, 3 = dissatisfied nor satisfied, 4 = satisfied, 5 = very satisfied;

[2]1= never use, 2 = rarely use, 3 = sometime use, 4 = often use, 5 = always use; [3]1 = strongly disagree, 2 =

disagree, 3 = disagree nor agree, 4 = agree, 5 = strongly agree

In the following sections, each variable will be examined in greater details as to what means in relation to the mean value found earlier.

Use of IT

As indicated earlier, four items were used to measure use of IT and that on average the respondents indicated that they use IT systems considerably in their work (mean = 3.946, SD = .660) such as internet, e-mail, intranet, and database and management systems.

Table 4.4

Descriptive Results of Use of IT (n = 380)

	Items[1]	Mean	SD
1	I use the Internet, e-mail, and electronic bulletin boards at work.	4.302	.633
2.	I use UUM intranet at work.	4.197	.744
3.	I use UUM database and/or electronic data system at work.	3.828	.1.084
4.	I use UUM knowledge management system.	3.455	1.146
5.	Total mean (use of IT [items 1 – 4])	3.946	.660

Note. [1]1 = never use, 2 = rarely use, 3 = sometime use, 4 = often use, 5 = always use.

Organizational Vision and Goals

As indicated earlier, five items were used to measure organization vision and goals. On average the respondents indicated that the organizational vision and goals are made clear to them by the top management (mean = 3.854, SD = .710). What is interesting is that not only the respondents said they understood the visions and goals of the organization, they were also able to manifest this understanding by articulating and explaining them to the others.

Table 4.5

Descriptive Results of Organizational Vision and Goals (n = 380)

Items[1]	Mean	SD
1. This university has an organization vision.	4.057	.713
2. Top management leaders present a clear organizational vision and communicate it to employees.	3.860	.821
3. Overall, organizational vision and goals are clearly stated in this university.	3.894	.831
4. I understand the goals of this university.	3.805	.880
5. I can explain the vision and goals of this university to others.	3.652	.936
Total mean (organizational vision)	3.854	.710

Note. [1]1 = strongly disagree, 2 = disagree, 3 = disagree nor agree, 4 = agree, 5 = strongly agree

Social Networking

As indicated earlier, four items were used to measure social networking. On average the respondents indicated that they had a strong networking with their co-workers (mean = 3.875, SD = .674) in that they had full confidence in them, trust them, and could depend on them when they are in trouble.

Table 4.6

Descriptive Results of Social Networking (n = 380)

	Items	Mean	SD
1.	I have full confidence in the skills of my coworkers.	3.963	.652
2.	I trust the expertise of my coworkers.	3.960	.708
3.	If I face difficulties at work, I know my coworkers will try to help me out.	3.918	.854
4.	My coworkers do not try to deceive me for their own profit.	3.660	.973
	Total mean (relations with coworkers)	3.875	.674

Note. [1]1 = strongly disagree, 2 = disagree, 3 = disagree nor agree, 4 = agree, 5 = strongly agree

CORRELATION MATRIX

Correlation analysis is used to determine bivariate relation between two variables measures on at least an interval scale. Toward this end, Pearson correlation test was used to identify whether use of IT, organizational vision and goals, relations with coworkers and job satisfaction are related to each other. Table 4.8 presents the correlation matrix. A one-tailed test was run to examine the relationships since the hypotheses were directional in nature.

Table 4.7

Correlation Matrix (n = 380)

	1	2	3	4
Use of IT (1)	-			
Organizational vision (2)	.400(**)	-		
Social networking (3)	.384(**)	.491(**)	-	
Job satisfaction (4)	.187(**)	.325(**)	.239(**)	1

**Correlation is significant at the 0.01 level (1-tailed).

As can see from Table 4.8, there are significant and positive relationships amongst all variables, as hypothesized earlier. Specifically, a significant and positive relationship between use of IT and job satisfaction was found (r = .187, p = .004), between understanding organization vision and goals and job satisfaction (r = .325, p = .000), and between relation with co-workers and job satisfaction (r = .239, p = .000).

Based on the correlation matrix presented above, in general it can be said that hypothesis one until hypothesis four are supported.

Multiple Regression Analysis

Multiple regression is a statistical test that is employed to determine the simultaneous influence of independent variables on a dependent variables when all of these variables are measured on their an interval or ratio scale (Sekaran, 2005). To carry out the multiple regression analysis, all independent variables i.e. relations with coworkers, use of IT, and organizational vision and goals were regressed on job satisfaction using the enter method.

As can be seen from Table 4.9, organization vision and goals, social networking, and use of IT applications explain significantly 11% of variance in job satisfaction (F = 12.334, p = .000). This finding supports the fifth hypothesis that all independent variables are important predictors of job satisfaction.

So which one of these variables is more influential in predicting job satisfaction? As indicated by standardized Beta coefficients, the only variable that seems to significantly predict job satisfaction is organizational visions and goals (B = .261, Sig. = .000). This means that in order for the organization to have satisfied employees, clear organizational visions and goals are very important to put in place.

Table 4.8

Results of Multiple Regression (n = 380)

	Dependent variable: Job satisfaction
Independent variables	
Use of IT	018.
Organizational vision and goals	.261*
Social networking	.880
F value	12.334
R^2	.116
Adjusted R^2	.107

* p < .001

SUMMARY

This chapter has presented the results of the present study. Five main hypotheses were tested and in general all hypotheses were supported. A summary of the hypotheses testing result is shown in Table 4.10.

Table 4.9

Summary of hypotheses testing results

	Hypotheses	Result
H1:	Clear understanding of organization vision and goals exerts a positive effect on employee job satisfaction.	Supported
H2:	The level of social networking is positively associated with employee satisfaction	Supported
H3:	The level of employees' utilization of IT application has positive effect on employee satisfaction.	Supported
H4:	The degree of perceived ease of IT application use has a positive effect on employee satisfaction.	Supported
H5:	Job satisfaction is significantly explained by the combined effects of organization vision and goals, social networking, use of IT application and perceived ease of use of IT at work.	Supported

In the following chapter, a discussion on what the results mean will be presented. In addition, recommendations for future research and practice, and the limitations of the present study will be offered.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

In the last chapter, the results and findings of the present survey based on the data collected earlier among academic and non academic staff in Universiti Utara Malaysia have been presented. In this chapter, a detailed exposition of what the findings mean in relation to relevant theories and previous empirical evidence will be offered. In addition, the limitations and implications of the present study for future research and practice are also discussed.

DISCUSSION OF FINDINGS

The present study was conducted to examine the effects of use of IT, social networking, organizational visions and goals on job satisfaction. To this end, a survey involving questionnaires was carried out amongst academic and non-academic staff of Universiti Utara Malaysia. In general, the present study appears to be able to meet the intended research objectives. It was found that using of information technology at workplace and organization culture has significant bearing on job satisfaction. Such findings are consistent with many previous studies that examined the relation between information technology and job satisfaction (e.g. Danziger & Dunkle, 2005; Korunka, Christian, & Zauchner, 1997; Johannessen, Olaisen, & Olsen, 1999; Juhdi, Samah, & Saad, 2007; Konradt, Christophersen, & Kuelz, 2006; Mabry, 1999; Sugianto & Tojib, 2006; Sussan

& Recascino, 2006) and organization culture and job satisfaction (Dirani, 2006; Lund, 2003; Santos, Gonçalves, & Jesus, 2007; Swortzel & Long, 2007; Tietjen & Myers, 1998). What follows is a discussion of each hypothesis formulated.

Hypotheses Testing

Hypothesis 1: Clear understanding of organization vision and goals exerts a positive effect on   employee job satisfaction.

As mentioned in the last chapter, this hypothesis was formulated based on the argument that the better understanding of organization vision and goals has positive effect on employee job satisfaction (Dirani, 2006; Lund, 2003; Santos, Gonçalves, Jesus, 2007; Swortzel & Long 2007; Testa, 1999; Tietjen & Myers 1998). The result shows that clear organizational visions and goals are significant in affecting job satisfaction. This means that employees tend to display their satisfaction at work when the organizational visions and goals communicated to them are clear.

Hypothesis 2: The level of social networking is positively associated with employee's satisfaction.

This hypothesis was formulated based on the argument that better work environment through social networking can have a positive effect on employee job satisfaction (Appleby, 1994; Browell, 2003; Connis, Braukmann, Kifer, Fixsen, Phillips, & Wolf, 1979). The result suggests that relationship with co-workers does indeed have a significant bearing on how satisfied employees are toward their job. Such finding is consistent with that found by Ducharme and Martin (2000), and Kalliath, O'Driscoll, and

Brough (2005). This finding suggests that social assistance in the form of provision of relevant information, for example, tends to make people satisfied because such support enables employees to perform their job.

H3: The level of employees' utilization of IT application has positive effect on employee satisfaction.

This hypothesis was formulated based on the argument that the use of IT applications at the workplace can lead to a more satisfying job (Danziger & Dunkle, 2005; Korunka, Christian, & Zauchner, 1997; Sussan & Recascino, 2006) because the importance of using information technology at work facilitate work accomplishment in an efficient manner (Alpar & Kim, 1990; Harris & Katz, 1991; Mukhopadhyay et al., 1995; Newman & Kozar, 1994; Rai et al., 1997).

Hypothesis 4: The degree of perceived ease of IT application use has a positive effect on employee satisfaction.

As we see in the previous hypotheses, this hypothesis also received support and indicated that, the relation between perceived ease of use of IT applications and job satisfaction were significant and positive. That means if employees can use the application of IT in workplace easily and facility that can meet them to more satisfied in their performance, and should take in account the system that organization adapting must be also easy to use and understand without complexity. Furthermore, it was clear from findings that, the information system that used in UUM were easy to use and it was

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designed to be user-friendly. In general these findings were consistent with many previous studies that examined the effectiveness of using IT on job satisfaction, for example, (Sugianto and Tojib, 2006, Juhdi, Samah, and Saad 2007, Johannessen, Olaisen and Olsen 1999, Konradt, Christophersen and Kuelz 2006, Mabry 1999). Thus, the results supported most of the developed hypothesized relationships. The research contributes to our knowledge by providing support for the contention that employees' attitude performs a mediating role in the link between perceived ease of use of IT and job satisfaction. However, the main focus of management attention should be employees' performance, of which perceived ease of use of IT,   very important antecedents. The findings of this study have implications for developing ease of use of IT throughout the organization; it is of paramount importance to ensure that staff will actually use them. In order to achieve this goal, attention must be given in designing easy-to-use, useful, and reliable systems. Hence, the organization performance needs to develop the beliefs of the staff regarding the ease of use.

H5: Job satisfaction is significantly explained by the combined effects of organization vision and goals, social networking, use of IT application and perceived ease of use of IT at work.

This hypothesis received strong empirical support in that all variables simultaneously and significantly explain the variance in employee job satisfaction. As such, the result of present study is consistent with that offered by previous studies (Dirani, 2006; Lund, 2003; Santos, Gonçalves, Jesus, 2007; Swortzel & Long 2007; Testa, 1999; Tietjen & Myers 1998), (Ducharme and Martin 2000, Kalliath, O'Driscoll, and Brough 2005),(

Alpar & Kim, 1990; Harris & Katz, 1991; Mukhopadhyay et al., 1995; Newman & Kozar, 1994; Rai et al., 1997) and (Sugianto and Tojib, 2006, Juhdi, Samah, and Saad 2007, Johannessen, Olaisen and Olsen 1999, Konradt, Christophersen and Kuelz 2006, Mabry 1999). Even though the variance explained may be small, what is much more important to consider is that the use of IT, vision and social networking were able to influence significantly and simultaneously job satisfaction.

But when one looks closer at the regression finding, one could see that organizational visions and goals are the only significant predictor of job satisfaction. This finding has an important implication for managers in considering ways on how to enhance satisfaction amongst employees at work.

IMPLICATIONS FOR MANAGERS

The findings of the present study have important implications for managers, practitioners and decision makers in organizations especially in the area of job satisfaction and job performance in general. In the light of the above findings, managers need to consider the importance of use of IT, clear organizational visions and social networking in enhancing job satisfaction of their employees. This means that managers need to consider developing work and work environment that is conducive and facilitative toward the enhancement of employee satisfaction. Implementing IT systems and IT applications that are facilitative in work performance appears crucial in this aspect. Developing an environment in which employees can work together in a trustful manner also appears to be important in making sure employees are satisfied in their job.

Of all the variables important in enhancing employee job satisfaction, clear organizational visions and goals appear to be the most significant one. So it is important for managers or leaders of the organization to make employees understand clearly what is expected of them in the accomplishment on the organizational goals and objectives. Providing clear organizational vision and goals is important because it gives them a good sense of direction. When employees know where they are heading, they will be committed in playing their roles as expected. To help employees be clear of what is expected of them, what managers or leaders of the organization can do is to engage them in the development of the vision and goals of the organization. Listening to their inputs and encouraging employees to participate will make them committed in achieving the goals that have been collectively agreed upon.

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RECOMMENDATION FOR FUTURE STUDY

The present study has shown that organization culture and using of information technology explain only 11.0 % of variance in job satisfaction. This means that 89% of the variance in job satisfaction remains unexplained, and this is a good opportunity for future research to be conducted, especially in the area of organization system and in many applications of information technology in the organization.

In addition to the unexplained variables, it is also perhaps a good avenue for future studies to consider the influence of mediating and moderating factors in the relationships. For example, a direct relationship between use of IT and job satisfaction was found, but the present study did not attempt to examine how this relationship comes into being. So, future research may be needed to investigate the mediating process

between these two variables. A number of mediating variables may be plausible in explaining the relationship, such as ease of use (Dias,1998) and job characteristics (Sarminah , 2006).

LIMITATIONS OF THE PRESENT STUDY

There is no research that is flaw free. It is under this backdrop that the present study acknowledges that it has its own flaws and limitations. As such the findings present study here should be interpreted with some caution. Firstly, the present study might suffer from some of methodological issues such as the way the data were collected. Even though some kind of randomization was involved in the data collection process, representation of the population is suspect, and when this happens some caution when generalizing the findings such be exercised. Despite this limitation, there is no reason to suspect that the generalizability of the findings are considerably invalid because of a big number of response achieved.

Because this study is a cross-sectional study, interpretation of causality should not be attempted. This study does not attempt to suggest that use of IT, for instance, causes job satisfaction even though there is possibility that some kind of causal effects may take place. To ascertain causal relations, a survey is not suitable and appropriate; an experimental design is more apt to do the job and future research may take up the issue.

CONCLUSION

To conclude, the present study has managed to achieve its intended objective i.e. in examining the influence of using IT and organization culture on employee job satisfaction. In general, it has been able to establish that using of IT and organization culture has significant influence on employee job satisfaction. The findings of the present study has important implications for managers and decision makers especially in providing a work environment that is conducive and facilitative toward job satisfaction and hence work performance. Particularly important is the clarity of organizational visions and goals that managers need to communicate to their employees. Clear visions and goals are important to make employees understand what is expected of them and how they are to achieve them. Clear direction and a sense of purpose in itself becomes a good motivation for them to work hard and perform effectively in their job. Obviously, managers need to consider ways and measures on how to make the organizational visions and goals clear to their employees so that their accomplishment can be realistically and actually materialized as envisaged.

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**COLLEGE OF BUSINESS
UNIVERSITI UTARA MALAYSIA**

Date: 26 June 2008

Dear Respondent:

I hope you are in good health.

I, Salahudeen Abdulkareem Alkawamleh, am a Master of Science (Management) student at Universiti Utara Malaysia currently working on my thesis. The topic of my thesis deals with the use and effects of information technology in organizations.

Enclosed is a copy of a questionnaire. I would appreciate it greatly if you could take 15 minutes to fill it in. Your participation in this project is of great importance to me and I am hoping that you will be able to help me. Please be assured that your answers are strictly confidential and anonymity is guaranteed. I will not ask you to state your name, phone number, or other personal identification. In addition, the results will be presented in an aggregate form only.

If you have any questions or are interested in knowing the results of this study, you can contact me at the following address, or email me at: skawamleh@yahoo.com.

I will collect the questionnaire personally from you in three days time.

I wish to thank you again for your cooperation and participation in this project.

Have a good day.

Sincerely yours,

SALAHUDEEN ABDULKAREEM ALKAWAMLEH
Block N 101
May Bank College
Universiti Utara Malaysia
06010 Sintok, Kedah Malaysia
Telephone: 0172464079

INFORMATION TECHNOLOGY QUESTIONNAIRE

SECTION A

1. During a typical week or month, what percentage of <u>your total work time</u> do you spend sitting at and using the computer at work?

    _____ %

2. As it stands now, is it <u>possible</u> to do your job without using the computer? That is, could you carry out your current duties and responsibilities if you no longer personally had a computer? Please check one of the following alternatives.

    ❑ Yes, it could be done

    ❑ Technically possible, but would not have the time to accomplish all currently being done.

    ❑ No, parts of my job <u>require</u> personal use of computer

Listed below are questions pertaining to the frequency of your interaction or use of information technology at work. Please circle the correct response that reflects your honest and objective opinion on each of the statement below using the following scale in which 1 = never use, 2 = rarely use, 3 = sometimes use, 4 = often use, and 5 = always use.

		Never use	Rarely use	Sometimes use	Often use	Always use
3.	I use the Internet, e-mail, and electronic bulletin boards at work.	1	2	3	4	5
4.	I use UUM intranet at work.	1	2	3	4	5
5.	I use UUM database and/or electronic data system at work.	1	2	3	4	5
6.	I use UUM knowledge management system.	1	2	3	4	5

Listed below are questions pertaining to the ease of use of information technology at work. Please circle the correct response that reflects your honest and objective opinion on each of the statement below using the following scale in which 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, and 5 = strongly agree.

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
7.	In UUM, information systems and software are designed to be user-friendly.	1	2	3	4	5
8.	It is easy for me to use information systems without extra training.	1	2	3	4	5

SECTION B

This section asks you about UUM's vision and mission. Please circle the correct response that reflects your honest and objective opinion on each of the statement below using the following scale in which 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, and 5 = strongly agree.

		Strongly disagree	**Disagree**	**Neither disagree nor agree**	**Agree**	**Strongly agree**
1.	This university has an organization vision.	1	2	3	4	5
2.	Top management leaders present a clear organizational vision and communicate it to employees.	1	2	3	4	5
3.	Overall, organizational vision and goals are clearly stated in this university.	1	2	3	4	5
4.	I understand the goals of this university.	1	2	3	4	5
5.	I can explain the vision and goals of this university to others.	1	2	3	4	5

SECTION C

This section asks you about your job. Please tick (☑) your most appropriate response.

1. Thinking about your job, on the whole, to what extent are you satisfied with it?
   ❑ I am not very satisfied with my job
   ❑ I am not satisfied with my job
   ❑ I am neither dissatisfied nor satisfied with my job
   ❑ I am satisfied with my job
   ❑ I am very satisfied with my job

SECTION D

This section asks you about your coworkers. Please circle the correct response that reflects your honest and objective opinion on each of the statement below using the following scale in which 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, and 5 = strongly agree.

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1.	I have full confidence in the skills of my coworkers.	1	2	3	4	5
2.	I trust the expertise of my coworkers.	1	2	3	4	5
3.	If I face difficulties at work, I know my coworkers will try to help me out.	1	2	3	4	5
4.	My coworkers do not try to deceive me for their own profit.	1	2	3	4	5

SECTION E

This section asks about your personal background. Please tick ☑ in the appropriate box, or fill in the space provided.

1. Your sex: ❐ Male   ❐ Female

2. Your marital status: ❐ Single   ❐ Married

3. Your age: _____ years old

4. Your highest level of education: ❐ Primary school   ❐ Secondary school
  ❐ Diploma   ❐ Bachelor's degree
  ❐ Master's degree
  ❐ Others, please indicate,

_____

5. Your job category: ❐ Academic staff   ❐ Non-academic staff

**THANK YOU FOR COMPLETING THIS QUESTIONNAIRE
AND HAVE A GOOD DAY**

Tarikh: 26 Jun 2008

Responden yang dihormati:

Saya berharap tuan/puan berada dalam keadaan sihat sejahtera.

Saya, Salahudeen Abdulkareem Alkawamleh, seorang pelajar Sarjana Saina (Pengurusan) di Universiti Utara Malaysia dan kini sedang menulis tesis saya. Topik tesis saya berkaitan penggunaan dan kesan teknologi maklumat di organisasi.

Bersama-sama ini dilampirkan satu salinan soal selidik. Saya amat mengharapkan agar tuan/puan sudi meluangkan masa 15 minit untuk mengisinya. Penyertaan tuan/puan dalam penyelidikan saya ini amat saya hargai dan saya mengharapkan kerjasama dan bantuan tuan/puan dalam hal ini. Saya ingin menegaskan bahawa semua jawapan yang tuan/puan berikan adalah rahsia dan sulit. Saya tidak meminta tuan/puan untuk menyatakan nama, nombor telefon, atau maklumat sulit lain. Di samping itu, dapatan kajian ini akan dilaporkan dalam bentuk agregat semata-mata.

Jika tuan/puan mempunyai sebarang soalan atau berminat untuk mengetahui dapatan kajian ini, saya boleh dihubungi di alamat seperti di bawah, atau di alamat emel ini: skawamleh@yahoo.com.

Selepas mengisi soal selidik ini, saya akan mendapatkannya semula daripada tuan/puan selepas tiga (3) hari.

Saya ingin mengucapkan ribuan terima kasih kepada tuan/puan sekali lagi atas kerjasama dan penglibatan tuan/puan dalam projek ini.

Yang benar,

SALAHUDEEN ABDULKAREEM ALKAWAMLEH
Block N 101
May Bank College
Universiti Utara Malaysia
06010 Sintok, Kedah Malaysia
Telephone: 0172464079

SOAL SELIDIK TEKNOLOGI MAKLUMAT

BAHAGIAN A

1. Dalam satu minggu atau satu bulan yang biasa, apakah peratus <u>seluruh masa kerja anda</u> yang anda gunakan untuk menggunakan komputer semasa bekerja?

    _____ %

2. Sekarang ini, adakah anda <u>boleh</u> melakukan kerja anda tanpa menggunakan komputer? Yakni, adakah anda dapat melaksanakan tugas dan tanggungjawab anda sekiranya anda tidak mempunyai komputer? Sila tandai (☑) salah satu jawapan di bawah.

    ❑ Ya, ia boleh dilakukan

    ❑ Secara teknikalnya boleh, tetapi saya tidak mempunyai masa untuk melaksanakan semua tugas yang diberikan

    ❑ Tidak boleh, sebahagian kerja saya <u>memerlukan</u> saya untuk menggunakan komputer

Di bawah ini ialah soalan tentang kekerapan anda menggunakan teknologi maklumat semasa bekerja. Sila jawab setiap soalan sejujur dan seobjektif mungkin berdasarkan skala di bawah di mana 1 = tidak pernah guna, 2 = jarang guna, 3 = kadangkala guna, 4 = kerap kali guna, and 5 = selalu guna.

		Tidak pernah guna	**Jarang guna**	**Kadangkala guna**	**Kerap kali guna**	**Selalu guna**
3.	Saya menggunakan Internet, emel, dan papan buletin elektronik (*electronic bulletin board*) di tempat kerja.	1	2	3	4	5
4.	Saya menggunakan intranet UUM di tempat kerja.	1	2	3	4	5
5.	Saya menggunakan pangkalan data (*database*) dan/atau sistem data elektronik (*electronic data system*) UUM di tempat kerja.	1	2	3	4	5
6.	Saya menggunakan sistem pengurusan pengetahuan (*knowledge management system*) UUM.	1	2	3	4	5

Di bawah ialah soalan tentang sejauh mana mudah atau sukarnya teknologi maklumat digunakan di tempat kerja anda. Sila jawab setiap soalan sejujur dan seobjektif mungkin berdasarkan skala di bawah di mana 1 = sangat tidak setuju, 2 = tidak setuju, 3 = neutral, 4 = setuju, dan 5 = sangat setuju.

		Sangat tidak setuju	Tidak setuju	Neutral	Setuju	Sangat setuju
7.	Di UUM, sistem maklumat dan perisiannya dibangunkan agar ia mesra pengguna.	1	2	3	4	5
8.	Saya rasa mudah menggunakan sistem maklumat tanpa sebarang latihan tambahan.	1	2	3	4	5

BAHAGIAN B

Bahagian ini menanyakan anda tentang visi dan misi UUM. Sila jawab setiap soalan sejujur dan seobjektif mungkin berdasarkan skala di bawah di mana 1 = sangat tidak setuju, 2 = tidak setuju, 3 = neutral, 4 = setuju, dan 5 = sangat setuju.

		Sangat tidak setuju	Tidak setuju	Neutral	Setuju	Sangat setuju
1.	Universiti ini mempunyai visi organisasinya sendiri.	1	2	3	4	5
2.	Ketua pengurusan atasan menyampaikan visi UUM dengan jelas kepada pekerjanya.	1	2	3	4	5
3.	Secara keseluruhannya, visi dan matlamat organisasi dinyatakan dengan jelas di universiti ini.	1	2	3	4	5
4.	Saya faham matlamat universiti ini.	1	2	3	4	5
5.	Saya boleh menjelaskan visi dan matlamat universiti ini kepada orang lain.	1	2	3	4	5

BAHAGIAN C

Bahagian ini menanyakan tentang kerja anda. Sila tandai (☑) pada jawapan anda yang paling sesuai.

1. Secara keseluruhannya, jika anda fikir tentang pekerjaan anda, sejauh manakah anda berpuas hati dengannya?

    ❑ Saya amat tidak berpuas hati dengan pekerjaan saya

    ❑ Saya tidak berpuas hati dengan pekerjaan saya

    ❑ Saya berpuas hati pun tidak, tidak berpuas hati pun tidak dengan pekerjaan saya

    ❑ Saya berpuas hati dengan pekerjaan saya

    ❑ Saya amat berpuas hati dengan pekerjaan saya

BAHAGIAN D

Bahagian ini menanyakan anda tentang rakan sekerja anda. Sila jawab setiap soalan sejujur dan seobjektif mungkin berdasarkan skala di bawah di mana 1 = sangat tidak setuju, 2 = tidak setuju, 3 = neutral, 4 = setuju, dan 5 = sangat setuju.

		Sangat tidak setuju	Tidak setuju	Neutral	Setuju	Sangat setuju
1.	Saya berkeyakinan penuh dengan kemahiran yang ada pada rakan sekerja saya.	1	2	3	4	5
2.	Saya mempercayai kepakaran rakan sekerja saya.	1	2	3	4	5
3.	Jika saya mempunyai masalah, saya tahu yang rakan sekerja saya akan cuba untuk membantu saya.	1	2	3	4	5
4.	Rakan sekerja saya tidak akan menipu saya untuk kepentingan diri mereka.	1	2	3	4	5

BAHAGIAN E

Bahagian ini menanyakan anda tentang latar belakang anda. Sila tandai ☑ pada kotak yang sesuai, atau isikan tempat kosong yang disediakan.

1. Jantina anda: ❒ Lelaki ❒ Wanita

2. Tahap perkahwinan anda: ❒ Bujang ❒ Berkahwin

3. Umur anda: _____ tahun

4. Tahap pendidikan tertinggi anda:
   ❒ Sekolah rendah ❒ Sekolah menengah
   ❒ Diploma ❒ Sarjana muda
   ❒ Sarjana
   ❒ Lain-lain, sila nyatakan,

   _____

5. Kategori pekerjaan anda: ❒ Staf akademik ❒ Bukan staf akademik

TERIMA KASIH ATAS KERJASAMA ANDA