EMPLOYEE PERCEPTION TOWARDS ELECTRONIC MONITORING AT WORK PLACE AND ITS IMPACT ON JOB SATISFACTION OF SOFTWARE PROFESSIONALS IN SRI LANKA

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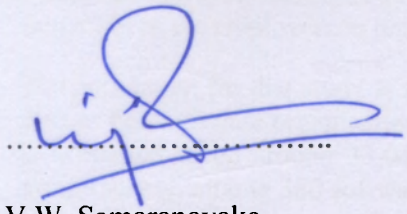

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ABSTRACT

Majority of the software development organizations in Sri Lanka today use some means of electronic technology to monitor their employee activities. Most of the software professionals perceive this as a serious matter, because the mutual trust that should be there between the employer and the employee is in question. On the other hand, employers justify electronic monitoring at work place in terms of protecting the company's confidential information, preventing the misuse of the organizational resources while uplifting the quality of work hence increasing the productivity. However, most employees believe that electronic monitoring at work place might negatively impact their work and privacy. This study attempts to reveal the relationship that might exist between the software professionals' perception towards electronic monitoring at work place and their job satisfaction, which is important to the employers in determining the long term profitability of their organizations.

The population for this study is software professionals working in software organizations as well as non-software organizations who are doing in house development in Sri Lanka which is estimated to be around 33,048 (ICTA, 2007). Data collection has been carried via an online survey, among 380 software professionals in Sri Lanka.

In the present study, *Perceived Relevance to work* and *Personal Judgment of effectiveness* were positively correlated with job satisfaction. This means that the software professionals, who view electronic monitoring as something which is relevant to their work and a way of uplifting the quality of their work, are satisfied in their jobs also. Further, it appeared that *Perceived Invasion of Privacy* was negatively correlated to job satisfaction, which sheds some light in organizational electronic monitoring policy making. Also, *Perceived Task Satisfaction* was negatively correlated to job satisfaction. This means that the software professionals, who thought that working in an electronically monitored environment makes their tasks more complex, are rather dissatisfied. Also, electronic monitoring hardly showed any impact for the software professionals with more than five years of professional experience. This emphasizes that the perception towards electronic monitoring becomes less significant along with the maturity of the software professional.

This research brings out valuable results that can be incorporated in organizational security policy making by the managements of the software development organizations in Sri Lanka with a special emphasis on the job satisfaction of their employees, which is the most valuable asset of the organization. Further, the present study hints on other avenues that could be explored further as future research, in the field of electronic monitoring at work place and its impact on the individuals.

Keywords: Electronic Monitoring, Software professionals, Relevance to work, Personal Judgment of effectiveness, Invasion of Privacy, Task Satisfaction

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LIST OF ABBREVIATIONS

Abbreviation	Description
AMA	American Management Association
DB	Database
IT	Information Technology
JDI	Job Descriptive Index
SLICTA	Sri Lanka Information Communication Technology Agency

1 INTRODUCTION

1.1 Chapter Overview

This research focuses on the perception towards the electronic monitoring at work place, and its impact on job satisfaction of software professionals in Sri Lanka. This chapter provides information associated with the background and motivation of the research, research problem, research objectives, research design and the significance of the study.

1.2 Background and Motivation

1.2.1 Electronic Monitoring

Electronic monitoring makes it possible for employers to monitor the activities of their employees continuously and secretly. Computer based monitoring allows an employer to review specific activities of employees who work on computers. If an employee's work place is equipped with a full featured computer network, a manager can eavesdrop on all components of an employee's computer work without the employee's consent (Flanagan, 1994).

Electronic monitoring refers to the use of computerized systems to automatically collect, store, analyze, and report information on employee activities at work. Also, it allows an employer to observe what employees do on the job and review employee communications, including e-mail and internet activity, often capturing and reviewing communications that employees consider private. So, electronic monitoring makes it possible to monitor many employees simultaneously and to obtain much more detailed information at the same time.

Considering the local context, most of the companies do not officially inform their employees that they electronically monitor their employee activities. On the other hand, employees believe that the employers are overwriting their privacy.

1.2.2 Forms of Electronic Monitoring

Monitoring technology provides the employer with the ability to track employees' internet movements and report on them. Today, almost all jobs have the potential to be subjected to electronic monitoring. According to Wen, Schwieger and Gershuny (2007), monitoring technology provides the employer with the ability to track employees' internet movements and report on them. Further they explained that the employee access to surf and browse is subjected to monitoring via reports, active daily monitoring and on-line notification. Therefore the technology is capable of taking pictures of an employee's screen at periodic intervals, which enables the employer to see the sites employees are visiting, the messages they are e-mailing, and the confidential information they may possibly be exposing. This indicates that it is not only the employees' internet usage that is being monitored, but also the screen content of their e-mail, for potentially offensive or inappropriate messages. They investigated about software solutions that help employers to monitor employees' machines and/or send e-mail reports to a specified e-mail address. Some of the applications send exact copies of employees' e-mails, chats, instant messages, and usage of sensitive words and phrases to a specified e-mail address instantaneously.

1.2.3 Benefits and Drawbacks of Electronic Monitoring

Employers have a right to electronically monitor their employees' computer related activities. This helps them to increase the productivity in long-term. Most of time employers highlight that electronic monitoring is critical in getting better employee productivity and to ensure the quality of work. Varieties of industries use computer-based monitoring to train employees and to check the quality of their work (Flanagan, 1994). Some of these research findings, as well as anecdotal evidence, suggest that, in addition to stress and lack of workplace privacy, electronic monitoring can contribute to negative employee behaviors. These behaviors can have a significant impact on employee work life and on the corporate bottom line. This is why it is important to understand and explain them in relation to electronic monitoring (Vorvoreanu and Baton 2000).

Most employers have good business justifications to electronically monitor employees in the workplace including assessing worker productivity, protecting company assets from misappropriation, and ensuring compliance with workplace policies. Without proper control, employees with internet addiction problems are reported to display disturbed patterns of internet use. Employees with serious internet abuse problems can show many disorders, including depression, or loneliness. These problems can carry over to the workplace and result in a lowered productivity of employees in the workplace. In the worst case scenarios, some internet abuse problems, including pornography, gambling, online auctions, chat rooms and blogging, can create corporate liability with illegal activities and potential lawsuits. Electronic monitoring leads to different type of positive and negative results for both employees and the organization.

Al-Rjoub, Zabian and Qawasmeh (2008), investigated different areas based on employee's point of view such as lowest interest in the job, absenteeism, privacy invasion, quality of work, lack of trust between employees themselves, between employees and supervisors and between supervisors and managers, work pressure, performance, productivity and stress.

According to the study carried out by Ariss (2002), there are some recommendations for electronic monitoring for employers.

- Identify the business purpose for the monitoring and confine it to what is necessary to accomplish that purpose. Monitoring will only be used as necessary and will not be intrusive on the employees' computer work.

- Require every employee to sign a statement that authorizes organization to monitor e-mail and computer usage. This statement makes it clear that employees should have no expectations of privacy in their electronic communications.

- Develop and provide employees a written policy on employee use of communication systems, outlining exactly what types of communication are prohibited.

- Inform all employees how and when they will or might be monitored and what standards will be used to evaluate their performance.

- Inform employees that employee passwords for company systems do not guarantee privacy and may be overridden. Require employees to notify an administrator of their passwords to further decrease their expectation of privacy.

- Consider the costs of excessive monitoring, such as low morale, high turnover, and potential lawsuits, when formulating and enforcing policies.

1.2.4 Role of Electronic Monitoring at Workplace

Without e-mail systems and internet, it is very difficult to run a business today. However, day by day as electronic business activity increases, ad-hoc email implementation, prolonged management neglect and user abuse of email systems have generated negative effects. As an organization it is very hard to anticipate, manage and prevent these negative effects. Many organizations try to control the negative effects of email through a combination of policies and electronic monitoring.

Duane and Finnegan (2004) investigated the experiences of employees exposed to electronic monitoring and control email usage. They did this research by using different types of fairly large companies and table 1.1 highlights the key factors that organizations need to focus for effectively electronically monitoring and controlling email usage for business use and the minimize its associated risks. Management of the companies believe that email monitoring must be supported by policies, procedures and a substantial commitment to communicating and working with staff to improve their understanding of the critical nature of email as a business tool. However, none of the organizations provided staff with email system training in the early stages and relying on technical controls does not appear to have been successful as technical controls, and in particular filtering and anti-virus software, require a lot of updating in order to be effective. Furthermore, email policies were often vague,

contradictory in practice, poorly communicated and largely inaccessible to staff. Organizations should consider delegating responsibility for email system monitoring and control to a committee.

Table 1.1 Key factors for effectively monitoring and controlling email usage

Area	Key Factor
Technical	Management must ensure that anti-virus software is effective and regularly updated.
	Management must ensure that effective filtering rules are developed and applied.
Formal	Management must delegate responsibility for managing email to a committee. The task is too great and complex for one or two individuals.
	Management must put a lot of time and effort into drafting and updating the email policy.
	Management must devote substantial time to creating awareness of the email policy.
	Management must explain to staff the critical nature of email to the organization.
Informal	Management must continuously maintain awareness of email controls. Email notifications may not be sufficient.
	Management must educate and train existing, new and temporary staff about the technical, legal, ethical and social aspects of email.

Source: Duane and Finnegan, 2004, p.237

As a management body, American Management Association (AMA) is doing a survey to gather information related to workplace monitoring and surveillance. According to their survey 2007, employers increasingly combine technology including e-mail monitoring, website blocking, phone tapping and GPS tracking, along with policy to manage productivity and minimize litigation, security, and other risks. To motivate compliance with rules and policies, more than one fourth of

employers have fired workers for misusing e-mail and nearly one third has fired employees for misusing the internet. This survey further recognized different areas of electronic monitoring as illustrated in below given tables.

Firing Employees for E-Mail and Internet Misuse

28% of the employers have fired workers for e-mail misuse on following reasons:

Table 1.2 Firing employees for e-mail misuse

Fired Reason	**Percentage**
Violation of any company policy	64%
Inappropriate or offensive language	62%
Excessive personal use	26%
Breach of confidentiality rules	22%
Other	12%

Source: AMA, 2007, p.1

30% of bosses have fired workers for Internet misuse cite on following reasons:

Table 1.3 Firing employees for internet misuse

Fired Reason	**Percentage**
Viewing, downloading, or uploading inappropriate/offensive content	84%
Company policy	48%
Excessive personal use	34%
Other	12%

Source: AMA, 2007, p.1

Monitoring Internet, Blogs and Social Networking Sites

Employers are primarily concerned about inappropriate Web surfing, with 66% monitoring internet connections. A high percentage (65%) of companies use software to block connections to inappropriate websites, which is a 27% increase since 2001, when AMA first surveyed electronic monitoring and surveillance policies and procedures.

According to their studies most of the organizations are willing to block adult sites with sexual, romantic, or pornographic content and also game sites. Recently most of the organizations are concerned about social networking sites other than the above sites.

Table 1.4 Monitoring Internet, Blogs and Social Networking Sites

Employers who block access to the web are concerned about employees visiting	**Percentage**
Adult sites with sexual, romantic, or pornographic content	96%
Game sites	61%
Social networking sites	50%
Entertainment sites	40%
Shopping/auction sites	27%
Sports sites	21%
Companies use URL blocks to stop employees from visiting external blogs	18%

Source: AMA, 2007, p.1

Forms of Electronic Monitoring by Employers

Employers use different forms to track their employees.

Table 1.5 Forms Electronic Monitoring by Employers

Forms of electronic monitoring	**Percentage**
Tracking content, keystrokes, and time spent at the keyboard	45%
Store and review computer files	43%
Blogosphere	12%
Social networking sites	10%

Source: AMA, 2007, p.1

Reasons for Monitoring Computer Activity

According to AMA (2006) survey, concern over litigation and the role electronic evidence plays in lawsuits and regulatory investigations has spurred more employers to monitor online activity. Concerns about the data security and employee productivity, make the employers motivated to monitor web and e-mail use and content. Workers' e-mail and other electronically stored information create written business records that are the electronic equivalent of DNA evidence. As a result, 24% of employers have had e-mail subpoenaed by courts and regulators and another 15% have battled workplace lawsuits triggered by employee e-mail. And also they have found, most of the employers were taking advantage of monitoring and blocking technology to battle people problems including the accidental and intentional misuse of computer systems and other electronic resources with the help of control the risk of litigation, security breaches and other electronic disasters.

Reasons for monitoring e-mail usage

According to the research of Al-Rjoub, Zabian and Qawasmeh (2008), most of the organizations are having the following reasons for monitoring e-mail usage.

- To ensure that electronic communication facilities provided by the company solely for company business
- To be able to define who may review the company information, the purpose for which the information may be used and that the information may be stored on a separate computer
- To avoid the sending of any discriminatory, offensive, or unprofessional message content
- To ensure that the accessing of any internet site that contains offensive or discriminatory content is unused
- To avoid the posting of personal opinions on the internet using the company's access

These reasons are considered minimum standard that motivate electronic monitoring of e-mail and internet usage of the employees.

1.2.5 Employee Perception of Electronic Monitoring

Oz, Glass and Behling (1998) explained very well "What employees think" about electronic monitoring at workplace based on their research. Both of these researchers identified that there is a distinctive difference between over the shoulder or walk around monitoring and electronic monitoring. Employees being monitored are aware of the supervisors' activity from the beginning to end, in the past. But now, they are aware of the monitoring only if a deliberate signal is given. Employers regard the unawareness of the employees as an advantage of electronic monitoring. Further they studied there is a deference between the use of video cameras and eavesdropping on one hand and computer based monitoring on the other. And they clarified any type of

electronic monitoring may be used without the worker's awareness. Employers have the right to monitor employees in the workplace during working hours because they are responsible for all of the activities, including the company's information and employees' safety, which happened during the working hours (Lee and Kleiner, 2003).

Previous research studies show that the employees exposed to high levels of electronic monitoring at the workplace might experience a range of negative physical, psychological, and work outcomes. Most of the organizations today use electronic technology to capture the actions of individuals or groups on the job. Most of the time, employees' perceptions towards electronic monitoring at work, contradict with the need for law enforcement within the organization intended by the top management. Research shows that this perception is usually linked with greater levels of stress, less favorable work attitudes and poorer social interaction of the employees.

Further, there are cases reported in Sri Lanka recently of job termination of software professionals, as a result of the electronic employee monitoring at work place. Therefore this is a very timely topic and the studying of the relationship between employee perception towards electronic monitoring and job satisfaction would be of vital importance to the employers, in determining the long term profitability of the organization. Also, no significant research related to electronic monitoring has been carried out within the Sri Lankan context, which makes this research beneficial to the research knowledge of electronic monitoring and its impact on job satisfaction.

- **How do the software professionals in Sri Lanka perceive electronic monitoring at work place?**
- **Does this perception influence the job satisfaction of the software professionals in Sri Lanka?**

These two questions provide the exact motivation in doing the present study.

1.3 Research Problem Statement

Majority of the software development organizations in Sri Lanka today use some means of electronic technology to monitor their employees' activities. This may be subjected to monitoring of employee e-mail, instant messaging and internet usage of the employee. There are cases reported in Sri Lanka recently that job termination of software professionals, due to the conflicts of interest aroused among the employee and the employer as a result of the electronic monitoring at work place. Most of the software professionals perceive this as a serious matter because the mutual trust that should be there between the employer and the employee is in question. A probable outcome would be the unhappiness and dissatisfaction at work.

So the Research Question would be:

What is the employee perception towards electronic monitoring at workplace and its impact on the job satisfaction of Software Professionals in Sri Lanka?

1.4 Objectives of the Research

- To identify the impact of the employee perception towards electronic monitoring at work place, on job satisfaction of Software Professionals in Sri Lanka
- To provide the software development companies awareness, on the relationship between electronic monitoring at work place and job satisfaction of the software professionals
- Contribute to the existing research knowledge in the field of electronic employee monitoring at workplace

1.5 Research Design

This research focuses on the perception towards the electronic monitoring at work place, and its impact on job satisfaction of software professionals in Sri Lanka. The target population was the software professionals working in the software organizations as well as the non-software organizations such as in house software development companies in Sri Lanka. According to this background, this research will implement the *empirical* approach of research since obtaining good grasp of the phenomena of interest while advancing knowledge through subsequent theory building and hypothesis testing would be necessary.

Since this research is aimed at describing the perception towards the electronic monitoring at work place and its impact on job satisfaction of software professionals, it would be a *correaltional study* by nature. This suggests that apart from the proposed factors, several other factors might exist and at the same time attempts would be made to analyze whether these factors could significantly explain, and to which extent, the job satisfaction of the software professionals in Sri Lanka. Also, since the current study can be conducted with the data gathered within three months, it falls into the category of *cross sectional* studies.

Initial stage of this research is to undertake an extensive review of literature, in order to recognize specific factors that are associated with electronic monitoring at workplace and the job satisfaction of the software professionals. Then the theoretical framework will be developed to address the major research problem, which is largely based on the previous research as well as expert opinion.

Next, a questionnaire instrument will be developed to capture the necessary research variables. The population for this research was the Software professionals working in the software organizations as well as non-software organizations such as in house software development companies in Sri Lanka. Questionnaire would be administered adopting *stratified random sampling* techniques.

Since this is a correaltional study, the survey would be conducted in the natural environments of the software professionals in Sri Lanka with minimum interference by the researcher, with the normal flow of work. Based on the analysis and interpretation of data, conclusions and recommendations would be drawn.

1.6 Importance and Benefits of the Study

- Employers can make better decisions in electronic monitoring, on the basis of its effects on employee job satisfaction as opposed to a way of law enforcement within the organization
- Research outcome would be an indicator of the level of acceptance of electronic employee monitoring, among the software professionals in Sri Lanka
- Employers can plan employee empowerment programs to overcome any issues associated with electronic monitoring if any

1.7 Nature and the Form of the Results

- Recognition of the relationship that exists, between the employee perception of electronic monitoring at workplace and the job satisfaction of the software professionals in Sri Lanka
- Identification of the effects of employee perception of electronic monitoring at workplace, on various dimensions of job satisfaction

1.8 Structure of the Thesis

This thesis contains six chapters and a brief description of each chapter is given below:

Chapter 1 provides the motivation and background to the research, research problem, research objectives, research design and the significance of the research study. Chapter 2, will provide an insight to the diverse literature associated with electronic monitoring, electronic monitoring at workplace and its relationship with job satisfaction of software professionals.

Chapter 3 explains the research methodology adopted for the present study, including detail descriptions on the theoretical framework, research variable definitions, variable relationships, questionnaire instrument development, survey approach, development of hypotheses etc. Chapter 4 provides the observations and results associated with the collected data presented statistically. Also, a detailed analysis and discussion on the observations and the results obtained would be provided.

Based on the analysis and the interpretation of the data, Chapter 5 draws conclusions on the total research outcome, including the managerial implications in business. Also, the limitations of the present study along with the directions for future research would be discussed.

2 LITERATURE REVIEW

2.1 Chapter Overview

The impact of electronic monitoring at work place on job satisfaction is an interesting area to study in the field of software Industry. Since the human factor is involved, previous research has been influenced heavily on employer side to find out the relationship between electronic performance monitoring and employee behavior. With the evolvement of the area of research, many researchers contributed to the knowledge by comparing various areas with respect to electronic monitoring.

Most of the companies have valid reasons to monitor employees in the workplace. According to the employers' point of view, they have a responsibility to provide a safe and secure workplace. To achieve that, they have to monitor the activities related electronic media to prevent offensive materials. They can also protect the company's confidential information and prevent trade secrets from leaking out. However, employees feel that their rights of privacy have been invaded by the employers' constant monitoring.

The internet and e-mail, in particular, allow employees to communicate effectively and efficiently with others. On the other hand, employers have provided tools to monitor employees in the workplace. This monitoring could help to reduce employees' misconduct, increase productivity and prevent leakage of confidential information (Lee and Kleiner, 2003).

Even though many previous researches had been carried out to determine the electronic monitoring related to different areas, it is not conducted for the employee perception towards electronic monitoring at work place, on job satisfaction of Software Professionals. The next sections will review diverse literature associated with the area of electronic monitoring research.

2.2 Electronic Monitoring – Recent History

Electronic monitoring refers to the use of electronic hardware and software to collect, analyze, and report individual or group actions or performance (Alder and Ambrose, 2005b). The definition of electronic monitoring, or electronic task-specific monitoring (Stanton, 2000) in the workplace has varied in past research as technological advances have caused monitoring practices to increase in complexity and prevalence.

Recent research suggests the most frequently occurring electronic monitoring techniques include the monitoring of computer files, computer output including e-mail and internet activity, telephone calls, and video camera surveillance to directly observe employee behaviors (American Management Association, 2005; Stanton, 2000).

Several important differences exist between electronic monitoring techniques and more traditional forms of supervision. Electronic monitoring allows the continuous collection of employee information in the absence of supervisors or coworkers. Electronic monitoring can provide abundant amounts of data related to many multiple work dimensions, such as attendance, work speed, productivity, and efficiency (Alder and Ambrose, 2005b). Organizations utilizing electronic monitoring procedures must also decide the extent to which performance information will be provided to employees (Alder and Ambrose, 2005b). Of interest in their study is the notion that the continuous collection of information in the workplace may or may not be directly related to work performance in the eyes of employees. Most of the employers use data obtained through electronic monitoring for different type of purposes.

According to Nebeker and Tatum (1993), as long as there has been employment, employees have been monitored. And also they have studied the effects of computer monitoring, standards and rewards on work performance, job satisfaction and stress. Nebeker and Tatum's (1993) research was based on task specific and non-task

specific electronic monitoring. According to their research computer monitoring is not one-dimensional phenomenon and once it is applied for an organization electronic monitoring can vary along a number of different dimensions such as individual visibility, focus, privacy, timeliness, feedback medium and tone. However, in recent years, with an environment of affordable technology, the availability of less easily observable or detectable monitoring devices, and a lack of adequate regulation, there has been an explosion in the use of electronic monitoring and surveillance in the workplace. During the past two decades, workplace surveillance has been steadily on the rise (Aiello, 1993; Aiello and Svec, 1993; Botan, 1996; Botan and Vorvoreanu, 2000), and its frequency is still increasing.

Watson (2007) investigated the role of task-relatedness of monitoring practices and the presence of justifications in determining individuals' reactions to monitoring and to a simulated work task. As per his findings both of above characteristics, such as monitoring task-specific behaviors and providing a clear justification for monitoring practices can result in more positive reactions to monitoring relative to monitoring off-task inclusive behaviors and providing no justifications for monitoring practices. Chen and Sanders (2007) investigated electronic monitoring phenomena by attempting to synthesize the varying view.

A recent study by the American Management Association (AMA, 2007) found that employers are primarily concerned about inappropriate web surfing, with 66% monitoring internet connections. Fully 65% of companies use software to block connections to inappropriate websites, which is a 27% increase since 2001 when AMA Institute first surveyed electronic monitoring and surveillance policies and procedures. According to that survey, of the 43% of companies that monitored e-mail, 96% track incoming and outgoing messages within the local network, while only 58% monitor internal messages that are sent among employees. While almost all jobs have potential to be subjected to some type of electronic monitoring, some are much more susceptible to the activity.

Wellen, Martin and Hanson (2009) carried out a research to measure the impact of electronic monitoring towards the working attitudes of the employees. According to their research result, the perceived levels of employee monitoring at work can influence the negative working attitudes of the employees but they can be moderated by workplace empowerment. Vorvoreanu and Baton (2000) have examined the paradox of electronic monitoring in the workplace and states that it is much used and little understood. And also they have summarized data regarding the pervasiveness of electronic monitoring in the U.S. workplace; the types of jobs most likely to be monitored, the methods used for electronic monitoring, and the unintended negative effects that may result. It has also reviewed a number of important studies that have looked into the nature and effects of electronic monitoring.

Oz, Glass and Behling (1998) had estimated that at least 26 million Americans are electronically monitored in the workplace. As per their study, 823 employees were surveyed. A great majority of the respondents felt that electronic monitoring might cause undesirable tension between managers and workers. Supervisors favor electronic monitoring more than non-supervisors do, whereas non-supervisors believe to a greater extent than supervisors that electronic monitoring has a negative impact in the workplace. According to Lee and Kleiner (2003), monitoring could help reduce employees' misconduct, increase productivity and prevent leakage of confidential information. On the other hand, it may also lead to loss of employees' morale and the invasion of their privacy.

Aiello (1993) has extended this field of research by reporting on a series of six laboratory studies which examined the effects of computer monitoring on variables such as stress and task performance. As per his studies, the factors likely to moderate the acceptance and effectiveness of computer monitoring & implications for work and social relationships are discussed. Results of Aiello and Kolb's (1995) laboratory experiment revealed that group level monitoring provided some protection against stress as participants who were monitored at the group level obtained stress scores between those who were individually monitored and those who were not monitored.

In sum, research generally suggests that employees will respond to group level monitoring more favorably than to individual level monitoring. However, this relationship may be moderated by a number of other factors such as organizational culture (Alder, 2001).

According to Ariss (2002), the workplace monitoring is considered as an important control measure for business necessity for the following reasons;

- Workplace monitoring may prevent the misuse of the organizational resources and the related expenses incurred;
- It may enhance the company security in terms of business secrets, intellectual assets, and corporate knowledge;
- Monitoring may lead to the avoidance of legal liabilities resulted from employee misbehaviors; and
- Monitoring may increase the employee performance

Employers have the right to monitor employees in the workplace during working hours because they are responsible for all of the activities, including the company's information and employees' safety, which happen during the working hours. And also, employees have the right to privacy under common law. Therefore, employers must define clear and understandable policies about electronic monitoring of employees in the workplace. Moreover, employers need to clearly define to what extent they intend to monitor the workplace (Lee and Kleiner, 2003).

King (2002) identified following methods can be used to electronically monitor employees.

Monitoring Computer Keyboard Use

Computers may be programmed to monitor clerical workers to record the number of keystrokes per minute, the precise time and location of any errors, the amount of time it takes to process each form or complete each task, and the length of any breaks.

Monitoring Telephone Use

Computers may count the number and type of calls and call-backs, the number of messages opened and waiting, the number of seconds before the call is answered, the number of times a caller is put on hold, the precise duration of each call, and the time period between calls.

Monitoring Computer Document Drafting

Computers may monitor the number of drafts of documents and the number of revisions per line of dictation.

Monitoring Network and Internet Use

Software enables employers to secretly, and in real-time, monitor employees' use of networked computers including individual monitoring of each connected computer. Software enables employers to capture the images from an employee's computer screen at random intervals and then compress those images to provide documentation of all computer work. Software also may reveal the online activities of all employees, including Websites visited, the length of the employees' visits to Websites, and whether those sites are productive or unproductive. Software enables employers to monitor employees' use of chat rooms, programs run, games played, access to pornography, files used, bytes transferred or downloaded, time spent downloading, and e-mail sent or received.

Computer Forensics Techniques as Monitoring

Computer forensics focuses on retrieving and/or reconstructing electronic communications, generally after the communications have been transmitted, received, and stored on a computer hard drive. Computer forensics may recover electronic communications even after attempts have been made to delete or obscure any record of the electronic communications.

Joseph Wen, H., Dana Schwieger, Pam Gershuny (2007) described the capability of monitoring technology in Table 2.1.

Table 2.1 Internet Usage Monitoring Technology

Monitoring Capability	**Description**
Keystroke monitoring	• Maintains a record of keystrokes along with the window they are typed in and time stamp. • Tracks computer idle time. • Recreates deleted documents because the keystrokes are logged and stored even if deleted.
Emails sent and received	• Monitors and logs all e-mails sent and received by users of all company owned computers. • Screens e-mails for potentially offensive or inappropriate messages. • Scans employee e-mails for questionable keywords predetermined by the employer.
Events timeline logging	• Logs all events users performed and view them in an organized chronically ordered listing. • Views user performed events, in the order in which they occurred. • Logs program starts/stops, website visits, document viewings and printings.
Application usage	• Monitors and logs all applications run by users. • Logs when the application was started, stopped, and how long it was actually used. • Records application installations performed by users. • Logs software name, installation path, and time of installation.
Window activity	• Records documents and files opened and viewed by users. • Logs all windows in which the user directly interacts on the desktop. • Monitors and logs all internet sessions and all chat conversations made on the PC. • Records documents and files that are printed by users. • Logs all passwords used during monitoring sessions via its keystroke recorder.
Remote Desktop Viewing	• Views a listing of various system information for the remote PC, including processor type, system directory. • Views a list of the current internet connections on the PC. • Views a list of the recent documents users have opened. • Remotely views what the user is doing in real-time.

Source: Wen, Schwieger and Gershuny, 2007, p.186

2.3 Relevance to Work of Electronic Monitoring

According to Alge (2001) Employees likely perceive task-specific monitoring techniques as more job relevant in comparison to off-task inclusive monitoring. Relevance refers to "whether collected information is necessary and appropriate for making decisions affecting employees". Alge (2001) conducted a laboratory study in which the task relevance of electronic monitoring was manipulated by the type of information participants were told in determining their overall performance. In the high relevance condition, participants were informed that their performance evaluation would consist of only task-specific data (Alge, 2001). In the mixed relevance condition, participants were informed that their performance evaluation would include both task-specific data and data collected during break periods such as task-specific and off-task monitoring (Alge, 2001). According to Aiello and Shao (1993), while the relationship between electronic monitoring and stress is relatively clear, the association between monitoring and task performance is less well established. Further they concluded that effects of computer monitoring on task performance are strongly affected by the nature of the task.

Alge (2001) found perceived relevance of monitoring was significantly greater in the task specific monitoring condition compared to the mixed condition combining task-specific and off-task monitoring. One limitation of Alge's (2001) study is that participants were only informed of the monitoring procedures after they had completed the task. This is problematic from an external validity standpoint. This suggests that the majority of employees subject to electronic monitoring in organizations receive advanced notification informing them of the monitoring (AMA, 2005).

2.4 Effects of Electronic Monitoring on Job Performance

Previous research studies more focused towards the employer side to find out the relationship between electronic monitoring and employee job performance. Previous research studies stemmed from social psychology focus on the effects of computer monitoring on job performance (Aiello and Svec, 1993; Griffith, 1993). (Aiello and Svec, 1993; Griffith, 1993) used the Social Facilitation Framework (Zajonc, 1965 cited in Griffith, 1993, Botan and Vorvoreanu, 2000) to explain the effects of electronic monitoring on job performance not only with simple tasks and but also with complex tasks. As per social facilitation explains performance differences based on whether an individual works alone or in the presence of another person. For complex tasks, Aiello and Svec (1993) found a social facilitation effect. That is, computer monitoring was found to be similar to the presence of a supervisor and to negatively affect performance of difficult tasks. They concluded that if a job involves performing difficult tasks, it is more efficient not to have computer monitoring. However, none of these studies found significant differences in job satisfaction and anxiety between monitored and non-monitored groups of subjects.

Nebeker and Tatum (1993) conducted two elaborate laboratory experiments to investigate the effects of computer monitoring, under different conditions of standards and rewards, on productivity, work quality, satisfaction and stress. Their research did not show any significant negative effects of computer monitoring. These results, as well as the findings of Aiello and Svec (1993) and Griffith (1993) were based on experimental outcomes. But, considering that real work setting, there is much more at stake, and this could increase the stress and other reported negative effects of electronic surveillance. Various discourses and interests interact in organizational settings, shaping the reality of being under electronic surveillance and influencing the extent to which the experience is negative.

2.5 Rationale for Electronic Monitoring

Always electronic monitoring has been an aspect of work, though its use in the modern workplace to track the activities of employees. Production was often monitored to ensure maximum output was being obtained from employees. This is something similar to counting the number of widgets produced in a factory. These concepts include computer monitoring, keystroke counting, video surveillance, spying, eavesdropping, telephone tapping, and active badge systems (Mishra and Crampton, 1998 cited in D'Urso, 2006). Computerized work measurement enables employers to more efficiently monitor individual employee activities and it was helped them to measure the productivity and behavior of employees. The question is not whether or not employers can electronically monitor their employees, rather the question is how should it be done? The methods were used in electronically monitoring employees are very important, particularly in how employees view them. These all methods must be fairness and ethics in mind. Electronic monitoring certainly raises ethical dilemmas for employers (Taylor, 2007).

Most of the common reasons given for electronic monitoring and surveillance includes, performance reviews and evaluate job performance, legal compliance, cost control employees who surf the internet. Other cited reasons for surveillance includes, protection of business information, security and safety, and lack of up-to-date legal regulation (AMA, 2007). Whatever the rationales for the use of electronic monitoring and surveillance technologies, they are having an impact on an employee's privacy in the workplace.

2.6 Electronic Monitoring and Privacy

Over the past decade the realm of technology and privacy has been transferred, creating a landscape that presents new challenges for IT professional, management, and communication professionals (Meyers and Neville, 2003). Stone and Stone (1990 cited in D'Urso, 2006) offered that privacy is the extent to which individuals believe they have control over their personal information and interactions with others. This idea, when examined from the perspective of the work environment, presents a number of challenges. Privacy is an important factor and its important in organizations with human resource information systems, which store pertinent information about an employee such as job status, medical history, performance records, and more (D'Urso, 2006). D'Urso (2001) explained different types of communication privacy based on electronic monitoring in the workplace such as perception of communication privacy which should be a central focus of organizational communication scholars. Second concerns over communication privacy extend beyond just e-mail, but also include traditional forms and newer communication technologies, such as instant messaging. Third broader issues such as organizational policies and organizational type are extremely relevant in comprehending perceptions of privacy. Fourth various perceptions surrounding the workplace can have a theoretical connection to communication privacy. Last attention should be given to key outcomes related to perceived communication privacy concerns.

Jengchung, Chen Y., Chen C. and Yang (2008) pointed out that the utilization of electronic monitoring systems creates many privacy concerns. Based on their surveys with employees and privacy groups, they discovered that employers need to put a limit on the use of electronic monitoring systems in the workplace to accept the privacy of employees. Researchers explained the importance of many personal and privacy issues associated with the use of electronic monitoring systems. An ethical and responsible employer needs to frankly communicate with employees about the use of electronic monitoring systems to deter and dissuade internet abuse activities in

the workplace. Despite the touted benefits of electronic monitoring for employers, performance monitoring is also one of the most controversial uses of monitoring technologies. Privacy advocates tend to hold a view, based primarily on assumption and intuition, that monitoring is counter-productive and harmful to employees (Johnston and Cheng, 2002). Employer need to understand the concepts of privacy that helped them to keep a good relationship with employees. According to Johnston and Cheng (2002), in the context of the workplace, the protection of privacy is about shifting the locus of power away from employers, and back to employees. They explained, how the employers need to understand that privacy protection is integral to trust, and also trust is the foundation of effective employment relations. According to Ariss, (2002), some employees, finding that their privacy is not protected by statute, have sued their employers for invasion of privacy. According to his studies, in the mind of an employee, this may seem to be an invasion of privacy, legal cases have proven otherwise. And also employee can prove that he/she had a reasonable expectation of privacy.

Wakefield (2004) explained that balancing the legitimate need of employers to monitor the workplace with respect for individual privacy is not difficult. The best course of action is to have a monitoring policy and follow it. According his studies, as an employer, it is recommended that organizations have a written policy clearly stating that any right to privacy is waived for documents and messages created, stored, sent or received on the organization's computer systems or over its networks. It was not easy to maintain the balance between the employer and employee, without having a reasonable monitoring policy that also sets individual privacy expectations. Legal analysts advise that setting policies with clearly stated monitoring intentions is the most important action employers can take to minimize invasion of privacy claims. Clear-cut policies set boundaries, establish employees' expectations of privacy, and help set a workplace tone that conveys organizational responsibility and respect for others. According to Wakefield (2004), he identified major aspect to maintain the minimum, comprehensive monitoring policy. He mentioned below basic policies should be included in the electronic monitoring policy for every organization.

- State the specific business purposes for monitoring
- Clearly state the ownership of company computers, networks, files and e-mail
- Clearly outline the forms of communication considered illegal, prohibited and unacceptable
- Clearly outline the web sites considered illegal, prohibited and unacceptable
- Define the acceptable use of company networks and e-mail
- Set clear boundaries for the personal use of company networks
- Inform employees of the specific types of monitoring activities that will be used
- Explain how monitoring activities are advantageous to employees, clients and the company
- Determine the consequences for policy violations

According to AMA (2007), employers cannot expect an uninformed workforce to comply with policy. And they cannot trust employees on their own to access the company intranet system or retrieve a copy of the employee handbook in order to educate themselves about monitoring or other electronic rules and policies. Employer should introduce policies and the best practices call for formal employee training, which grants employees the opportunity to ask questions and gain a thorough understanding of electronic rules, policies, and procedures.

2.7 Employee Electronic Monitoring and Control in the Workplace

Monitoring research suggests that reactions to monitoring are influenced by whether the system monitors group or individual performance (Aiello and Kolb, 1995). Electronic monitoring leads to different types of positive and negative consequences and seen in both employee's point of view and the company's point of view. Meyers and Neville (2003), developed a model to explain how to control employee at the workplace by using electronic monitoring. According to their model, potential link between levels of monitoring and surveillance on firstly employees' privacy needs, and secondly on employees' control beliefs, can be illustrated in the following diagram:

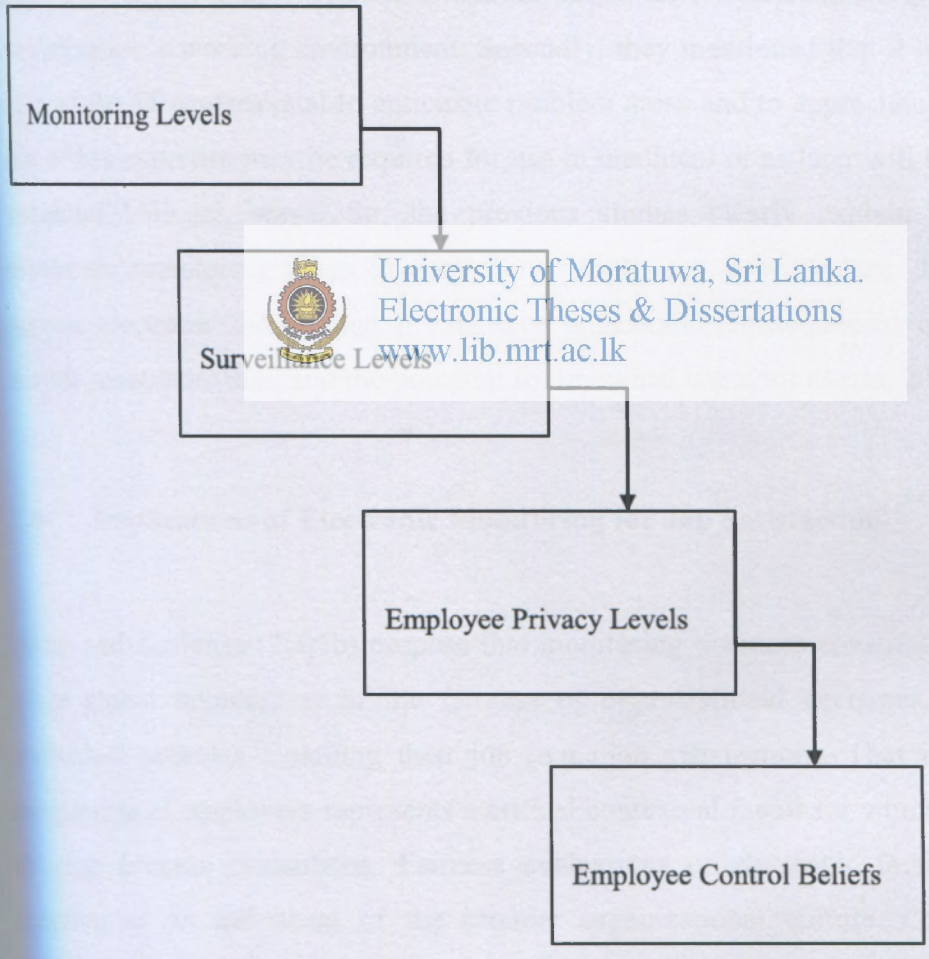

Figure 2.1 Impact of monitoring and surveillance on employees' control needs

Source: Meyers and Neville, 2003, p.2

According to Meyers and Neville (2003), linearity implied in the model is illustrative rather than predictive. The actual relationships between monitoring, surveillance and their impacts on employees' privacy needs and attendant control belief need, of course, to be operationalized and empirically tested in actual workplace settings. And also they mentioned the relationship between levels of workplace monitoring and surveillance and its impact on privacy and employees' level of perceived control.

Further, they explained about the relationship with job satisfaction and also productivity. According to this model, they explained two things. Firstly they explained, over control mechanisms in the contemporary workplace can potentially alienate workers and, to re-state an earlier claim, have dysfunctional effects on the organization's working environment. Secondly, they mentioned that it is clearly the role of the IT professional to anticipate problem areas and to appreciate what extent his or her expertise may be required for use in unethical or as later will be discussed potentially illegal, ways. So, the previous studies clearly explain the role of electronic monitoring plays in controlling employees at workplace. If employers misuse electronic monitoring, it can have undesirable consequences on employee morale, economic loss, and the potential for unethical behavior (Ariss, 2002).

2.8 Implications of Electronic Monitoring for Job Satisfaction

Alder and Ambrose (2005b) propose that monitoring practices constitute a basis for more global impressions of the fairness of organizational decisions, as well as individual attitudes regarding their job (e.g., job satisfaction). That is, electronic monitoring of employees represents a critical contextual factor for which individuals develop fairness evaluations. Fairness evaluations of electronic monitoring may function as an indication of the broader organizational culture. Organizational practices involving unfair forms of electronic monitoring will lead employees to expect similar policies in other areas of the organization (Ambrose and Alder, 2000). In contrast, organizational practices involving fair forms of monitoring will lead

employees to conclude similarly fair policies are conducted throughout the organization (Ambrose and Alder, 2000). These broader attitudes toward organizational policy and values may impact individual reactions (e.g., satisfaction) to the work itself, as one's job is typically assigned by and performed for the organization.

Perceived fairness of electronic monitoring has been shown to predict task and job satisfaction in both field and laboratory settings (Alder and Ambrose, 2005a). Research evidence suggests positive perceptions of fairness may be associated with increased productivity, which in turn may enhance satisfaction. Alder and Ambrose (2005a) found perceptions of monitoring fairness influenced participants' task performance and satisfaction. Stanton (2000) states the need for further research investigating the role of monitoring fairness as it relates to important work outcomes, including satisfaction.

Considering the organizational contexts when electronic monitoring is highly salient and it is not visible to the employees, but most of employee activities, such as both task and non-task specific are monitored, fairness evaluations of the monitoring procedures likely influence broader work attitudes including job and task satisfaction. Employee monitoring and surveillance within organizations may exist on a continuum ranging from excessive relatively acceptable levels, according to individual perceptions. Links between unacceptable levels of employee monitoring and surveillance and their impacts on level of perceived control may also negatively impact on employees' job satisfaction (Meyers and Neville, 2003). And further, they explained about excessive levels of work monitoring and surveillance may, in turn, lead to higher levels of employee job stress, impact negatively on productivity, and increasingly in the future raise legal questions, amongst potentially other deleterious effects. But, they agreed, since the IT professional is at the front line in providing technical advice on how, when and where employee monitoring and surveillance are to occur, it is impossible to ignore this issue.

Indeed, Aiello and Shao (1993) found that the introduction of electronic monitoring decreased both task satisfaction and supervisor satisfaction in participants. According to their studies, computer monitoring has been a controversial issue because of the distinct advantages and disadvantages associated with it. They explained also about the positive side including immediate and objective performance feedback, facilitation of goal setting and lead to productivity gains. They further clarified about the negative of electronic monitoring, including the threat to privacy and being an excessive management tool. Based on these factors they explained the impact on job satisfaction and stress among electronically monitored employees. According to Stanton's (2000) framework of employee reactions to electronic monitoring, electronic monitoring may ultimately influence employee satisfaction through the mediating role of monitoring cognitions such as perceived relevance and fairness of monitoring.

Aiello and Svec (1993) studied the electronic monitoring, performance monitoring and its impact on work motivation and job satisfaction. According to them, how employers, supervisors and employees use the information gathered through monitoring and the specific nature of the existing relationship of the supervisor and employee will no doubt carry the greatest weight in determining the reactions to and the impact of electronic monitoring. And also they explained how electronic monitoring changed the behavior of the employees. Griffith (1993) also studied computer monitoring and how it impacts job satisfaction. He studied under supervisor monitoring condition as well as computer based electronic monitoring conditions and the relationship with job satisfaction. Further he concluded that, the greatest impact of computer monitoring should be found in an organizational context where performance feedback and consequences are linked by data provided by the computer based electronic monitoring systems.

2.9 Job Satisfaction in an Organization

Job satisfaction is construct which has been defined differently by various scholars. The term was first defined by Hoppock (1935 cited in Lew Tek Yew, 2005a) as a combination of psychological, physical and environmental circumstance that causes a person to say, "I am satisfied with my job". Concerns about employee job satisfaction are just as critical in all organizations. Numerous factors influence employee job satisfaction. O'Reilly and Caldwell (1982, 1991), indicated that both task and organizational rewards contribute to job satisfaction. Task rewards are intrinsic rewards directly associated with the job such as interesting and challenging work, variety and opportunities to use one's skills. Organizational rewards are the tangible rewards that are visible to others such as pay, promotion and comfortable working conditions. Hoppock (1935) forwarded a traditional approach to job satisfaction. Job satisfaction is a result of various factors in the working environment and if these factors are present, job satisfaction will arise, otherwise job dissatisfaction will emerge. The same factors will influence job satisfaction and job dissatisfaction. In contrast, Herzberg et al. (1959 cited in Yew, 2005a) distinguished the factors like work environment, pay and company policies that eliminate job dissatisfaction as the hygiene factors while the factors creating job satisfaction like challenging work, responsibility, recognition and achievement as motivators. On the other hand, job satisfaction construct can be considered to be a function of work-related rewards and work values. There are lots of instruments (indexes) to measure job satisfaction. But, most of the researchers used Job Descriptive Index (JDI) (Smith, Kendall and Hulin, 1969 cited in William, Vaughn and Dunn, 1972) as a measurement tool for Job Satisfaction. The facets of the JDI are derived from the definition of job satisfaction put forth by Smith, Kendall and Hulin (1969). They defined job satisfaction as "feelings or affective responses to facets of the situation". According to this definition, the JDI view job satisfaction as the accumulation of five facets: work on present job, present pay, opportunities for promotion, supervision, and people on your present job (co-workers).

William, Vaughn and Dunn (1972) investigated the job satisfaction for on-going organizations by using JDI. They specially focused the job satisfaction, by paying high attention to three questions. 1. How can job satisfaction be measured, 2. What are the major pitfalls likely to be encountered by those who conduct such research, 3. How can job satisfaction data, once obtained, be analyzed and interpreted by management. And further they explained how to select an instrument to measure job satisfaction. They used below criteria to select the index.

- It should index the several dimensions of job satisfaction rather than an "over-all" (global) dimension
- It should be applicable to a wide variety of jobs
- It should be sensitive to variations in attitude
- The instrument used should be of such a nature (interesting, realistic and varied) that the scale will evoke co-operation from both management and employees
- The index should be reliable
- The index should be valid
- The index should be brief and easily scored
- Normative data should be available

York, Colasanti and Josephson (1988) investigated the relationship in between organizational climate and job satisfaction. They also used JDI to measure the job satisfaction. According to this study certain facets of job satisfaction and certain dimensions of organizational climate were correlated. On the other hand, they noticed that stress plays a major role on the workers' perceptions of organizational climate and its impact to job satisfaction.

2.10 Organizational Culture and Electronic Monitoring

Research recognizes that reactions to electronic monitoring may be moderated by several factors. So, one of the most common factors is organizational culture. Cultures also can have different type of dimensions. Litwin and Stringer (1968) studied the organizational culture. One may speculate culture as a concept, which is difficult for psychometrically oriented investigators to deal with, and it was not sufficiently powerful as an explanatory variable to warrant the effort to develop measures. Organizational "climate," on the other hand, lent itself directly to observation and measurement and thus has had a longer research tradition (Litwin and Stringer 1968, cited in Schein, 1988). Further, Schein (1988) explained culture as a property of a group. By definition, therefore, entire organization can has a culture if it has been a stable group for some period of time, and every sub-group within that organization can have a culture of its own if it has its own stable history. Whether or not one will find a culture in any given group, therefore, depends upon the stability of that group and the number of significant learning experiences it has had. According to the research of Hansen and Wernerfelt (1989), organizational cultures can influence how people set personal and professional goals, perform tasks and administer resources to achieve them. Organizational cultures affect the way in which people consciously and subconsciously think, make decisions and ultimately the way in which they perceive, feel and act. According to Schein (1988) leaders of organizations sometimes are able to overcome their own cultural biases and to recognize that elements of their own organization's culture are dysfunctional for survival and growth in a changing environment. Further he added, leaders may feel that they do not have the time to let evolution occur naturally, or that evolution is heading the organization in the wrong direction.

Researchers on organizational cultures have also proposed different forms or types of cultures. Organizational culture is postulated to be one of the greatest theoretical levers required for understanding organizations. Verifying and using those theories minimally requires comparisons between the cultures of different firms, which in

turn implies the identification of common dimensions for assessing organizational culture (Delobbe, Louvain-la-Neuve, Haccoun, 1999). But most of the researches based on Wallach's (1983) dimensions of cultures. Wallach's organizational culture index describes organizational culture dimensions. Wallach (1983, cited in Lok and Crawford, 2004) suggested that there are three main types of organizational cultures: bureaucratic, supportive and innovative. Lok and Crawford (1999), identified that innovative and supportive subcultures had positive associations with commitment, while a bureaucratic subculture had a slight negative association with commitment. And also he explained the relationship in between each subculture with job satisfaction.

According to Schein (1988), the rate of change in the technological, economic, political, and socio-cultural environments is increasing, and organizations are, therefore, finding it more and more important to figure out how to manage perpetual change involving genuinely innovative thrusts new missions, new goals, new products and services, new ways of getting things done, and even new values and assumptions. According to his research he found if organization wants to be innovative it must have below accomplishments.

- That the world is changeable and can be managed,
- That humans are by nature proactive problem solvers,
- That truth is pragmatically arrived at,
- That the appropriate time horizon is near future,
- That time units should be geared to the kind of innovation being considered,
- That human nature is neutral or good and is, in any case, perfectible,
- That human relationships are based on individualism and the valuing of diversity,
- That decision making is collegial/participative,

- Those diverse subcultures are an asset to be encouraged, but that subcultures have to be connected to the parent culture.

According to the research of Ogbonna and Harris (2000), indeed, the negative links between bureaucratic culture and performance suggest that bureaucratization reduces short-term profitability, impedes long-term growth and may even affect the survival of the organization. Thus, innovative culture which is sensitive to external conditions has a strong and positive impact on organizational performance. Indeed, Yahyagil (2004) found bureaucratic culture as one of the basic conceptual dimensions indicated its different nature in compare to supportive and innovative dimensions. According to his research, the major empirical evidence derived from this study indicated three facts:

- Bureaucratic nature of organizations should be kept at a level to help business channels to function simultaneously,
- Supportive culture or, in other words, the provision of managerial support to the members of organization is a must,
- The emphasis ought to be put on personal freedom to become more creative

He further explained, three factors which makes a more innovative organization, by means of enabling as well as encouraging the employees of the organization to take risks, to make business decisions independently, and to be able to share all the resources and the amount of knowledge with others.

Taylor (2007) investigated the relationship in between electronic monitoring and different type of cultures. Indeed, he has done this research by using Taiwanese and American business people. According to his research questions, the following observations can be made. On question 1: Are there significant differences between the attitudes of Taiwanese and American business people with respect to their ethical views of electronic monitoring? Both Taiwanese and American groups of

respondents were significantly different with each other on all of the research statements; but it was not expressing opposing views but a matter of degree. Both Taiwanese and American groups responded in the same direction as far as agreeing or disagreeing with the statements. On a number of statements, the Taiwanese respondents expressed stronger views; and on the other statements, the American respondents expressed stronger views. However, on none of the statements did the two respondent groups express opposing views. As an example, one group thought the statement was ethical and the other group thought it was unethical. According to his second question: Does "giving notice" versus "secretly monitoring" make a significant difference in the ethical dimension of electronic monitoring?; both respondent groups expressed adamant views that the secret monitoring of employees' behavior is unethical. Therefore the message from this study is that the respondents view the electronic monitoring of employees is ethical as long as notice is provided to the employees.

2.11 Contrasting the Organizational Culture and Organizational Climate

According to Denison (1996), during the early evolution of the culture perspective, the distinction between culture and climate was quite clear. Schwartz and Davis (1981 cited in Denison, 1996) put it most simply when they said that whatever culture is, it is not climate ("one way to understand culture is to understand what it is not"). Studying culture required qualitative research methods and an appreciation for the unique aspects of individual social settings. Studying organizational climate, in contrast, required quantitative methods and the assumption that generalization across social settings not only was warranted but also was the primary objective of the research.

Culture researchers were more concerned with the evolution of social systems over time (Pettigrew, 1979; Schein, 1988,1990; Van Maanen, 1979), whereas climate researchers were generally less concerned with evolution but more concerned with the impact that organizational systems have on groups and individuals (Ekvall,

1996). Culture researchers argued for the importance of a deep understanding of underlying assumptions (Schein, 1988, 1990), individual meaning (Geertz, 1973), and the insiders point of view of the organization. Climate researchers, in contrast, typically placed greater emphasis on organizational members' perceptions of "observable" practices and procedures that are closer to the surface of organizational life (Guion, 1973 cited in Denison, 1996) and the categorization of these practices and perceptions into analytic dimensions defined by the researchers.

Denison (1996), investigated contrast in between organizational culture and organizational climate tends to support perhaps the most widely accepted distinction between the two phenomena; culture refers to the deep structure of organizations which is rooted in the values, beliefs and assumptions held by the organizational members. And also meaning is established through socialization to a different type of identity groups that converge within the organization.

On the other hand, climate, in contrast, portrays organizational environments as being rooted in the organization's value system, but tends to present these social environments in relatively static terms, explaining them in terms of a fixed set of dimensions. As a result, climate is often considered as relatively temporary, subject to direct control, and largely limited to those aspects of the social environment that are consciously perceived by organizational members.

Table 2.2 presents a summary of this widely accepted view of these two organizational culture and organizational climate literature which compares the two aspects in epistemology, point of view, methodology, level of analysis, temporal orientation, theoretical foundations, and disciplinary base of the culture and climate perspectives.

Table 2.2 Organizational Culture and Organizational Climate Research Perspectives

Differences	Culture Literature	Climate Literature
Epistemology	Contextualized and idiographic	Comparative and nomothetic
Point of View	Emic (nature point of view)	Etic (researcher's viewpoint)
Methodology	Qualitative field observation	Quantitative survey data
Level of Analysis	Underlying values and assumptions	Surface-level manifestations
Temporal Orientation	Historical evolution	A historical snapshot
Theoretical Foundations	Social construction; critical theory	Lewinian field theory
Discipline	Sociology and anthropology	Psychology

Source: Denison, 1996, p.625

Denison (1996), clarified culture and climate are very different perspectives on organizational environments and also, it is far less clear that they actually examine distinct organizational phenomena. But he investigated the differences and similarities based on previous researches.

And also, he summarized similarities in between two literatures such organizational culture and organizational climate. This is illustrated in Table 2.3.

Table 2.3 Convergence in the Organizational Culture & Climate Literature

Areas of Convergence	Examples of Convergence
Definition of the phenomenon	Both Focus on the internal social psychological environment as a holistic, collectively defined social context
Central Theoretical Issues	• Shared dilemma: context is created by interaction, but context determines interaction • Definition of Domain varies greatly by individual theorist • Dynamics between the whole and the part - Multiple layers of analysis - Dimensions vs. holistic analysis - Subcultures vs. unitary culture
Content and Substance	High overlap between the dimensions studied by quantitative culture researchers and earlier studies by climate researchers
Epistemology and Methods	Recent emergence of quantitative culture studies and qualitative climate studies
Theoretical Foundations	• Roots of culture research are in social constructionism • Roots of climate research are in Lewinian field theory • Many recent studies have crossed or combines these traditions

Source: Denison, 1996, p.627

Finally, Denison (1996) came up with his conclusions on the difference between organizational culture and organizational climate. Organizational climate refers to a situation and its link to thoughts, feelings, and behaviors of organizational members. Thus, it is temporal, subjective, and often subject to direct manipulation by people with power and influence. On the other hand organizational culture, in contrast, refers to an evolved *context*. Thus, it is rooted in history, collectively held, and sufficiently complex to resist many attempts at direct manipulation.

2.12 Organizational Climate and Electronic Monitoring

According to Yahyagil (2004), organizational climate is, broadly speaking, related to the work atmosphere that covers ways and methods undertaken by organizational members for organizational functioning. It has been widely defined as the shared perceptions of employees regarding organizational functioning and practices. According to Taguiri and Litwin (1968 cited in Yahyagil 2004) climate is "the relatively enduring quality of the total environment that (a) is experienced by its members, (b) influences their behavior, and (c) can be described in terms of the values of a particular set of characteristics (or attributes) of the organization".

James and Jones (1977) came up with ideas about organizational climate based on their researches. According to them, there can be two types of organizational climate such as psychological climate and perspective climate. Psychological climate refers to the individual's internalized representations of situational conditions within the organization and its subunits, tends to emphasize conditions that are relatively immediate to individual experience, and reflects a cognitive transformation and structuring of these conditions into perceived situational influences. According to them, many of the assumptions regarding psychological climate appeared to have relatively direct parallels in treatments of climate as a situational attribute. Organizational climate as a situational attribute, suggested that it is primarily descriptive or organizational and subunit situations. And also it is multidimensional

with what appears to be a central core of dimensions and it tends to reflect primarily aspects of the organizational and/or subunit environment that are most proximally related to individual experience and behavior.

Litwin and Stringer (1968) studied on organizational climate. Organizational "climate," on the other hand, lent itself directly to observation and measurement and thus has had a longer research tradition (Litwin and Stringer 1968, cited in Schein, 1988). James and Jones (1977) also used Litwin and Stringer (1968) organizational climate dimensions such as organizational structure, responsibility, rewards, risk, warmth, support, standards, conflict and identity for his research. York, Colasanti and Josephson (1988) used above dimensions for their research and also investigated the relationship with job satisfaction.

According to the book of Sauter, Hurrell and Cooper (1989), monitoring has the capability to change job design substantially. All theories of human performance at work identify the significance of having up-to-date, accurate information about individual performance so that aspects of personal motivation can be applied to increase productivity. While the theories may differ on the use of the information, they agree on the need for such information. While electronic monitoring can play a significant role in providing this information, it also has the potential to be stressful and thereby reduce employee motivation. It is apparent that monitoring must be conducted in the proper 'organizational climate' for it to produce the beneficial results on employee behavior without the cost associated with job stress.

2.13 Employee Empowerment and Electronic Monitoring

Spreitzer (1996) investigated structural characteristics of empowerment. Considering the past decade, organizational researchers have begun to reach consensus on conceptualizing empowerment (Spreitzer, 1996; Thomas and Velthouse, 1990), little research has examined explicitly the influence of organizational context on individual empowerment (Conger and Kanungo, 1988). Although notions of empowerment has been implicit in research on alienation (Seeman, 1959), participation and job enrichment (Hackman and Oldham, 1980). The construct has only recently received rigorous conceptualization and measurement. Constructing of the work of Conger and Kanungo (1988), Thomas and Velthouse (1990) defined empowerment as intrinsic motivation manifested in four cognitions reflecting an individual's orientation to his or her work role. Based on their definitions four cognitions are meaning, competence, self-determination, and impact.

Thomas and Velthouse (1990) suggested that the organizational environment can have a powerful influence on cognitions of empowerment. Spreitzer (1996) extended their work by specifying the content and nature of an empowering environment. Bandura (1989) suggested that, rather than being completely free form, or determined by their environments, people actively *perceive* those environments and are influenced by their perceptions rather than by some objective reality. Thomas and Velthouse (1990) suggested that individuals' judgments about observable organizational conditions are shaped by their interpretations, which go beyond verifiable reality. On the other hand, for individuals to feel empowered, they must perceive a role environment to be liberating rather than containing (Deci, Vallerand, Pelletier and Ryan, 1991). According to Spreitzer (1996) as an example, resources may be decentralized in objective reality, but if employees are not informed that those resources are available for their use then access to resources will have little influence on feeling of empowerment.

The relationship between social structure and empowerment may not be unidirectional. Over time, empowered individuals can also affect their environments through proactive behaviors (Thomas and Velthouse, 1990). Bandura (1978) explained the association between what individuals perceive to be an empowering environment and their cognitions of empowerment may be mutually reinforcing through a feedback loop between empowered behaviors and work context.

Spreitzer (1996) explained, a participative climate was related to the empowerment as well. And the climate of the work unit defines what is valued, what should be cared about. Further he added, a participative climate helps employees believe that they are important assets in the organization and that they can make a difference. Dimitriades and Kufidu (2004) investigated the empowerment with different type of demographics variables.

Spreitzer (1995) investigated by concerning more about psychological empowerment. According to his studies, both organizational researchers and practitioners have identified psychological empowerment as a construct meriting critical inquiry (Thomas and Velthouse, 1990). Widespread interest in psychological empowerment comes at a time when global competition and change require employee initiative and innovation (Drucker, 1988). Conger and Kanungo (1988) defined empowerment as the motivational concept of self-efficacy. After reviewing relevant research, Thomas and Velthouse (1990) argued that empowerment is multifaceted and that its essence cannot be captured by a single concept. An interesting finding is the relationship between organization size and employment empowerment. Both in the Spreitzer (1996) and in the present studies organization size was significantly related to the *meaning* dimension. Conger and Kanungo (1988) conceived of empowerment as the process of psychological enabling, primarily through the enhancement of self-efficacy beliefs. Menon (2001) expanded research by including perceived control and goal internalization. Besides perceptions of competence, perception of control and goal internalization of the organizational goals also psychologically enables individual employees, thus empowering them. He further explained empowerment as a cognitive state and such a definition also helps

to reconcile semantic differences in the use of the word "empowerment". An empowered employee is one who "possesses the attribute of empowerment", that is, he or she is in a state of empowerment.

Wellen and Hanson (2009) explored the notion that work control may provide a buffer against the negative effects of high levels of electronic monitoring. Their study is aimed at examining how work empowerment influences the relationship between perceived levels of work electronic monitoring and work outcomes. Work empowerment refers to an employee's cognitive appraisal of the attributes that contribute to a sense of job control (Thomas and Velthouse, 1990). Further they added, the impact of perceived level of work electronic monitoring on work outcomes, including attitudes towards electronic monitoring, and the expression of negative work behavior. In addition, they explored work empowerment as a potential moderator of the effect of level of electronic monitoring on work attitudes and behavior. However, the findings of their research have important implications for the management. In circumstances where exposure to high levels of electronic monitoring is unavoidable, building a sense of empowerment over one's work may increase resilience against the negative effects of high monitoring.

3 METHODOLOGY OF STUDY

3.1 Overview of Chapter

The aim of this research is to study the perception towards electronic monitoring at work place and its impact on job satisfaction of software professionals in Sri Lanka. As per the estimation of ICTA (2007), there are approximately 33,048 software professionals working in various software organizations and non-software organizations such as in house software development companies in Sri Lanka. These professionals are the target population of this research study.

In this chapter on methodology, presents the conceptual research framework, hypotheses formulated, literature support for conceptual framework, instrument development, methods of data collection, population and Sampling and method adopted.

3.2 Conceptual Research Framework

Integrating the researcher's logical beliefs with published research while focusing on the boundaries and constraints governing the situation, is pivotal in developing scientific basis for investigating a research problem (Sekaran, 2006).

The conceptual research framework discusses the interrelationships among the variables that are deemed to be important to the situation at hand.

The conceptual research framework proposed for the present study is illustrated in Figure 3.1.

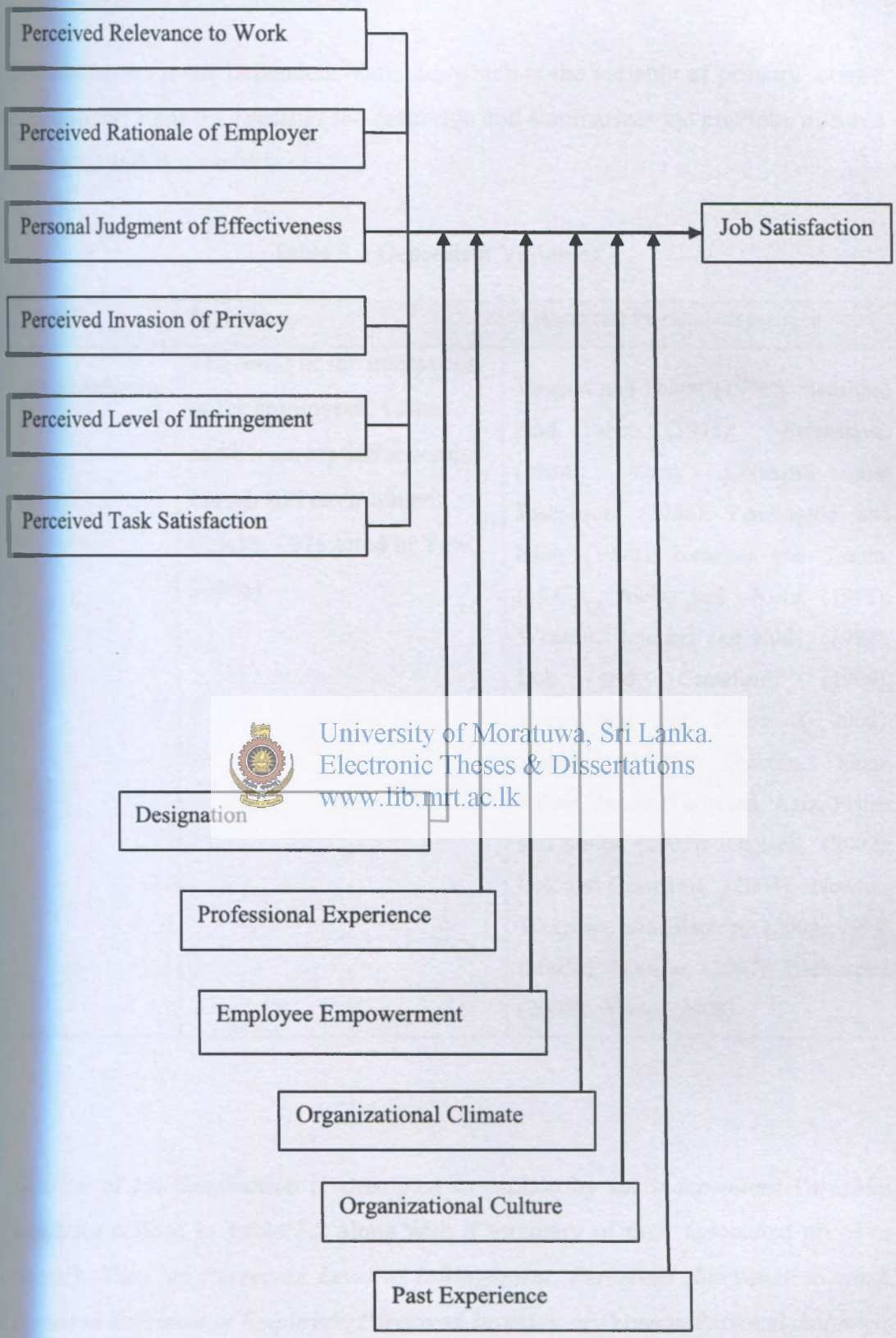

Figure 3.1 Conceptual Research Framework

3.2.1 Variables on Relationships

Job satisfaction is the Dependent Variable, which is the variable of primary interest in this study. Table 3.1 specifies the definition and summarizes the previous research associated with this variable.

Table 3.1 Dependent Variables

Variable	Definition	Associated Previous Research
Job Satisfaction	The result of the interaction of the employees' values and his perception towards his job and environment (Locke, 1976 cited in Yew, 2005a)	Vaughn and Dunn, (1972); Seashore And Taber, (1975); Srivastava, (1984); York, Colasanti and Josephson, (1988); Pennington and Riley (1992); Nebeker and Tatum, (1993); Aiello and Kolb, (1995); Wanous, Reichers and Hudy, (1997); Lok and Crawford, (1999); Vorvoreanu and Baton, (2000); Skibba, (2002); Stanton, Sinar, Balzer, Julian, Thoresen, Aziz, Fisher and Smith, (2002); Okpara, (2002); Lok and Crawford, (2004); Newton, Wingreen and Blanton, (2004); Yew, (2005a); Watson, (2007); Bidhancha, (2008); Yiing, (2008)

Behavior of Job Satisfaction is attempted to explain by six *Independent Variables* which are defined in Table 3.2 along with a summary of their associated previous research. They are *Perceived Level of Infringement*, *Perceived Relevance to work*, *Perceived Rationale of Employer*, *Perceived Invasion of Privacy*, Personal *Judgment of effectiveness* and *Perceived Task Satisfaction*.

Table 3.2 Independent Variables

Variable	Definition	Associated Previous Research
Perceived Level of Infringement	The feeling that an individual possess in association with a violation or disregard of an agreement or a right.	
Perceived Relevance to Work	Whether collected information is necessary and appropriate for making decisions affecting employees (Alge, 2001)	Alge, (2001); Watson, (2007)
Perceived Rationale of Employer	The perception that an individual has towards deploying electronic monitoring at work place, on the basis of reasonable and valid purpose for the employer.	Watson, (2007)
Perceived Invasion of Privacy	Potential lack of control over how one's public persona is conveyed, which can negatively impact one's private estimation of oneself (Alge, 2001)	Vorvoreanu and Baton, (2000); Alge, (2001); Watson, (2007)
Personal Judgment of effectiveness	A judgment rendered regarding the effectiveness of electronic monitoring at work place.	Douthitt and Aiello, (2001); Watson, (2007)
Perceived Task Satisfaction	The level of satisfaction that an individual possess in relation with successful task accomplishment.	Watson, (2007)

Table 3.3 Moderating Variables

Variable	Definition	Associated Previous Research
Employee Empowerment	Increased intrinsic task motivation manifested in a set of four cognitions reflecting an individual's orientation to his or her work role such as meaning, competence, self-determination and impact (Thomas and Velthouse, 1990)	Seeman, (1959); Conger and Kanungo, (1988); Bandura, (1989); Thomas and Velthouse, (1990); Zimmerman, (1990); Zimmerman, Israel, Schulz and Checkoway, (1992); Perkins, Zimmerman and Marc, (1995); Spreitzer (1995, 1996); Douthitt and Aiello, (2001); Menon, (2001); Dimitriades and Kufidu, (2004); Wellen, Martin and Hanson, (2009)
Organizational Climate	The relatively enduring quality of the total environment that is experienced by its members, influences their behavior, and can be described in terms of the values of a particular set of characteristics (or attributes) of the organization (Taguiri and Litwin, 1968 cited in Yahyagil 2004)	Litwin and Stringer, (1968); Jones and James, (1977); Srivastava, (1984); York, Colasanti and Josephson, (1988); Denison, (1996); Ekvall, (1996); Wallace, Hunt and Richards, (1999); Griffin and Hart, (2000); Okpara, (2002); Newton, Wingreen and Blanton, (2004); Yahyagil, (2004)
Organizational Culture	Property of groups, and can be thought of as the accumulated learning that a given group has acquired during its history (Schein, 1988)	Litwin and Stringer, (1968); Wallach (1983); Schein, (1988, 1992): O'Reilly, Chatman and Caldwel, (1991); Griffith, (1993); Flanagan, (1994); Denison, (1996); Delobbe, Neuve and Haccoun, (1999); Peter Lok, John Crawford (1999, 2004); Ogbonna and Harris, (2000); Stanton and Weiss, (2000); Stoney, (2001); Panina, Daria. and Aiello (2005); Yahyagil, (2004); Nahakpam Bidhancha (2008); Yiing, (2008)

In addition, the present study incorporates six moderating variables that might moderate the relationship between the job satisfaction of the software professionals and the independent variables explained above. They are: *Designation*, *Professional Experience*, *Employee Empowerment*, *Organizational Climate*, *Organizational Culture* and *Past Experience*. They are defined in Table 3.3 along with the summary of associated previous research.

3.2.2 Hypothesis Development

In order to find out whether the relationships theorized in the conceptual research framework hold true, several hypotheses are drawn. By testing the hypotheses and confirming the conjectured relationships, it is expected that solutions can be found to rectify the conflicts encountered if any.

Let;

H_A : Alternate Hypothesis

H_0 : Null Hypothesis

Hypothesis 1

$H1_A$: Software professional's job satisfaction is influenced by his/her perception towards the level of infringement due to electronic monitoring.

$H1_0$: Perceived level of infringement towards electronic monitoring has no impact on the software professional's job satisfaction.

Hypothesis 2

$H2_A$: Software professional's job satisfaction is influenced by his/her perception towards the relevance of electronic monitoring to work.

$H2_0$: Perceived Relevance of electronic monitoring to work has no impact on the software professional's job satisfaction.

Hypothesis 3

$H3_A$: Software professional's job satisfaction is influenced by his/her perception towards the employer's rationale for electronic monitoring.

$H3_0$: Perceived Rationale of employer for electronic monitoring has no impact on the software professional's job satisfaction.

Hypothesis 4

$H4_A$: Software professional's job satisfaction is influenced by his/her perception towards the invasion of privacy occurs via electronic monitoring.

$H4_0$: Perceived invasion of privacy occurs via electronic monitoring has no impact on the software professional's job satisfaction.

Hypothesis 5

$H5_A$: Software professional's job satisfaction is influenced by his/her personal judgment of effectiveness of electronic monitoring.

$H5_0$: Personal judgment of effectiveness of electronic monitoring has no impact on the software professional's job satisfaction.

Hypothesis 6

$H6_A$: Software professional's job satisfaction is influenced by his/her perceived task satisfaction subjected to electronic monitoring.

$H6_0$: Perceived task satisfaction subjected to electronic monitoring has no impact on the software professional's job satisfaction.

Hypothesis 7

$H7_A$: There is a relationship between employee empowerment and software professional's job satisfaction.

$H7_0$: There is no relationship between employee empowerment and software professional's job satisfaction.

Hypothesis 8

$H8_A$: There is a relationship between organizational climate and software professionals' job satisfaction.

$H8_0$: There is no relationship between organizational climate and software professional's job satisfaction.

Hypothesis 9

$H9_A$: There is a relationship between past experience of electronic monitoring of software professionals and their job satisfaction.

$H9_0$: There is no relationship between past experience of electronic monitoring of software professionals and their job satisfaction.

Hypothesis 10

$H10_A$: There is a relationship between innovative culture and software professional's job satisfaction.

$H10_0$: There is no relationship between innovative culture and software professional's job satisfaction.

Hypothesis 11

$H11_A$: There is a relationship between supportive culture and software professional's job satisfaction.

$H11_0$: There is no relationship between supportive culture and software professional's job satisfaction.

Hypothesis 12

$H12_A$: There is a relationship between bureaucratic culture and software professional's job satisfaction.

$H12_0$: There is no relationship between bureaucratic culture and software professional's job satisfaction.

Hypothesis 13

$H13_A$: There is a relationship between designation of software professionals and their job satisfaction.

$H13_0$: There is no relationship between designation of software professionals and their job satisfaction.

Hypothesis 14

$H14_A$: There is a relationship between professional experience of software professionals and their job satisfaction.

$H14_0$: There is no relationship between professional experience of software professionals and their job satisfaction.

Hypothesis 15

$H15_A$: The effect of electronic monitoring at work place towards the job satisfaction of software professionals becomes less significant along with high professional experience.

$H15_0$: The effect of electronic monitoring at work place towards the job satisfaction of software professionals is the same for the five levels of professional experience.

The hypotheses 1 to 15 were formulated to check the relationship between job satisfaction and different aspects of electronic monitoring as well as the moderating variables. In order to validate the conceptual research framework further, the following hypothesis was formulated.

H_A: The set of independent variables significantly explain the job satisfaction of the software professionals.

H_0: The set of independent variables do not significantly explain the job satisfaction of the software professionals.

3.3 Operational Definitions

Operationalizing or *operationally defining* the concepts to render it measurable is to be done by looking at the behavioral dimensions, facets, or properties denoted by the concept (Sekaran, 2006). Then these have to be translated into observable and measurable elements to develop an index of measurement of the concept.

Previous research in the field of electronic monitoring utilized questionnaire instruments to capture various aspects associated with the perception of electronic monitoring of individuals. The respondents were presented questions in order to capture the relevant variables. The next few sections will review how the concepts introduced in the conceptual research framework of the present study are operationally defined.

3.3.1 Perceived Level of Infringement

Perceived level of infringement is identified as an independent variable for the present study. It represents the feeling that an individual possess, in association with a violation or disregard of an agreement or a right. This means whether electronic monitoring is viewed by the software professionals as something, which intrudes into one's work.

For the present study, two items are used to capture the software professionals' perception of perceived level of infringement on a five-point Likert scale ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5". For example, the included questions were in the form: "*My work being monitored by my employer is totally unacceptable because, it's something like intruding into one's work*".

3.3.2 Perceived Relevance to work

Relevance to work refers to "whether collected information is necessary and appropriate for making decisions affecting employees". Alge (2001) conducted a laboratory study in which the task relevance of electronic monitoring was manipulated by the type of information participants were told. In the high relevance condition, participants were informed that their performance evaluation would consist of only task-specific data. In the mixed relevance condition, participants were informed that their performance evaluation would include both task-specific data and data collected during break periods such as task-specific and off-task monitoring (Alge, 2001). He found perceived relevance of monitoring was significantly greater in the task specific monitoring condition compared to the mixed condition combining task-specific and off-task monitoring. It means whether electronic monitoring is viewed as something relevant to the work.

In the present study, two items are used to capture the software professionals' perception of perceived relevance to work on a five-point Likert scales ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5". For example, the included questions were in the form i.e. "*I cannot understand the connection between my work and electronic monitoring going on at my work place*"

3.3.3 Perceived Rationale of Employer

Watson (2007) investigated the perception that an individual has towards deploying electronic monitoring at work place, on the basis of reasonable and valid purpose for the employer. In other words, Perceived Rationale of Employer implies whether the employer has a valid purpose to electronically monitor the employee activities.

The present study two items used to capture the software professionals' perception of perceived rationale of employer on a five-point Likert scales ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5". For example, the included

questions were in the form: "*I do not really understand why the employer needs to monitor my computer activities*".

3.3.4 Perceived Invasion of Privacy

Stone and Stone (1990 cited in D'Urso, 2006) offered that privacy is the extent to which individuals believe they have control over their personal information and interactions with others. Over the past decade the realm of technology and privacy has been transferred, creating a landscape that presents new challenges for IT professional, management, and communication professionals (Meyers and Neville, 2003). Privacy is an important factor and it is important in organizations with human resource information systems, which store pertinent information about an employee such as job status, medical history, performance records, and more (D'Urso, 2006). Privacy advocates tend to hold a view, based primarily on assumption and intuition, that monitoring is counter-productive and harmful to employees (Johnston and Cheng, 2002).

Employer need to understand the concepts of privacy that helped them to keep a good relationship with employees. According to Johnston and Cheng (2002), in the context of the workplace, the protection of privacy is about shifting the locus of power away from employers, and back to employees. Ariss (2002) explained that some employees, finding that their privacy is not protected by statute, have sued their employers for invasion of privacy. According to his studies, in the mind of an employee, this may seem to be an invasion of privacy, legal cases have proven otherwise. And also employee can prove that he/she had a reasonable expectation of privacy. Invasion of privacy represents a potential lack of control over how one's public persona is conveyed, which can negatively impact one's private estimation of oneself (Alge, 2001). Lack of control over one's public persona may also negatively impact one's social identity by affecting which groups one is valued by (Alge, 2001). Therefore the perceived invasion of privacy means whether electronic monitoring is

viewed by the software professionals as something which violates their privacy at work.

In the present study, three items are used to capture the software professionals' perception of perceived invasion of privacy on a five-point Likert scales ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5". For example, the included questions were in the form: "*Even though we are paid for our work, we are entitled to a certain degree of privacy, and should not be monitored by computers and other electronic devices by the employer*".

3.3.5 Personal Judgment of effectiveness

Douthitt and Aiello (2001) and Watson (2007) investigated the judgment rendered regarding the effectiveness of electronic monitoring at work place. In other words, Personal Judgment of effectiveness refers to the personal judgment of the software professional regarding the effectiveness of electronic monitoring at workplace.

In the present study, three items are used to capture the software professionals' perception of personal judgment of effectiveness on a five-point Likert scales ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5". For example, the included questions were in the form: "*I think it is acceptable that the employer has an interest in monitoring employee activities to ensure quality of work*".

3.3.6 Perceived Task Satisfaction

Aiello and Shao (1993) and Aiello and Kolb (1995) investigated electronic task-specific monitoring and checked the satisfaction on given tasks. Recently Watson (2007) found the relationship between the level of satisfaction that an individual possess in relation with successful task accomplishment. In other words, Perceived Task Satisfaction refers to whether electronic monitoring is viewed as something

which makes the tasks complex, which might negatively impact the successful task accomplishment.

In the present study, 3 items are used to capture the software professionals' perception of perceived task satisfaction on a five-point Likert scales ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5". For example, the included questions were in the form: "*My tasks could become more complex if they are subjected to electronic monitoring*".

3.3.7 Job Satisfaction

Job Satisfaction was first defined by Hoppock (1935 cited in Yew, 2005a) as a combination of psychological, physical and environmental circumstance that causes a person to say, "I am satisfied with my job". Numerous factors influence employee job satisfaction. O'Reilly and Caldwell (1982, 1991) indicated that both task and organizational rewards contribute to job satisfaction. Task rewards are intrinsic rewards directly associated with the job such as interesting and challenging work, variety and opportunities to use one's skills. Organizational rewards are the tangible rewards that are visible to others such as pay, promotion and comfortable working conditions.

Different type of researchers introduced lots of instruments (indexes) to measure job satisfaction. But, the most of researchers used Job Descriptive Index (JDI) (Smith, Kendall and Hulin, 1969 cited in William, Vaughn and Dunn, 1972) as measurement tool for Job Satisfaction. The facets of the JDI are derived from the definition of job satisfaction put forth by Smith, Kendall, and Hulin (1969) defined job satisfaction as "feelings or affective responses to facets of the situation". Because of this definition, the JDI viewed satisfaction as the accumulation of five facets: *work on present job* means *nature of the work itself* , *present pay* means *compensations and benefits*, *opportunities for promotion* means *promotion opportunities*, *supervision* means

attitudes towards supervisors, and people *on your present job (co-workers)* means *relations with co-workers.*

In addition to that, present study introduces *stress related to job* as a dimension of job satisfaction. In the context of electronic monitoring there are links between unacceptable levels of employee monitoring and surveillance lead to higher levels of employee job stress and it impacts on employees' job satisfaction (Meyers and Neville, 2003 and Aiello and Shao, 1993).

According to Smith, Kendall and Hulin (1969), a brief description of each of the five areas follows;

Nature of the work itself

This scale is designed to measure how people feel about the job they are currently doing. It measures how satisfied an employee is with the work. The questions related to this area are designed to measure the different facets of a job including: "opportunities for creativity and task variety, allowing an individual to increase his or her knowledge, and changes in responsibility, amount of work, autonomy, job enrichment and job complexity."

Compensations and benefits

This scale measures how a people feel with their pay and the difference between what a people are actually getting and what they believe they should be getting. This area is influenced by various factors: the pay of employees doing the same job, the financial situation of the employee, the pay the employee received on previous jobs, and the economy.

Attitudes towards supervisors

This scale of the JDI measures how satisfied people are with their supervisors. Typically, if supervisors are employee-centered, meaning that they take interest in their employees and listen to them, than the employees are more satisfied with their

supervisors. Employees also find more satisfaction with supervisors if the supervisors are deemed competent with their job.

Relations with co-workers

This scale looks at the relationship and satisfaction that the employees have with their co-workers. This area of satisfaction is measured by how well employees get along with each other and how well they look up to their fellow employees.

Promotion opportunities

This scale measures how the employees feel about the procedures that the administration follows in accordance with giving promotions. The different factors that create satisfaction with promotions are "frequency of promotions, the importance of promotions, and the desirability of promotions."

According to the general concepts "Stress related to job" explained below.

Stress related to job

Stress is the tension that an individual feels when there are more demands than he/she can handle. These pressures may be from your work, relationships, home, or other responsibilities. Stress is like an out-of-balance scale-the pressures on one side of the scale outweigh the coping resources on the other.

The present study used extended "Job Descriptive Index" to capture the software professionals job satisfaction within their organization. For example, representative items for *nature of the work itself*, the included questions were in the form: "*I understand what is expected of me in my work*". So in the present study, job satisfaction is measured with *sixteen* items for such as for the dimension of *nature of the work itself* 3 items, for the dimension of *compensations and benefits* 3 items, for the dimension of *attitudes towards supervisors* 3 items, for the dimension of *relations with co-workers* 3 items, for the dimension of *promotion opportunities* 2 items and for the dimension of *stress related to job* 2 items on a five-point Likert

scales ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5".

3.3.8 Designation

In the present study, designation is captured in nominal scale. Designation categorized as Engineer (Software Development, Design, and Testing etc), Manager and Technical Operational (DB Admin, Network Admin, System Admin etc) and the defined scale ranging as *Engineer* valued as a "1", *Manager* valued as a "2" and *Technical Operational* valued as a "3" .

3.3.9 Professional Experience

In the present study, professional experience is captured on ratio scale and the defined scale ranging as *less than 5 yrs* valued as a "1", *5 – 10 yrs* valued as a "2", *10 – 15 yrs* valued as a "3" and *above 15yrs* valued as a "4".

3.3.10 Employee Empowerment

Thomas and Velthouse (1990) suggested that the organizational environment can have a powerful influence on cognitions of empowerment. Spreitzer (1996) extended their work by specifying the content and nature of an empowering environment. Although notions of empowerment have been implicit in research on alienation (Seeman, 1959), participation, and job enrichment (Hackman and Oldham, 1980), the construct has only recently received rigorous conceptualization and measurement. Constructing of the work of Conger and Kanungo (1988), Thomas and Velthouse (1990) defined empowerment as intrinsic motivation manifested in four cognitions reflecting an individual's orientation to his or her work role. Based on their definitions four cognitions are *meaning*, *perceived competence*, *self-determination*, and *impact*.

The present study adopts Conger and Kanungo (1988), Thomas and Velthouse's (1990) employee empowerment cognitions to capture how the software professionals

perceive the employee empowerment of their organization. For example, representative items for *meaning,* the included questions were in the form: "*The work I do is very important to me*". So in the present study, employee empowerment is measured with *twelve* items for such as three items of each dimension on a five-point Likert scale ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5".

3.3.11 Organizational Climate

Taguiri and Litwin (1968 cited in Yahyagil 2004) defined climate is "the relatively enduring quality of the total environment that (a) is experienced by its members, (b) influences their behavior, and (c) can be described in terms of the values of a particular set of characteristics (or attributes) of the organization". James and Jones (1977) identified two type of organizational climate such as psychological climate and perspective climate. Organizational climate lent itself directly to observation and measurement and thus has had a longer research tradition (Litwin and Stringer 1968, cited in Schein, 1988). Litwin and Stringer (1968) introduced organizational climate dimensions such as *organizational structure*, *responsibility*, *rewards*, *risk*, *warmth*, *support*, *standards*, *conflict* and *identity*.

The present study adopts Litwin and Stringer's (1968) climate types to capture how the software professionals perceive the organizational climate of their organization. For example, representative items for *organizational structure,* the included questions were in the form: "*My company takes care of the employees*". So in the present study, organizational climate is measured with *twenty* items for such as for the dimension of *organizational structure* 3 items, for the dimension of *responsibility* 2 items, for the dimension of *rewards* 3 items, for the dimension of *risk* 2 items, for the dimension of *warmth* 1 item, for the dimension of *support* 3 items, for the dimension of *standards* 3 items, for the dimension of *conflict* 2 items and for the dimension of *identity* 1 items on a five-point Likert scale ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5".

3.3.12 Organizational Culture

One may speculate that culture as a concept was difficult for psychometrically oriented investigators to deal with, and it was not sufficiently powerful as an explanatory variable to warrant the effort to develop measures (Litwin & Stringer 1968, cited in Schein, 1988). Further, Schein (1988) explained as culture is a property of a group. By definition, therefore, a total organization can have a culture if it has been a stable group for some period of time, and every sub-group within that organization can have a culture of its own if it has its own stable history. Whether or not one will find a culture in any given group, therefore, depends upon the stability of that group and the number of significant learning experiences it has had.

Researchers on organizational cultures have also proposed different forms or types of cultures. Organizational culture is postulated to be one of the greatest theoretical levers required for understanding organizations. Verifying and using those theories minimally requires comparisons between the cultures of different firms, which in turn implies the identification of common dimensions for assessing organizational culture (Delobbe, Louvain-la-Neuve, Haccoun, 1999). Wallach (1983, cited in Lok and Crawford, 2004) suggested that there are three main types of organizational cultures such as bureaucratic, supportive and innovative. Lok and Crawford (1999), identified that innovative and supportive subcultures had positive associations with commitment, while a bureaucratic subculture had a slight negative association with commitment.

According to Wallach (1983) shared values, norms and beliefs of people in an organization can be mapped on to an innovative, supportive and bureaucratic culture. Wallach describes these as independent cultures. However, in order to describe an organizational culture completely, all three elements, present in varying proportions are required. Culture is, therefore, measured in terms of parameters describing these three elements. Converting almost all aspects of the organizational culture, Wallach provides instrument for empirically assessing three forms of organizational culture.

According to Wallach (1983, citied in Kanungo, Sadavarti, and Srinivas, 2001), a brief description of each of the three cultures as follows;

Innovative Culture

Innovative cultures are characterized by creative work environments. In such cultures challenge and risk taking are the norms. Stimulation is constant companion to workers, but innovative environments also take their toll on people who often are under great stress and burned out. Adjectives used for describing this culture are risk-taking, result-oriented, creative, pressurized, stimulating, challenging, enterprising and driving.

Supportive Culture

Supportive cultures provide a friendly environment, and workers tend to be fair and helpful to each other and to the organization. An open, harmonious environment is encouraged and 'family' values are prompted. The adjectives used are supportive, trusting, equitable, safe, social, encouraging, relationships-oriented and collaborative.

Bureaucratic Culture

Bureaucratic cultures have clear lines of responsibility and authority; work is highly organized, compartmentalized and systematic. The information and authority flow is hierarchical and based on control and power. Overall bureaucratic companies tend to mature, stable and relatively cautious. Adjectives used for describing this culture-hierarchical, procedural, structured, ordered, regulated, established, solid, cautious and power oriented.

The present study adopts Wallach's (1983) culture types to capture how the software professionals perceive the organizational culture of their organization. For example, representative items for *innovative* culture, the included questions were in the form: "*My company is dynamic and entrepreneurial. Therefore I am willing to take risks on behalf of company*". So in the present study, organizational culture is measured with *eight* items for such as for the dimension of *innovative* 3 items, for the dimension of *supportive* 3 items and for the dimension of *bureaucratic* 2 items on a

five-point Likert scale ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5".

3.3.13 Past Experience

Past experience is about how an employee feels about electronic monitoring based on his or her previous experience, related to his or her reactions, against the employees' activities monitored by the employer. The present study 3 items used to capture the software professionals perceive of past experience on a five-point Likert scale ranging from *strongly disagree* valued as a "1" to *strongly agree* valued as a "5". For example, the included questions were in the form: "*In the past I have felt that certain non-work related websites that I have accessed were blocked by my employer*".

3.4 Questionnaire Instrument Development

According to the operational definitions, a questionnaire instrument (*Appendix A*) was used to measure variables previously discussed and to capture each respondent's perceptions towards the electronic monitoring. Table 3.4, Table 3.5 and Table 3.6 illustrates a summary of the measures used.

Table 3.4 Instrument Measures of Independent Variables

Variable	Item Count	Scale
Perceived Level of Infringement	2	Five point Likert Scale
Perceived Relevance to work	2	Five point Likert Scale
Perceived Rationale of Employer	2	Five point Likert Scale
Perceived Invasion of Privacy	4	Five point Likert Scale
Personal Judgment of effectiveness	3	Five point Likert Scale
Perceived Task Satisfaction	3	Five point Likert Scale

Table 3.5 Instrument Measures of Moderating Variables

Variable	Dimension	Item Count	Scale
Designation	*N/A*	1	Nominal Scale
Professional Experience	*N/A*	1	Ratio Scale
Employee Empowerment	*Meaning*	3	Five point Likert Scale
	Perceived competence	3	Five point Likert Scale
	Self-determination	3	Five point Likert Scale
	Impact	3	Five point Likert Scale
Organizational Climate	*Organizational Structure*	3	Five point Likert Scale
	Responsibility	2	Five point Likert Scale
	Rewards	3	Five point Likert Scale
	Risk	2	Five point Likert Scale
	Warmth	1	Five point Likert Scale
	Support	3	Five point Likert Scale
	Standards	3	Five point Likert Scale
	Conflict	2	Five point Likert Scale
	Identity	1	Five point Likert Scale
Organizational Culture	*Innovative Culture*	3	Five point Likert Scale
	Supportive Culture	3	Five point Likert Scale
	Bureaucratic Culture	2	Five point Likert Scale
Past Experience	*N/A*	3	Five point Likert Scale

Table 3.6 Instrument Measures of Dependent Variable

Variable	Dimension	Item Count	Scale
Job Satisfaction	*Nature of the work itself*	3	Five point Likert Scale
	Compensations and benefits	3	Five point Likert Scale
	Attitudes towards supervisors	3	Five point Likert Scale
	Relations with co-workers	3	Five point Likert Scale
	Promotion opportunities	2	Five point Likert Scale
	Stress related to job	2	Five point Likert Scale

In addition, five demographic items to capture the respondent's *Age, Gender, Education level, Nature of your organization, Employees work in your organization*, had been used. Questionnaire was defined based on four set of question categories (*Appendix B).*

3.5 Method of Data Collection

The target population for this research is the software professionals working in the software organizations as well as non-software organizations such as in house software development companies in Sri Lanka. Since the population is large and the nature of study is about the perception towards the electronic monitoring at work place and its impact on job satisfaction, the most appropriate techniques are the quantitative methods. These are also supported by previous researches carried out in the area of electronic monitoring and its relationships between the perception of electronic monitoring and job satisfaction. The previous research carried out this area (such as Watson, 2007)) has also been carried out using quantitative methodology and a questionnaire to gather the data. Therefore, quantitative methods were used to carry out the research. The proposed research can be carried out for a selected sample of software professionals sampled based on *Stratified Random Sampling*. Questionnaires will be used as the data collection method.

Questionnaires are the most appropriate tool to capture the perception towards the electronic monitoring at work place and its impact on job satisfaction of software professionals in Sri Lanka. Interview is a most suitable method due to time constraints and if the interview method is used, the employee might not give a frank and honest response. Also the researches carried out previously in this area have used questionnaires to collect primary data. Therefore survey was carried out to collect information from software professionals in Sri Lanka about their perception towards the electronic monitoring and its impact on their job satisfaction. Type of survey questions are closed end and are based on Likert Scale. Since this is a study of employees' perception Likert Scale is most suitable, and best used to access a person's feelings about something. A five point Scale was used and this is most common method to collect data.

3.6 Population and Sampling

The target population for this research was the software professionals working in the software organizations as well as non-software organizations such as in house software development companies in Sri Lanka.

The Sample for this research was the Software professionals those who are working in selected small, medium and large scale software organization and non- software organizations such as in house software development companies, which is either member of Sri Lanka Association for Software Industry (SLASI), software Export Association(SEA) or Export Development Board(EDB)(software Industry). All selected Software professionals those who have knowledge on electronic monitoring. It is understood that in order to study the relationship between electronic monitoring and job satisfaction, the respondent should have at least basic knowledge about the electronic monitoring. This is an in-depth study of electronic monitoring at work place and its impact on their job satisfaction of software professionals in Sri Lanka, therefore data was collected from selected small, medium and large scale software organizations and non- software organizations using questionnaire. To select a list of organizations to carry out the research, convenient sampling technique was used, based upon the convenience in access to the organization for data collection such as through contacts in the organization.

3.6.1 Population for the Study

According to the survey conducted by ICTA (2007), total number of IT professionals in Sri Lanka in the year 2006 is 30,120 and its estimated to reach 44,660 (estimate) in 2008 (refer the figure 3.2)., in which software professionals such as software engineers, quality assurance, web development, architects, database designers and developers, project managers, business analysts, IT Managers, Network and system managers to contributes to 74% (refer the figure 3.3).

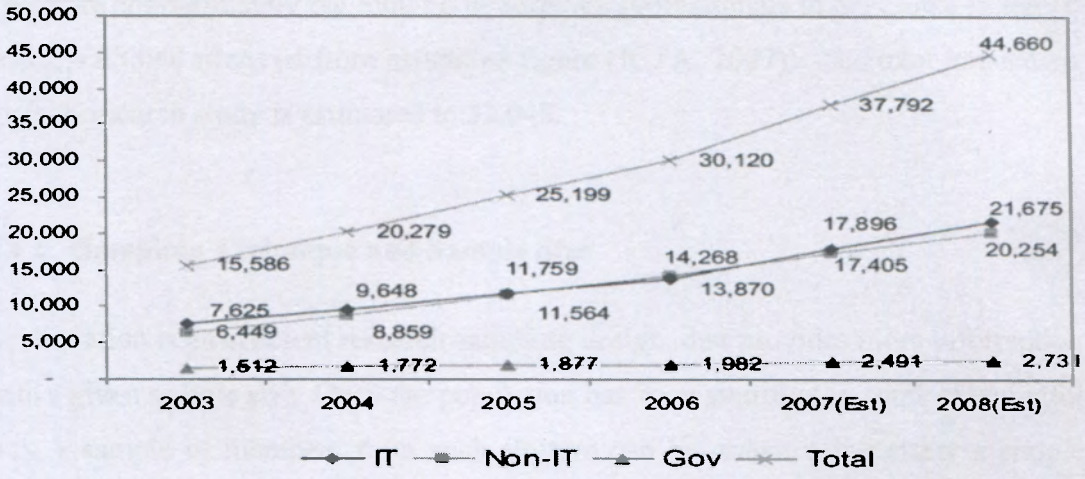

Figure 3.2 Overall IT Workforce in 2007

Source: 2007 IT Workforce Survey – SLICTA

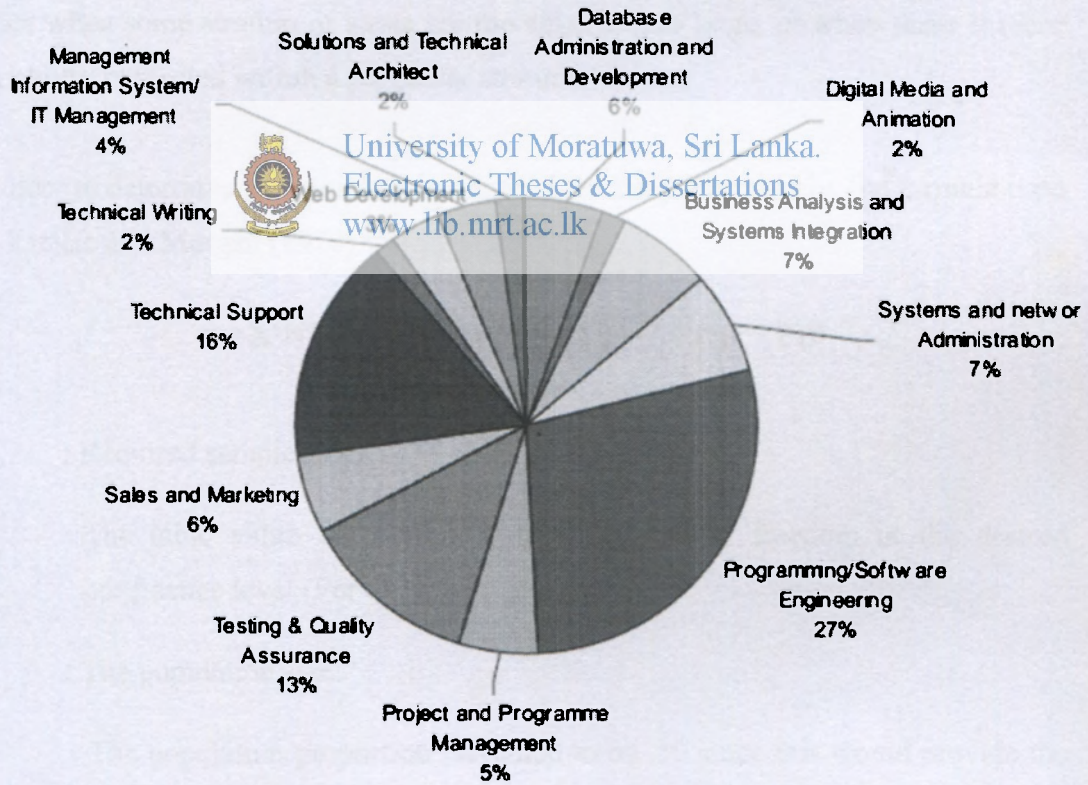

Figure 3.3 Overall IT Workforce by job category in 2007

Source: 2007 IT Workforce Survey – SLICTA

Therefore approximately the total no of software professionals in Sri Lanka in the IT sector is 33,048 (derived from estimated figure (ICTA, 2007)). The total population for this research study is estimated to 33,048.

3.6.2 Sampling Technique and Sample Size

Stratification is an efficient research sampling design, that provides more information with a given sample size. Once the population has been stratified in some meaningful way, a sample of members from each stratum can be drawn using either a simple random sampling or a systematic sampling procedure. The subjects drawn from each stratum can be either proportionate or disproportionate to the number of elements in the stratum (Sekaran, 2006). Therefore, *disproportionate stratified random sampling* has been adopted for the present study. According to the expert judgment and also the distribution of the population, disproportionate sampling decisions are made either when some stratum or strata are too small or too large, or when there is more variability suspected within a particular stratum.

In order to determine the sample size required for the present study, the formula used by Krejcie and Morgan (1970) was adopted.

$$s = X^2NP\,(1-P) \div [(d^2\,(N-1)) + (X^2P\,(1-P))]$$

s : Required sample size.

X^2 : The table value of chi-square for 1 degree of freedom at the desired confidence level (For .05 - 3.841)

N : The population size.

P : The population proportion (assumed to be .50 since this would provide the maximum sample size)

d : The degree of accuracy expressed as a proportion (.05)

When the parameters of the present study applied to the above formula at the confidence interval of .05 and confidence level of 95%:

$$s = 3.841*33048*(0.50)*(1-0.50) \div [(0.05^2*(33048 - 1)) + (3.841*(0.50)*(1-0.50))]$$

$$= 379.698$$

$$\approx \underline{\mathbf{380}}$$

According to Krejcie & Morgan (1970), as the population size increases, the sample size increases at a diminishing rate and remains relatively constant at slightly more than 380. The relationship between sample size and total population is illustrated in Figure 3.4.

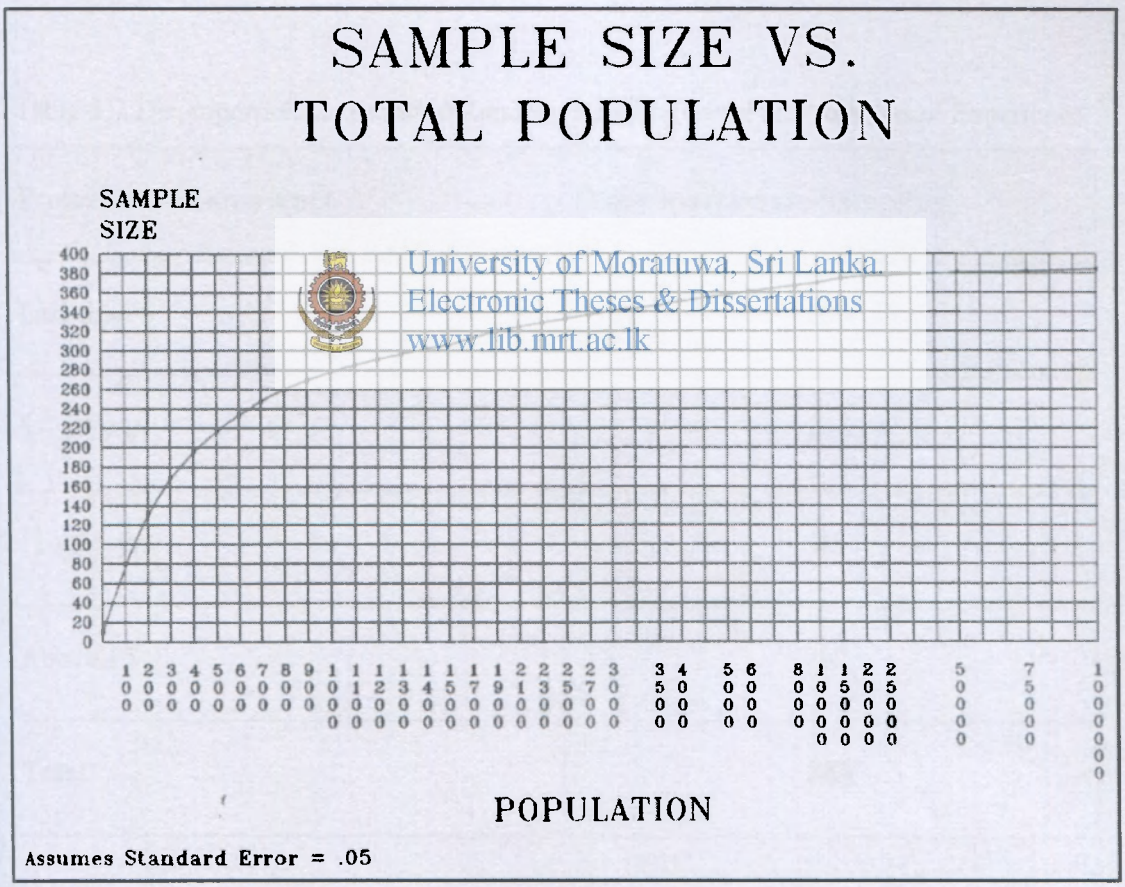

Figure 3.4 The relationship between sample size and total population

Source: Krejcie and Morgan,1970, p. 609

Therefore, even though only the number of software professionals working in the software organizations as well as non-software organizations such as in house software development companies in Sri Lanka was considered for the population, sample size of **380** can be considered accurate for the present study.

In the present study, disproportionate stratified random sampling was used on the basis of the professional experience of software professionals. Based on *Professional Experience,* the perception towards the electronic monitoring might vary. In present study *Professional Experience* was used to break the stratums to avoid any biases in the sample. Table 3.7 presents the disproportionate stratified random sampling mechanism that has been adopted. 380 software professionals' respondent to the online survey.

Table 3.7 Disproportionate Stratified Random Sampling based on Professional Experience

Professional Experience	**Disproportionate Sampling**
Less than 5	209
5 – 10 yrs	116
11 – 15 yrs	45
Above 15	10
Total	**380**

3.7 Method Adopted

The questionnaire instrument was distributed among the software professionals working in the software organizations as well as non-software organizations such as in house software development companies in Sri Lanka. Once the questionnaire is designed, a pilot study was carried out by collecting data from a selected few organizations to find out deficiencies with the questionnaire and ensure the reliability of the questionnaire. Questionnaire was made available for the target respondents online. Data analysis and interpretation was carried out using the SPSS version 18 software.

4 ANALYSIS AND INTERPRETATION

4.1 Overview of Chapter

This chapter provides a detailed analysis and discussion on the observations and the statistical results obtained in the present study.

4.2 Reliability Test

It is important that a research project has high quality, which cannot be achieved merely by collecting data. Before carrying out any analysis on the data, reliability analysis was conducted to check the goodness of the instruments.

A reliability analysis was done to measure the extent to which the indicators are without bias. Reliability testing carried out in this study was confined to check the internal consistency of the measures. It was checked to see whether the questions asked under each area supported each other. The test that is used for this purpose is Cronbach's Alpha Coefficient which can be used for multi-point scaled items (Sekaran, 2006).

4.2.1 Preliminary Survey

To check the reliability of the questionnaire, preliminary survey was done for 40 respondents. If there were dimensions, the calculation has been done dimension wise and the reliability for the as well as finally for the variable was calculated. Otherwise it was calculated for the variable. At the preliminary survey, there were 82 items.

Using SPSS Version 18 Cronbach's Alpha Coefficient was tested for all 82 items in which the result is displayed in Table 4.1, Table 4.2 and Table 4.3. Generally, a value above 0.7 is an acceptable value for Cronbach's Alpha Coefficient. If it is a variable,

that value should be above 0.7 and but if it is a dimension of a variable it is acceptable if it is above 0.6 (Sekaran, 2006).

Table 4.1 Reliability Test for Independent Variables

Variable	No of Items used to measure	No of Items eliminated to get reliability	Cronbach's Alpha Coefficient Value
Perceived Level of Infringement	3	1	**0.746**
Perceived Relevance to work	3	1	**0.717**
Perceived Rationale of Employer	3	1	**0.706**
Perceived Invasion of Privacy	4	No	**0.711**
Personal Judgment of effectiveness	3	No	**0.704**
Perceived Task Satisfaction	3	No	**0.860**

When all three items were used to calculate the Cronbach's Alpha Coefficient of *Perceived Level of Infringement*, it has given low values like 0.595. But, it has given a reasonable value like 0.746 after one item was removed. Therefore, "*I do not care even if I am being monitored by my employer*" question has eliminated from the list of items to calculate *Perceived Level of Infringement*'s Cronbach's Alpha Coefficient. *"My work being monitored by my employer is totally unacceptable because, it is something like intruding into one's work"* and *"I would feel uncomfortable to think that somebody in my organization is always watching my activities at work"* both questions were used for final survey.

On the other hand, when all three items were used to calculate the Cronbach's Alpha Coefficient *of Perceived Relevance to Work*, it has given low values like 0.363. But, it has given a reasonable value like 0.717 after one item was removed. Therefore, "*I am interested to know, how my company justifies the relevance of electronic monitoring which investigates my computer activities*" question has eliminated from the list of items for calculate *Perceived Relevance to Work*'s Cronbach's Alpha Coefficient. "*I cannot understand the connection between my work and electronic monitoring going on at my work place"* and *"I cannot understand what the electronic monitoring has to do with the computer activities related to my work"* both *negative worded* questions were used for final survey.

When all three items were used to calculate the Cronbach's Alpha Coefficient of *Perceived Rationale of Employer*, it also has given low values like 0.476. But, it has given a reasonable value like 0.711 after one item was removed. Therefore, "*I don't think that my employer provides a logical rationale for electronically monitoring my activities at work place*" question was eliminated from the list of items to calculate *Rationale of Employer*'s Cronbach's Alpha Coefficient. Therefore in the final survey, *negative worded "I do not really understand why the employer needs to monitor my computer activities"* question and *"I believe that it is reasonable for my employer to electronically monitor my activities, if it is for a valid purpose"* questions were used.

Perceived Invasion of Privacy, Personal Judgment of effectiveness and *Perceived Task Satisfaction* had acceptable reliabilities without eliminating any of the items with coefficients of 0.711, 0.704 and 860 respectively.

Table 4.2 Reliability Test for Dependent Variable

Variable	Dimension	No of Items used to measure	No of Items eliminated to get reliability	Cronbach's Alpha Coefficient Value
Job Satisfaction	*Nature of the work itself*	3	No	**0.722**
	Compensations and benefits	3	No	**0.721**
	Attitudes towards supervisors	3	No	**0.787**
	Relations with co-workers	3	No	**0.812**
	Promotion opportunities	3	1	**0.731**
	Stress related to job	3	1	**0.673**
Cronbach's Alpha value for the variable of ***Job Satisfaction***				**0.709**

Job satisfaction is the dependent variable and it has six dimensions. Cronbach's Alpha Coefficient calculation has done by dimension wise and the reliabilities of each dimension as well as finally for the entire variable was calculated.

When Cronbach's Alpha Coefficient was calculated for this variable, few dimensions like *Promotion opportunities* and *Stress related to job* demonstrated very low values such as for *Promotion opportunities* as 0.524 and for *Stress related to job* as 0.104 for Cronbach's Alpha Coefficient with all items. But when one item was removed,

each dimension gave reasonable Cronbach's Alpha Coefficient value such as for *Promotion opportunities* as 0.731 and for *Stress related to job* as 0.673. Rest of the dimensions passed the reliability test. *Nature of the work itself, Compensations and benefits, Attitudes towards supervisors* and *Relations with co-workers* passed with the values respectively 0.722, 0.721, 0.787 and 0.812. According to this calculation, it was decided to remove one item from each dimension. Removed items were "*I am satisfied with the opportunities for training*" from *Promotion opportunities* and "*I use to follow various self-techniques such as listening to music, to relax while I am working*" from *Stress related to job*. In the final survey, "*I was given enough feedback on my performance"* and *"Promotion goes to those who most deserve it"* questions were used for the dimension of *Promotion opportunities* and *"I always find myself worrying over something at work"* and *"I feel totally burned out by the end of the day at work"* questions were used for the dimension of *Stress related to job.* Finally tested variable of *Job Satisfaction* and was passed with a coefficient of 0.709. In the preliminary survey, there were *eighteen* items and in the final survey there were *sixteen* items after two items were eliminated.

In the present study six moderating variables such as *Designation, Professional Experience, Employee Empowerment, Organizational Climate, Organizational Culture* and *Past Experience* were used. Nominal Scale was used for *Designation* and ratio scale was used for *Professional Experience.* Rest of the all moderating variables was tested for reliability. For the reliability test Cronbach's Alpha Coefficient calculation has been done dimension wise and the reliability for each dimension as well as finally for the entire variable was calculated.

When Cronbach's Alpha Coefficient was calculated for *Organizational Climate*, few dimensions like *Responsibility* and *Conflicts* demonstrated very low values such as for *Responsibility* as 0.567 and for *Conflicts* as 0.369. But when one item was removed, each dimension gave reasonable Cronbach's Alpha Coefficient values such as for *Responsibility* as 0.706 and for *Conflicts* as 0.603. According to this calculation, it was decided to remove one item from each dimension. Removed items were "*As an employee, I have authority make independent decisions*" from

Responsibility and "*Conflicts with superiors best resolved by compromise*" from *Conflicts*. Dimensions like *Organizational Structure, Rewards, Risk, Support and standards* were passed the reliability test with the values respectively 0.838, 0.833, 0.666, 0.705 and 0.786. Cronbach's Alpha Coefficient was not tested for *Warmth* and *identity* because each dimension used one item. Finally, Cronbach's Alpha Coefficient for the variable *Organizational Climate* was calculated and it passed for the value of 0.798. In the final survey, "*My roles and responsibilities are clearly defined by the organization"* and *"My project related responsibilities are changing from time to time based on the project requirements"* questions were used for the dimension of *Responsibility* and *"Sometimes I feel pressured in facing conflicting situations"* and *"Employees of my organization always have criticism, no matter what is done"* questions were used for the dimension of *Conflicts*. In the preliminary survey, there were *twenty two* items and final survey there were *twenty* items after two items were eliminated.

Cronbach's Alpha Coefficient was calculated for *Employee Empowerment, organizational Culture* and *Past Experience*. For *Employee Empowerment,* Cronbach's Alpha Coefficient calculation has been done dimension wise and reliability of each dimension as well as finally for the entire variable was calculated. It has four dimensions such as *Meaning, Perceived competence, Self-determination* and *Impact,* and these dimensions passed the reliability test with the values of 0.784, 0.759, 0.804 and 0.722 respectively. Finally the *Employee Empowerment* was tested and it passed with a value of 0.712. *Organizational Culture* was also tested dimension wise and the reliability of each dimension as well as finally for the variable was calculated. It has three dimensions such as *Innovative Culture, Supportive Culture* and *Bureaucratic Culture,* and these dimensions passed the reliability test with the coefficients of 0.776, 0.701 and 0.884 respectively. Finally *Organizational Culture* was tested and passed for a value of 0.824. *Past Experience* was tested for the reliability and it was passed with the value of 0.705.

Table 4.3 Reliability Test for Moderating Variables

Variable	Dimension	No of Items used to measure	No of Items eliminated to get reliability	Cronbach's Alpha Coefficient Value
Employee Empowerment	*Meaning*	3	3	**0.784**
	Perceived competence	3	3	**0.759**
	Self-determination	3	3	**0.804**
	Impact	3	3	**0.722**
Cronbach's Alpha Coefficient value for the variable of ***Employee Empowerment***				**0.712**
Organizational Climate	*Organizational Structure*	3	3	**0.838**
	Responsibility	3	2	**0.706**
	Rewards	3	3	**0.833**
	Risk	2	2	**0.666**
	Warmth	1	1	**N/A**
	Support	3	3	**0.705**
	Standards	3	3	**0.786**
	Conflict	3	2	**0.603**
	Identity	1	1	**N/A**
Cronbach's Alpha Coefficient value for the variable of ***Organizational Climate***				**0.798**
Organizational Culture	*Innovative Culture*	3	3	**0.776**
	Supportive Culture	3	3	**0.701**
	Bureaucratic Culture	2	2	**0.884**
Cronbach's Alpha Coefficient value for the variable of ***Organizational Culture***				**0.824**
Past Experience	*N/A*	3	3	**0.705**

4.2.2 Research Survey

Finally, the reliability test was carried out for the research survey for the entire sample of 380 respondents. And here also, if there were dimensions, the calculation has been done dimension wise as well as finally for the variable. Otherwise it was calculated for the variable. At the research survey, there were 75 items. Cronbach's Alpha Coefficient was tested for all 75 items in which the result is displayed in Table 4.4, Table 4.5 and Table 4.6. All dimensions and variables passed the reliability test with above 0.7 values for Cronbach's Alpha Coefficient.

Table 4.4 Reliability Test for Independent Variables for 380 Respondents

Variable	No of Items used to measure	Cronbach's Alpha Coefficient Value
Perceived Level of Infringement	2	**0.812**
Perceived Relevance to work	2	**0.777**
Perceived Rationale of Employer	2	**0.722**
Perceived Invasion of Privacy	4	**0.836**
Personal Judgment of effectiveness	3	**0.745**
Perceived Task Satisfaction	3	**0.845**

Table 4.5 Reliability Test for Dependent Variable for 380 Respondents

Variable	Dimension	No of Items used to measure	Cronbach's Alpha Coefficient Value
Job Satisfaction	*Nature of the work itself*	3	**0.777**
	Compensations and benefits	3	**0.836**
	Attitudes towards supervisors	3	**0.772**
	Relations with co-workers	3	**0.734**
	Promotion opportunities	2	**0.743**
	Stress related to job	2	**0.816**
Cronbach's Alpha Coefficient value for the variable of ***Job Satisfaction***			**0.760**

Table 4.6 Reliability Test for Moderating Variables for 380 Respondents

Variable	Dimension	No of Items used to measure	Cronbach's Alpha Coefficient Value
Employee Empowerment	*Meaning*	3	**0.782**
	Perceived competence	3	**0.810**
	Self-determination	3	**0.753**
	Impact	3	**0.701**
Cronbach's Alpha Coefficient value for the variable of ***Employee Empowerment***			**0.793**
Organizational Climate	*Organizational Structure*	3	**0.762**
	Responsibility	2	**0.720**
	Rewards	3	**0.845**
	Risk	2	**0.730**
	Warmth	1	**N/A**
	Support	3	**0.790**
	Standards	3	**0.780**
	Conflict	2	**0.700**
	Identity	1	**N/A**
Cronbach's Alpha Coefficient value for the variable of ***Organizational Climate***			**0.829**
Organizational Culture	*Innovative Culture*	3	**0.787**
	Supportive Culture	3	**0.789**
	Bureaucratic Culture	2	**0.708**
Cronbach's Alpha Coefficient value for the variable of ***Organizational Culture***			**0.800**
Past Experience	*N/A*	3	**0.791**

4.3 Descriptive Statistics Analysis

The sample was selected from the software professionals working in the software organizations as well as non-software organizations such as in house software development companies in Sri Lanka and this can be private or government organization. Whole survey was done via electronic method by using an online questionnaire. The calculated sample size was 380 and this data collection was completed within three months' time period and the variation of the number of responses over time is presented in Figure 4.1.

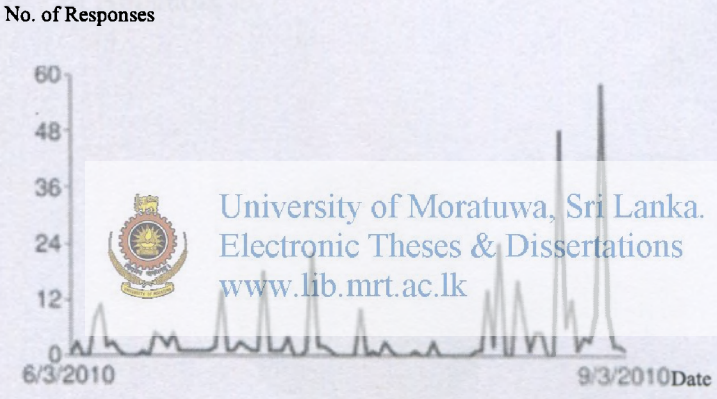

Figure 4.1 Research Survey - Variation of the number of responses over time

Source: Online Published Survey Summary, 2010 – Google Docs

Appendix C holds the descriptive statistics associated with the present study.

The sample contained 302 (79.47%) of males and 78 (20.53%)of females and its represented by Figure 4.2 and also in the Table C.1 of Appendix C.

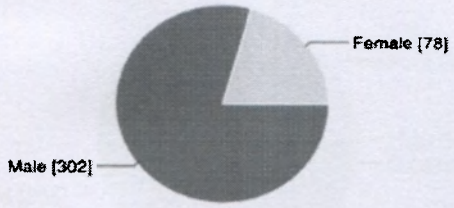

Figure 4.2 Research Survey - Gender Distribution

Source: Online Published Survey Summary, 2010 – Google Docs

When considering the age distribution, 210 (55.26%) were between 20 -30 years, 158 (41.58%) were between 31- 40 years, 12 (3.16%) were between 41- 50 years and no respondent from the age group of above 50 years and its represented by Figure 4.3 and also Table C.2 of Appendix C.

Figure 4.3 Research Survey - Age Distribution

Source: Online Published Survey Summary, 2010 – Google Docs

Education Level of the Respondents is represented by Figure 4.4 and also in the Table C.3 of Appendix C and 285 (75.00%) were reported to hold Graduate Degrees, 73 (19.21%) were reported to hold Post Graduate Degrees, 22 (5.79%) had Diploma and there were no High School respondents. Its good sample, because of 94.21% had Post Graduate Degrees and Graduate Degrees.

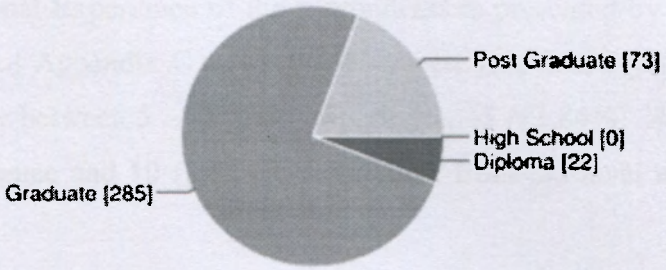

Figure 4.4 Research Survey - Education Level of the Respondents

Source: Online Published Survey Summary, 2010 – Google Docs

In this survey, all software organizations were categorized as *less than 50* employees, *50 - 100* employees, *100 – 500* employees, *500 – 1000* employees and *above 1000* employees and that information is presented in Figure 4.5 and also in the Table C.4 of Appendix C. According to the survey, most of the respondents were from the category of 100 – 500 employees' organizations. There were 368 respondents from Private organizations and 12 respondents from Government/Semi-Government organizations (Table C.5 of Appendix C). It appears that the software professionals in government/semi-government organizations are rather less.

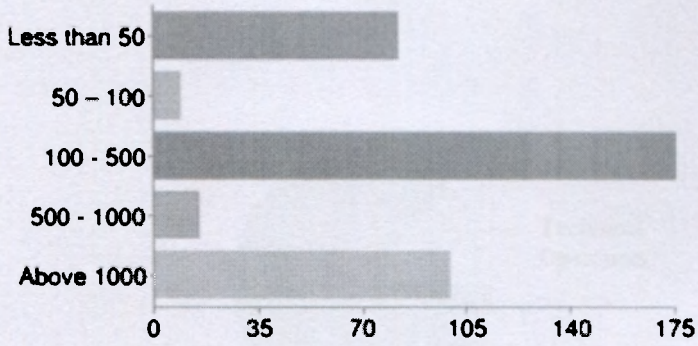

Figure 4.5 Research Survey - Organization Level of the Respondents

Source: Online Published Survey Summary, 2010 – Google Docs

Level of Professional Experience of the respondents is presented by Figure 4.6 and also in Table C.6 of Appendix C and 209 (55%) were less than 5 years' experience, 116 (30.53%) were between 5 - 10 years' experience, 45 (11.84%) were between 10 - 15 years' experience and 10 (2.63%) respondent from the level above 15 years' experience.

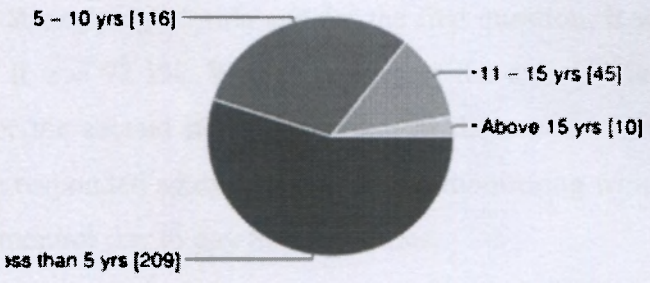

Figure 4.6 Research Survey - Level of Professional Experience of the Respondents

Source: Online Published Survey Summary, 2010 – Google Docs

Designation of the Respondents categorized, is represented by Figure 4.7 and also Table C.7 of Appendix C and 285 (75%) were Engineers (Software Development, Design, Testing etc), 47 (12%) were Managers and 48 (13%) were from Technical Operations (DB Admin, Network Admin, System Admin etc).

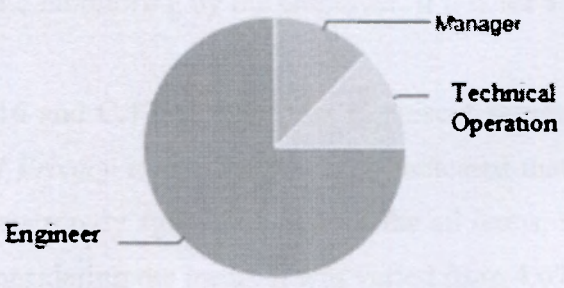

Figure 4.7 Research Survey - Designation of the Respondents

Source: Online Published Survey Summary, 2010 – Google Docs

In the present study, there were 3 set of questions except demographics type questions. To capture the software professionals perception a five-point Likert scale ranging from *strongly disagree* (valued as a "1") to *strongly agree (*valued as a "5"), was used.

Table C.8 and C.9 of Appendix C present the summary information for *Perceived Level of Infringement* items. Respondents indicated that their perception is more towards agree or strongly agree side and for the first question, it was 73.9% and the second question, it was 92.1%. When considering the mean, it is 3.94 for the first item and 4.50 for the second item. According to these two items, majority of the respondents have responded against the electronic monitoring which is used by their organizations to monitor day to day their activities.

Table C.10 and C.11 of Appendix C present summary information for *Perceived Relevance to Work* items and these two items were negative worded. It seems that this is dependent on the respondent and also depends on the organization. Some agreed, but some others disagreed on whether it was relevant to their work or not. Since these were negative worded questions, respondents very rarely strongly agreed with these two questions. If there were valid reasons, electronic monitoring was accepted by the employees and it is presented in the Table C.12 and C.13 of Appendix C for the items of the summary information for *Perceived Rationale of Employer*. Here first item was negatively worded. Almost 99% respondents had an exact idea why the employer needs to monitor their computer activities and almost 90% accepted electronic monitoring by the employer, if it is for a valid purpose.

Table C.14, C.15, C.16 and C.17 of Appendix C present summary information for *Perceived Invasion of Privacy* items. Respondents indicated that their perception is more towards agree or strongly agree side and for the all items, it was over 75% for all the items. When considering the mean, it was varied from 4.07 to 4.21. According to these four items, majority of respondents had responded against the electronic monitoring which is used by their organizations to overwrite their privacy. On the other hand they had accepted electronic monitoring to some extent without

monitoring everything. According to the studies of Wakefield (2004), as an employer, it is recommended that organizations have a written policy clearly stating that any right to privacy is waived for documents and messages created, stored, sent or received on the organization's computer systems or over its networks. And further, he explained that it was not easy to maintain the balance between the employer and employee, without having a reasonable monitoring policy that also sets individual privacy expectations. Clear-cut policies set boundaries, establish employees' expectations of privacy, and help set a workplace tone that conveys organizational responsibility and respect for others. Actually based on present study also, it was clearly explained about the privacy and placed a written privacy policy for software organizations with these responses. But respondents accepted electronic monitoring of their activities if it is to ensure the quality of their work. It is clearly captured through the items that were used for *Personal Judgment of effectiveness* and it is presented in Table C.18, C.19 and 20 of Appendix C. Almost 80% of the respondents accepted it. When consider the mean it is 4.18 for the first item, it is 4.20 for the second item and it is 4.17 for the third item. According to the present study, majority of the respondents accepted the electronic monitoring if it is to ensure the quality of their work.

Most of the respondents accepted electronic monitoring can be a burden towards the accomplishment of the tasks assigned to them. This is illustrated in Table C.22 and according that item summary information for *Perceived Task Satisfaction*. According to that, there were 83.7% of software professionals towards the strongly agreed side. It is further explained in Table C.21 and C.23.

Job satisfaction was measured by using sixteen items with respect to six dimensions. Tables from C.24 to C.39 of Appendix C are presented along with item summary information. Most of the respondents had an exact idea about their job and its nature of work itself. But, based on the respondents, the compensation and benefits are varied among both agreed and disagreed sides. Most of the respondents had a good relationship with not only the co-workers but also with their supervisors. According

to the statistical information most of the software professionals did not have an issue in getting promotion. But over 80% of the respondents accepted that their job is stressful.

Employee Empowerment was measured by using twelve items with respect to four dimensions. Tables from C.40 to C.51 of Appendix C present item summary information. Most of the items means were over 4.0 except for items for the dimension of *Impact*.

Organizational Climate was measured using twenty items with respect to nine dimensions. Tables from C.52 to C.71 of Appendix C present item summary information. Most of the item means were over 3.5 except for items for the dimension of *conflicts*.

Organizational Culture was measured using eight items with respect to three dimensions. Tables from C.72 to C.79 of Appendix C present item summary information. Most of the respondents accepted that they have a mixture of Innovative and Supportive cultures rather than bureaucratic cultures. Based on gathered information, large companies are more likely to behave as little bit bureaucratic rather than small companies.

On the other hand, as a moderating variable, Past Experience was measured by using three items to check whether the respondents experience about the electronic monitoring. In local context, most of respondents had an experience about the negative behavior of the electronic monitoring. Most of respondents experienced websites being blocked and it was 85.6% and mean was 4.44 and 90.8% respondents accepted that their current company or past companies terminated employees as a result of electronic monitoring. And 81.8% agreed that their companies informed them not to use official email for private purposes. Tables from C.80 to C.82 of Appendix C present item summary information.

4.4 Inferential Statistics - Inter-Item Correlation Analysis

Inferential statistics generated with *Pearson Correlation Matrix,* is used to check the inter- item correlation. This test was carried out for each every variable to check whether the correlation of inter- items of each variable.

Perceived Level of Infringement, Perceived Relevance to Work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness and Perceived Task Satisfaction variable items were positively correlated each other within the respective variable.

Table 4.7 Inter – Item Correlation for Perceived Level of Infringement

Perceived Level of Infringement	**1**	**2**
My work being monitored by my employer is totally unacceptable because, it's something like intruding into one's work (1)	1.000	.710
I would feel uncomfortable to think that somebody in my organization is always watching my activities at work (2)	.710	1.000

Table 4.8 Inter – Item Correlation for Perceived Relevance to Work

Perceived Level of Infringement	**1**	**2**
I cannot understand the connection between my work and electronic monitoring going on at my work place (1)	1.000	.642
I cannot understand what the electronic monitoring has to do with the computer activities related to my work (2)	.642	1.000

Table 4.9 Inter – Item Correlation for Perceived Rationale of Employer

Perceived Rationale of Employer	1	2
I do not really understand why the employer needs to monitor my computer activities (1)	1.000	.587
I believe that it is reasonable for my employer to electronically monitor my activities, if it is for a valid purpose (2)	.587	1.000

Table 4.10 Inter – Item Correlation for Perceived Invasion of Privacy

Perceived Invasion of Privacy	1	2	3	4
Even though we are paid for our work, we are entitled to a certain degree of privacy, and should not be monitored by computers and other electronic devices by the employer (1)	1.000	.485	.533	.677
I shouldn't feel any conflict about implementing a workplace privacy policy, but I believe that all should not be monitored electronically (2)	.485	1.000	.423	.472
I feel that electronically monitoring is unfair and unethical (3)	.533	.423	1.000	.749
I am objecting to electronic monitoring because my privacy in the hands of my employer might pose a threat to my physical and mental health (4)	.677	.472	.749	1.000

Table 4.11 Inter – Item Correlation for Personal Judgment of effectiveness

Personal Judgment of effectiveness	1	2	3
I think it is acceptable that the employer has an interest in monitoring employee activities to ensure quality of work (1)	1.000	.489	.442
I think it is acceptable for the employer to electronically monitor the employees, if they really don't trust their employees (2)	.489	1.000	.576
Since company pays us for our work, it is legitimate for the company to monitor our activities in any way company wishes while we are at work (3)	.442	.576	1.000

Table 4.12 Inter – Item Correlation for Perceived Task Satisfaction

Perceived Task Satisfaction	1	2	3
My tasks could become more complex if they are subjected to electronic monitoring (1)	1.000	.489	.442
I believe that electronic monitoring can be a burden towards the accomplishment of the tasks assigned to me (2)	.489	1.000	.576
Electronic monitoring makes it harder for me to do my job (3)	.442	.576	1.000

There were sixteen items and six dimensions for the dependent variable of Job Satisfaction and each dimension items were positively correlated with each other, but it is not the same as different dimension items. It is presented in Table 4.13 and inter correlated items' values among each dimension are highlighted.

According to the inter-item correlation tests for moderating variables, items were positively correlated within respective dimensions. When considering Employee Empowerment, there were twelve items and four dimensions. According to the Table 4.15, there were twenty items and nine dimensions for Organizational climate and all were positively correlated within the respective dimension. In the present study there was one item each for dimensions of *Warmth* and *identity*. Because of single item, it was unable to find the correlated values.

Organizational culture was presented with eight items for its three dimensions. Wallach (1983) suggested that there are three main types of organizational cultures such as bureaucratic, supportive and innovative and here also these dimensions were used. According to Table 4.13, all inter-items were correlated within the respective dimension.

There were three items for Past Experience and those were also positively correlated with each other.

Table 4.13 Inter – Item Correlation for Job Satisfaction

Job Satisfaction	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Nature_of_the_work_itself_Q1(1)	**1.000**	**.659**	**.400**	-.022	-.115	-.005	.041	-.004	-.027	.126	.149	-.049	.165	.139	.078	-.078
Nature_of_the_work_itself_Q2(2)	**.659**	**1.000**	**.553**	.172	-.043	.141	.239	.188	-.074	.185	.095	-.128	.292	.217	.022	-.154
Nature_of_the_work_itself_Q3(3	**.400**	**.553**	**1.000**	.263	.203	.225	.246	.305	.267	.059	.082	.138	.249	.243	-.228	-.147
Compensations_and_benefits_Q1(4)	-.022	.172	.263	**1.000**	**.668**	**.609**	.303	.374	.166	.361	.354	.304	.346	.143	-.117	-.013
Compensations_and_benefits_Q2(5)	-.115	-.043	.203	**.668**	**1.000**	**.632**	.001	.106	.257	.102	.103	.280	.324	.221	-.197	-.036
Compensations_and_benefits_Q3(6)	-.005	.141	.225	**.609**	**.632**	**1.000**	.307	.326	.352	.324	.279	.371	.215	.188	-.116	-.017
Attitudes_towards_supervisors_Q1(7)	.041	.239	.246	.303	.001	.307	**1.000**	**.805**	**.288**	.328	.283	.200	.231	.114	-.006	-.016
Attitudes_towards_supervisors_Q2(8)	-.004	.188	.305	.374	.106	.326	**.805**	**1.000**	**.492**	.346	.310	.305	.230	.148	-.056	.023
Attitudes_towards_supervisors_Q3(9)	-.027	-.074	.267	.166	.257	.352	**.288**	**.492**	**1.000**	.090	.155	.436	.103	.217	-.195	-.013
Relations_with_Coworkers_Q1(10)	.126	.185	.059	.361	.102	.324	.328	.346	.090	**1.000**	**.770**	**.279**	.266	.169	-.047	-.018
Relations_with_Coworkers_Q2(11)	.149	.095	.082	.354	.103	.279	.283	.310	.155	**.770**	**1.000**	**.456**	.268	.208	-.166	.075
Relations_with_Coworkers_Q3(12)	-.049	-.128	.138	.304	.280	.371	.200	.305	.436	**.279**	**.456**	**1.000**	.176	.284	-.225	.034
Promotion_opportunities_Q1(13)	.165	.292	.249	.346	.324	.215	.231	.230	.103	.266	.268	.176	**1.000**	**.593**	-.119	-.189
Promotion_opportunities_Q2(14)	.139	.217	.243	.143	.221	.188	.114	.148	.217	.169	.208	.284	**.593**	**1.000**	-.290	-.271
Stress_related_to_job_Q1(15)	.078	.022	-.228	-.117	-.197	-.116	-.006	-.056	-.195	-.047	-.166	-.225	-.119	-.290	**1.000**	**.689**
Stress_related_to_job_Q2(16)	-.078	-.154	-.147	-.013	-.036	-.017	-.016	.023	-.013	-.018	.075	.034	-.189	-.271	**.689**	**1.000**

Table 4.14 Inter – Item Correlation for Employee Empowerment

Employee Empowerment	1	2	3	4	5	6	7	8	9	10	11	12
Meaning Q1 (1)	**1.000**	**.494**	**.466**	.342	.386	.280	.308	.367	.325	.071	-.013	.043
Meaning Q2 (2)	**.494**	**1.000**	**.668**	.406	.350	.291	.351	.353	.328	.032	.048	-.027
Meaning Q3 (3)	**.466**	**.668**	**1.000**	.402	.517	.385	.247	.294	.398	.065	-.022	-.092
Perceived Competence Q1 (4)	.342	.406	.402	**1.000**	**.588**	**.549**	.204	.414	.270	-.136	.007	.109
Perceived Competence Q2 (5)	.386	.350	.517	**.588**	**1.000**	**.661**	.233	.340	.405	.168	.173	.053
Perceived Competence Q3 (6)	.280	.291	.385	**.549**	**.661**	**1.000**	.240	.390	.376	.060	.090	.010
Self-determination Q1 (7)	.308	.351	.247	.204	.233	.240	**1.000**	**.439**	**.358**	.151	.137	.025
Self-determination Q2 (8)	.367	.353	.294	.414	.340	.390	**.439**	**1.000**	**.695**	.072	.204	.240
Self-determination Q3 (9)	.325	.328	.398	.270	.405	.376	**.358**	**.695**	**1.000**	.225	.189	.120
Impact Q1 (10)	.071	.032	.065	-.136	.168	.060	.151	.072	.225	**1.000**	**.366**	**.238**
Impact Q2 (11)	-.013	.048	-.022	.007	.173	.090	.137	.204	.189	**.366**	**1.000**	**.719**
Impact Q3 (12)	.043	-.027	-.092	.109	.053	.010	.025	.240	.120	**.238**	**.719**	**1.000**

Table 4.15 Inter – Item Correlation for Organizational Climate

Organizational Climate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Organizational Structure Q1(1)	**1.000**	**.555**	**.513**	.538	.312	.432	.405	.369	.251	-.027	.275	.270	.126	.266	.367	.293	.240	-.160	-.091	.170
Organizational Structure Q2(2)	**.555**	**1.000**	**.489**	.444	.448	.254	.255	.326	.149	.031	.233	.326	.380	.285	.314	.407	.341	-.104	-.063	.273
Organizational Structure Q3(3)	**.513**	**.489**	**1.000**	.547	.280	.354	.252	.228	.120	.027	.235	.274	.235	.255	.274	.265	.228	-.099	.037	.185
Responsibility Q1(4)	.538	.444	.547	**1.000**	**.563**	.238	.198	.162	.226	.000	.218	.214	.077	.179	.222	.179	.176	-.200	-.124	.259
Responsibility Q2(5)	.312	.448	.280	**.563**	**1.000**	.215	.196	.145	.209	.156	.100	.187	.238	.121	.129	.320	.203	-.078	-.014	.257
Rewards Q1(6)	.432	.254	.354	.238	.215	**1.000**	.677	.533	.249	.116	.186	.062	.052	.140	.422	.417	.327	.071	.179	.101
Rewards Q2(7)	.405	.255	.252	.198	.196	**.677**	**1.000**	**.720**	.239	.103	.145	.225	.183	.243	.392	.406	.390	-.027	.073	.300
Rewards Q3(8)	.369	.326	.228	.162	.145	**.533**	**.720**	**1.000**	.092	.025	.153	.208	.208	.178	.308	.358	.318	.052	.070	.307
Risk Q1(9)	.251	.149	.120	.226	.209	.249	.239	.092	**1.000**	**.575**	.034	.081	-.059	.105	.244	.220	.084	-.173	-.023	-.121
Risk Q2(10)	-.027	.031	.027	.000	.156	.116	.103	.025	**.575**	**1.000**	.019	-.045	.053	.067	.000	.206	.008	.118	.132	-.055
Warmth Q1(11)	.275	.233	.235	.218	.100	.186	.145	.153	.034	.019	1.000	.437	.403	.149	.130	.122	.098	.076	-.016	.356
Support Q1(12)	.270	.326	.274	.214	.187	.062	.225	.208	.081	-.045	.437	**1.000**	**.615**	**.500**	.288	.113	.147	-.068	-.107	.402
Support Q2(13)	.126	.380	.235	.077	.238	.052	.183	.208	-.059	.053	.403	**.615**	**1.000**	**.560**	.127	.319	.226	.069	.025	.354
Support Q3(14)	.266	.285	.255	.179	.121	.140	.243	.178	.105	.067	.149	**.500**	**.560**	**1.000**	.326	.361	.227	.022	.017	.302
Standards Q1(15)	.367	.314	.274	.222	.129	.422	.392	.308	.244	.000	.130	.288	.127	.326	**1.000**	**.497**	**.542**	.025	.007	.186
Standards Q2(16)	.293	.407	.265	.179	.320	.417	.406	.358	.220	.206	.122	.113	.319	.361	**.497**	**1.000**	**.613**	.105	.099	.216
Standards Q3(17)	.240	.341	.228	.176	.203	.327	.390	.318	.084	.008	.098	.147	.226	.227	**.542**	**.613**	**1.000**	.122	.083	.305
Conflict Q1(18)	-.160	-.104	-.099	-.200	-.078	.071	-.027	.052	-.173	.118	.076	-.068	.069	.022	.025	.105	.122	**1.000**	**.540**	.027
Conflict Q2(19)	-.091	-.063	.037	-.124	-.014	.179	.073	.070	-.023	.132	-.016	-.107	.025	.017	.007	.099	.083	**.540**	**1.000**	.088
Identity Q1(20)	.170	.273	.185	.259	.257	.101	.300	.307	-.121	-.055	.356	.402	.354	.302	.186	.216	.305	.027	.088	1.000

Table 4.16 Inter – Item Correlation for Organizational Culture

Organizational Culture	1	2	3	4	5	6	7	8
Innovative Culture Q1(1)	**1.000**	**.588**	**.408**	.318	.307	.482	.058	.119
Innovative Culture Q2 (2)	**.588**	**1.000**	**.673**	.338	.261	.392	.152	-.053
Innovative Culture Q3 (3)	**.408**	**.673**	**1.000**	.469	.402	.473	.324	.053
Supportive Culture Q1 (4)	.318	.338	.469	**1.000**	**.532**	**.509**	.257	.169
Supportive Culture Q2 (5)	.307	.261	.402	**.532**	**1.000**	**.628**	.342	.279
Supportive Culture Q3 (6)	.482	.392	.473	**.509**	**.628**	**1.000**	.261	.224
Bureaucratic Culture Q1 (7)	.058	.152	.324	.257	.342	.261	**1.000**	**.548**
Bureaucratic Culture Q2 (8)	.119	-.053	.053	.169	.279	.224	**.548**	**1.000**

Table 4.17 Inter – Item Correlation for Past Experience

Past Experience	1	2	3
In the past I have felt that certain non-work related websites that I have accessed were blocked by my employer (1)	1.000	.691	.486
In the past my company has terminated few employees because of electronic monitoring (2)	.691	1.000	.538
Few times my company informed us not to use official email for private purposes (3)	.486	.538	1.000

4.5 Inferential Statistics - Pearson's Correlation Analysis

Inferential statistics generated with *Pearson Correlation Matrix,* is used to test the Hypothesis from 1 to 6 for the relationship between dependent variable and independent variables. Standard averaging had been used for each variable in order to analyze the significance, by using *Pearson Correlation Matrix*. Perceived Invasion of privacy questions and Perceived Task Satisfaction questions were prepared in opposite direction of job satisfaction and for the calculations, answers for those questions were converted to the same direction of job satisfaction.

Hypothesis 1

Table 4.18 Pearson Correlation - Perceived Level of Infringement and Job Satisfaction

		Job Satisfaction	Perceived Level of Infringement
Job Satisfaction	Pearson Correlation	1	.053
	Sig. (2-tailed)		.300
	N	380	380

As illustrated in Table 4.18, the relationship between the *Perceived Level of Infringement* and the *Job Satisfaction* is not significant. Therefore, the null hypothesis **($H1_0$)** is substantiated and the alternate hypothesis **($H1_A$)** is rejected. Hence, Perceived Level of Infringement towards electronic monitoring has no impact on the software professional's job satisfaction.

Hypothesis 2

Table 4.19 Pearson Correlation - Perceived Relevance to Work and Job Satisfaction

		Job Satisfaction	Perceived Relevance to work
Job Satisfaction	Pearson Correlation	1	**.251****
	Sig. (2-tailed)		**.000**
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

As illustrated in Table 4.19, *Perceived Relevance to Work* and the *Job Satisfaction* are significantly positively correlated. Therefore, the null hypothesis ($\mathbf{H2_0}$) is rejected and the alternate hypothesis ($\mathbf{H2_A}$) is substantiated. Hence, software professional's job satisfaction is influenced by his/her perception towards the relevance of electronic monitoring to work. This means software professionals have an exact awareness about the relationship in between electronic monitoring and how it is related to their job. They perceived positively the relevance of electronic monitoring to their work.

Hypothesis 3

Table 4.20 Pearson Correlation - Perceived Rationale of Employer and Job Satisfaction

		Job Satisfaction	Perceived Rationale of Employer
Job Satisfaction	Pearson Correlation	1	.083
	Sig. (2-tailed)		.105
	N	380	380

As illustrated in Table 4.20, the relationship between the *Perceived Rationale of Employer* and the *Job Satisfaction* is not significant . Therefore, the null hypothesis **($H3_0$)** is substantiated and the alternate hypothesis **($H3_A$)** is rejected. Hence, Perceived Rationale of Employer towards electronic monitoring has no impact on the software professional's job satisfaction.

Hypothesis 4

Table 4.21 Pearson Correlation - Perceived Invasion of Privacy and Job Satisfaction

		Job Satisfaction	Perceived Invasion of Privacy
Job Satisfaction	Pearson Correlation	1	**-.241****
	Sig. (2-tailed)		**.000**
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

As illustrated in Table 4.21, *Perceived Invasion of Privacy* and the *Job Satisfaction* are significantly negatively correlated. Therefore, the null hypothesis **($H4_0$)** is rejected and the alternate hypothesis **($H4_A$)** is substantiated. Hence, software professional's job satisfaction is influenced by his/her perception towards the invasion of privacy occurs via electronic monitoring. Based on the results, software professionals concerned about certain degree of their privacy. Further they accepted about implementing workplace policy, but they believed that all should not be monitored electronically.

Hypothesis 5

Table 4.22 Pearson Correlation - Personal Judgment of effectiveness and Job Satisfaction

		Job Satisfaction	Personal Judgment of effectiveness
Job Satisfaction	Pearson Correlation	1	**.348****
	Sig. (2-tailed)		**.000**
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

As illustrated in Table 4.22, *Personal Judgment of effectiveness* and the *Job Satisfaction* are significantly positively correlated. Therefore, the null hypothesis ($H5_0$) is rejected and the alternate hypothesis ($H5_A$) is substantiated. Hence, software professional's job satisfaction is influenced by his/her personal judgment of effectiveness of electronic monitoring. Software professionals accepted the electronic monitoring if it is to ensure the quality of their work. This means that those who judged electronic monitoring as effective are satisfied in their job.

Hypothesis 6

Table 4.23 Pearson Correlation - Perceived Task Satisfaction and Job Satisfaction

		Job Satisfaction	Perceived Task Satisfaction
Job Satisfaction	Pearson Correlation	1	**-.276****
	Sig. (2-tailed)		**.000**
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

As illustrated in Table 4.23, *Perceived Task Satisfaction* and the *Job Satisfaction* are significantly negatively correlated. Therefore, the null hypothesis ($\mathbf{H6_0}$) is rejected and the alternate hypothesis ($\mathbf{H6_A}$) is substantiated. Hence, software professional's job satisfaction is influenced by his/her perceived task satisfaction subjected to electronic monitoring. Based on these results, software professionals concerned about the complexity of doing assigned tasks while they are subjected to electronic monitoring.

In addition, the present study incorporates six moderating variables that might moderate the relationship between the job satisfaction of the software professionals and the independent variables hypothesized above. Inferential statistics generated with *Pearson Correlation Matrix,* is used to test the Hypothesis 7-12 for the relationship between dependent variable and moderating variables such as *Employee Empowerment, Organizational Climate, Organizational Culture* and *Past Experience.*

Here Employee Empowerment has four dimensions. Thomas and Velthouse (1990), Spreitzer (1996) and Dimitriades and Kufidu (2004) researchers were used 5 point Likert scale with twelve items and three items for each dimension. Finally they took the standard average and done statistical analysis. In the present study, also the same method was used to check whether any relationship exists between the Employee Empowerment and the Job Satisfaction.

Hypothesis 7

Table 4.24 Pearson Correlation - Employee Empowerment and Job Satisfaction

		Job Satisfaction	Employee Empowerment
Job Satisfaction	Pearson Correlation	1	**.209****
	Sig. (2-tailed)		**.000**
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

As illustrated in Table 4.24, *Employee Empowerment* and the *Job Satisfaction* are significantly positively correlated. Therefore, the null hypothesis ($H7_0$) is rejected and the alternate hypothesis ($H7_A$) is substantiated. Hence, there is a relationship between employee empowerment and software professional's job satisfaction.

Organizational Climate has nine dimensions. In the present study, standard average was taken for further analysis to check whether any relationship exists between the organizational climate and the Job Satisfaction. And also for the Past Experience, there were there items and standard average was taken because the majority of the professionals responded fairly equally to those three items.

Hypothesis 8

Table 4.25 Pearson Correlation - Organizational Climate and Job Satisfaction

		Job Satisfaction	Organizational Climate
Job Satisfaction	Pearson Correlation	1	.154**
	Sig. (2-tailed)		.003
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

As illustrated in Table 4.25, *Organizational Climate* and the *Job Satisfaction* are significantly positively correlated. Therefore, the null hypothesis ($H8_0$) is rejected and the alternate hypothesis ($H8_A$) is substantiated. Hence, there is a relationship between organizational climate and software professional's job satisfaction.

Hypothesis 9

Table 4.26 Pearson Correlation - Past Experience and Job Satisfaction

		Job Satisfaction	Past Experience
Job Satisfaction	Pearson Correlation	1	.234**
	Sig. (2-tailed)		.000
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

As illustrated in Table 4.26, *Past Experience* and the *Job Satisfaction* are significantly positively correlated. Therefore, the null hypothesis ($\mathbf{H9_0}$) is rejected and the alternate hypothesis ($\mathbf{H9_A}$) is substantiated. Hence, there is a relationship between past experience of electronic monitoring of software professional's and their job satisfaction.

Organizational Culture is measured in three dimensions: *innovative, supportive* and *bureaucratic* culture. Wallach (1983) describes these as independent cultures. So, in order to describe an organizational culture completely, all three elements present in varying proportions are required. Therefore, in the present study, based on the responses received for the three types of organizational culture questions, it has been categorized into three different groups. According to the responses received, 195 software professionals perceived their organizational culture as *Innovative*, 43 perceived it as *Supportive* and 46 perceived it as *Bureaucratic*. It is important to note that there were 57 professionals with equal scores for *Innovative* and *Supportive* Cultures, 14 for *Innovative* and *Bureaucratic* Cultures and 14 for *Bureaucratic* and *Supportive* cultures. 11 professionals had equal mean scores for all the three culture types.

Table 4.27 Categorized Organizational Cultures

Culture Type	No of Respondent for each Culture Type
Innovative	195
Supportive	43
Bureaucratic	46
Equal scores for Innovative and Supportive Cultures	57
Equal scores for Innovative and Bureaucratic Cultures	14
Equal scores for Bureaucratic and Supportive Cultures	14
Equal scores for Innovative, Supportive and Bureaucratic Cultures	11

Hypothesis 10

Table 4.28 Pearson Correlation - Innovative Culture & Job Satisfaction

		Job Satisfaction	Innovative Culture
Job Satisfaction	Pearson Correlation	1	**.366****
	Sig. (2-tailed)		**.000**
	N	195	195
**. Correlation is significant at the 0.01 level (2-tailed).			

As illustrated in Table 4.28, *Innovative Culture* and the *Job Satisfaction* are significantly positively correlated. Therefore, the null hypothesis (**$H10_0$**) is rejected and the alternate hypothesis (**$H10_A$**) is substantiated. Hence, there is a relationship between innovative culture and software professional's job satisfaction. This means that the most of software professionals who perceived their organizational culture as *Innovative* are satisfied in their job as well.

Hypothesis 11

Table 4.29 Pearson Correlation - Supportive Culture and Job Satisfaction

		Job Satisfaction	Supportive Culture
Job Satisfaction	Pearson Correlation	1	**.359***
	Sig. (2-tailed)		**.018**
	N	43	43
*. Correlation is significant at the 0.05 level (2-tailed).			

As illustrated in Table 4.29, *Supportive Culture* and the *Job Satisfaction* are significantly positively correlated. Therefore, the null hypothesis ($\mathbf{H11_0}$) is rejected and the alternate hypothesis ($\mathbf{H11_A}$) is substantiated. Hence, there is a relationship between supportive culture and software professional's job satisfaction. This means that the software professionals who perceived their organizational culture as *Supportive* are satisfied in their job as well.

Hypothesis 12

Table 4.30 Pearson Correlation - Bureaucratic Culture and Job Satisfaction

		Job Satisfaction	Bureaucratic Culture
Job Satisfaction	Pearson Correlation	1	.267
	Sig. (2-tailed)		.072
	N	46	46

As illustrated in Table 4.30, *Bureaucratic Culture* and the *Job Satisfaction* is not significant. Therefore, the null hypothesis ($\mathbf{H12_0}$) is substantiated and the alternate hypothesis ($\mathbf{H12_A}$) is rejected. Hence, there is a no relationship between bureaucratic culture and software professional's job satisfaction.

According to the hypotheses of 10 and 11, in other words, these different types of cultures such as *Innovative* and *Supportive* helped to increase the job satisfaction of software professionals.

4.6 ANOVA Testing

Since there are more than two groups for different levels of designations and professional experience, ANOVA is an appropriate to test hypothesis 13 and 14. In order to test the hypotheses 13 and 14, **One-Way ANOVA** test had been conducted.

Hypothesis 13

As illustrated in Table 4.31, the F value of .358 is not significant at the .699 level. Therefore, the null hypothesis ($\mathbf{H13_0}$) is substantiated and the alternate hypothesis ($\mathbf{H13_A}$) is rejected. Therefore, there is no relationship between designation of software professional's and their job satisfaction.

Table 4.31 One-Way ANOVA – Designation of Software Professionals

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.126	2	.063	.358	.699
Within Groups	66.378	377	.176		
Total	66.504	379			

Hypothesis 14

The present study, disproportionate stratified random sampling method is used to stratify the professional experience of software professionals to break stratums and this was used to avoid the biasness of the sample. The professional experience was specified in 4 stratums such as *less than 5 yrs*, *5 - 10 yrs*, *10 -15 yrs* and *above 15 yrs*.

Table 4.32 One-Way ANOVA – Professional Experience of Software Professionals

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.614	3	.538	3.118	**.026**
Within Groups	64.889	376	.173		
Total	66.504	379			

As illustrated in Table 4.32, the F value of 3.118 is significant at the .026 level. Therefore, the null hypothesis ($H14_0$) is rejected and the alternate hypothesis ($H14_A$) is substantiated. Therefore, there is a relationship between professional experience of software professional's and their job satisfaction. According to the current study, when the experience was getting increased, employees accepted electronic monitoring and it is not a problem to them to continue their jobs. There were 209 respondents from *less than 5 years'* experience group and most of them responded against the electronic monitoring and if it comes to the *above 15 years age* group, they more likely to have electronic monitoring and it is not accepted their job satisfaction.

4.7 Regression Analysis

Hypothesis 15

The present study recognizes the level of professional experience of software professionals in four categories which also had been used to avoid the biasness of the sample. The professional experience was specified in four levels and in other words 4 groups such as *less than 5 yrs*, *5 - 10 yrs*, *10 -15 yrs* and *above 15 yrs* were considered. There were 209 software professionals in *less than 5 yrs* group, 116 software professionals in *5 - 10 yrs* group, 45 software professionals in *10 -15 yrs* group and 10 software professionals in *above 15 yrs* group. Regression analysis was carried out for each group.

Table 4.33 Less than 5yrs Professional Experience - Regression Analysis - Model

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	**.450[a]**	**.202**	**.179**	**.3790174**

a. Predictors: (Constant),), Perceived Level of Infringement, Perceived Relevance to work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness, Perceived Task Satisfaction

Table 4.34 Less than 5yrs Professional Experience Regression Analysis - ANOVA

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	**7.364**	**6**	**1.227**	**8.543**	**.000[a]**
	Residual	**29.018**	**202**	**.144**		
	Total	**36.382**	**208**			

a. Predictors: (Constant),), Perceived Level of Infringement, Perceived Relevance to work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness, Perceived Task Satisfaction

b. Dependent Variable: Job Satisfaction

As illustrated in Tables 4.33, 4.34 and 4.35, for the model developed for the professionals with *Less than 5yrs* of Professional Experience, 20.2% of the variation in job satisfaction was significantly explained by Perceived Invasion of Privacy, Personal Judgment of effectiveness and Perceived Task Satisfaction.

According to this analysis, it seems that the less experienced software professionals do concern about their privacy in the context of electronic monitoring. This means that they believe that all should not be monitored electronically. Further less experience software professionals accept electronic monitoring if it is to ensure the quality of their work. On the other hand, less experienced software professionals do concern about the complexity of doing assigned tasks while they are subjected to electronic monitoring.

Table 4.35 Less than 5yrs Professional Experience Regression Analysis - Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.534	.263		13.445	**.000**	3.016	4.052
	Perceived Relevance to Work	.041	.030	.096	1.391	**.166**	-.017	.100
	Perceived Invasion of Privacy	-.089	.032	-.184	-2.773	**.006**	-.152	-.026
	Personal Judgment of Effectiveness	.149	.037	.274	4.025	**.000**	.076	.222
	Perceived Task Satisfaction	-.066	.033	-.142	-2.003	**.046**	-.131	-.001
	Perceived Level of Infringement	-.048	.032	-.095	-1.468	**.144**	-.112	.016
	Perceived Rationale of Employer	.021	.036	.038	.588	**.557**	-.050	.093

a. Dependent Variable: Job Satisfaction

b. Selecting only cases for which Professional Experience = 1 (This means Less than 5yrs Professional Experience)

As illustrated in Tables 4.36, 4.37 and 4.38, the model developed for the professionals of *5 - 10 yrs* Professional Experience explained 24.6% of variation in job satisfaction significantly. And Personal Judgment of effectiveness was the only variable that was significant.

Table 4.36 5 - 10 yrs Professional Experience - Regression Analysis - Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.496[a]	.246	.205	.3891678

a. Predictors: (Constant),), Perceived Level of Infringement, Perceived Relevance to work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness, Perceived Task Satisfaction

Table 4.37 5 - 10 yrs Professional Experience Regression Analysis - ANOVA

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.394	6	.899	5.936	.000[a]
	Residual	16.508	109	.151		
	Total	21.903	115			

a. Predictors: (Constant),), Perceived Level of Infringement, Perceived Relevance to work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness, Perceived Task Satisfaction

b. Dependent Variable: Job Satisfaction

According to this analysis, software professionals with 5 - 10 yrs of professional experience are not concerned about their privacy and the complexity of doing assigned tasks associated with electronic monitoring. And, they accepted electronic monitoring if it is to ensure the quality of their work. This means that software professionals of 5 - 10 yrs experience who judged electronic monitoring as effective are satisfied in their job as well.

Table 4.38 5 - 10 yrs Professional Experience Regression Analysis - Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.364	.365		9.225	**.000**	2.641	4.086
	Perceived Relevance to Work	.075	.044	.154	1.708	**.090**	-.012	.163
	Perceived Invasion of Privacy	-.074	.047	-.138	-1.579	**.117**	-.166	.019
	Personal Judgment of Effectiveness	.192	.054	.318	3.539	**.001**	.085	.300
	Perceived Task Satisfaction	-.085	.046	-.171	-1.860	**.066**	-.175	.006
	Perceived Level of Infringement	-.011	.040	-.023	-.270	**.788**	-.091	.069
	Perceived Rationale of Employer	-.061	.051	-.102	-1.189	**.237**	-.163	.041

a. Dependent Variable: Job Satisfaction

b. Selecting only cases for which Professional Experience = 2 (This means 5 - 10 yrs Professional Experience)

As illustrated in the Tables 4.39, 4.40 and 4.41, for the model developed for the professionals of *10 - 15 yrs* Professional Experience, none of the variables significantly explained the job satisfaction.

Table 4.39 10 - 15 yrs Professional Experience - Regression Analysis - Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.470[a]	.221	.098	.3524674

a. Predictors: (Constant),), Perceived Level of Infringement, Perceived Relevance to work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness, Perceived Task Satisfaction

Table 4.40 10 - 15 yrs Professional Experience Regression Analysis - ANOVA

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.337	6	.223	1.794	.127[a]
	Residual	4.721	38	.124		
	Total	6.058	44			

a. Predictors: (Constant),), Perceived Level of Infringement, Perceived Relevance to work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness, Perceived Task Satisfaction

b. Dependent Variable: Job Satisfaction

According to this analysis, electronic monitoring at work place does not seem to impact the job satisfaction of the software professionals with 10 - 15 yrs of professional experience.

Table 4.41 10 - 15 yrs Professional Experience Regression Analysis - Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.352	.718		6.059	**.000**	2.898	5.086
	Perceived Relevance to Work	.145	.060	.368	2.396	**.022**	.022	.267
	Perceived Invasion of Privacy	-.099	.078	-.238	-1.267	**.123**	-.258	.059
	Personal Judgment of Effectiveness	.012	.100	.023	.123	**.903**	-.190	.215
	Perceived Task Satisfaction	-.083	.079	-.194	-1.052	**.300**	-.244	.077
	Perceived Level of Infringement	-.003	.061	-.009	-.052	**.959**	-.127	.120
	Perceived Rationale of Employer	-.151	.087	-.297	-1.734	**.091**	-.328	.025

a. Dependent Variable: Job Satisfaction

b. Selecting only cases for which Professional Experience = 3 (This means 10 - 15 yrs Professional Experience)

As illustrated in the Tables 4.42, 4.43 and 4.44, for the model developed for the professionals of *above 15 yrs* Professional Experience, none of the variables significantly explained the job satisfaction.

Table 4.42 Above 15 yrs Professional Experience - Regression Analysis - Model

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.909[a]	.826	.478	.1782320

a. Predictors: (Constant),), Perceived Level of Infringement, Perceived Relevance to work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness, Perceived Task Satisfaction

Table 4.43 Above 15 yrs Professional Experience Regression Analysis - ANOVA

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.452	6	.075	2.371	.256[a]
	Residual	.095	3	.032		
	Total	.547	9			

a. Predictors: (Constant),), Perceived Level of Infringement, Perceived Relevance to work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness, Perceived Task Satisfaction

b. Dependent Variable: Job Satisfaction

According to this analysis, electronic monitoring at work place does not seem to impact the job satisfaction of the software professionals with above 15 yrs of professional experience.

Table 4.44 Above 15 yrs Professional Experience Regression Analysis - Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.204	.956		4.396	**.022**	1.161	7.248
	Perceived Relevance to Work	.068	.083	.245	.818	**.473**	-.197	.333
	Perceived Invasion of Privacy	-.155	.089	-.473	-1.733	**.181**	-.129	.439
	Personal Judgment of Effectiveness	.255	.117	.612	2.183	**.177**	-.116	.626
	Perceived Task Satisfaction	-.269	.097	-.747	-2.765	**.070**	-.578	.041
	Perceived Level of Infringement	-.215	.167	-.413	-1.288	**.288**	-.745	.316
	Perceived Rationale of Employer	-.059	.114	-.139	-.517	**.641**	-.423	.305

a. Dependent Variable: Job Satisfaction

b. Selecting only cases for which Professional Experience = 4 (This means Above 15 yrs Professional Experience)

Table 4.45 presents the summarized results of regression analysis for the level of professional experience of software professionals in four categories.

Table 4.45 Summarized results of Regression Analysis - Professional Experience

Analysis	Job Satisfaction – Significant Variables	R2
Regression Model – Less than 5 years' Experience	Perceived Invasion of Privacy Personal Judgment of effectiveness Perceived Task Satisfaction	.202
Regression Model – 5 - 10 years' Experience	Personal Judgment of effectiveness	.246
Regression Model – 10 - 15 years' Experience	No Significant variables	N/A
Regression Model – Above 15 years' Experience	No Significant variables	N/A

According to this analysis, it seems that the effect of electronic monitoring at work place towards the job satisfaction of software professionals becomes less significant along with higher professional experience. Hence, **Hypothesis 15 ($H15_A$)** is substantiated and the null hypothesis is rejected.

In order to test the hypothesis formulated to further validate the conceptual research framework, a model was developed for a full regression analysis with all independent variables. Tables 4.46, 4.47 and 4.48 presented the full regression analysis output for hypothesis.

For the full model, 20.5% of the variation is significantly explained by the 4 independent variables out of 6 included in the conceptual framework. Specifically in the full model, job satisfaction is significantly explained by the Perceived Relevance to work, Perceived Invasion of Privacy, Personal Judgment of effectiveness and Perceived Task Satisfaction. Therefore, the associate alternate hypothesis is substantiated and the null hypothesis is rejected.

Table 4.46 Full Regression Model - Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.453[a]	.205	.192	.3765118

a. Predictors: (Constant),), Perceived Level of Infringement, Perceived Relevance to work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness, Perceived Task Satisfaction

Table 4.47 Full Regression Model - ANOVA

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.627	6	2.271	16.021	.000[a]
	Residual	52.877	373	.142		
	Total	66.504	379			

a. Predictors: (Constant),), Perceived Level of Infringement, Perceived Relevance to work, Perceived Rationale of Employer, Perceived Invasion of Privacy, Personal Judgment of effectiveness, Perceived Task Satisfaction

b. Dependent Variable: Job Satisfaction

Table 4.48 Full Regression Model - Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	3.504	.197		17.808	**.000**	3.117	3.891
	Perceived Level of Infringement	-.028	.023	-.059	-1.226	**.221**	-.072	.017
	Perceived Relevance to Work	.064	.022	.144	2.907	**.004**	.021	.107
	Perceived Rationale of Employer	-.021	.027	-.038	-.783	**.434**	-.075	.032
	Perceived Invasion of Privacy	-.076	.024	-.155	-3.143	**.002**	-.123	-.028
	Personal Judgment of effectiveness	.153	.028	.271	5.399	**.000**	.097	.209
	Perceived Task Satisfaction	-.074	.024	-.158	-3.052	**.002**	-.122	-.026

a. Dependent Variable: Job Satisfaction

4.8 Discussion on Results

In the present study, according to the research findings, software professionals' job satisfaction is influenced by electronic monitoring in various aspects including such as relevance to work, invasion of privacy, personal judgment of effectiveness and task satisfaction.

According to the Pearson Correlation Coefficients obtained, Perceived Relevance to Work, Received Invasion of Privacy, Personal Judgment of Effectiveness and the Perceived Task Satisfaction showed significant correlations with the Job Satisfaction of the software professionals. Perceived Relevance to Work was positively correlated to the job satisfaction indicating that software professional's job satisfaction is influenced by his/her perception towards the relevance of electronic monitoring to work. In other words, software professionals have an exact awareness about the relationship in between electronic monitoring and how it is related to their job. Perceived Invasion of Privacy was negatively correlated to the job satisfaction. This means, software professional's job satisfaction is influenced by his/her perception towards the invasion of privacy which occurs via electronic monitoring. Personal Judgment of effectiveness was positively correlated to the job satisfaction indicating that software professional's job satisfaction is influenced by his/her personal judgment of effectiveness of electronic monitoring. This means that those who judged electronic monitoring as effective are satisfied in their job. Perceived Task Satisfaction was negatively correlated to the job satisfaction. This means, software professional's job satisfaction is influenced by his/her perceived task satisfaction subjected to electronic monitoring.

Also the relationships between the job satisfaction and the moderating variables such as Employee Empowerment, Organizational Climate, Organizational Culture, Past Experience, Designation and Professional Experience being tested. Employee Empowerment and Organizational Climate were tested by using Pearson Correlations and those all were positively correlated. Also the Pearson correlation

analysis carried out for the professionals who perceived their organizational culture as *Innovative* or *Supportive* showed a significant positive correlation with the job satisfaction. On the other hand, the Pearson correlation coefficient for the professionals who perceived their organizational culture as *Bureaucratic* was not significant hence did not show any relationship with the job satisfaction of the software professionals.

Designation and Professional Experience were tested by using One-way ANOVA and Professional Experience was significant. That means there is a relationship between professional experience of software professional's and their job satisfaction. According to the current study, when the experience was getting increased, employees accepted the electronic monitoring.

Also the regression model analysis carried out for the different groups of professionals experience showed that electronic monitoring hardly impacts the job satisfaction of the software professionals with above 5 years of professional experience.

A full regression model including all independent variables was developed to further validate the conceptual research framework. In the full model, job satisfaction is significantly explained by the Perceived Relevance to work, Perceived Invasion of Privacy, Personal Judgment of effectiveness and Perceived Task Satisfaction. In other words, 20.5% of the variation is significantly explained by the independent variables included in the conceptual framework.

In contrast, it seems that the research findings of the present study are consistent with the previous research. Most of the earlier studies have found Perceived Relevance to Work and Perceived Invasion of Privacy to be significant indicators of Job Satisfaction of the individuals.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview of Chapter

This chapter provides conclusions and recommendations on the analysis of the statistical results obtained in the present study.

5.2 Research Implications

The purpose of the current study was to empirically examine the perceptions towards the electronic monitoring at work place and its impact on their job satisfaction. In this study electronic monitoring was measured in different angles such as perceived level of infringement, perceived relevance to work, perceived rationale of employer, perceived invasion of privacy, personal judgment of effectiveness and perceived task satisfaction. The primary focus of this study was to assess the impact on job satisfaction of software professionals under electronic monitoring environment. In general, the conceptual research framework shown in Figure 3.1 was instrumental in analyzing the perceptions towards the electronic monitoring at work place and its impact on their job satisfaction. And secondly hypotheses were formulated to analyze the data collected via online survey. According to the software professionals' responses, questionnaire was the best method to capture perception of electronic monitoring. Hypothesis tested bring an insight to the accuracy and the depth of the research findings. Analysis was done with the help of descriptive statistics, Persons' correlation analysis, on-way ANOVA test and full regression model.

Based on the present study results, *Electronic Monitoring* can be seen as a form of discipline. But, the possibility that electronic monitoring will be met by resistance in the workplace should come as no surprise. In fact, some of the negative effects of electronic monitoring discussed under invasion of privacy can best be interpreted as acts of resistance (Hypothesis 4, Table 4.21). The experience of being monitored

acquires meaning as it is lived and interpreted by people in their organizational contexts. Depending on the nature of this social construction, electronic monitoring can be perceived as a more or less negative experience, and can have varying effects. Therefore, electronic monitoring as a form of discipline, and resistance, as a form of anti-discipline, may differ from one social context to another and even from one individual to another, depending on various influences such as organizational climate, organizational culture, employee empowerment and professional experience.

In the present study, according to the hypothesis 1, it was found that *Perceived Level of Infringement* towards electronic monitoring has no impact on the software professional's job satisfaction. But, according to the Table 4.19, *Perceived Relevance to Work* and the *Job Satisfaction* are significantly positively correlated with value of 2.51(Hypothesis 2). Hence, software professional's job satisfaction is influenced by his/her perception towards the relevance of electronic monitoring to work. The finding of a positive overall relationship between perceived relevance of work and satisfaction is consistent with previous research (Watson, 2007), which strengthens the conclusion that these constructs are associated. In the local context also, it was indicated that individuals such as software professionals have an exact awareness about the relationship in between electronic monitoring and how it is related to their job. In other words, Electronic Monitoring was accepted by the software professionals, if it is relevance to their work. And also, present study indicated that *Perceived Rationale of Employer* towards electronic monitoring has no impact on the software professional's job satisfaction.

Most of researchers concerned about the privacy of employees at the electronic monitoring environment and present study also focused that area by studying relationship between invasion of privacy and job satisfaction. Over the past decade the realm of technology and privacy has been transferred, creating a landscape that presents new challenges for IT professional (Meyers and Neville, 2003). Stone and Stone (1990) offered that privacy is the extent to which employees believe they have control over their personal information and interactions with others. This idea, when examined from the perspective of the work environment, presents a number of

challenges. Hypothesis 4 was used to test the invasion of privacy. In the present study that *Perceived Invasion of Privacy* and the Job Satisfaction are significantly negatively correlated with value of -0.241 (Table 4.21) and that means, this is consistent with researchers done by Vorvoreanu and Baton (2000), Johnston and Cheng (2002), Ariss (2002), Wakefield (2004), Jengchung, Watson (2007) and Chen Y., Chen C. and Yang (2008). In other words, software professional's job satisfaction is influenced by his/her perception towards the invasion of privacy which occurs via electronic monitoring. And further noticed software professionals accepted implementing workplace policy, but they believed that all should not be monitored electronically.

A judgment rendered regarding the effectiveness of electronic monitoring at work place would be beneficial for both employee and employer. In the present study, *Personal Judgment of effectiveness* used as a variable to measure the electronic monitoring and it was significantly positively correlated with the job satisfaction with the value of 0.348. It tested with Hypothesis 5 and found that software professional's job satisfaction is influenced by his/her personal judgment of effectiveness of electronic monitoring. On one side, software professionals accepted the electronic monitoring if it is to ensure the quality of their work and overall those who judged electronic monitoring as effective are satisfied in their job.

On the other hand the level of satisfaction that a software professional posses in relation with successful task accomplishment is an important factor to analysis in this study. In practice, electronic monitoring techniques can differ substantially within and across software organizations as well as non-software organizations such as in house software development companies. For instance, monitoring can vary with respect to how often it occurs during a period of time, who performs it, the types of tasks it targets, and the degree to which employees have knowledge of or can control the onset of monitoring. Therefore, task satisfaction is one of the key areas to explain the electronic monitoring and because of that *Perceived Task Satisfaction* used as a measurement of electronic monitoring in current study and it was tested by Hypothesis 6. As per the Table 4.23, Perceived Task Satisfaction and the Job

Satisfaction are significantly negatively correlated. That means, software professional's job satisfaction is influenced by his/her perceived task satisfaction subjected to electronic monitoring. Mainly, according to results, software professionals concerned about the complexity of doing assigned tasks while they are subjected to electronic monitoring, are rather dissatisfied in their jobs.

And further, in the present study, moderating variables were also tested for relationships with the dependent variable. According to the results, *Employee Empowerment* and *Organizational Climate* were positively correlated and tested hypotheses were from hypothesis 7 to 9. Also for *Organizational Culture,* hypotheses 10, 11 and 12 were tested. *Innovative* or *Supportive* cultures showed a significant positive correlation with the job satisfaction. On the other hand, *Bureaucratic* culture was not significant hence did not show any relationship with the job satisfaction of the software professionals.

Designation and Professional Experience were tested by using One-way ANOVA with the help of hypothesis 13 and 14 and Professional Experience was significant. That means, there is a relationship between professional experience of software professional's and their job satisfaction. According to the current study, when the experience was getting increased, employees accepted the electronic monitoring.

In the present study, Perceived Relevance to Work and Personal Judgment of effectiveness were positively correlated with job satisfaction. This implies that, when software professionals perceive electronic monitoring as something which is relevant to their work and which uplifts the quality of their work, electronic monitoring does not negatively impact the job satisfaction of the software professionals. Therefore, managements of the software organizations should make sure that the electronic monitoring activities are conducted in the intention of uplifting the work quality and productivity. The negative attitudes towards electronic monitoring could be effectively reduced if these two aspects are taken into consideration in electronic monitoring policy making as well as in communicating it to employees.

Therefore, the software organizations in Sri Lanka should take proper care in defining workplace electronic monitoring practices, since it might have a negative impact on the job satisfaction of the employees – which is the most valuable asset to the organization. According to the present study, it appeared that *Perceived Invasion of Privacy* was negatively correlated to the job satisfaction, which sheds some light in organizational electronic monitoring policy making. The analysis results show that the software professionals, who were worried about their privacy being violated because of electronic monitoring, were rather dissatisfied. Therefore, the organizations should take proper measures to eliminate this perception if possible. Or else, the reality of electronic monitoring has to be properly communicated to the employees.

Also the variable, *Perceived Task Satisfaction* was negatively correlated to the job satisfaction. This means that the software professionals, who thought that working in an electronically monitored environment makes the task more complex, are rather dissatisfied in their job. Therefore, the organizations should take proper measures to ensure that electronic monitoring never becomes a burden to the software professionals' task complexity. For example, even if electronic monitoring needs to be performed, it has to be done in background, without intervening the day to day tasks of the software professionals.

According to the results, the difference of the means of job satisfaction among the various groups of professional experience was significant.

According to the regression model outputs developed based on the professional experience of the software professionals, the variation in job satisfaction explained by the independent variables was decreased with higher professional experience. Also none of the variables were significant for the regression models developed for the groups of 10 - 15 years of experience and above 15 years of experience. This implies that the impact of electronic monitoring towards the job satisfaction becomes less significant with the maturity of the software professionals.

And further, in the present study, Employee Empowerment is positively correlated with job satisfaction. Therefore, the software professionals who are empowered in their job are rather satisfied in their job. Organizational Climate is positively correlated with job satisfaction. Therefore, the software professionals who positively perceive their organizational climate are rather satisfied in their job. Innovative Culture and Supportive Culture are positively correlated with job satisfaction. Therefore, the software professionals who perceive their organizational culture as innovative or supportive are rather satisfied in their job.

Past Experience is positively correlated with job satisfaction. This implies that the experiences of the negative implications of electronic monitoring in the past hardly have an impact towards the job satisfaction of the software professionals.

According to the full regression model which was developed to validate the conceptual research framework (with all professionals), 20.5% of the variation in job satisfaction was explained by the set of independent variables such as Perceived Relevance to work, Perceived Invasion of Privacy, Personal Judgment of effectiveness and Perceived Task Satisfaction. Also, Personal Judgment of Effectiveness seems to influence the job satisfaction of the software professional the most. Therefore organizational managements should primarily consider these aspects especially in electronic monitoring policy making and in awareness building with the employees. It is important that a policy for electronic monitoring exists at the first place, and is communicated to all employees properly. This would effectively reduce the negative impacts of electronic monitoring associated with job satisfaction of the software professionals in Sri Lanka.

The use of electronic monitoring techniques as a means for collecting performance and productivity information is a pervasive and broadening practice in today's organizations (AMA, 2005). Today, software professionals within organizations, become more geographically dispersed and more work is handled virtually via technology, the opportunity and pressure for organizations to track and monitor employee activities electronically will likely increase. To ensure organizations

deploy such practices strategically and in ways that minimize potentially costly negative reactions from employees, researchers and practitioners must continue to develop a thorough understanding of the impact of specific monitoring practices and policies on employee reactions and behaviours. To that end, the current study investigated the role of electronic monitoring and its impact on job satisfaction of software professionals in Sri Lanka.

5.3 Recommendations for Future Research

Further research can be carried out by enhancing the proposed model for electronic monitoring and its relationship with the job satisfaction of the individuals. It should further be analysed using different area of samples or subset of the present study sample. Not only that but also this model can be further improved in different geographical locations. And also, specific deterrent measures should be analysed based on the variables of significance. If the organizations want to use the electronic monitoring without objection of their employees, future research should be focused on that prospective to make good relationship with employees.

5.4 Concluding Remarks

The research problem associated with the present research was:

What is the employee perception towards electronic monitoring at workplace and its impact on the job satisfaction of Software Professionals in Sri Lanka?

In answering this research problem, three research objectives had been initiated:

Research Objective 1

To identify the impact of the employee perception towards electronic monitoring at work place, on job satisfaction of Software Professionals in Sri Lanka

The present study has referred a large amount of research literature in the fields of Electronic Monitoring and inter-related areas such as Job Satisfaction, Employee Empowerment, Organizational Climate and Organizational Culture. With different type of angles discussed the electronic monitoring in detail. Research variables and their significance in previous research were thoroughly studied and got the expert judgment in order to formulate the conceptual research framework. Based on the research it has been found the relationship between the perception towards electronic monitoring and job satisfaction. Therefore, the present study has successfully substantiated this research objective.

Research Objective 2

To provide the software development companies awareness, on the relationship between electronic monitoring at work place and job satisfaction

Based on the analysis and the interpretation of the data, recommendations were made for the software organizations as well as non-software organizations such as in house software development companies in Sri Lanka either public or private. Ways to perform electronic monitoring, minimizing the negative impacts towards the job satisfaction of the software professionals are discussed in detail. Therefore, the present study has successfully substantiated this research objective.

Research Objective 3

Contribute to the existing research knowledge in the field of electronic employee monitoring at workplace

The present study extended the scope of previous studies in the field of electronic monitoring research, by focusing on additional aspects associated with electronic monitoring at workplace. Carrying out this research for the software professionals in Sri Lanka, adds more value to the research outcome, since significant research conducted in this area within the context of Sri Lanka are limited. Therefore, the present study has successfully substantiated this research objective.

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APPENDIX A - QUESTIONNAIRE INSTRUMENT

Dear Sir/Madam,

This questionnaire is designed to study about the relationship between electronic monitoring at work place and its impact on job satisfaction of Software Professionals. It is a part of the Postgraduate Research: **"The Perception towards Electronic Monitoring at Work Place, and Its Impact on Job Satisfaction of the Software Professionals in Sri Lanka"** of the MBA in Information Technology Degree Course of University of Moratuwa, Sri Lanka.

If you are a software professional working in a software or non- software company in Sri Lanka, you are most welcome to participate in this survey.

Kindly, forward the completed questionnaire to the researcher mentioned below. Alternatively, you can directly submit the responses online, via the questionnaire available at:

https://spreadsheets.google.com/viewform?formkey=dGVnRGFfRWJkdWc0dndab2Rpcnk0SGc6MQ

The information you provide will help me to better understand the relationship between electronic monitoring at work place and its impact on job satisfaction. Because you are the one who can provide me correct information, I humbly request you to respond to the questions frankly & honestly.

Please note that it is **not required** to provide your name or the organization you are working in, which will assure your anonymity in this survey. Your response will be kept strictly confidential.

Thank you very much for your time & cooperation & I deeply appreciate your help in furthering this survey endeavor.

Yours Sincerely,

Viraj Samaranayake

BSc. – UOC, MBA in IT (Final Year Student) – UOM

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THE EMPLOYEE PERCEPTION TOWARDS ELECTRONIC MONITORING AT WORK PLACE, AND ITS IMPACT ON JOB SATISFACTION OF SOFTWARE PROFESSIONALS IN SRI LANKA

	Following items ask about your perception about electronic monitoring at work place. Please indicate your response to each of the items that follow, by marking 'X' at the appropriate cage.	**Strongly Agree**	**Agree**	**Neither Agree nor Disagree**	**Disagree**	**Strongly Disagree**
1	My work being monitored by my employer is totally unacceptable because, it's something like intruding into one's work.					
2	I would feel uncomfortable to think that somebody in my organization is always watching my activities at work.					
3	I cannot understand the connection between my work and electronic monitoring going on at my work place.					
4	I cannot understand what the electronic monitoring has to do with the computer activities related to my work.					
5	I do not really understand why the employer needs to monitor my computer activities.					
6	I believe that it is reasonable for my employer to electronically monitor my activities, if it is for a valid purpose.					
7	Even though we are paid for our work, we are entitled to a certain degree of privacy, and should not be monitored by computers and other electronic devices by the employer.					
8	I shouldn't feel any conflict about implementing a workplace privacy policy, but I believe that all should not be monitored electronically.					
9	I feel that electronically monitoring is unfair and unethical.					
10	I am objecting to electronic monitoring because my privacy in the hands of my employer might pose a threat to my physical and mental health.					

11	I think it is acceptable that the employer has an interest in monitoring employee activities to ensure quality of work.					
12	I think it is acceptable for the employer to electronically monitor the employees, if they really don't trust their employees.					
13	Since company pays us for our work, it is legitimate for the company to monitor our activities in any way company wishes while we are at work.					
14	My tasks could become more complex if they are subjected to electronic monitoring.					
15	I believe that electronic monitoring can be a burden towards the accomplishment of the tasks assigned to me.					
16	Electronic monitoring makes it harder for me to do my job.					
17	In the past I have felt that certain non work related websites that I have accessed were blocked by my employer.					
18	In the past my company has terminated few employees because of electronic monitoring.					
19	Few times my company informed us not to use official email for private purposes.					

	The questions below ask about how you experience your work life. Please indicate your response to each of the items given below, by marking 'X' at the appropriate cage.	**Strongly Agree**	**Agree**	**Neither Agree nor Disagree**	**Disagree**	**Strongly Disagree**
1	I understand what is expected of me in my work.					
2	I have the material/equipment and tools I need to do my job well.					
3	My job is challenging and interesting.					
4	I am satisfied with the company's employee welfare programs such as rewards, incentives, insurance etc.					
5	I am satisfied with the recreational activities provided by the company.					

6	I am satisfied with the company's people programs, such as birthday announcements, valuable employee of the month, bulletins and newsletter, etc.					
7	My manager/supervisor establishes plans and work objectives with me.					
8	My manager/supervisor gives me clear instructions.					
9	I feel free to talk openly and honestly to my immediate or superiors.					
10	I am satisfied with how members of my work group solve problems.					
11	My work group works well together.					
12	I feel free to talk openly and honestly with members of my work group.					
13	I was given enough feedback on my performance.					
14	Promotion goes to those who most deserve it.					
15	I always find myself worrying over something at work.					
16	I feel totally burned out by the end of the day at work.					
17	The work I do is very important to me.					
18	My job activities are personally meaningful to me.					
19	The work I do is meaningful to me.					
20	I am confident about my ability to do my job.					
21	I am self-assured about my capabilities to perform my work activities.					
22	I have mastered the skills necessary for my job.					
23	I have significant autonomy in determining how I do my job.					
24	I can decide on my own how to go about doing my work.					
25	I have considerable opportunity for independence and freedom in doing my job.					

26	I don't have any obstacles to do my job while employer is making changes on working background.					
27	I have a great deal to control over what happens in my organization.					
28	I have significant influence over what happens in my organization.					
	The following items ask about the organization you work in. Please indicate your response to each of the items given below, by marking 'X' at the appropriate cage.	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1	My company takes care of the employees.					
2	My employer clearly defines jobs and business procedures related to the work.					
3	My employer clearly defines the organizational hierarchy.					
4	My roles and responsibilities are clearly defined by the organization.					
5	My project related responsibilities are changing from time to time based on the project requirements.					
6	I am satisfied with the current benefits provided by my organization.					
7	Rewards (bonus, increments etc) are in proportion with job performance.					
8	Promotions at my company are handled fairly.					
9	My company is encouraging to take the risk.					
10	I have freedom to practice new technologies for project related work.					
11	My company takes care of the employees who work for it.					
12	I am getting assistance from top management.					
13	My organization always promotes peer support.					

14	My leader is aware of and responsive to the needs of his subordinates.					
15	My company is following an efficient work processes to operate our day to day job functionalities.					
16	I am clear on how best to perform my work tasks.					
17	My company standards are guiding me to work quality and accuracy.					
18	Sometimes I feel pressured in facing conflicting situations.					
19	Employees of my organization always have criticism, no matter what is done.					
20	I have the authority to do my job to the best of my abilities.					
21	My company is dynamic and entrepreneurial. Therefore I am willing to take risks on behalf of company.					
22	There is an opportunity to meet new challenges, because of my organization like to growth and acquiring new resources.					
23	My company is committed towards innovation and development. So, there is an emphasis on being first.					
24	I feel like my company is like another family to me.					
25	High cohesion and morale in the company are important for employees.					
26	Employees have a good balance between work and personal life.					
27	My company is very formalized and structured, and the established procedures generally govern what employees do.					
28	Formal rules and policies are maintained to run the company smoothly.					

Please tick the response that describes yourself and your organization

	20 – 30 yrs	31 – 40 yrs	41 – 50 yrs	Above 50			Male	Female
Age						**Gender**		

	High School	Diploma	Graduate	Post Graduate			Private	Government / Semi-Government
Education level						**Nature of your organization**		

	Less than 50	50 – 100	100 - 500	500 - 1000	Above 1000
Employees work in your organization					

	Less than 5	5 – 10 yrs	11 – 15 yrs	Above 15
Please specify the duration of your experience				

	Engineer (Software Development, Design, Testing etc)	**Manager**	**Technical Operation** (DB Admin, Network Admin, System Admin etc)
Please select the category which best describes your position in your organization			

APPENDIX B - QUESTIONNAIRE DEFINITION

There were seventy five questions in the questionnaire and first set of 19 questions defined as S1, second set of 28 questions defined as S2, third set of 28 questions defined as S3 and rest of the Questions defined as S4.

Variable	Dimension	Scale	Questionnaire Item
Perceived Level of Infringement	N/A	Interval	S1 – Q1, S1 – Q2
Perceived Relevance to work	N/A	Interval	S1 – Q3, S1 – Q4
Perceived Rationale of Employer	N/A	Interval	S1 – Q5, S1 – Q6
Perceived Invasion of Privacy	N/A	Interval	S1 – Q7, S1 – Q8, S1 – Q9, S1 – Q10
Personal Judgment of effectiveness	N/A	Interval	S1 – Q11, S1 – Q12, S1 – Q13
Perceived Task Satisfaction	N/A	Interval	S1 – Q14, S1 – Q15, S1 – Q16
Past Experience	N/A	Interval	S1 – Q17, S1 – Q18, S1 – Q19

Job Satisfaction	Nature of the work itself	Interval	S2 – Q1, S2 – Q2, S2– Q3
	Compensations and benefits	Interval	S2 – Q4, S2 – Q5, S2–Q6
	Attitudes towards supervisors	Interval	S2 – Q7, S2 – Q8, S2– Q9
	Relations with co-workers	Interval	S2 – Q10, S2 – Q11, S2– Q12
	Promotion opportunities	Interval	S2 – Q13, S2 – Q14
	Stress related a job	Interval	S2 – Q15, S2 – Q16
Employee Empowerment	Meaning	Interval	S2 – Q17, S2 – Q18, S2– Q19
	Perceived Competence	Interval	S2 – Q20, S2 – Q21, S2– Q22
	Self-determination	Interval	S2 – Q23, S2 – 24, S2– Q25
	Impact	Interval	S2 – Q26, S2 – Q27, S2– Q28

Organizational Climate	Organizational Structure	Interval	S3 – Q1, S3 – Q2, S3 – Q3
	Responsibility	Interval	S3 – Q4, S3 – Q5
	Rewards	Interval	S3 – Q6, S3 – Q7, S3 – Q8
	Risk	Interval	S3 – Q9, S3 – Q10
	Warmth	Interval	S3 – Q11
	Support	Interval	S3 – Q12, S3 – Q13, S3 – Q14
	Standards	Interval	S3 – Q15, S3 – Q16, S3 – Q17
	Conflict	Interval	S3 – Q18, S3 – Q19
	Identity	Interval	S3 – Q20
Organizational Culture	Innovative Culture	Interval	S3 – Q21, S3 – Q22, S3 – Q23
	Supportive Culture	Interval	S3 – 24, S3 – Q25, S3 – Q26
	Bureaucratic Culture	Interval	S3 – 27, S3 – Q28

Age	N/A	Ratio	S4 – Q1
Gender	N/A	Nominal	S4 – Q2
Education Level	N/A	Nominal	S4 – Q3
Nature of the organization	N/A	Nominal	S4 – Q4
No. Of employees in the organization	N/A	Ratio	S4 – Q5
Professional Experience	N/A	Ratio	S4 – Q6
Designation	N/A	Nominal	S4 – Q7

APPENDIX C - DESCRIPTIVE STATISTICS

Table C.1: Gender Distribution

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	302	79.47	79.47	79.47
	Female	78	20.53	20.53	100.00
	Total	380	100.00	100.00	

Table C.2: Age Distribution

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30	210	55.26	55.26	55.26
	31-40	158	41.58	41.58	96.84
	41-50	12	3.16	3.16	100.00
	Above 50	0	0	0	100.00
	Total	380	100.00	100.00	

Table C.3: Education Level of the Respondents

Education Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Post Graduate Degree	73	19.21	19.21	19.21
	Graduate Degree	285	75.00	75.00	94.21
	Diploma	22	5.79	5.79	100.00
	High School	0	0	0	100.00
	Total	380	100.0	100.0	

Table C.4: Organization Level of the Respondents

Organization Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 50	82	22.0	22.0	22.0
	50 – 100	9	2.0	2.0	24.0
	50 – 100	175	46.0	5.79	70.0
	50 – 100	15	4.0	4.0	74.0
	Above 1000	99	26.0	26.0	100.00
	Total	380	100.0	100.0	

Table C.5: Organization Type of the Respondents

Organization Type					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Private	368	96.84	96.84	96.84
	Government/ Semi-Government	12	3.16	3.16	100.0
	Total	380	100.0	100.0	

Table C.6: Level of Professional Experience of the Respondents

Level of Professional Experience					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5 years	209	55.00	55.00	55.0
	5 – 10 years	116	30.53	30.53	85.53
	10 – 15 years	45	11.84	11.84	97.37
	Above 15 years	10	10	2.63	100.0
	Total	307	100.0	100.0	

Table C.7: Categorized Designation of the Respondents

Categorized Designation					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Engineer (Software Development, Design, Testing etc)	285	75.0	75.0	75.0
	Manager	47	12.0	12.0	87.0
	Technical Operation (DB Admin, Network Admin, System Admin etc)	48	13.0	13.0	100.00
	Total	380	100.0	100.0	

Table C.8: Statistics: Perceived Level of Infringement – Item No. 1

Variable Name	Dimension
Perceived Level of Infringement	*N/A*
Variable Type	**Item No.**
Independent	*1*

Question: My work being monitored by my employer is totally unacceptable because, it is something like intruding into one's work

	Frequency	Percent	Valid Percent	Cumulative Percent
1 (Strongly Disagree)	4	1.1	1.1	1.1
2 (Disagree)	60	15.8	15.8	16.8
3 (Neither Agree nor Disagree)	35	9.2	9.2	26.1
4 (Agree)	138	36.3	36.3	62.4
5 (Strongly Agree)	143	37.6	37.6	100.0
Total	380	100.0	100.0	

Mean	Std. Deviation	Variance	Minimum	Maximum
3.94	1.093	1.194	1	5

Table C.9: Statistics: Perceived Level of Infringement – Item No. 2

Variable Name	Dimension
Perceived Level of Infringement	*N/A*
Variable Type	**Item No.**
Independent	*2*

Question: I would feel uncomfortable to think that somebody in my organization is always watching my activities at work

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	21	5.5	5.5	6.1
3	7	1.8	1.8	7.9
4	104	27.4	27.4	35.3
5	246	64.7	64.7	100.0
Total	380	100.0	100.0	

Mean	Std. Deviation	Variance	Minimum	Maximum
4.50	.827	.683	1	5

Table C.10: Statistics: Perceived Relevance to work – Item No. 1

Variable Name			Dimension	
Perceived Relevance to work			*N/A*	
Variable Type			**Item No.**	
Independent			*1*	
Question: I cannot understand the connection between my work and electronic monitoring going on at my work place				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
1	53	13.9	13.9	13.9
2	180	47.4	47.4	61.3
3	72	18.9	18.9	80.3
4	72	18.9	18.9	99.2
5	3	.8	.8	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
2.45	.978	.956	1	5

Table C.11: Statistics: Perceived Relevance to work – Item No. 2

Variable Name			Dimension	
Perceived Relevance to work			*N/A*	
Variable Type			**Item No.**	
Independent			*2*	
Question: I cannot understand what the electronic monitoring has to do with the computer activities related to my work				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
1	123	32.4	32.4	32.4
2	140	36.8	36.8	69.2
3	33	8.7	8.7	77.9
4	82	21.6	21.6	99.5
5	2	.5	.5	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
2.21	1.131	1.280	1	5

Table C.12: Statistics: Perceived Rationale of Employer – Item No. 1

Variable Name	Dimension
Perceived Rationale of Employer	*N/A*
Variable Type	**Item No.**
Independent	*1*

Question: I do not really understand why the employer needs to monitor my computer activities

	Frequency	Percent	Valid Percent	Cumulative Percent
1	150	39.5	39.5	39.5
2	172	45.3	45.3	84.7
3	20	5.3	5.3	90.0
4	33	8.7	8.7	98.7
5	5	1.3	1.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
1.87	.948	.899	1	5

Table C.13 Statistics: Perceived Rationale of Employer – Item No. 2

Variable Name	Dimension
Perceived Rationale of Employer	*N/A*
Variable Type	**Item No.**
Independent	*2*

Question: I believe that it is reasonable for my employer to electronically monitor my activities, if it is for a valid purpose

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	3	.8	.8	1.3
3	30	7.9	7.9	9.2
4	148	38.9	38.9	48.2
5	197	51.8	51.8	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.41	.715	.511	1	5

Table C.14: Statistics: Perceived Invasion of Privacy – Item No. 1

Variable Name	Dimension
Perceived Invasion of Privacy	*N/A*
Variable Type	**Item No.**
Independent	*1*

Question: Even though we are paid for our work, we are entitled to a certain degree of privacy, and should not be monitored by computers and other electronic devices by the employer

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	50	13.2	13.2	13.9
3	19	5.0	5.0	18.9
4	149	39.2	39.2	58.2
5	159	41.8	41.8	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.08	1.030	1.062	1	5

Table C.15: Statistics: Perceived Invasion of Privacy – Item No. 2

Variable Name	Dimension
Perceived Invasion of Privacy	*N/A*
Variable Type	**Item No.**
Independent	*2*

Question: I shouldn't feel any conflict about implementing a workplace privacy policy, but I believe that all should not be monitored electronically

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	37	9.7	9.7	10.3
3	20	5.3	5.3	15.5
4	155	40.8	40.8	56.3
5	166	43.7	43.7	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.17	.948	.899	1	5

Table C.16: Statistics: Perceived Invasion of Privacy – Item No. 3

Variable Name	Dimension
Perceived Invasion of Privacy	*N/A*
Variable Type	**Item No.**
Independent	*3*

Question: I feel that electronically monitoring is unfair and unethical

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	54	14.2	14.2	14.7
3	39	10.3	10.3	25.0
4	106	27.9	27.9	52.9
5	179	47.1	47.1	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.07	1.090	1.188	1	5

Table C.17: Statistics: Perceived Invasion of Privacy – Item No. 4

Variable Name	Dimension
Perceived Invasion of Privacy	*N/A*
Variable Type	**Item No.**
Independent	*4*

Question: I am objecting to electronic monitoring because my privacy in the hands of my employer might pose a threat to my physical and mental health

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	49	12.9	12.9	13.4
3	35	9.2	9.2	22.6
4	75	19.7	19.7	42.4
5	219	57.6	57.6	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.21	1.091	1.190	1	5

Table C.18: Statistics: Personal Judgment of effectiveness – Item No. 1

Variable Name	Dimension
Personal Judgment of effectiveness	*N/A*
Variable Type	**Item No.**
Independent	*1*

Question: I think it is acceptable that the employer has an interest in monitoring employee activities to ensure quality of work

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	9	2.4	2.4	2.9
3	31	8.2	8.2	11.1
4	213	56.1	56.1	67.1
5	125	32.9	32.9	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.18	.721	.520	1	5

Table C.19: Statistics: Personal Judgment of effectiveness – Item No. 2

Variable Name	Dimension
Personal Judgment of effectiveness	*N/A*
Variable Type	**Item No.**
Independent	*2*

Question: I think it is acceptable for the employer to electronically monitor the employees, if they really don't trust their employees

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.3	.3	.3
2	15	3.9	3.9	4.2
3	87	22.9	22.9	27.1
4	81	21.3	21.3	48.4
5	196	51.6	51.6	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.20	.943	.899	1	5

Table C.20: Statistics: Personal Judgment of effectiveness – Item No. 3

Variable Name	Dimension
Personal Judgment of effectiveness	*N/A*
Variable Type	**Item No.**
Independent	*3*

Question: Since company pays us for our work, it is legitimate for the company to monitor our activities in any way company wishes while we are at work

	Frequency	Percent	Valid Percent	Cumulative Percent
1	5	1.3	1.3	1.3
2	34	8.9	8.9	10.3
3	44	11.6	11.6	21.8
4	105	27.6	27.6	49.5
5	192	50.5	50.5	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.17	1.035	1.071	1	5

Table C. 21: Statistics: Perceived Task Satisfaction – Item No. 1

Variable Name	Dimension
Perceived Task Satisfaction	*N/A*
Variable Type	**Item No.**
Independent	*1*

Question: My tasks could become more complex if they are subjected to electronic monitoring

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	56	14.7	14.7	15.5
3	44	11.6	11.6	27.1
4	147	38.7	38.7	65.8
5	130	34.2	34.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.91	1.055	1.191	1	5

Table C.22: Statistics: Perceived Task Satisfaction – Item No. 2

Variable Name	Dimension
Perceived Task Satisfaction	*N/A*
Variable Type	**Item No.**
Independent	*2*

Question: I believe that electronic monitoring can be a burden towards the accomplishment of the tasks assigned to me

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	36	9.5	9.5	10.3
3	23	6.1	6.1	16.3
4	165	43.4	43.4	59.7
5	153	40.3	40.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.13	.948	.899	1	5

Table C.23: Statistics: Perceived Task Satisfaction – Item No. 3

Variable Name	Dimension
Perceived Task Satisfaction	*N/A*
Variable Type	**Item No.**
Independent	*3*

Question: Electronic monitoring makes it harder for me to do my job

	Frequency	Percent	Valid Percent	Cumulative Percent
1	5	1.3	1.3	1.3
2	35	9.2	9.2	10.5
3	40	10.5	10.5	21.1
4	106	27.9	27.9	48.9
5	194	51.1	51.1	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.18	1.036	1.072	1	5

Table C.24: Statistics: Job Satisfaction – Item No. 1

Variable Name	Dimension
Job Satisfaction	*Nature of the work itself*
Variable Type	**Item No.**
Dependent	*1*

Question: I understand what is expected of me in my work

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.3	.3	.3
2	2	.5	.5	.8
3	8	2.1	2.1	2.9
4	102	26.8	26.8	29.7
5	267	70.3	70.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.66	.574	.330	1	5

Table C.25: Statistics: Job Satisfaction – Item No. 2

Variable Name	Dimension
Job Satisfaction	*Nature of the work itself*
Variable Type	**Item No.**
Dependent	*2*

Question: I have the material/equipment and tools I need to do my job well

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	8	2.1	2.1	2.6
3	19	5.0	5.0	7.6
4	99	26.1	26.1	33.7
5	252	66.3	66.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.56	.733	.538	1	5

Table C.26: Statistics: Job Satisfaction – Item No. 3

Variable Name	Dimension
Job Satisfaction	*Nature of the work itself*
Variable Type	**Item No.**
Dependent	*3*

Question: My job is challenging and interesting

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	13	3.4	3.4	3.9
3	5	1.3	1.3	5.3
4	144	37.9	37.9	43.2
5	216	56.8	56.8	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.47	.738	.545	1	5

Table C.27: Statistics: Job Satisfaction – Item No. 4

Variable Name	Dimension
Job Satisfaction	*Compensations and benefits*
Variable Type	**Item No.**
Dependent	*4*

Question: I am satisfied with the company's employee welfare programs such as rewards, incentives, insurance etc

	Frequency	Percent	Valid Percent	Cumulative Percent
1	28	7.4	7.4	7.4
2	99	26.1	26.1	33.4
3	35	9.2	9.2	42.6
4	113	29.7	29.7	72.4
5	105	27.6	27.6	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.34	1.329	1.767	1	5

Table C.26: Statistics: Job Satisfaction – Item No. 3

Variable Name		Dimension		
Job Satisfaction		*Nature of the work itself*		
Variable Type		**Item No.**		
Dependent		*3*		
Question: My job is challenging and interesting				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
1	2	.5	.5	.5
2	13	3.4	3.4	3.9
3	5	1.3	1.3	5.3
4	144	37.9	37.9	43.2
5	216	56.8	56.8	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.47	.738	.545	1	5

Table C.27: Statistics: Job Satisfaction – Item No. 4

Variable Name		Dimension		
Job Satisfaction		*Compensations and benefits*		
Variable Type		**Item No.**		
Dependent		*4*		
Question: I am satisfied with the company's employee welfare programs such as rewards, incentives, insurance etc				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
1	28	7.4	7.4	7.4
2	99	26.1	26.1	33.4
3	35	9.2	9.2	42.6
4	113	29.7	29.7	72.4
5	105	27.6	27.6	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.34	1.329	1.767	1	5

Table C.28: Statistics: Job Satisfaction – Item No. 5

Variable Name	Dimension
Job Satisfaction	*Compensations and benefits*
Variable Type	**Item No.**
Dependent	*5*

Question: I am satisfied with the recreational activities provided by the company

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.3	.3	.3
2	77	20.3	20.3	20.5
3	94	24.7	24.7	45.3
4	91	23.9	23.9	69.2
5	117	30.8	30.8	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.65	1.126	1.268	1	5

Table C.29: Statistics: Job Satisfaction – Item No. 6

Variable Name	Dimension
Job Satisfaction	*Compensations and benefits*
Variable Type	**Item No.**
Dependent	*6*

Question: I am satisfied with the company's people programs, such as birthday announcements, valuable employee of the month, bulletins and newsletter, etc

	Frequency	Percent	Valid Percent	Cumulative Percent
1	14	3.7	3.7	3.7
2	58	15.3	15.3	18.9
3	89	23.4	23.4	42.4
4	136	35.8	35.8	78.2
5	83	21.8	21.8	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.57	1.101	1.212	1	5

Table C.30: Statistics: Job Satisfaction – Item No. 7

Variable Name	Dimension
Job Satisfaction	*Attitudes towards supervisors*
Variable Type	**Item No.**
Dependent	*7*

Question: My manager/supervisor establishes plans and work objectives with me

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.3	.3	.3
2	26	6.8	6.8	7.1
3	42	11.1	11.1	18.2
4	241	63.4	63.4	81.6
5	70	18.4	18.4	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.93	.767	.589	1	5

Table C.31: Statistics: Job Satisfaction – Item No. 8

Variable Name	Dimension
Job Satisfaction	*Attitudes towards supervisors*
Variable Type	**Item No.**
Dependent	*8*

Question: My manager/supervisor gives me clear instructions

	Frequency	Percent	Valid Percent	Cumulative Percent
1	4	1.1	1.1	1.1
2	44	11.6	11.6	12.6
3	21	5.5	5.5	18.2
4	219	57.6	57.6	75.8
5	92	24.2	24.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.92	.923	.852	1	5

Table C.32: Statistics: Job Satisfaction – Item No. 9

Variable Name	Dimension
Job Satisfaction	*Attitudes towards supervisors*
Variable Type	**Item No.**
Dependent	*9*

Question: I feel free to talk openly and honestly to my immediate or superiors

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	23	6.1	6.1	6.8
3	23	6.1	6.1	12.9
4	208	54.7	54.7	67.6
5	123	32.4	32.4	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.12	.828	.685	1	5

Table C.33: Statistics: Job Satisfaction – Item No. 10

Variable Name	Dimension
Job Satisfaction	*Relations with co-workers*
Variable Type	**Item No.**
Dependent	*10*

Question: I am satisfied with how members of my work group solve problems

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	11	2.9	2.9	3.7
3	49	12.9	12.9	16.6
4	203	53.4	53.4	70.0
5	114	30.0	30.0	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.09	.781	.609	1	5

Table C. 34: Statistics: Job Satisfaction – Item No. 11

Variable Name	Dimension
Job Satisfaction	*Relations with co-workers*
Variable Type	**Item No.**
Dependent	*11*

Question: My work group works well together

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	1	.3	.3	.8
3	38	10.0	10.0	10.8
4	156	41.1	41.1	51.8
5	183	48.2	48.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.36	.715	.511	1	5

Table C.35: Statistics: Job Satisfaction – Item No. 12

Variable Name	Dimension
Job Satisfaction	*Relations with co-workers*
Variable Type	**Item No.**
Dependent	*12*

Question: I feel free to talk openly and honestly with members of my work group

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	24	6.3	6.3	6.8
3	29	7.6	7.6	14.5
4	157	41.3	41.3	55.8
5	168	44.2	44.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.22	.878	.770	1	5

Table C.36: Statistics: Job Satisfaction – Item No. 13

Variable Name	Dimension
Job Satisfaction	*Promotion opportunities*
Variable Type	**Item No.**
Dependent	*13*

Question: I was given enough feedback on my performance

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	15	3.9	3.9	4.5
3	34	8.9	8.9	13.4
4	220	57.9	57.9	71.3
5	109	28.7	28.7	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.10	.757	.573	1	5

Table C.37: Statistics: Job Satisfaction – Item No. 14

Variable Name	Dimension
Job Satisfaction	*Promotion opportunities*
Variable Type	**Item No.**
Dependent	*14*

Question: Promotion goes to those who most deserve it

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	15	3.9	3.9	4.7
3	56	14.7	14.7	19.5
4	197	51.8	51.8	71.3
5	109	28.7	28.7	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.04	.815	.664	1	5

Table C.38: Statistics: Job Satisfaction – Item No. 15

Variable Name	Dimension
Job Satisfaction	*Stress related to job*
Variable Type	**Item No.**
Dependent	*15*

Question: I always find myself worrying over something at work

	Frequency	Percent	Valid Percent	Cumulative Percent
1	44	11.6	11.6	11.6
2	131	34.5	34.5	46.1
3	140	36.8	36.8	82.9
4	48	12.6	12.6	95.5
5	17	4.5	4.5	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
2.64	.993	.986	1	5

Table C.39: Statistics: Job Satisfaction – Item No. 16

Variable Name	Dimension
Job Satisfaction	*Stress related to job*
Variable Type	**Item No.**
Dependent	*16*

Question: I feel totally burned out by the end of the day at work

	Frequency	Percent	Valid Percent	Cumulative Percent
1	64	16.8	16.8	16.8
2	167	43.9	43.9	60.8
3	79	20.8	20.8	81.6
4	65	17.1	17.1	98.7
5	5	1.3	1.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
2.42	1.002	1.004	1	5

Table C.40: Statistics: Employee Empowerment – Item No. 1

Variable Name	Dimension
Employee Empowerment	*Meaning*
Variable Type	**Item No.**
Moderating	*1*

Question: The work I do is very important to me

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.3	.3	.3
2	3	.8	.8	1.1
3	7	1.8	1.8	2.9
4	160	42.1	42.1	45.0
5	209	55.0	55.0	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.51	.606	.367	1	5

Table C.41: Statistics: Employee Empowerment – Item No. 2

Variable Name	Dimension
Employee Empowerment	*Meaning*
Variable Type	**Item No.**
Moderating	*2*

Question: My job activities are personally meaningful to me

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	4	1.1	1.1	1.6
3	5	1.3	1.3	2.9
4	161	42.4	42.4	45.3
5	208	54.7	54.7	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.50	.635	.404	1	5

Table C.42: Statistics: Employee Empowerment – Item No. 3

Variable Name	Dimension
Employee Empowerment	*Meaning*
Variable Type	**Item No.**
Moderating	*3*

Question: The work I do is meaningful to me

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	3	.8	.8	1.6
3	10	2.6	2.6	4.2
4	183	48.2	48.2	52.4
5	181	47.6	47.6	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.41	.662	.438	1	5

Table C.43: Statistics: Employee Empowerment – Item No. 4

Variable Name	Dimension
Employee Empowerment	*Perceived competence*
Variable Type	**Item No.**
Moderating	*4*

Question: I am confident about my ability to do my job

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.3	.3	.3
2	2	.5	.5	.8
3	4	1.1	1.1	1.8
4	158	41.6	41.6	43.4
5	215	56.6	56.6	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.54	.578	.334	1	5

Table C.44: Statistics: Employee Empowerment – Item No. 5

Variable Name		Dimension		
Employee Empowerment		*Perceived competence*		
Variable Type		**Item No.**		
Moderating		*5*		
Question: I am self-assured about my capabilities to perform my work activities				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
1	1	.3	.3	.3
2	3	.8	.8	1.1
3	1	.3	.3	1.3
4	218	57.4	57.4	58.7
5	157	41.3	41.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.39	.568	.322	1	5

Table C.45: Statistics: Employee Empowerment – Item No. 6

Variable Name		Dimension		
Employee Empowerment		*Perceived competence*		
Variable Type		**Item No.**		
Moderating		*6*		
Question: I have mastered the skills necessary for my job				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
1	4	1.1	1.1	1.1
2	2	.5	.5	1.6
3	33	8.7	8.7	10.3
4	184	48.4	48.4	58.7
5	157	41.3	41.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.28	.732	.536	1	5

Table C.46: Statistics: Employee Empowerment – Item No. 7

Variable Name	Dimension
Employee Empowerment	*Self-determination*
Variable Type	**Item No.**
Moderating	*7*

Question: I have significant autonomy in determining how I do my job

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.3	.3	.3
2	5	1.3	1.3	1.6
3	8	2.1	2.1	3.7
4	196	51.6	51.6	55.3
5	170	44.7	44.7	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.39	.626	.392	1	5

Table C.47: Statistics: Employee Empowerment – Item No. 8

Variable Name	Dimension
Employee Empowerment	*Self-determination*
Variable Type	**Item No.**
Moderating	*8*

Question: I can decide on my own how to go about doing my work

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.3	.3	.3
2	11	2.9	2.9	3.2
3	13	3.4	3.4	6.6
4	168	44.2	44.2	50.8
5	187	49.2	49.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.39	.717	.513	1	5

Table C.48: Statistics: Employee Empowerment – Item No. 9

Variable Name	Dimension
Employee Empowerment	*Self-determination*
Variable Type	**Item No.**
Moderating	*9*

Question: I have considerable opportunity for independence and freedom in doing my job

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	10	2.6	2.6	3.2
3	13	3.4	3.4	6.6
4	219	57.6	57.6	64.2
5	136	35.8	35.8	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.26	.693	.481	1	5

Table C.49: Statistics: Employee Empowerment – Item No. 10

Variable Name	Dimension
Employee Empowerment	*Impact*
Variable Type	**Item No.**
Moderating	*10*

Question: I don't have any obstacles to do my job while employer is making changes on working background

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	36	9.5	9.5	10.0
3	101	26.6	26.6	36.6
4	186	48.9	48.9	85.5
5	55	14.5	14.5	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.67	.856	.732	1	5

Table C.50: Statistics: Employee Empowerment – Item No. 11

Variable Name	Dimension
Employee Empowerment	*Impact*
Variable Type	**Item No.**
Moderating	*11*

Question: I have a great deal to control over what happens in my organization

	Frequency	Percent	Valid Percent	Cumulative Percent
1	35	9.2	9.2	9.2
2	171	45.0	45.0	54.2
3	131	34.5	34.5	88.7
4	41	10.8	10.8	99.5
5	2	.5	.5	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
2.48	.827	.683	1	5

Table C.51: Statistics: Employee Empowerment – Item No. 12

Variable Name	Dimension
Employee Empowerment	*Impact*
Variable Type	**Item No.**
Moderating	*12*

Question: I have significant influence over what happens in my organization

	Frequency	Percent	Valid Percent	Cumulative Percent
1	44	11.6	11.6	11.6
2	172	45.3	45.3	56.8
3	100	26.3	26.3	83.2
4	63	16.6	16.6	99.7
5	1	.3	.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
2.49	.912	.831	1	5

Table C.52: Statistics: Organizational Climate – Item No. 1

Variable Name	Dimension
Organizational Climate	*Organizational Structure*
Variable Type	**Item No.**
Moderating	*1*

Question: My company takes care of the employees

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	5	1.3	1.3	1.8
3	52	13.7	13.7	15.5
4	203	53.4	53.4	68.9
5	118	31.1	31.1	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.13	.729	.531	1	5

Table C.53: Statistics: Organizational Climate – Item No. 2

Variable Name	Dimension
Organizational Climate	*Organizational Structure*
Variable Type	**Item No.**
Moderating	*2*

Question: My employer clearly defines jobs and business procedures related to the work

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	5	1.3	1.3	1.8
3	19	5.0	5.0	6.8
4	244	64.2	64.2	71.1
5	110	28.9	28.9	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.20	.634	.402	1	5

Table C.54: Statistics: Organizational Climate – Item No. 3

Variable Name	Dimension
Organizational Climate	*Organizational Structure*
Variable Type	**Item No.**
Moderating	*3*

Question: My employer clearly defines the organizational hierarchy

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	6	1.6	1.6	2.1
3	30	7.9	7.9	10.0
4	257	67.6	67.6	77.6
5	85	22.4	22.4	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.10	.636	.405	1	5

Table C.55: Statistics: Organizational Climate – Item No. 4

Variable Name	Dimension
Organizational Climate	*Responsibility*
Variable Type	**Item No.**
Moderating	*4*

Question: My roles and responsibilities are clearly defined by the organization

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.3	.3	.3
2	13	3.4	3.4	3.7
3	44	11.6	11.6	15.3
4	226	59.5	59.5	74.7
5	96	25.3	25.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.06	.726	.527	1	5

Table C.56: Statistics: Organizational Climate – Item No. 5

Variable Name			Dimension	
Organizational Climate			*Responsibility*	
Variable Type			**Item No.**	
Moderating			*5*	
Question: My project related responsibilities are changing from time to time based on the project requirements				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
1	2	.5	.5	.5
2	12	3.2	3.2	3.7
3	20	5.3	5.3	8.9
4	202	53.2	53.2	62.1
5	144	37.9	37.9	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.25	.739	.546	1	5

Table C.57: Statistics: Organizational Climate – Item No. 6

Variable Name			Dimension	
Organizational Climate			*Rewards*	
Variable Type			**Item No.**	
Moderating			*6*	
Question: I am satisfied with the current benefits provided by my organization				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
1	7	1.8	1.8	1.8
2	60	15.8	15.8	17.6
3	93	24.5	24.5	42.1
4	167	43.9	43.9	86.1
5	53	13.9	13.9	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.52	.978	.957	1	5

Table C.56: Statistics: Organizational Climate – Item No. 5

Variable Name	Dimension
Organizational Climate	*Responsibility*
Variable Type	**Item No.**
Moderating	*5*

Question: My project related responsibilities are changing from time to time based on the project requirements

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	12	3.2	3.2	3.7
3	20	5.3	5.3	8.9
4	202	53.2	53.2	62.1
5	144	37.9	37.9	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.25	.739	.546	1	5

Table C.57: Statistics: Organizational Climate – Item No. 6

Variable Name	Dimension
Organizational Climate	*Rewards*
Variable Type	**Item No.**
Moderating	*6*

Question: I am satisfied with the current benefits provided by my organization

	Frequency	Percent	Valid Percent	Cumulative Percent
1	7	1.8	1.8	1.8
2	60	15.8	15.8	17.6
3	93	24.5	24.5	42.1
4	167	43.9	43.9	86.1
5	53	13.9	13.9	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.52	.978	.957	1	5

Table C.58: Statistics: Organizational Climate – Item No. 7

Variable Name	Dimension
Organizational Climate	*Rewards*
Variable Type	**Item No.**
Moderating	*7*

Question: Rewards (bonus, increments etc) are in proportion with job performance

	Frequency	Percent	Valid Percent	Cumulative Percent
1	22	5.8	5.8	5.8
2	50	13.2	13.2	18.9
3	43	11.3	11.3	30.3
4	192	50.5	50.5	80.8
5	73	19.2	19.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.64	1.108	1.228	1	5

Table C.59: Statistics: Organizational Climate – Item No. 8

Variable Name	Dimension
Organizational Climate	*Rewards*
Variable Type	**Item No.**
Moderating	*8*

Question: Promotions at my company are handled fairly

	Frequency	Percent	Valid Percent	Cumulative Percent
1	10	2.6	2.6	2.6
2	59	15.5	15.5	18.2
3	63	16.6	16.6	34.7
4	205	53.9	53.9	88.7
5	43	11.3	11.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.56	.972	.944	1	5

Table C.60: Statistics: Organizational Climate – Item No. 9

Variable Name	Dimension
Organizational Climate	*Risk*
Variable Type	**Item No.**
Moderating	*9*

Question: My company is encouraging to take the risk

	Frequency	Percent	Valid Percent	Cumulative Percent
1	16	4.2	4.2	4.2
2	92	24.2	24.2	28.4
3	113	29.7	29.7	58.2
4	148	38.9	38.9	97.1
5	11	2.9	2.9	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.12	.951	.904	1	5

Table C.61: Statistics: Organizational Climate – Item No. 10

Variable Name	Dimension
Organizational Climate	*Risk*
Variable Type	**Item No.**
Moderating	*10*

Question: I have freedom to practice new technologies for project related work

	Frequency	Percent	Valid Percent	Cumulative Percent
1	14	3.7	3.7	3.7
2	71	18.7	18.7	22.4
3	125	32.9	32.9	55.3
4	159	41.8	41.8	97.1
5	11	2.9	2.9	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.22	.908	.824	1	5

Table C.62: Statistics: Organizational Climate – Item No. 11

Variable Name	Dimension
Organizational Climate	*Warmth*
Variable Type	**Item No.**
Moderating	*11*

Question: My company takes care of the employees who work for it

	Frequency	Percent	Valid Percent	Cumulative Percent
1	13	3.4	3.4	3.4
2	4	1.1	1.1	4.5
3	61	16.1	16.1	20.5
4	228	60.0	60.0	80.5
5	74	19.5	19.5	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.91	.836	.699	1	5

Table C.63: Statistics: Organizational Climate – Item No. 12

Variable Name	Dimension
Organizational Climate	*Support*
Variable Type	**Item No.**
Moderating	*12*

Question: I am getting assistance from top management

	Frequency	Percent	Valid Percent	Cumulative Percent
1	4	1.1	1.1	1.1
2	15	3.9	3.9	5.0
3	64	16.8	16.8	21.8
4	234	61.6	61.6	83.4
5	63	16.6	16.6	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.89	.759	.576	1	5

Table C.64: Statistics: Organizational Climate – Item No. 13

Variable Name	Dimension
Organizational Climate	*Support*
Variable Type	**Item No.**
Moderating	*13*

Question: My organization always promotes peer support

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	2	.5	.5	1.3
3	110	28.9	28.9	30.3
4	180	47.4	47.4	77.6
5	85	22.4	22.4	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.90	.773	.597	1	5

Table C.65: Statistics: Organizational Climate – Item No. 14

Variable Name	Dimension
Organizational Climate	*Support*
Variable Type	**Item No.**
Moderating	*14*

Question: My leader is aware of and responsive to the needs of his subordinates

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	2	.5	.5	1.1
3	58	15.3	15.3	16.3
4	245	64.5	64.5	80.8
5	73	19.2	19.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.01	.643	.414	1	5

Table C.66: Statistics: Organizational Climate – Item No. 15

Variable Name	Dimension
Organizational Climate	*Standards*
Variable Type	**Item No.**
Moderating	*15*

Question: My company is following an efficient work processes to operate our day to day job functionalities

	Frequency	Percent	Valid Percent	Cumulative Percent
1	7	1.8	1.8	1.8
2	59	15.5	15.5	17.4
3	62	16.3	16.3	33.7
4	209	55.0	55.0	88.7
5	43	11.3	11.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.58	.945	.893	1	5

Table C.67: Statistics: Organizational Climate – Item No. 16

Variable Name	Dimension
Organizational Climate	*Standards*
Variable Type	**Item No.**
Moderating	*16*

Question: I am clear on how best to perform my work tasks

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	19	5.0	5.0	5.5
3	25	6.6	6.6	12.1
4	219	57.6	57.6	69.7
5	115	30.3	30.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.12	.776	.603	1	5

Table C.68: Statistics: Organizational Climate – Item No. 17

Variable Name	Dimension
Organizational Climate	*Standards*
Variable Type	**Item No.**
Moderating	*17*

Question: My company standards are guiding me to work quality and accuracy

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	12	3.2	3.2	3.7
3	73	19.2	19.2	22.9
4	173	45.5	45.5	68.4
5	120	31.6	31.6	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.04	.825	.681	1	5

Table C.69: Statistics: Organizational Climate – Item No. 18

Variable Name	Dimension
Organizational Climate	*Conflicts*
Variable Type	**Item No.**
Moderating	*18*

Question: Sometimes I feel pressured in facing conflicting situations

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	89	23.4	23.4	24.2
3	119	31.3	31.3	55.5
4	123	32.4	32.4	87.9
5	46	12.1	12.1	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.23	.988	.977	1	5

Table C.70: Statistics: Organizational Climate – Item No. 19

Variable Name	Dimension
Organizational Climate	*Conflicts*
Variable Type	**Item No.**
Moderating	*19*

Question: Employees of my organization always have criticism, no matter what is done

	Frequency	Percent	Valid Percent	Cumulative Percent
1	13	3.4	3.4	3.4
2	139	36.6	36.6	40.0
3	141	37.1	37.1	77.1
4	71	18.7	18.7	95.8
5	16	4.2	4.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
2.84	.913	.833	1	5

Table C.71: Statistics: Organizational Climate – Item No. 20

Variable Name	Dimension
Organizational Climate	*Identity*
Variable Type	**Item No.**
Moderating	*20*

Question: I have the authority to do my job to the best of my abilities

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	10	2.6	2.6	3.2
3	19	5.0	5.0	8.2
4	179	47.1	47.1	55.3
5	170	44.7	44.7	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.33	.737	.543	1	5

Table C.72: Statistics: Organizational Culture – Item No. 1

Variable Name	Dimension
Organizational Culture	*Innovative Culture*
Variable Type	**Item No.**
Moderating	*1*

Question: My company is dynamic and entrepreneurial. Therefore I am willing to take risks on behalf of company

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	21	5.5	5.5	6.3
3	16	4.2	4.2	10.5
4	81	21.3	21.3	31.8
5	259	68.2	68.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.51	.873	.763	1	5

Table C.73: Statistics: Organizational Culture – Item No. 2

Variable Name	Dimension
Organizational Culture	*Innovative Culture*
Variable Type	**Item No.**
Moderating	*2*

Question: There is an opportunity to meet new challenges, because of my organization like to growth and acquiring new resources

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	5	1.3	1.3	2.1
3	40	10.5	10.5	12.6
4	89	23.4	23.4	36.1
5	243	63.9	63.9	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.48	.797	.636	1	5

Table C.74: Statistics: Organizational Culture – Item No. 3

Variable Name	Dimension
Organizational Culture	*Innovative Culture*
Variable Type	**Item No.**
Moderating	*3*

Question: My company is committed towards innovation and development. So, there is an emphasis on being first

	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	.5	.5	.5
2	3	.8	.8	1.3
3	53	13.9	13.9	15.3
4	116	30.5	30.5	45.8
5	206	54.2	54.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.37	.790	.624	1	5

Table C.75: Statistics: Organizational Culture – Item No. 4

Variable Name	Dimension
Organizational Culture	*Supportive Culture*
Variable Type	**Item No.**
Moderating	*4*

Question: I feel like my company is like another family to me

	Frequency	Percent	Valid Percent	Cumulative Percent
1	5	1.3	1.3	1.3
2	21	5.5	5.5	6.8
3	79	20.8	20.8	27.6
4	213	56.1	56.1	83.7
5	62	16.3	16.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.81	.821	.674	1	5

Table C.76: Statistics: Organizational Culture – Item No. 5

Variable Name	Dimension
Organizational Culture	*Supportive Culture*
Variable Type	**Item No.**
Moderating	*5*

Question: High cohesion and morale in the company are important for employees

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	7	1.8	1.8	2.6
3	35	9.2	9.2	11.8
4	160	42.1	42.1	53.9
5	175	46.1	46.1	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.31	.777	.604	1	5

Table C.77: Statistics: Organizational Culture – Item No. 6

Variable Name	Dimension
Organizational Culture	*Supportive Culture*
Variable Type	**Item No.**
Moderating	*6*

Question: Employees have a good balance between work and personal life

	Frequency	Percent	Valid Percent	Cumulative Percent
1	7	1.8	1.8	1.8
2	10	2.6	2.6	4.5
3	31	8.2	8.2	12.6
4	164	43.2	43.2	55.8
5	168	44.2	44.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.25	.856	.733	1	5

Table C.78: Statistics: Organizational Culture – Item No. 7

Variable Name	Dimension
Organizational Culture	*Bureaucratic Culture*
Variable Type	**Item No.**
Moderating	*7*

Question: My company is very formalized and structured, and the established procedures generally govern what employees do

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	48	12.6	12.6	13.4
3	106	27.9	27.9	41.3
4	180	47.4	47.4	88.7
5	43	11.3	11.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.56	.880	.775	1	5

Table C.79: Statistics: Organizational Culture – Item No. 8

Variable Name	Dimension
Organizational Culture	*Bureaucratic Culture*
Variable Type	**Item No.**
Moderating	*8*

Question: Formal rules and policies are maintained to run the company smoothly

	Frequency	Percent	Valid Percent	Cumulative Percent
1	4	1.1	1.1	1.1
2	29	7.6	7.6	8.7
3	77	20.3	20.3	28.9
4	173	45.5	45.5	74.5
5	97	25.5	25.5	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
3.87	.918	.843	1	5

Table C.80: Statistics: Past Experience – Item No. 1

Variable Name	Dimension
Past Experience	*N/A*
Variable Type	**Item No.**
Moderating	*1*

Question: In the past I have felt that certain non-work related websites that I have accessed were blocked by my employer

	Frequency	Percent	Valid Percent	Cumulative Percent
1	3	.8	.8	.8
2	21	5.5	5.5	6.3
3	31	8.2	8.2	14.5
4	77	20.3	20.3	34.7
5	248	65.3	65.3	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.44	.915	.838	1	5

Table C.81: Statistics: Past Experience – Item No. 2

Variable Name	Dimension
Past Experience	*N/A*
Variable Type	**Item No.**
Moderating	*2*

Question: In the past my company has terminated few employees because of electronic monitoring

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.3	.3	.3
2	14	3.7	3.7	3.9
3	20	5.3	5.3	9.2
4	124	32.6	32.6	41.8
5	221	58.2	58.2	100.0
Total	380	100.0	100.0	
Mean	**Std. Deviation**	**Variance**	**Minimum**	**Maximum**
4.45	.779	.607	1	5