WORK SPECIFIC LOCUS OF CONTROL AS A MODERATOR OF THE RELATIONSHIP BETWEEN ORGANIZATIONAL STRESSORS AND JOB RELATED WELL BEING

RESEARCH 1

BY

KANU PRIYA MOHAN

Presented in partial fulfilment of the requirements for the Doctor of Philosophy Degree in Applied Behavioral Science Research, at Srinakharinwirot University.

October 2004.

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AN ABSTRACT

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The purpose of this study was to examine the job related well- being of managers in the telecom sector in relation to some situational variables, which have been identified as “organizational stressors” in the work environment. The personality variable of work locus of control was hypothesized as a potential moderator of the relationship between the job related well- being and the organizational stressors.

Seventy-eight managerial level employees completed a survey assessing the aforementioned variables. The study sample included managers working in the telecom sector in Bangkok, Thailand, consisting of both the private sector (n=34, 43.6%) and the government sector (n=44, 56.4%).

The instruments included the measurement of organizational stressors by the three scales - Interpersonal Conflict at Work Scale, Organizational Constraints Scale and Quantitative Workload Inventory (Spector and Jex, 1998); measurement of the affective aspect of job well-being by the Job–related Affective Well-Being Scale (Van Katwyk, Fox, Spector,& Kelloway,2000); and assessment of the employee control beliefs at work in general by the Work Locus of Control Scale (Spector, 1988). The instruments were analyzed for item discrimination. Items with low correlation were deleted using the item total correlation and the scales were modified accordingly to give high consistency of measurement.

First the relationship between the independent variables (the three organizational stressors) and the outcome variable of Job Related Affective Well-Being was investigated. As predicted the results show that the Job Related Affective Well Being has a significant negative correlation ($r=-.230$, $p<.05$) with the variable of Organizational Constraints (OCS), a significant negative correlation ($r=-.215$, $p<.05$) with the Interpersonal Conflict At Work (ICAW), but a significant positive correlation ($r=.286$, $p<.01$) with the third organizational stressor, the Quantitative Workload (QWI).

The research study also examined the relationship of the three independent variables and the outcome variable with the moderator variable of Work Specific Locus of

Control (WLOC). It was found that an external WLOC has a significant positive correlation with Interpersonal Conflict At Work (ICAW) ($r=.263$, $p<.01$), a significant positive correlation with Organizational Constraints (OCS) ($r=.128$, $p<.05$), but a significant negative correlation ($r=-.097$, $p<.05$) with Quantitative Workload (QWI). Finally, an external orientation of WLOC has a statistically significant negative correlation ($r=-.218$, $p<.05$) with the dependent variable of Job Related Affective Well Being.

The relationship among the three independent variables- the organizational stressors (ICAW. OCS, QWI) was also studied. The variable of Interpersonal conflict at work (ICAW) has positive correlation with the other two stressors- a statistically significant correlation ($r=.349$, $p<.01$) with the variable of Organizational constraints (OCS), and a positive correlation ($r=.085$, $p<.05$) with the variable of Quantitative workload. The variable of Organizational constraints (OCS) has a statistically significant positive correlation ($r=.225$, $p<.05$) with Quantitative workload. Thus, all the independent variables labeled as the organizational stressors are positively inter-correlated.

Also no statistically significant moderator effect was found by the regression analysis of Work Specific Locus of Control as the moderator of the relationship between the organizational stressors and the job related well- being.

On the basis of these results it can be concluded that for the chosen sample, the affective response at work- “job related well-being” is negatively correlated with the “organizational stressors”. Also that the external “work locus of control” has a negative correlation with “job related well-being” and a positive correlation with some of the “organizational stressors” selected for the study. Results showed that the variable of “work locus of control” does not moderate the relationship between the organizational stressors and the job related well- being. We can further sum up from the results and review of literature that work related well being is a function of both the individual and the work environment. There needs to be extensive research work done before generalizing conclusions drawn from a sample, But the findings of the above research study may be stepping stones towards building a bigger model of well being at work in a specific work environment.

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KANU PRIYA MOHAN

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(Kanu Priya Mohan)

Submitted to the Program Administration Committee (Ph.D. by Research) in partial fulfilment of the requirements for the Doctor of Philosophy Degree in Applied Behavioral Science Research, at Srinakharinwirot University.

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KANU PRIYA MOHAN

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CHAPTER 1

INTRODUCTION

THE RATIONALE

To keep pace with the rapid changes at the workplace there are increasing demands on the organizations and the workers. A well-adjusted employee can feel a sense of satisfaction and accomplishment from his workplace. But the work itself and also the work environment can at times place a great deal of burden on him. This may lead to certain negative physiological and psychological reactions to these events and are called “work stress”. These negative reactions influence not only the worker but also the organization. This job related stress is one of the highest health risks influencing employees, regardless of the size of the organization or the work sector. Hence the area of organizational health and worker well-being is of increasing interest in our society and also the researchers considering the wide spread occurrence of stressful events at work and the “cost” of the outcomes.

To view from a broader perspective, when there is an interaction between a person and his environment it has an outcome, which can be either positive or negative. So when the “employee” interacts with his “work environment” there would be two outcomes for both:

1. A “fit” between the two will lead to positive outcomes, like satisfaction, etc.
2. A “misfit” between the two will result in negative outcomes like strain or stress.

The current study was framed keeping in view the above-mentioned theory. In our framework, the “environment “ constructs are the “work stressors”, and the “person” construct is the “locus of control”, with an attempt to understand their impact on the positive outcome of job related well-being.

An important perspective of research (Warr, 1999) shows that people’s feelings about their work are a function of both work and their own personality. One important positive affective outcome of work is “well-being” at work. Work literature reveals several factors, which can influence the job related well-being. However, the researchers are urged to re-examine the role of affective reactions in the workplace by using new and innovative methods, rather than using surrogate measures of well-being like job satisfaction *(*Wright & Doherty, 1998*)*.

The individual variable of “locus of control” has also been studied extensively in the work domain and findings indicate its importance in organizational research and theory. The construct of “work locus of control” has been proposed due to the construct being domain specific.

There are some reasons guiding the choice of work specific locus of control in relation to organizational stressors and job well-being in the current study. **Firstly**, it has proved to be an important moderator between work characteristics and work behavior (Spector, 1982). **Secondly**, individual variable can be used to promote the “self” or the individual as the agent of change in stressful work organizations. **Thirdly**, studies show that control beliefs contribute to well-being at work (Spector, Cooper, Sanchez, et.al., 2002). **Finally**, from the perspective of applied behavioral science research, this construct may be useful as a selection device for many specific jobs and settings.

Hence, this research purported to understand the relationship between work and its outcome, taking into consideration the individual at work. In specific terms, the research was aimed to study the relationship between the “organizational stressors” and the affective work outcome of “job related well being”. It also endeavors to understand how the domain specific variable of “work locus of control” can influence the relationship between the above variables.

RESEARCH OBJECTIVES OF THE STUDY

The study aimed to understand the following concepts and relationships by the means of survey research:

1. To study the relationship between the specific organizational stressors and the job related affective well being.
2. To examine how work-specific locus of control relates to the organizational stressors and to the job related affective well-being.
3. To test for the “moderator effect” of work locus of control on the relationship between the organizational stressors and the job related affective well-being.

SIGNIFICANCE OF THE STUDY

The researcher aimed to contribute towards “applied” aspect of organizational health by:

1. Applying the knowledge that accrues from research in enhancing quality of work place by facilitating worker well being.
2. Applying the findings of my study to explain how some variables can moderate the relationships between work conditions and the work outcomes.
3. Evolving some recommendations such as using “work locus of control” as a variable in worker selection so as to elevate job related well being.

SCOPE AND DELIMITATION OF THE STUDY

Population and Sample

The population chosen for the study was managers working in organizations in the telecommunication sector in Bangkok, Thailand. The sample consisted of both males and females, working at the managerial level in some of these firms in the telecom sector. These firms represented both the public sector (n=1) and private sector (n=5) in the field of telecom.

Variables In The Study

This project aimed to study the relationship between the following variables:

INDEPENDENT VARIABLES

Organizational Stressors (Quantitative workload, interpersonal conflicts, and organizational constraints.)

DEPENDENT VARIABLE

Job Related Affective Well Being. The well-being can also be expressed in terms of positive and negative emotions.

MODERATOR VARIABLE

Work Specific “Locus Of Control”. Its two dimensions are: Internal and External

DEFINITION OF THE CONSTRUCTS

The definitions of the important variables in the research study are:

Organizational Stressor

Since the construct of stress is very complex, there are many views to define organizational stress too. Taking the transactional viewpoint, organizational stressor is a work demand that exceed the worker's coping ability. In an organization, the necessary characteristic for any organizational demand, constraint or event to be regarded as a "stressor", is in its ability to produce stress reactions in the individuals working there.

The three organizational stressors chosen for the study were Interpersonal Conflict at Work, the Organizational Constraints and the Quantitative Workload. Interpersonal Conflict refers to the stress at work that results from problems in interactions with others. The Organizational Constraints refer to the stress due to the situations or things that interfere with task performance at work. The Quantitative Workload implies the stress due to extreme demand and work overload.

Job Related Affective Well Being

The concept of job related affective well being refers to an "emotional" state of wellness that is related to the work place. The overall concept of "well-being" refers to a state of physical health and psychological wellness that allows for better functioning in a dynamic environment. When this is job specific or relates to the feelings a person has about his work, it is termed as job-related affective well being.

Work Specific "Locus Of Control"

The concept of "work locus of control" was developed to measure a person's generalized control belief in the organizational or work settings. The work related concept was initially developed by Spector, (1988), who showed that it is an important and useful personality construct for explaining behavior in the work settings. This belief in personal control is domain specific and may affect many work related factors such as job performance, satisfaction, turnover and leadership styles. It also has a strong correlation with the general construct of "locus of control", which implies the degree to which the individuals believe that they have control over the outcomes of their actions. This concept may be reflected in an individual's context-free behavior; or may be reflected in domain-specific, relating to the

individual's workplace, wherein it is called "work locus of control" and has been used in the research here.

HYPOTHESES

The following hypotheses were proposed for the research project:

1. The organizational stressors are negatively correlated with the Job Related Affective Well Being.

In other words, each of the three organizational stressors that are the Interpersonal Conflict at Work, the Organizational Constraints and the Quantitative Workload would be negatively correlated with the Job Related Affective Well Being.

2. The variable of work locus of control (the scale used in the study has higher scores depicting an external orientation) is negatively correlated with Job Related Affective Well Being, and positively correlated with each of the organizational stressors.

In other words, as the higher scores on the scale measuring work locus of control reflect an external orientation, the external work locus of control will correlate with lower scores on Job Related Affective Well Being and also a positive correlation with all the three organizational stressors.

3. The Work-Locus Of Control will moderate the relationship between each of the Organizational Stressors and the Job Related Affective Well-Being.

In other words, each of the Organizational Stressors (Interpersonal Conflict at Work, the Organizational Constraints and the Quantitative Workload) will be more strongly related to the Job Related Affective Well-Being (in a negative direction) among those reporting external work locus of control beliefs than those with internal work locus of control beliefs.

CHAPTER 2

REVIEW OF LITERATURE

The work scenario of today is very complex and ranges from high tech environments to working at home. It presents the worker with a wide range of challenges and uncertainties. The worker in the work domain may appraise the opportunities and events as “stressful”. In such a case there are negative outcomes for both the individual and the organization. On the other hand if there is congruence in what the individual wants and what the organization demands, there are positive outcomes for both.

This interesting interaction between the worker or the “person” and the organization or the “environment”, has both positive and negative outcomes. The person-environment mismatch may provoke stress and effect the job related well being. But there are other variables both in the organization and in the individual, which can influence the above interaction. For instance the person variable of locus of control can influence how the person appraises work stressors and also the outcomes. There may also be gender differences coming to play. It may be considered that these factors can be used to alleviate the negative outcomes.

The population focused for the study is the Thailand’s telecommunication sector. The review of this sector reveals that it is faced by rapid growth and along with it tremendous pressures since 2000. As the competition gets tough, both the private sector and also the public sector are facing many changes. The most significant change in the public telecom sector has been the movement to privatise the two state telecom agencies. The private sector too has undergone many structural changes to cope up with the challenges. These changes ultimately reflect on pressures for the employees working in this sector. If they are not able to cope with these pressures it results in “stress” and reduced job well-being. Which in turn affects not only the worker but also the organization.

Now, work and health are both related, but the association is very complex as it includes the wide spectra of employee and employment features which influence worker well-being. The following is an attempt to briefly understand the various concepts that had been selected in the research study along with the relevant theory and research evidence.

THE THEORY

The following is an attempt to understand the theoretical aspect of each variable in the study.

Job Related Affective Well Being

Well-being is a state of physical health and psychological wellness that allows for better functioning in a dynamic environment. As put forth by Blalock and Blalock (2002), this state implies the ability to balance personal and work life, and is associated with physical, psychological, social and spiritual health. Every person experiences this state of well-being in different ways, and each individual must uncover what optimises their ability to achieve this. The construct of job related well being implies a domain specific feeling of well being and perhaps we can best understand this by referring to some theoretical work on the original concept.

Emotional or “affective” well-being, like physical health, can be viewed along one dimension, from feeling bad to feeling good. Peter Warr (1990) and his co researchers present another view-a two-dimensional model best captures the range of affective responses of well-being. The two main dimensions of this model are – pleasure (content) and arousal (intensity). The horizontal axis-depicts content of feelings-that is feelings of pleasure, from high to low, and the vertical axis depicts the degree of arousal or activation the people experience.

This two dimensional model of well-being generates three measurement axes (Daniels and Guppy,1994 ; Lucas, Diener and Suh,1996).The three axes that can be used to research the effects of various job characteristics on the individual’s feelings are –

First axis: from displeasure to pleasure,

Second axis: from anxiety to comfort and

Third axis: from depression to enthusiasm.

A person may be characterized in terms of his location on each of the three axes, which are inter correlated because of the central importance of feelings of pleasure on the horizontal axis. Depicted in Figure 1 are all the three dimensions of well being that have been delineated by Warr (1990).

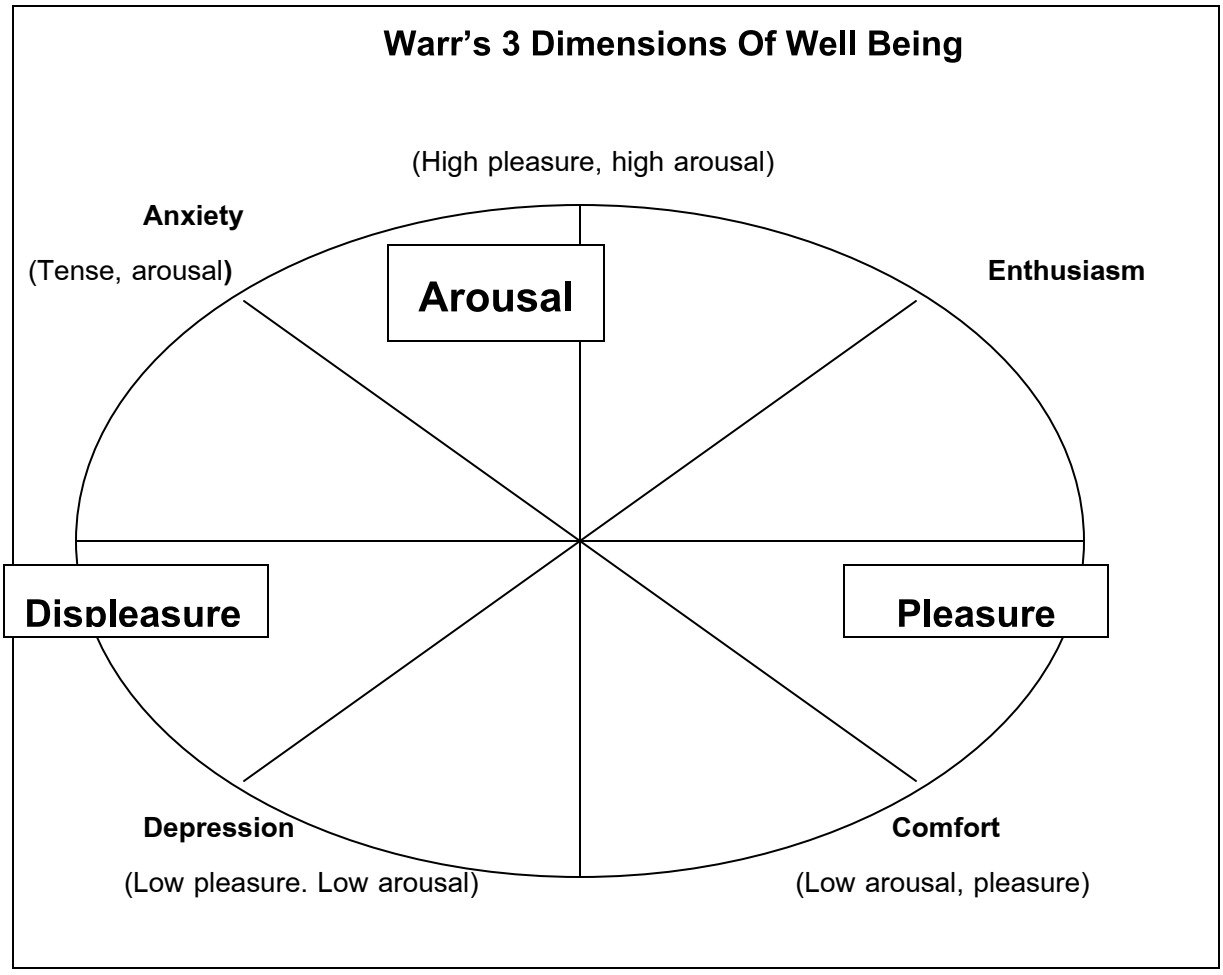

Figure1: The 3 Dimensions of Well Being

It is important to know that there can be a differentiation between the forms of "well being" (Warr,1999). There are two forms of well being -

1. Job related or job specific-which relates to the people's feelings about themselves in relation to their jobs.
2. Context free-which relates to a broader focus of the feelings that people have for life in general.

Further more, Warr (1999) expresses that a person's overall well-being has a strong impact on his job-specific well being and job well-being also affects general feelings.

According to Daniels and Guppy (1994) many variables have been hypothesized to impinge upon the relationship between occupational stress and well-being, both of a personal cognitive nature and of a social/organizational nature leading to a large and diverse literature.

Warr (1999), has identified ten key features that are associated with the different dimensions of employee well-being. His findings sum up that greater employee well being is significantly associated with better job performance, lower absenteeism, reduced probability of leaving an employer and the occurrence of more discretionary work behaviours (like organizational commitment).

Our research construct of job related affective well-being is built up on Warr's (1999) theory that the person's feelings about their work are a function of both the work and their own personality. So we investigated how the work related stressors and the personality variable of work locus of control would influence the job related affective well-being.

Organizational Stressors

An individual faces a plethora of demands, opportunities and challenges on an everyday basis both at the work place and life in general. Some of these demands or events produce a stress reaction for the individual. If the individual is working and is experiencing job stress, it also has serious results on his work behavior and hence the organization where he works.

We can try and understand stress as mental and physical reaction to a stressor; where the stressors can be objects, events, or situations in the physical or social environment that make demands on your mind and bodies. According to Schultz & Schultz (1998), stress involves physiological and psychological responses to excessive and usually unpleasant stimulation and to threatening events in the environment. In an organization, stress affects employees whatever may be their type or level or function, and thus affects the quality of not only their working life, but also personal life. There are many definitions to describe the complex construct of stress. But as summed up by Riggio (1996), most of these definitions view stress as an interaction between the person and some environmental event or "stressor".

The work stress affects all employees, though there might be individual differences in what is perceived as stressful, the stress reactions, as well as the coping behaviors. In a survey conducted in the U.S.A., 46% of the workers reported that they feel job is stressful. Many researches have found significant correlations between some stressors and some outcomes (Spector, Dwyer and Jex, 1988). These outcomes include affective reactions, somatic symptoms and disease.

There are several factors which make work stress an increasing problem, among them primary being:

1. There is a lot of change in the corporate world with many companies undergoing restructuring.
2. Increasing use of interpersonal skills at work with not adequate training to the workers.
3. Rapid advances in computer technology.
4. Changes in work demographics-like increasing number of women working.

There have been several attempts in research to understand and define work stress. According to Jex and Beehr (1991), job stress is a condition or situation at work that requires an adaptive response on the part of the employee. Parasaruman and Alutto (1984) have expressed that “job stressors” are defined as job demands, constraints, and or opportunities, and job related events or situations that might affect the individual’s feelings of stress. These situations are not and of themselves stressful, but, the appraisal by the individual and his assessments make them stressful.

Riggio (1996) goes on to broadly classify the sources of worker stress as arising from the environment or the individual:

Environment- causes the situational stress

Individual’s personal characteristics cause the dispositional stress.

The organizational sources of work stress or the “situational stressors” are caused by the work tasks and also the work roles. The work task stressors can be factors like work overload, underutilization of skills, physical work conditions and organizational change. The work role stressors can be factors such as job ambiguity, lack of control and interpersonal stress.

From the organizational perspective the direct and the indirect costs of occupational stress can be measured in both humanistic and financial terms. According to Cooper and Cartwright (1994), this means that financially healthy organizations are likely to be those which are successful in maintaining and retaining a workforce characterized by good physical, psychological, and mental health.

However, may we define or club the stressors at workplace, it is important to know that these affect both the worker and the organization. It is clearly important to bring the

diverse areas of research together, in order to make sense of the occupational stress literature. In our attempt we try to understand how the organizational stress is influenced by personality variable of work locus of control, and how the perception of the stressors ultimately influence the affective well-being of an employee.

Work-Specific Locus Of Control

Locus of control is defined as a generalized expectancy that rewards, reinforcements, or outcomes in life are controlled either by the individual's own actions or by other forces. Rotter (1966) introduced the concept of locus of control to represent the degree to which individuals believe they have control over the outcomes of their actions. Locus of control can be either internal or external. People rating high on internal control believe that they can influence the forces and events that shape their lives. People rating high on external control believe that their lives are determined by outside events and forces and other people.

This personality variable has been shown to relate to a number of organizationally relevant variables. Spector (1988) has developed a 16-item measure of generalized control beliefs in work setting, to measure what is called the Work Locus of Control. This is “job” specific measure of the overall concept of locus of control and is designed to assess control beliefs in the workplace. It is a domain specific locus of control scale that correlates about .50 to .55 with general locus of control. The author administered this 16-item scale to 1,151 college undergraduates, 41 department store sales and support employees, 101 mental health agency employees, 292 national convenience store employees, 160 mental health facility employees, and 496 municipal managers. The Work Locus of Control Scale correlated significantly with a number of organizational variables like job satisfaction, intention of quitting, perceived influence of work, role stress, and perceptions of supervisory style. Many of the relationships were considerably stronger than those found with the general locus of control scales (e.g., Rotter's Internal-External Locus of Control Scale).

So it was concluded that a scale measuring work-specific locus of control, might predict work behaviour more precisely than the existing scales which measure the general locus of control.

The Person-Environment Theory

The guiding framework behind the study was of the “person-environment” theory, which states that a “match” or congruence between the person and environment leads to positive outcomes (like well being, job satisfaction, etc.), and a “mismatch” between the two leads to negative outcomes (like stress, strains, burnout, etc). In the current framework, the “environment “ constructs were the “organizational stressors”, and the “person” construct was the “locus of control”. The researcher aimed to study the association between the two constructs, and how it would relate to the positive outcome of job related well being.

Just to understand this theory further we must take into perspective the work done in the area of person-environment. Researchers in the field of organizational behavior have long recognized the importance of both person and environment in understanding the nature and consequences of work behavior and outcomes. Some of the relevant constructs for each have been well researched. The person constructs can be type a behavior, locus of control, hardiness and coping styles. The environment constructs can be stressful life events, daily hassles, chronic stressors (e.g. role conflict) and job demands (e.g. workload).

Edwards, Caplan and Harrison (1998) express that this dual emphasis on the person and environment in stress research is characteristic of the interactive perspective in psychology, which indicates that behavior, attitudes, and well being are determined jointly by the person and environment. The core of this theory is not from the person or the environment, but rather the “fit” or the “mismatch” between the two.

Lofquist and Davis (1969) call this a Person-Environment interaction. This interaction between the individual and the work environment can either result in a positive or negative "fit". If the fit is poor (negative) the individual will experience a strain. Three major categories of strains have been identified in the literature: psychological and emotional strains, physical strains, and behavioral strains (Jex and Beehr 1991).

The current study was framed keeping in view the above-mentioned theory. In our framework, the “environment “ constructs were the “work stressors”, and the “person” construct was the “locus of control”. The researcher aimed to study what is the association between the two constructs, and how it would relate to the positive outcome of job related well being.

THE RESEARCH EVIDENCE

This research project aimed to synthesize the researches in the areas of the selected constructs of the study. The objectives and the hypotheses were framed to understand the complex relationships between organizational stressors, work locus of control, and psychological outcome of work- job related affective well being.

Job Related Affective Well Being

Further, the research reviewed indicates that greater employee well-being is significantly associated with better job performance, lower absenteeism, and reduced probability of turnover (Warr,1999).

In an attempt to measure the job-related affective well-being, Van Katwyk, Fox, Spector, & Kelloway (2000) have designed a scale to assess people's emotional reactions to their job. Each item is an emotion, and respondents are asked how often they have experienced each at work over the prior 30 days. This scale Job-related affective well being Scale (JAWS) includes a wide variety of emotional experiences, both negative and positive.

In a study by Spector, Cooper, et.al. (2002), data was collected from managers from 24 geopolitical entities on work locus of control, job satisfaction, psychological strain, physical strain and individualism/collectivism. The hypothesis that the salutary effects of perceived control on well-being are universal was supported because relations of work locus of control with well-being at work were similar in almost all the sampled areas. The individualism/collectivism level of each sample did not moderate the magnitude of correlations of work locus of control with measures of well-being. Findings indicated that control beliefs contribute to well-being universally, but it was suggested how that control is manifested can still differ.

In another study by Dobreva-Martinova, (2002) the occupational role stress in the Canadian Forces was researched and its association with individual and organizational well-being. This study examined occupational stress in the Canadian Forces within the framework of social role theory and its relation to service members' health, job satisfaction and organizational commitment but also how, work stress affects individual well-being and organizational effectiveness. Results indicated a negative association between occupational role stress and both individual and organizational well-being.

The researches in the area of worker health have measured job well-being through direct (scales) and indirect methods (for instance using job satisfaction as a measure of well-being). The measures of well-being include physical, affective and indirect attributes. The focus of the current research focused on just the affective aspect of well-being.

Organizational Stressors

There have been various research attempts to understand the effects of the work stressors on the individual and the organization. These attempt to understand the antecedents and consequences of stress, as well as those variables that might change the "stressor-outcome" relationship. These may be the mediators, or the moderators of stress, depending on their interaction with the stress variables. Some of these "stressors" have been researched and have been shown to interfere with the worker's output.

In the current research some of the stressors that have been chosen for study were the workload, interpersonal conflict and organizational constraints. The selection of these few organizational stressors was based on the preliminary interviews with the managers and the relative importance perceived of these among other stressors. We go on to present some research evidence for each of the chosen organizational stressor in the study.

Quantitative Workload:

Extreme demand and work overload can produce extensive strain (Caplan and Jones, 1975). This strain can be perceived both in qualitative as well as quantitative terms. According to Albrecht (1979), an overload means that the worker simply has been assigned unreasonable quantity or quality of tasks, which can lead to feelings of frustration and anxiety. But an "under load" can cause exactly the same feelings too. Thus where a large quantity of workload can interfere with an individual's job related well-being, an under load of work can too.

As reported by Riggio (1996), work-load is a common source of stress for jobs as diverse as clerical workers, air traffic controllers, and health care workers. In a survey of over 900 managers in England, Davidson and Cooper (1983) found that work overload was most frequently cited work pressure for both women and men.

In the current research the quantitative aspect of workload was chosen as one of the organizational stressors after preliminary interviews of managers.

Interpersonal Conflicts:

One of the greatest sources of stress at work results from problems in interactions with others. Research indicates that conflict within the work domain can be a powerful source of job stress (Greenhaus and Beutell.,1985). Unfortunately, at times interactions with others that also make work more stressful when they result in “interpersonal conflict” (Keenan and Newton, 1985). According to Jex (1998) several factors in the workplace may increase the probability of this interpersonal conflict.

The interpersonal conflict at work was selected as a variable for the research after its importance had been indicated by the preliminary study.

Organizational Constraints:

Then there are organizational constraints, the situations or things that interfere with task performance at work. Spector and Jex (1998) point that some kind of organizational constraints (like downsizing, cost cutting, budget cuts, etc) are very common in the workplace today. An initial survey of managers indicated the importance of the constraints in the organization that limited their own functioning.

There are many other stressors that influence the individual’s work behaviour. But the current focus is only on the chosen stressors. However it is clear that the relationship between the work stress and its outcome can be influenced by other factors both in the environment and also the individual. In an interesting research by Siu,O., Spector, P.E., Cooper, et al. (2002), on managerial stress in greater China, the direct and moderator effects of control coping, support coping, and work locus of control on some stressor-strain relationships were demonstrated in the studied samples. There have been other studies to show that the work stress outcomes can be mitigated by other variables. In a study on employees by Tudor (1997), significant relationships were found between work locus of control and all the work stressors and strains. The results indicated that self-beliefs are promising for dealing with the direct causes and not just the indirect symptoms of workplace stress perceptions.

With a brief look into the research findings about work stress, we go on to understand the personality variable of work locus of control and its research underpinnings.

Work-Specific Locus of Control

The personality of construct of locus of control has been researched extensively in relation to the work environment and some of the researches are mentioned here. Shcultz & Schultz (1998) express that the personality variable of internal versus external locus of control influences a person's reaction to stress. Muldary (1983) further defines that extreme internal or extreme external orientations may contribute to the amount of stress and individual experiences. A moderate set of beliefs with both external and internal loci of control enables individuals to differentiate between those stressors they can control and those they cannot.

In an interesting study by Spector, Cooper, et.al. (2002), it was found that the relations of work locus of control with well-being at work were similar in almost all of the 24 different geopolitical areas that were sampled. However, the manifestation of control was different. It was also found that the "work locus of control" correlated significantly higher than general locus of control, with other work behaviour like perceived role stress, job satisfaction and intention of quitting (Spector ,1988).

Various researches show the variable of work locus of control to relate to the organizational behaviors and work outcomes. Spector's (1986) meta-analytic study reported significant correlations between perceived control and both job stressors (role conflict and role ambiguity) and job strains (psychological, physical and behavioral manifestations). In another research, Parks (1984) also showed that locus of control influences relationships between job stressors and physical, psychological and behavioral outcomes. Blau (1993) tested the usefulness of work locus of control for explaining initiative vs. compliant performance, using a sample of 146 bank tellers. The work, locus of control showed a negative relationship to initiative performance and a positive relationship to compliant performance. However, these results were only found using Spector's (1989) work locus of control measure and not with Rotter's Internal-External Locus of Control Scale.

There have been many researches highlighting the differences in internal vs. external locus of control. A research by Hendrix (1989) has shown that employees with an internal locus of control reported lower levels of anxiety and stress at workplace. Not only this but locus of control is also related to coping behavior of the stressed out individual (Spector and Connell, 1994). Further more, there are differences in coping styles of "externals" and " internals" (Syrotnick and D'Arcy, 1982). Singh, S. and Sinha, A.K. (1986) conducted a studying India where 156 male supervisory public sector employees were administered

questionnaires, The results showed that high perception of time urgency and challenge in work were associated with high internal locus of control and with low interpersonal relationship, job-person fit, and organizational commitment.

Evidence suggests that locus of control influences affective responses to work demands. Not only that but locus of control actually can change the relationship between two or more variables by **mediating or moderating**. Now before we proceed, it is important to understand what is a moderator. According to Baron and Kenny (1986) a moderator variable is a qualitative (e.g. sex) or quantitative (e.g. level of reward) variable that effects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable. In their classic work in the research paper the authors have gone on to elucidate the nature of moderators and the various statistical techniques to measure the effect of moderation. For instance, they say that within a correlational analysis framework, a moderator is a third variable that affects the zero-order correlation between two other variables. In the more familiar analysis of variance (ANOVA) terms, a basic moderator effect can be represented as an interaction between a focal independent variable and a factor that specifies the appropriate conditions for its operation. Further, the authors describe moderated multiple regression (MMR) as a technique to estimate interaction effects. Using this multiple regression to estimate the effect of a moderator variable *Z* on the *X*-*Y* relationship involves a regression equation that includes *Y* as a criterion, and *X* and *Z* as predictors. In addition, the MMR equation includes a third predictor consisting of the *X*·*Z* product. This product term carries information regarding the *X* by *Z* interaction (i.e., moderating effect of *Z*). The authors also go on to differentiate between the “moderators” and “mediators” that influence relationships between variables.

For instance, locus of control has been found to moderate the impact of workload on work satisfaction (Perrewe, 1986). Whereas, Syrotnick and D’Arcy (1982) found evidence that internals and externals showed different patterns of responses to high work pressure. Daniels and Guppy (1994) reported their research findings that internal locus of control and social support, jointly buffer the effects of stressors on well-being.

The results of a study by Hsieh (1991) suggest that nurses with an internal locus of control tend to have lower levels of occupational stress, higher frequencies for using formal relaxation techniques, exercise and expression strategies to cope with stress, and lower levels of blood pressure than those with an external locus of control. Findings from the study

also indicate that the performance and the relationship subscales of locus of control can have significant moderating effects on the relationship between stress and cognitive coping. Furthermore, the locus of control was found to relate to the job level of the subjects.

The researches discussed above help us to understand that the area of self-beliefs like work specific locus of control is important for understanding the direct effects of workplace, like turnover and absenteeism, and also the indirect symptoms of workplace like the job related well-being.

Thailand's Telecom Sector

Before we proceed further, we also must take a look at Thailand's telecom sector- which had been chosen as the population of the research study. It is true that Thailand's telecom sector is growing rapidly. But along with it, a number of challenges are before it. Fast-changing technology, competitive prices, and the entry of new strong financial players have intensified the competition in Thailand's telecommunications market.

The growth in telecom sector has been phenomenal. For instance if we talk about the mobile market, it is a case in point. It recorded an annual growth in excess of 100% in 2002, the mobile penetration reached 30% in early 2003. Despite this growth it has been felt that Thailand is somewhat behind in implementing new technologies, even though the country has followed developed market trends on wireless technologies. Since 2002, several changes have been seen in Thailand's telecommunications industry, both in the private and public sectors, but some things are yet to change, such as the National Telecommunications Commission, long overdue, is no closer to reality. Whilst the country has been experiencing the benefits of its liberalised telecom market, there still remains much work to be done to secure the necessary regulatory reform. Though the government continues to talk positively, the delay in establishing the National Telecommunications Commission had become a major concern. This absence of a powerful, independent industry regulator, mandated in the 1997 constitution, has resulted in a policy vacuum at a time when the fast changing needs a clear sense of direction.

A report published by the U.S. Commercial Service, Thailand (2004) sums up the telecom scenario in Thailand. According to it until now, Thailand has been regulated and monitored by the Post and Telegraph Department (PTD), the Telephone Organization of Thailand (TOT) and the Communications Authority of Thailand (CAT), all under the administration of the Ministry of Information and Communications Technology (MICT). The

PTD is responsible for managing and approving the use of radio frequency and radio-communications equipment. The TOT and the CAT, both state-owned enterprises, are key licensors and providers of the telecommunications services. TOT is responsible for providing domestic and international telephone service to neighbouring countries with shared borders, leased circuits for domestic transmission of voice, data and television; and other value-added services such as cellular phone, paging and card phones. CAT is responsible for providing postal services, international telephone/fax services and leased circuits, some microwave radio networks in rural areas, and cellular phones.

The most significant change in the public telecom sector has been the movement to corporatize and to privatize the two state telecom agencies. The Telephone Organization of Thailand is well on its way, but the process of transforming the Communications Authority of Thailand has proved more difficult.

All the above factors of change have lead to an increasingly altering state of work for the telecom employees. Quoting TOT, Thailand in the Thailand Information Database of 2002, the total number of employees in this government organization was reported to be 25,364. In this large number of employees significant are the managers who are responsible for not only anticipating the changes but also structuring the required strategies. At this level of the organization they come under a lot of stress. For instance in the Bangkok Post, Year-End 2002 Economic Review it was reported that for the private sector, following the second half of 2002 it has been a busy time in the executive suites of many telecom companies, which have been moving younger people into key positions as competition intensifies. While the subscriber numbers soar, industry executives endure sleepless nights amid concerns that the market is reaching saturation.

Hence we can sum up that the telecommunications sector in Thailand is certainly undergoing a vast change and these changes place demands on their employees, which can influence their well-being at work.

The Managerial Level Employees

So we go on to understand why it is important to study managers as our sample. According to Albrecht (1997) executive health and well-being are among the most critical resources available to an organization. If they experience intolerable levels of stress, then their effectiveness of working gets affected. It was also found that middle level managers

experience problems and demands of not only their workers but also the pressures from demands of the top management.

In a study conducted by Davidson and Cooper (1983), they found that middle level manager and supervisory positions produced most stress when compared to junior and higher levels of management. The middle level mangers felt most stress because of lack of consultation and communication within their organizations. Though of course as reported in an interesting comparison of stress in mangers, professionals and clerks, by Turnage and Spielberger (1991), there are differences in stress intensity and frequency at different levels of an organization. There are also gender differences in experience of job stress at the different levels of the organization (Davidson and Cooper,1983).

Keeping in view this turbulence in the telecom sector and especially the demands faced by the managerial level employees, the managers in the telecom sector became the focus of this research survey.

IMPLICATIONS FOR THIS RESEARCH

The researches reviewed indicated that the work stressors affect the overall well-being of the employee. We also understand from previous researches that the individual variables such as locus of control can influence the relationship between stressors and their outcomes. In fact these variables can be investigated further to understand their affect on job well-being.

The focus of the study was the mangers working in the telecom sector in Thailand, who are facing a lot of changes and “pressures” or stress resulting from these changes. The telecom sector is especially vulnerable to what is termed as “technostress”. Sethi, Caro, and Schuller (1987), refer to “technostress” as the stress related to high technology. The work in telecom sector often deals with high tech equipments and computers and fast changing technologies. These changes will no doubt continue, technostress is likely to remain, but strategies must be evolved to help the workers in this field to deal with the stress which results.

From the review of researches it is suggested that the individual variable of locus of control can influence the relationship between stressors and their outcomes. In our attempt we have tried to see how the “externals” and “internals” in the chosen sample would differ in the way they relate to the work stressor-job well being relationship. And also how these

findings can be used to alleviate job well-being while mitigating the affects of job stress. Thus the research aimed to study the association between the two constructs of work environment (organizational stressors), and the person construct (work locus of control), and how it would relate to the positive outcome of job related affective well being.

THE CONCEPTUAL FRAMEWORK OF THE STUDY

The following figure represents the conceptual framework of the study that aimed to understand how the Work Specific Locus Of Control acts as a moderator of the relationship between the Organizational Stressors and the Job Related Affective Well Being.

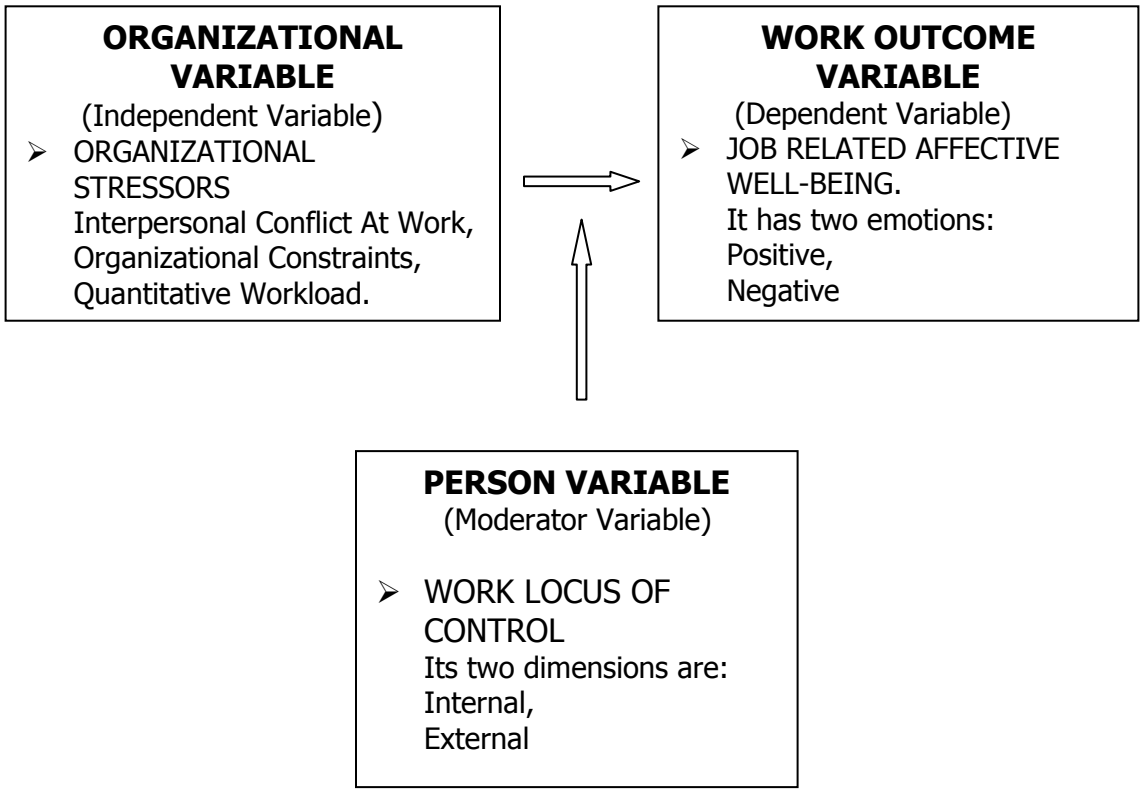

Figure 2: The Conceptual Framework Of The Study

CHAPTER 3

RESEARCH METHODOLOGY

The study utilized the survey research method for obtaining data about the variables in the study. This employed a questionnaire designed to collect information about the selected variables and to determine whether the hypothesized relationships exist between them. Various statistical techniques were used to analyse the data and interpret the findings.

POPULATION AND SAMPLE

The researcher aimed to study the relationship between organizational stressors, job related well-being, and work-specific locus of control on the managers working in the telecommunications sector, in Bangkok, Thailand. The work environment in this industry is very turbulent and undergoing rapid changes. So keeping in stride with the demands both the private sector and the government sector in telecom is also poised for major changes.

According to statistics from Thailand Information Database of 2002, the total number of employees in the government run telecom firms was reported to be around 25,000. Out of this around 580 were employees working above the managerial level. For the current research, a sample size of 78 managers, representative of both male (n=44) and female (n=34) population was selected from some of the firms in this telecom sector. The sample was selected from the managerial level. The sample represented both the government sector (n=44) and the private sector (n=34). The major player in the government sector being- TOT Corporation public Ltd.-was selected. The private sector, with 4 firms selected for the survey, included a multinational and some smaller firms. Thus from the total sample, 34% represents the private sector and 44% represents the government sector.

INSTRUMENTS

The method of obtaining scores on each of the three variables in the study was through the use of questionnaires or tests, which measured job stressors, job related well being and work specific locus of control. The original scales measuring the research variables were first tested for their validity and reliability, amended and then used to collect information from the sample chosen for the study.

The steps followed for the development of the questionnaire were:

1. A preliminary interview was carried out on a small sample of managers (n=15) working in Thailand. This formed the basis of selection of the relevant organizational stressors and also to assess the content validity of the tests. Since the original scales were in English, feedback about the meanings of the words was also obtained.
2. Based on the information received from the first procedure the original instruments were then revised in content and language. For instance, meanings were elaborated for the emotions expressing job well-being.
3. Then a pre-research survey was conducted on a group of executives (n=39) to check for the item discrimination of the assessment tools that were to be used.
4. The instruments were analyzed for item discrimination. Items with low correlation were deleted using the item total correlation and the scales were modified accordingly to give high consistency of measurement. The details of item discrimination are attached in appendix C. Also the alpha coefficients of the scales are attached as appendix D.
5. The final instruments (attached in appendix B) were then prepared and used to collect data from a sample of managers (n=78) working in the telecom sector.

A letter of Introduction for various organizations was prepared (attached in appendix A) and the researcher attached it along with the survey questionnaire to collect information about the study variables. The sample was assured about the confidentiality of their responses.

The various instruments used in the study, along with some items from them have been illustrated to show how each of the variables were measured and how the responses were scored. The instruments were in English language and were used to measure the organizational stressors (interpersonal conflict at work, organizational constraints and quantitative workload) job related affective well-being and work locus of control.

Organizational Stressors

The instruments included for the measurement of organizational stressors were adapted from the following three scales by Spector and Jex, (1998)-

1. Interpersonal Conflict at Work Scale (ICAWS). The ICAWS is a four item, summated rating scale designed to assess the construct of interpersonal conflict in the workplace. It's items ask about how well the respondent gets along with others at work, specifically getting into arguments with others and how often others act nasty to the respondent. Five response choices are given, ranging from less than once per month or never, coded 1, to several times per day, coded 5. High scores represent frequent conflicts with others, with a possible range from 4 to 20. Internal consistency reliability (coefficient alpha) was reported by Spector and Jex (1998) to average .74 across 13 studies. The coefficient alpha after item analysis and modification of the scale used in the study was .80. The subjects are to give their responses on the 4 items by marking one tick for each item on questions such as:

	Never	Rarely	Sometime s	Quite Often	Very Often
1. How often do you get into arguments with others at work?					
2. How often do other people yell at you at work?					

2. Organizational Constraints Scale, (OCS). The OCS is constructed to assess the situations or things that interfere with task performance at work. There are 11 items in the scale, with one item each to assess each of the 11 constraint areas (e.g., faulty equipment, or incomplete information), and all items are summed into a total score. Respondents are asked to indicate how often it is difficult or impossible to do his or her job because of each item. Response choices range from less than once per month or never, coded 1, to several times per day, coded 5. High scores represent high levels of constraints, with a possible range of scores from 11 to 55.

Although the OCS yields a total score, the individual items are not considered parallel forms of the same underlying construct. Rather it is viewed that the scale is a causal

indicator scale (Bollen & Lennox, 1991), rather than the traditional effect indicator scale. With the latter, items are said to be replicates of one another, and in structural equation modeling terms, responses are the effects of the underlying construct. A causal indicator scale consists of items which are not manifestations of the same underlying construct, but which combined constitute the construct, i.e., the items cause the construct. Thus coefficient alpha is not an appropriate index of reliability for such scales

The subjects were to give their responses for each item by marking a tick. Some of the 11 items in the scale are:

In doing your job, how often do you find it difficult or impossible to do it because of the following situations?	Less than once per month or never	Once or twice per month	Once or twice per week	Once or twice per day	Several times per day
1. Poor equipment or supplies.					
2. Organizational rules and procedures.					

3. Quantitative Workload Inventory, QWI. The QWI is a 5-items scale designed to assess the amount or quantity of work in a job, as opposed to qualitative workload, which is the difficulty of the work. As described in more detail in Spector and Jex (1998), there have been several versions of the scale used, ranging from 5 to 8 items. This final scale has 5 items. Respondents are asked to indicate how often each statement occurs, with five response choices, ranging from less than once per month or never, coded 1, to several times per day, coded 5. High scores represent a high level of workload, with a possible range from 5 to 25. Spector and Jex (1998) reported an average internal consistency (coefficient alpha) of .82 across 15 studies. The coefficient alpha after item analysis of the scale used in the study was .86. There are 5 total items in the scale and the subject had to give his response by marking a tick on each item. Some of the items from the above scales are:

	Less than once per month or never	Once or twice per month	Once or twice per week	Once or twice per day	Several times per day
1. How often does your job require you to work very fast?					
2. How often does your job require you to work very hard?					

Job Related Affective Well Being

The Job Related Affective Well-Being Scale (JAWS) by Van Katwyk, Fox, Spector,& Kelloway (2000), was used for measuring the affective aspect of the job well-being. Originally it was a 30-item scale (alpha coefficient=.95) designed to assess people's emotional reactions to their job. After item analysis, some items were deleted and the scale used had 26 items (alpha coefficient= .91). Each item is an emotion, and the respondents were asked how often they had experienced each at work over the prior 30 days. Responses were made with a five-point scale with anchors- Never, Rarely, Sometimes, Quite often, Extremely often or always. The subjects were to give their responses on the ratings from 1 (never) to 5 (extremely often). An overall score of all 26 items can be computed with the negative emotions reverse scored. Higher the score, more positive the well-being. This Likert type scale has items such as:

1. My job made me feel at ease *(comfortable)*	1	2	3	4	5
2. My job made me feel angry	1	2	3	4	5

Work Specific Locus of Control

The Work Locus of Control Scale (WLCS), by Spector (1988) is an instrument designed to assess control beliefs in the workplace. It is a domain specific locus of control scale that correlates about .50 to .55 with general locus of control. The format is summated rating with six response choices: disagree very much, disagree moderately, disagree slightly, agree slightly, agree moderately, agree very much, scored from 1 to 6, respectively. As per the author of the WLCS instrument, the scale is scored so that externals receive high scores. Internal consistency (coefficient alpha) generally ranges from .80 to .85 in the English

language version. Test-retest reliability for a year was reported as .60 by Moyle (1995). The scale has been shown to relate to several work variables, including job performance and job satisfaction. It also relates to counterproductive behavior and organizational commitment.

In the research conducted, the original scale was amended after the item reliability analysis and the revised version of this scale has a reliability coefficient of.71. This Work Locus of Control Scale has half of its items written in each direction--external and internal. Total score is `the sum of all items' and the scores on the scale can range from 11 to 66. Each item can have a score from 1 to 6 if original response choices are used. High scores on the scale represent externality, so the scores on the internally worded items must be reversed before summing. This is because a score of 6 representing strongest possible agreement on an externally worded item is equivalent to a score of 1 representing strongest possible disagreement on an internally worded item.

To measure these control beliefs the subjects had to give their responses on the revised version with 11 items (alpha coefficient= .71) and the high scores reflect "external" orientation. Some of the items are as following:

The following questions concern your beliefs about jobs in general. They do not refer only to your present job.	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
1. A job is what you make of it.	1	2	3	4	5	6
2. On most jobs, people can pretty much accomplish whatever they set out to accomplish	1	2	3	4	5	6

DATA COLLECTION

Data was collected from managers (n=78) working in the telecom sector, on the variables of interpersonal conflict at work, organizational constraints, and quantitative workload, along with job related affective well-being and work locus of control.

There were three main steps in the data collection procedure.

1. Preliminary interviews with some managers (n=15) helped determine which “stressors” are of most relevance to them. The feedback was also used to assess the content validity and the language of the tests. The scales were modified according to the responses.

2. Next a pilot study was conducted on a sample of working executives (n=39) to assess the reliability and objectivity of the scales. Item analysis was carried out and items with low reliability were deleted. The modified scales were highly reliable.

3. The final data was then collected from the chosen sample (n=78) and was statistically analysed and the hypotheses were tested. The sample consisted of executives working in the telecom sector in Bangkok, Thailand. The subjects worked in both the government and the private sector of the telecom industry. Chosen by convenient sampling, the respondents were assured about the confidentiality of their responses. They were given the survey questionnaires to fill, which were later collected by the researcher.

DATA ANALYSES

The scores obtained from the above research study were coded, categorized, statistically described, analyzed, and interpreted by the use of various statistical techniques. The data analysis was performed by SPSS for windows computer program.

First the descriptive techniques were used to provide simple demographic summaries about the sample like the percentage figures against each demographic variable. Then, the central tendency measures of the mean, and the measure of variability-standard deviation were calculated for the main variables of the study. The mean and standard deviation of the females and males separately and the total sample were collected. The differences in means of males and females were further analysed for significance using the t test.

Next followed the correlation analyses. The Pearson product moment correlation coefficient was computed to represent the intensity and the direction of relationship between the variables. A one-tailed correlation analyses was done for the main variables of the study since the direction of association was already mentioned in the hypotheses. However, though demographic variables were not the main focus of the study, a two-tailed correlation analyses was done for all the measures.

Then followed the hierarchical regression analysis to test for the role of work locus of control as a moderator variable of the relationship between the organizational stressors and the job related well-being. Step–wise multiple regression analyses was carried out using the SPSS software. The steps followed were based on the guidelines described by Baron and Kenny (1986), which are explained in detail in chapter 4:

1. First, Multiple Correlation Coefficients (R) and the variability coefficients (R^2) of the predictors - Organizational Stressors (ICAW, OCS, QWI) were obtained on the criterion-Job Related Well Being.
2. Next the Regression Coefficients (β s) and the variability coefficients (R^2) of the variable of Work Locus of Control (WLOC) on the criterion-Job Related Well Being were calculated.
3. Finally the Regression Coefficients (β s) and also the variability coefficients (R^2) of the interaction terms of Organizational stressors and Work Locus of Control (OS x WLOC) were calculated. The interaction terms were constructed by multiplying the dummy coded WLOC by each of the stressors factors (ICAW, OCS and QWI).
4. Then followed the t-test analyses of the significance of the results of the predictors- Organizational Stressors (ICAW, OCS, QWI) and the Work Locus of Control (WLOC), and their interaction terms Organizational stressors and Work Locus of Control on the criterion-Job Related Well Being.
5. Finally, work locus of control was tested as a moderator variable of the relationship between the organizational stressors and the job related well-being. For this we test the significance of the interaction terms used as predictors in the third part (step 3) of the model. If the interaction terms are significant predictors of the criterion, then the variable of WLOC is said to moderate the relationship between the organizational stressors and the job related well-being.

Conclusions were drawn on the basis of the results of the analyses carried out. After the moderator analyses, additional results were also conducted. This included the

pathway analyses for understanding and analysing direct and indirect effects of the variables in the study. The path analysis is a method for representing a set of regression equations by way of diagrams to understand the above effects of the variables.

CHAPTER 4

RESULTS

The study was conducted to understand how the variable of work-locus of control would affect the relationship between each of the three organizational stressors and the job related affective well being. A sample of 78 managers was taken from the telecom sector in Bangkok, Thailand to understand the above and the results of the survey are represented in this chapter.

The results are shown in two parts-the main results and the additional results.

The Main Results- These showed the analyses of data for the purpose of understanding the sample and also testing the hypotheses. Among these are:

1. The demographic characteristics of the sample
2. The means, standard deviations of the sample, and t values for the comparison by gender
3. Correlation analyses (1-tailed) of the main study measures
4. Correlation analyses (2-tailed) of all the measures including the demographic variables.
5. The Regression Analyses predicting Job Related Well being, including the analyses of Work Locus Of Control as a moderator variable.

The Additional Results- These showed the further analyses of data for the purpose of gaining some further insights about the sample and giving directions for future research. Primarily this included pathway analyses with:

1. Direct pathway analyses
2. Mediator pathway analyses.

THE MAIN RESULTS

The main results begin with a demographic analysis of the sample. The demographic data of the sample and the rest of the results are presented in Tables 1 and 2.

TABLE 1:Demographic Characteristics of the Sample (N=78) related to Background

SAMPLE CHARACTERISTICS	NUMBER	PERCENTAGE
Gender	78	
Female	34	43.6
Male	44	56.4
Age (In years)	78	
20-29	7	9.0
30-39	33	42.3
40-49	28	35.9
50-59	10	12.8
Marital Status	78	
Single	33	42.3
Married	45	57.7
Family Size	78	
Living alone	4	5.1
1-2 members	19	24.4
3-5 members	48	61.5
More than 5 members	7	9.0

Table 1 shows that there were almost an equal number of males (n=44) and females (n=34) in the sample. The larger percentage of the sample was in the age group of 30-39 years (42.3%), followed by the age group of 40-49 years (35.9%). Also, majority of the sample, about 57.7% was married and the rest were unmarried. The results show that a higher percentage (61.5%) of the sample was living in families with 3 to 5 members.

TABLE 2:Demographic Characteristics of the Sample (N=78) related to work

SAMPLE CHARACTERISTICS	NUMBER	PERCENTAGE
Job Tenure (In years)		
< 1 year	7	9.0
1-5 years	10	12.8
5-10 years	28	35.9
10-20 years	22	28.2
> 20 years	11	14.1
Role in Organization		
Supervisory	12	15.4
Entry level managerial	12	15.4
Middle Managerial	33	42.3
Top managerial	7	9.0
Other	14	17.9
Educational Background		
Diploma, Certificate	2	2.6
Bachelors degree	38	48.7
Masters degree	38	48.7

Table 2 also shows that the maximum percentage (35.9%) of the sample had a job-tenure of 5-10 years, with 28.2% having a job-tenure of over 10 years. The majority (42.3%) of the sample worked at the middle managerial level. The results showed that there were an equal number of graduates (48.7%) and post- graduate degree holders (48.7%) in the sample.

Now follows the analysis of the data to interpret and test the hypotheses by the use of the statistical techniques like correlation and multiple regression. The simple statistical measures of means and standard deviation provide the summaries of the data collected on each of the research variable.

TABLE 3: Means (M), Standard Deviations (SD), of the Sample (n=78) and t values for the Comparison by Gender

Measures	Males (n=44)		Females (n=34)		Total (n=78)		Comparison
	M	SD	M	SD	M	SD	by t values
Interpersonal conflict at work	7.50	2.93	7.29	2.32	7.41	2.67	-0.34
Organizational constraints	20.98	6.99	22.18	7.39	21.50	7.15	0.73
Quantitative workload	13.14	4.00	12.24	4.16	12.74	4.07	-0.97
Job Related Well Being	93.25	10.30	89.15	10.92	91.46	10.70	-1.70
Work Specific Locus of Control	30.93	7.29	36.62	6.90	33.41	7.62	3.50**

(** p<.01)

Table 3 shows the descriptive statistics of mean scores and standard deviations of the five variables in the analysis for the total sample and for women and men separately. This also shows the t-test for the comparison of means for gender on all the five variables.

Men report significantly lower scores on work locus of control than women, where higher scores on the variable imply an external orientation. There are no significant differences between the sexes in their job related well-being and their experience of stress from interpersonal conflict at work, organizational constraints and quantitative workload.

TABLE 4: Matrix of Correlation Coefficients of the Study Measures (N=78)

	Measure	1	2	3	4	5
1	Interpersonal conflict at work (ICAW)	1	.349**	.085	-.215	.263**
2	Organizational constraints (OCS)		1	.225*	-.230*	.128
3	Quantitative workload (QWI)			1	.286**	-.097
4	Job Related Well Being (JAW)				1	-.218*
5	Work Specific Locus of Control (WLOC)					1

(*p<.05, ** p<.01)

* Correlation is significant at the 0.05 level (1-tailed).

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

Table 4 shows the results of the correlation analysis (1-tailed). The independent variables of the study were the organizational stressors-ICAW, OCS & QWI. The results show that the variable of Interpersonal Conflict At Work (ICAW) has a negative correlation (r=-.215) with the dependent variable of Job Related Well Being (JAW). The variable of the Organizational constraints (OCS) has a statistically significant negative correlation (r=-.230,p< .05) with JAW. But the third stressor, Quantitative workload (QWI) statistically significant positive correlation (r=.286, p<.05) with the JAW.

The variable of Work Specific Locus of Control (WLOC) has a statistically significant negative correlation with Job Related Well Being (r=-.218, p< .05). The WLOC has a statistically significant positive correlation with ICAW (r=.263, p<.05), a positive correlation with OCS (r=.128), but a negative correlation with QWI (r=-.097).

The correlation results among the three organizational stressors are: Interpersonal Conflict At Work (ICAW) has a statistically significant positive correlation with Organizational Constraints (OCS) (r= .349, p<.01), and a positive correlation with Quantitative Workload (r=.085). There is also a statistically significant positive correlation (r= .225, p< .05) between the other two stressors- Organizational Constraints and Quantitative Workload.

Now we state the first and second hypotheses and their results on the basis of above findings.

Hypothesis1: The organizational stressors are negatively correlated with the job related well- being.

The first hypothesis for the research stated that each of the three organizational stressors- Interpersonal Conflict at work (ICAW), Organizational constraints (OCS) and Quantitative workload (QWI), would be negatively correlated with the job related well-being .

Result 1: The results in table 4 show that the Job Related Well Being is negatively correlated with 2 of the organizational stressors- ICAW (r=-.215) and OCS (r=-.230,p< .05) (statistically significant), but has a statistically significant positive correlation with the 3rd stressor-QWI (r=.286, p<.05).

Therefore, the results show that this hypothesis is partially confirmed.

Hypothesis 2: The variable of work locus of control (high scores on scale show external orientation) is negatively correlated with job related affective well being, and positively correlated with each of the organizational stressors.

The second hypothesis of the research states the direction of the relationship of the moderator variable of Work Specific Locus of Control with the independent variables of Interpersonal Conflict at work (ICAW), Organizational constraints (OCS) and Quantitative workload (QWI); and the dependent variable of Job Related Well Being (JAW).

Result 2: The results in table 4 show that the variable of Work Specific Locus of Control (WLOC) has a statistically significant positive correlation with ICAW ($r=.263$, $p<.05$), a positive correlation with OCS ($r=.128$), but a negative correlation with QWI ($r=-.097$).. Also, Work Specific Locus of Control (WLOC) has a statistically significant negative correlation with Job Related affective Well Being ($r=-.218$, $p< .05$).

In other words, results show that the external work locus of control belief has a statistically significant negative relationship with job related affective well-being, and a positive relationship with two of the stressors, ICAW and OCS, but a negative relationship with QWI.

Therefore the results show that the hypothesis is confirmed except for the variable of Quantitative workload.

The information collected about the demographic variables was not the main focus of the research study but to gain additional insight as to how they affect the main study variables. A correlation analysis was done to study the direction and the strength of the relationships. It was a two-tailed analysis since no hypothesis was built earlier. The results of this preliminary investigation of the relationships among demographic and research variables is represented in Table 5.

TABLE 5: Matrix of Correlation Coefficients of all the Measures (N=78)

	MEASURES	1	2	3	4	5	6	7	8	9	10	11	12
1	Interpersonal conflict at work	1	.349**	.085	-.215	.263*	-.039	.065	.054	-.083	.206	-.076	.020
2	Organizational constraints		1	.225*	-.230*	.128	.084	-.208	-.027	.029	-.127	-.195	.201
3	Quantitative workload			1	.286*	-.097	-.111	-.055	.036	-.139	-.126	.017	-.161
4	Job Related Well Being				1	-.218	-.191	-.010	.208	-.079	-.101	.038	-.089
5	Work Specific Locus of Control					1	.372**	.049	-.235*	.227*	.225*	-.138	.059
6	Gender (m=1)						1	-.027	-.294*	.027	.190	-.135	.156
7	Age							1	.293**	-.101	.571**	.006	.002
8	Marital status (mar=1)								1	.096	.287*	.053	-.036
9	Family size									1	.068	.070	.008
10	Work tenure										1	-.125	.099
11	Organizational Role											1	.065
12	Education												1

(*p<.05, ** p<.01) ** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 5 shows the correlation coefficients of all the variables in the study including the demographic variables, which were however not under direct study. Some of the variables were coded as dummy variables like gender (female=0, male=1), marital status (unmarried=0, married=1). The other variables of age, family size, work tenure, etc are coded for interval ranges, e.g. age (20-29 years=1, 30-39 years=2, 40-49 years=3, 50-59 years=4). So no clear results can be interpreted.

Some of the interesting statistically significant correlations of the demographic variables with the research variables are:

1. Work Specific Locus of Control (WLOC) has a statistically significant positive correlation with gender ($r=.372$, $p<.01$).
   This implies that females have a more external orientation of WLOC.
2. Work Specific Locus of Control (WLOC) has a statistically significant negative correlation with marital status ($r=-.235$, $p<.05$)
   This implies that married subjects have a more internal orientation of WLOC.
3. Work Specific Locus of Control (WLOC) has a statistically significant positive correlation with family size ($r=.227$, $p<.05$).
   This implies that subjects with a larger family size have a more external orientation of WLOC.
4. Work Specific Locus of Control (WLOC) has a statistically significant positive correlation with job tenure ($r=.225$, $p<.05$).
   This implies that subjects with longer work tenure have a more external orientation of WLOC than with those having shorter work tenure.

To investigate the significant results, further analysis was carried out and is represented in additional results section.

Now we come to the most crucial part of our analysis, the test for Work-Locus Of Control variable as a moderator of the relationship between each of the organizational stressors and the job related affective well-being. The classic research paper by Baron and Kenny (1986) provided the base for making the model of moderator analysis to test for the above and the results are tabulated in Tables 6. The most common statistical procedure used to detect moderator variables is hierarchical moderated multiple regression analysis. If the independent variable is denoted as X, the moderator as Z and the dependent variable as Y, Y is regressed on X, Z, and XZ. It implies predicting the outcome variable (Y) using three other variables- the independent variable (X), the moderator variable (Z) and the “cross-product” term (XZ). According to Jex (1998), a moderated relationship is said to exist when the cross-product term explains a meaningful amount of variation in the outcome variable.

The Table 6 on the following page represents the outline of the Hierarchical Multiple Regression model to test for moderation. In order to test the moderating effect of Work Locus of Control on the relationship between the Organizational Stressors and the Job Related Affective Well Being, this multiple regression analysis technique was used for the data obtained from the total sample:

In Model 1, all three Organizational Stressors were entered (QWI, ICAW, QWI) simultaneously.

In Model 2, the variable of Work Locus of Control (WLOC) was added to the model along with the three Organizational Stressors. For the analyses, a median split was performed on WLOC and the 2 groups were dummy coded so that a zero was used to designate an internal WLOC and a one for an external WLOC.

In Model 3, the three interaction terms of each of the Organizational stressors (QWI, ICAW, QWI) x WLOC were entered simultaneously along with the predictors entered in Model 2. The interaction terms were constructed by multiplying the dummy coded WLOC by each of the stressors factors (ICAW, OCS and QWI).

In the table 6 the main terms and their codes are: Interpersonal Conflict At Work (ICAW), Organizational Constraints (OCS), Quantitative Workload (QWI), and Work Locus Of Control (WLOC)

TABLE 6: Regression Model Predicting Job Related Affective Well being (N=78)

Predictor	Unstandardized Regression Coeffecient- b	Standardized Regression Coefficient – β	t
Model 1			
ICAW	-.628	-.156	-1.405
OCS	-.383	-.256	-2.249*
QWI	.940	.357	3.337**
R^2=.195			
Adjusted R^2=.195			
Model 2			
ICAW	-.476	-.118	-1.081
OCS	.364	-.243	-2.195*
QWI	.877	.334	3.188**
WLOC	-.5031	-.237	-2.285*
R^2=.249			
Adjusted R^2=.054			
Model 3			
ICAW	-.499	-.124	-.683
OCS	-.648	-.432	-2.349*
QWI	.933	.355	2.427*
WLOC	-11.335	-.533	-1.059
ICAW x WLOC	-.155	-.065	-.616
OCS x WOLC	.465	.547	1.313
QWI x WLOC	-.189	-.122	-.339
R^2=.267			
Adjusted R^2=.018			

(*p<.05, ** p<.01)

The results in Table 6 shows the variability coefficients (R^2) and the change statistics (Adjusted R^2) of the **predictors** - Organizational Stressors and the Work Locus of Control (WLOC), and their interaction terms on the **criterion**-Job Related Affective Well Being for the sample (N=78). These results are explained as:

1. In Model 1 the variability coefficients R^2= .195, implying that 19.5% of the variance in Job Related Affective Well Being is accounted for by the Organizational Stressors. The change statistics Adjusted R^2= .195, which implies that the predictors cause the R^2 to change from 0 to .195. This yields a significant F ratio, and hence it is a significant change.
2. In Model 2 the variability coefficients R^2= .249, implying that 24,9% of the variance in Job Related Affective Well Being is accounted for by the three Organizational Stressors along with the variable of Work Locus of Control. The change statistics Adjusted R^2= .054, which implies that the addition of the new predictor to the model causes the R^2 to change from 0 to .054 and the F ratio calculated is significant.
3. In Model 3 the variability coefficients R^2= .267, implying that 26.7% of the variance in Job Related Affective Well Being is accounted for by the three interaction terms of Organizational Stressors x WLOC (ICAWxWLOC, OCSxWLOC, QWIxWLOC). The change statistics Adjusted R^2= .018, which implies that the predictors cause the R^2 to change from 0 to .018, and the test of F ratio does not yield significant results.

The results show that the predictors- Organizational Stressors and the Work Locus of Control are significant in predicting the variance in the criterion- Job Related Affective Well Being . But the interaction terms are not significant predictors.

Now we come to the analyses of the Work Locus of Control as a moderator of the relationship between each of the organizational stressors and the job related well-being using the Multiple regression analyses.

Table 6 shows the Regression Coefficients (β) and the t-test of the predictors - Organizational Stressors (ICAW, OCS, QWI) and the Work Locus of Control (WLOC), and

their interaction terms (ICAWxWLOC, OCSxWLOC, QWIxWLOC) on the criterion-Job Related Well Being for the sample (N=78). The comparison of the Model 1 with Model 3, tests for the "moderator" hypothesis of work locus of control.

The coefficient "Beta" is the value that tells us the degree to which each predictor affects the outcome variable if the effects of all other predictors are held constant. The standardized Beta values are not dependent on the units of measurement of the variables, make the Beta values comparable and also provide an index of how much the estimated coefficient would vary from sample to sample. The t values test for the significance a predictor is making to the model. When associated with the Beta value they test for the null hypothesis.

The results in table 6 show that in Model 1 while the two stressors (ICAW and OCS), and the variable of external WLOC are statistically significant negative predictors of Job related well-being, the third stressor, QWI is statistically significant positive predictor of Job related well-being. But the test of significance of the final "interaction terms" in Model 3 shows no significant results, The comparison of the Model 1 with Model 3, tests for the "moderator" hypothesis of work locus of control and fails to show WLOC as the moderator since it does not explain any significant variation in the Job related well-Being..

Hence we re-state the final hypothesis and its corresponding result.

Hypothesis 3: Work-locus of control will moderate the relationship between each of the organizational stressors and the job related affective well-being.

In other words, each of the organizational stressors-Interpersonal conflict at work (ICAW), Organizational constraints (OCS), and Quantitative workload (QWI), will be more strongly related to the Job Related Affective Well-Being (in a negative direction) among those reporting external work locus of control beliefs than those with internal work locus of control beliefs.

Result 3: The results in table 6 show that the variable of Work Locus Of Control does not moderate the relationship between each of the Organizational Stressors and the Job Related Well-Being.

Thus, we come to the end of the main results and the next part of the chapter goes on to discuss the additional results.

ADDITIONAL RESULTS

After the main findings of the research, some additional analyses were also carried out and are represented below.

ALTERNATIVE PATHWAYS IN THE STUDY

The main purpose of the study was to investigate the role of work locus of control as a moderator of the relationship between the Organizational stressors and the Job Related Well being. As the results have shown no significant moderator effect, the results were further analyzed for the different pathways. According to Allison (1999) path analysis is a method for representing a set of regression equations by way of diagrams. It is helpful in understanding and analyzing direct and indirect effects. Path analysis was developed as a method of decomposing correlations into different pieces for interpretation of effects (e.g., how does parental education influence children's income 40 years later). Path analysis is closely related to multiple regression, you might say that regression is a special case of path analysis.

In the diagrammatic representation of the different paths, there are single headed and double-headed arrows, with each of the single-headed arrows represents a causal effect of one variable on another. It is common (but not essential) to put standardized regression coefficients on the single-headed arrows. The double-headed arrows are used to represent correlations that do not involve any presumptions of causality.

The first pathway testing the moderator effect has been tested and represented in table 6 of the main results. Now we go on to test for the direct effect and the mediation effect among the variables of the study. The results followed explain the:

1.Direct effect Pathway

2.Mediator effect Pathway

DIRECT EFFECT PATHWAY

This tests for the direct effect pathway of work locus of control on job related well-being. Multiple regression analysis has been used to examine the role of work locus of control for the outcome of job related affective well-being. The results and also the path effect diagram are depicted herewith:

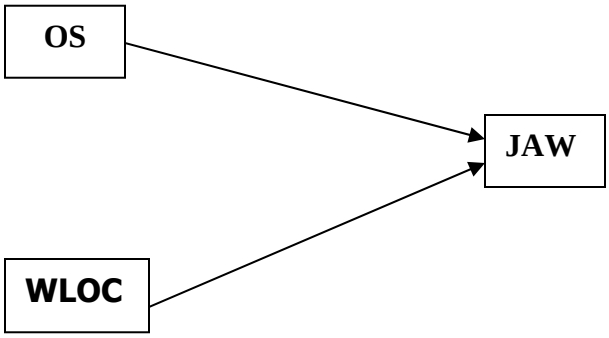

Figure 3: Direct Effect Pathway

The figure 3 shows the diagrammatic flow of direct effects between the variables in the study. Regression analysis was carried out to measure the direct effect of the Organizational Stressors (OS) and also the Work Locus Of Control (WLOC) on the outcome variable of Job Related Affective Well-Being (JAW).

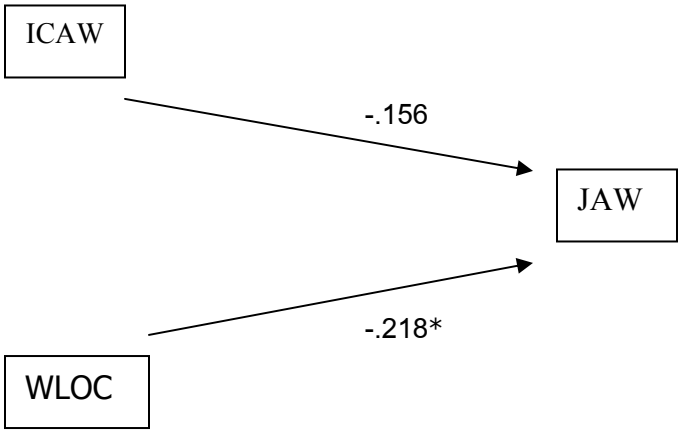

Figure 4: Direct Effect Pathway of Interpersonal conflict at work (ICAW), and Work Locus Of Control (WLOC) on Job Related Affective Well Being (JAW).

The figure 4 shows the diagrammatic flow of direct effects of the Organizational Stressor of Interpersonal Conflict at Work (ICAW) and also of the Work Locus Of Control (WLOC) on the outcome variable of Job Related Affective Well-Being (JAW).

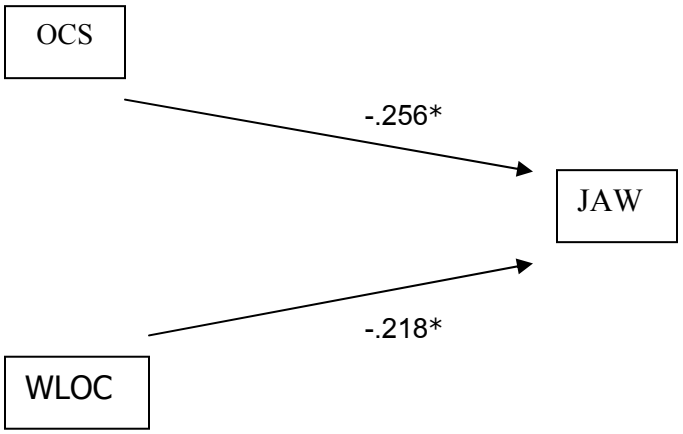

Figure 5: Direct Effect Pathway of Organizational constraints (OCS) and Work Locus Of Control (WLOC) on Job Related Affective Well Being (JAW).

The figure 5 shows the diagrammatic flow of direct effects of the Organizational Stressor of Organizational Constraints (OCS) and also of the Work Locus Of Control (WLOC) on the outcome variable of Job Related Affective Well-Being (JAW).

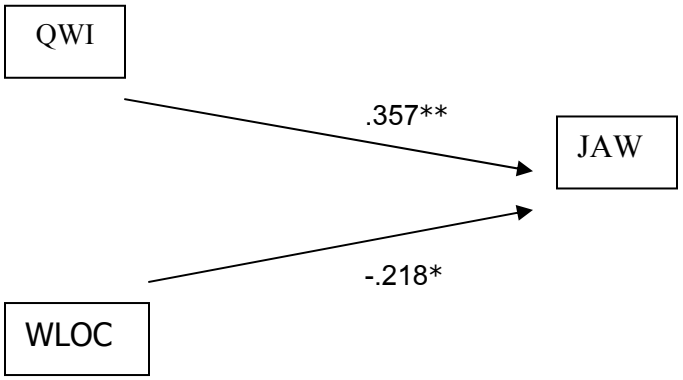

Figure 6: Direct Effect Pathway of Quantitative workload (QWI) and Work Locus Of Control (WLOC) on Job Related Affective Well Being (JAW).

The figure 6 shows the diagrammatic flow of direct effects of the Organizational Stressor of Quantitative Workload (QWI) and also of the Work Locus Of Control (WLOC) on the outcome variable of Job Related Affective Well-Being (JAW).

The regression coefficients depicting the direct effects of the independent and moderator variables on the outcome variable in the study are summed below in table 8.

Table 7: Direct Effect pathway Regression Coefficients (N=78)

Predictor	**β**
ICAW	-.156
OCS	-.256*
QWI	.357**
WLOC	-.218*

(*p<.05, ** p<.01)

Note : Terms (Code) are : Interpersonal conflict at work (ICAW), Organizational constraints (OCS), Quantitative workload (QWI), Work locus of control (WLOC).

Table 7 shows the Regression Estimates (β s) of the independent variables-the organizational stressors and also of the variable of Work Locus of Control on predicting Job Related Affective Well being (N=78). The results in table 7 show that while the two stressors (ICAW and OCS), and the variable of external WLOC are statistically significant negative predictors of Job Related Affective Well-Being, the third stressor, QWI is statistically significant positive predictor of Job related well-being. Thus, the results show that work locus of control has a statistically significant direct effect on Job Related Affective Well-Being and that the external work locus of control is a significant negative predictor of Job Related Affective Well-Being.

MEDIATOR EFFECT PATHWAY

To test for the mediator-effect pathway of the variables of work locus of control , the organizational stressors and the job related well being. To understand the pathway it is important to understand what exactly is a mediator. A variable may be considered a

mediator to the extent to which it carries the influence of a given independent variable (IV) to a given dependent variable (DV). Generally speaking, mediation can be said to occur when (1) the IV significantly affects the mediator, (2) the IV significantly affects the DV in the absence of the mediator, (3) the mediator has a significant unique effect on the DV, and (4) the effect of the IV on the DV shrinks upon the addition of the mediator to the model. These criteria can be used to informally judge whether or not mediation is occurring.

In our research study since work locus of control is a personality variable, it has been researched and found to be an influence on the perceptions of stress by the individual (Noor, 2002).

In a work place the variable of work locus of control, since it is a personality variable, would influence the perceptions of organizational stressors, which in turn would influence the job related well-being. The following 3 steps for regression analysis of the mediation effect were carried out, as recommended by Noor (2002), and based on the work of Baron and Kenny (1986):

a. Work locus of control must be correlated with measures of both organizational stressors and job related well-being.
b. When job well-being is regressed on the three organizational stressors, the organizational stressors must significantly predict job related well-being.
c. In final analysis, the job related well-being measure is simultaneously regressed on both work locus of control and the organizational stressors. If the work locus of control is reduced to insignificance, then the organizational stressors are the mediators of the relationship between work locus of control and the job related well-being.

The variables in the study were tested for Mediation and Figure7. shows the flow effect among the variables. The work locus of control (WLOC) or the personality variable, influences the perceptions of organizational stressors (OS), which in turn would influence the job related well-being (JAW).

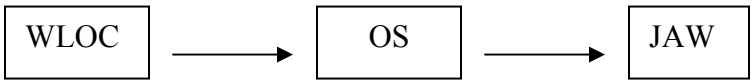

Figure 7 : Mediator Effect Pathway

Table 8: Mediator pathway Regression Coefficients

Regression Estimates (β s) Predicting Job Related Well being (N=78)

Predictor	Model 1	Model 2	Model 3
ICAW		-.156	-.126
OCS		-.256*	-.247*
QWI		.357**	.341**
WLOC	-.218*		-.120

(*p<.05, ** p<.01)

Note : Terms (Code) are : Interpersonal conflict at work (ICAW), Organizational constraints (OCS), Quantitative workload (QWI), Work locus of control (WLOC).

Table 8 represents the results for testing the mediation effect of the organizational stressors on the path between the work locus of control and job related well-being. The 3 models represent the steps carried out to test mediation.

In Model 1, Work Locus Of Control was entered alone to check for the direct effect on Job Related Well-Being. It is clear that Work Locus Of Control has a statistically significant negative effect on Job Related Well-Being.

In Model 2, the 3 organizational stressors were entered alone to test for their direct effect on job related well-being. Results show that the variable of Organizational constraints is a statistically significant negative predictor and the variable of Quantitative workload is a statistically significant positive predictor of Job Related Well-Being.

In Model 3, work locus of control and organizational stressors were entered simultaneously into the regression analysis.

Comparison of Model 1 with Model 3 tests for the mediator role of the organizational stressors. In Model 1 work locus of control shows a significant negative predictor of job related well-being. In the Model 3 work locus of control is a negative predictor of job related well-being, but it is not statistically significant. Thus, the results show that WLOC is reduced to an insignificant level when the organizational stressors are also in the model. **Hence, organizational stressors mediate the effect of work locus of control on Job Related Affective Well-Being.**

The above results show that an external work locus of control is a statistically significant predictor of job related well being or in other words, the subjects with an internal work locus of control tend to have a higher level of job related affective well being .

The additional results also show that the perception of organizational stressors mediates the relationship of work locus of control with the job related affective well-being.

CHAPTER 5

CONCLUSION AND DISCUSSION

The research project aimed to understand how the personality variable of Work Locus of Control acts as a moderator of the relationship between the Organizational Stressors and the Job Related Well Being on a sample of managers (n=78) working in Thailand's telecom sector.

The following would include a summary of the research project, a brief outline of results and a discussion of these results. The later part of this chapter includes the applications of the finding and the recommendations for future research as well as the implications of these findings.

SUMMARY OF THE STUDY AND FINDINGS

The telecom sector in Thailand is undergoing a lot of changes, which often places great demands on the employees. Often these demands cause stress, which can be harmful to not only the employee but also the organization. The research project was built up on the concepts reviewed in the occupational stress literature. With a view to understand the stressors at workplace and at the same time aim towards contribution to positive psychology, the area of job related well-being was selected. Then, the research objectives and the hypotheses of the study were framed to understand the complex relationships between organizational stressors, work locus of control, and psychological outcome of work- job related well being.

The population chosen for the study was managers working in organizations in the telecommunication sector in Bangkok, Thailand. The sample (n=78) consisted of both males (n=44) and females (n=34), working at the managerial level in some of these firms in the telecom sector. There were both government sector and private sector firms in the sample.

After the review of literature and also preliminary interviews from managers working in Bangkok, the main variables of the study were selected. This project was framed to study the relationship between the following variables: the independent variables, which were the three Organizational Stressors (Quantitative Workload, Interpersonal Conflicts, and Organizational Constraints.), and the dependent variable of Job Related Well Being. The personality variable of Work Locus Of Control (which has two dimensions: Internal and

External) was hypothesized as a moderator of the relationship between the organizational stressors and the job related well-being.

The study utilized the survey research method for obtaining data about the variables in the study. A questionnaire was designed to collect information about the selected variables and to determine whether the hypothesized relationships exist between them. Various statistical techniques like means, standard deviations, t-tests, correlation analyses, hierarchical regression analyses and path analyses, were used to analyse the data and interpret the findings.

Summarized below are the hypotheses, the results and their interpretations.

ORGANIZATIONAL STRESSORS AND JOB RELATED AFFECTIVE WELL-BEING

Hypothesis1: The organizational stressors are negatively correlated with the job related affective well being.

The first hypothesis for the research stated that each of the three organizational stressors- Interpersonal Conflict at work (ICAW), Organizational constraints (OCS) and Quantitative workload (QWI), would be negatively correlated with the job related affective well-being.

Results 1: The results showed that the Job Related Well Being is negatively correlated with two of the organizational stressors- ICAW ($r=-.215$) and OCS ($r=-.230, p< .05$) (statistically significant), but has a statistically significant positive correlation with the third stressor-QWI ($r=.286$, $p<.05$).

Therefore, the results show that this hypothesis is partially confirmed.

Discussion : As hypothesized, two of the organizational stressors, ICAW and OCS have a negative correlation with job affective well-being, but the third variable QWI has a positive correlation.

Stress research shows that work involves some interactions with other people, and this can be a source of satisfaction, but at times does cause stress too when it results in interpersonal conflict (Keenan & Newton, 1985). Further evidence supporting the current research findings can be found in the work of Chen & Spector (1992) who investigated and found interpersonal conflict as a further source of counter productive behaviour at work. Thus it is important to understand that interpersonal conflict at work can cause negative outcomes for both the employee and the organization.

Jex (1998) supports our findings by saying that out of all the workplace stressors, organizational constraints are probably most directly related to job performance. In order to get work done effectively, organizations impose certain conditions on the employees, which inadvertently may cause “constraints” for their working. Peters and O’Connor (1980) have identified 11 categories of the organizational constraints, which can cause stress and affect the job performance. Further more, as found by Chen & Spector (1992), organizational constraints lead to many forms of counter productive behaviours at work too. This affects not only the individual but also the work environment.

Now we go on to the third stressor chosen for the study- quantitative workload .As put forth by Jex, (1998), to understand the impact of the amount of workload on an employee it is important to take into consideration not only the actual amount of workload but also the “perception” of the workload. To an employee, greater amount of workload may imply a feeling of importance and lead to job satisfaction too. Another study by Spector (1988) on workload and supervisory ratings of performance found that employees with heavier workloads were perceived as more accomplishing and given higher ratings by supervisors. Thus, for managers working in the telecom sector, the quantitative workload may not present a challenge but a normal course of work expectation and also recognition for this extra labour that they put. Hence, their job related well-being is positively correlated with the quantitative workload.

RELATIONSHIP OF WORK LOCUS OF CONTROL WITH THE JOB RELATED AFFECTIVE WELL-BEING AND THE ORGANIZATIONAL STRESSORS

Hypothesis 2: The variable of external work locus of control is negatively correlated with job related affective well being, and positively correlated with each of the organizational stressors.

The second hypothesis of the research states the direction of the relationship of the moderator variable of Work Specific Locus of Control with the independent variables of Interpersonal Conflict at Work (ICAW), Organizational constraints (OCS) and Quantitative workload (QWI); and the dependent variable of Job Related Affective Well Being (JAW).

Results 2: The results showed that the external orientation of Work Specific Locus of Control (WLOC) has a statistically significant positive correlation with ICAW ($r=.263$, $p<.05$), a positive correlation with OCS ($r=.128$), but a negative correlation with QWI ($r=-$

.097). Also, Work Specific Locus of Control (WLOC) has a statistically significant negative correlation with Job Related Affective Well Being (r=-.218, p< .05).

In other words, results show that the subjects with an external work locus of control significant lower levels of job related affective well-being, and more significant higher levels of scores on two of the stressors, ICAW and OCS, but a lower level of stress from QWI.

Therefore the results show that the hypothesis is confirmed except for the variable of Quantitative Workload.

Discussion : Since higher scores on WLOC represents an external orientation, in other words, results verify the hypotheses that the internal work locus of control has a statistically significant positive relationship with job related well-being, and a negative relationship with two of the stressors, ICAW and OCS. But unlike the hypothesis, Work Specific Locus of Control (WLOC) has a positive relationship with QWI.

The results of the study showed that the internal work locus of control has a statistically significant positive relationship with job related well-being. It verifies the hypothesis and it is further supported by evidence by Anderson (1977) that the people with an internal locus of control report higher job satisfaction and can cope better with higher levels of job stress than externals. Also confirmed by a study of accountants, conducted by Daniels & Guppy (1994) that those with an internal locus of control were significantly less affected by stress than those with an external locus of control.

This association between well being and locus of control is verified by a multi cultural survey by Spector, Cooper, Sanchez, et al. (2001), which showed that well being is strongly associated with an internal locus of control even across organizations across 24 nations. Included among these were some Asian countries like China, Hong Kong, India, Japan, and Taiwan. An interesting finding in this survey was that as compared to the western countries like U.S.A., these Asian countries revealed an external orientation of work locus of control, whereas the results of the current study show a more internal orientation.

The association of work locus of control with quantitative workload implies that the “Internals” do not regard work overload as a stressor, but rather a positive challenge. This aspect is supported by the research of Szilagyi & Sims (1975) who have expressed that the stronger an individual’s beliefs in Internal locus of control, the stronger their tendencies to perceive direct links between their efforts and their outcomes.

WORK LOCUS OF CONTROL AS MODERATOR

Hypothesis 3: Work-locus of control will moderate the relationship between each of the organizational stressors and the job related well-being.

In other words, each of the organizational stressors-Interpersonal conflict at work (ICAW), Organizational constraints (OCS), and Quantitative workload (QWI), will be strongly related to the job related well-being (in a negative direction) among those reporting external work locus of control beliefs than those with internal work locus of control beliefs.

Results 3: The results in table 6 show that the variable of work locus of control does not moderate the relationship between each of the organizational stressors and the job related well-being.

As mentioned in the results section, for the moderated regression analysis technique a median split was performed on the variable of Work-Locus Of Control (WLOC) and the 2 groups were dummy coded so that a zero was used to designate an internal WLOC and a one for an external WLOC. Since the test for moderation failed using the median split, the researcher went on to do the test for moderation using the variable of Work-Locus Of Control as a continuous variable. Again the no significant moderator effect of the WLOC was found.

Therefore the results show that the hypothesis of Work-Locus Of Control as a moderator is not confirmed in the chosen sample.

Discussion : The regression analysis of the main variables in the study has shown that the two stressors (ICAW and OCS), and the variable of external WLOC are statistically significant negative predictors of Job related well-being, and also the 3rd stressor of QWI is statistically significant positive predictor of Job Related Affective Well-Being. But in the test of the final “moderator” hypothesis of work locus of control when the “interaction terms” are added to the Regression Model, no significant results are found.

In an interesting study by Noor (2002) it was found that the internal orientation is not always associated with positive outcomes. In her study locus of control could not moderate the relationship between conflict and job satisfaction showing that internal beliefs could not help those experiencing high conflict. A longitudinal study by Krause & Stryker (1984) also supports the view that extreme internals also fare no better than extreme or moderate externals when exposed to uncontrollable stressors. If we refer to the sample chosen for the research, the subjects’ work in the telecom sector, which is experiencing high turbulence and hence places very high demands on its workers. From the initial analyses of

results it seems that the subjects with external orientation of Work Specific Locus of Control may have lower levels of job related affective well being. However, this external orientation may not moderate the relationship between organizational stressors and job well-being.

We may construe that though an internal Work Specific Locus of Control is a significant positive predictor of job affective well-being, in time of extreme stress, an internal orientation may not be able to moderate and buffer the relationship between organizational stressors and job well-being. However, as also verified by a study in India, by Daisy (1998), managers can be encouraged towards developing internality for coping with the negative effects of stress.

ADDITIONAL FINDINGS

Building up the analyses of the study after a review of the initial results, some additional explorations were also done. Some of the interesting findings are summed up below:

1. Gender differences: Results depicting the means and their subsequent t tests show that men report significantly lower scores on work locus of control than women, where higher scores on the variable imply an external orientation. However there were no significant differences between the sexes in the job related well-being and their experience of stress from interpersonal conflict at work, organizational constraints and quantitative workload. Also the results of correlation analyses show that Work Specific Locus of Control (WLOC) has a statistically significant positive correlation with gender ($r=.372$, $p<.01$). This implies that females have a more external orientation of WLOC. These findings are supported by the research based findings of factory workers in India which showed that women have a high external locus of control as compared to men (Kumari & Singh,1998). Studies in the western culture too affirm this difference in genders and locus of control, for instance Johnson & Black (1981) also reported a tendency in women to be more external than men.
2. Marital status: The correlation analyses of results show that Work Specific Locus of Control (WLOC) has a statistically significant negative correlation with marital status ($r=-.235$, $p<.05$). This implies that married subjects have a more internal orientation of WLOC.

3. Family size differences: Further results show that Work Specific Locus of Control (WLOC) has a statistically significant positive correlation with family size ($r=.227$, $p<.05$). This implies that subjects with a larger family size have a more external orientation of WLOC.
4. Work tenure differences : It was also found that Work Specific Locus of Control (WLOC) has a statistically significant positive correlation with job tenure ($r=.225$, $p<.05$).
5. Direct Pathway effect : The results show that work locus of control has a statistically significant direct effect on Job related well-being and that the external work locus of control is a significant negative predictor of job related well-being. In other words, the subjects with an internal work locus of control will have a statistically significant job related well being .
6. Mediator effect pathway : The detailed additional analysis of the variables in the study also show that the perception of organizational stressors mediates the pathway between the work locus of control and the job related well-being. Researchers, such as Cooper (1983), consider individual differences as mediating between job factors and physical and organizational consequences. The findings of the research however indicate that not only do individual differences influence perceptions of stressors at work, but also the stress itself influences the individual's reaction.

As we come to end of the overview of the findings of the research, we may refer to the various studies and models in stress research. There are some models, according to Cooper (1983), which consider individual differences as mediating between job factors and physical and organizational consequences. Some models place personality variables as major antecedents or predictors of stress. But then others, like Motowildo, Packard and Manning (1986) see individual differences as main effects along with job conditions rather that moderator variables. But it is clear from these that they all emphasize an interaction between various personality characteristics and those of the job-to produce stress as also have been shown by the analyses of results for this study. Hence, the worker and also the organizational well being can be improved only by a two pronged attack-both at the individual level and also at the organizational level.

IMPLICATIONS

The results of the present study provide support for the proposition that a manager with an internal locus of control has better job well being and less stress than externals.

From the point of view of an applied behavioural scientist some other recommendations that can be made for the applied settings-the organizations are:

1. Organizations must develop an environment for healthy and effective functioning of managers. Organizations must recognize that executive health and well-being are among the critical resources available to organization, as also mentioned by Albrecht (1979).
2. In the turbulent work environment of today, managers lead a high demand life style, but often suffer from chronic stress, and pressures from the organizations. Not only in the western culture but also in Asian cultures middle level mangers experience great psychological distress, for instance as reported by Daisy (1998). But, managers can be trained to deal with stress. Organizations can choose to invest in managerial stress reduction as a way of keeping their principal resources healthy and functioning effectively (Albrecht, 1979).
3. An individual himself can be taught to cope with the stressful situations. Parasaruman and Alutto (1984) have expressed that “job stressors” are defined as job demands, constraints, and or opportunities, and job related events or situations that might affect the individual’s feelings of stress. These situations are not and of themselves stressful, but, the appraisal by the individual and his assessments make them stressful. So it depends on the individual and how he/she interacts with the work environment.
4. The results of the present study provide support for the proposition that a manager with an internal locus of control has better job well being than internals. In a longitudinal study of entrepreneurs, Anderson (1977) showed that successful internals became more internals, whereas unsuccessful externals became more externals over a period of 2 and half years-so changes in performance were related to changes in locus of control.
5. Another point that emerges from the present study is that mangers with an internal work locus of control can be hired, so that they respond better when faced with work stressors. Greenberg & Baron (1993) have summarized the

various links of locus of control variable with job outcomes by saying that this variable is worth considering when making decisions relating to hiring personnel and even promoting them.

6. The preliminary findings of this research can be supplemented by other research findings that say personality characteristics like locus of control is definitely open to change. Evidence is put forth by Greenberg & Baron (1993), who say that when a person finding situations where good performance is both recognized and rewarded, even those initially holding strong beliefs in external locus of control tend to shift to more internal orientation.

As some useful evidence has emerged from the study is now important to mention certain limitations of the study itself. For instance, to have a better understanding of job well being, other behavioural and physical measures can also be collected. Another aspect is that the present sample was limited in its size and also to just the managerial levels-and more information on various levels of work can be collected. The model of our study was restricted in its scope and other factors of the work, well-being and also personality can be investigated. The additional analyses of results show that it is important to further the demographic factors of the sample.

RECOMMENDATIONS AND SUGGESTIONS

It is evident from the results of the study that the mangers with an internal orientation of work locus of control have lesser job stress and better job related well-being. Keeping in view the results of the study some general recommendations can be made:

1. It is important to investigate other factors related to job well-being at work in telecom sector. This should include not just the affective aspect of well-being but also physical measures. Other indirect measures such as job involvement, job satisfaction, etc may also be investigated to get a more comprehensive understanding of employee well-being. The factor of social support may also be investigated for its contribution to job well being.
2. It may be useful to investigate other personality factors affecting job well-being, which can buffer the affects of job stress. Review of researches provide some

insight into factors such as personality type, hardiness, self-efficacy, etc, which are worth further investigation to understand the complete personality of the worker.

3. Caution is also advised in generalizing the results of the present study to the population, outside the sample of managers in the telecom sector since each work environment is unique.
4. Keeping in view the findings of the study and other research findings it is recommended that there is a need to maintain a dual pronged attack to deal with stress-management by the organization and also the employees.

FUTURE RESEARCH SUGGESTIONS

The results of the present research are quite conclusive in supporting the stand of many researchers like Spector (1982), Furnham (1995) and others that the locus of control variable accounts for an important and significant amount of individual difference variance with regard to the work sphere.

Building up on initial results that show work locus of control as a significant predictor of job well being, investigations can delve further into how this relationship may be strengthened and utilized at the practical levels. For instance, longitudinal studies can be planned to verify if internals actually can withstand periods of extreme stress.

Future investigations can also include an in depth study of the particular work environment in understanding the complete significance of the work stressors.

Based on some interesting preliminary analyses of present findings, future research can focus more on work locus of control differences based on: gender differences, marital status, work tenure and family size. These give rise to queries about an important part of work psychology-the work-family interaction Also as shown by earlier research, women generally tend to believe that they have less control over uncontrollable life events and are more susceptible to stresses (Sherman, Higgs and Williams, 1997).

Another important area highlighted has been of pathway analyses, and the effects of the variable of locus of control on work situations and also as affected by the work situation itself. Furnham (1995) has also verified this aspect of locus of control as a ”reciprocal

variable", one that determines and is also determined by work related behaviour. Future research in work behaviour can investigate this stance further.

As we conclude from the findings of this research and the review of literature, work related well being is definitely a function of both the individual and the work environment. There needs to be extensive research work done before generalizing conclusions drawn from a sample, But the findings of the above research study may be stepping stones towards building a bigger model of well being at work in a specific work environment.

REFERENCES

REFERENCES

Anderson, C.R. (1977). Locus of control, coping behaviour and performance in a stress setting : a longitudinal study. *Journal of Applied psychology*. 62 : 446-451.

Albrecht, K. (1979). *Stress and the manager: making it work for you.* Englewood Cliff, N.J.: Prentice-Hall.

Baron, R.B. & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic and statistical considerations. Journal of personality and social Psychology.51 (6) : 1173-1182.

Blalock, M. B. and Blalock A.P. (2002). *Managerial well-being triumph over job-related stress*. Find http:www.stress.org.

Blau, G. (1993). Testing the relationship of locus of control to different performance dimensions. *Journal of Occupational & Organizational Psychology*, 66(2) : 125-138 .

Bollen, K., & Lennox, R. (1991). Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin*. 110 : 305-314.

Cooper, C. (1983). Identifying stressors at work: recent research developments. *Journal of Psychosomatic Research*. 27: 369-376.

Caplan,R.D.and Jones,K.W. (1975).Effects of workload, role ambiguity, and Type A personality on anxiety, depression and heart rate. *Journal of Applied Psychology*. 60 : 713-719.

Cooper, C.L. & Cartwright,S. (1994). Healthy mind; Healthy organization - A proactive approach to occupational stress. *Human Relations*. 47(4) : 455-471.

Chen, P.Y. & Spector,P.E. (1992). Relationships of work stressors with aggression, withdrawal, theft and substance abuse: An exploratory study. *Journal of Occupational and Organizational Psychology*. 65:177-184.

Daniels, K. & Guppy, A. (1994). Occupational stress, social support, job control, and psychological well-being. *Human Relations*. 47(12) : 1523-1544.

Daisy, J. (1998). A study of perception of stress among industrial managers from government, public and private sectors in relation to locus of control and role efficacy. Ph.D. thesis. Punjab University, Chandigarh, India.

Dobreva-Martinova, T. (2002). Occupational role stress in the Canadian Forces: Its association with individual and organizational well-being. Phd Thesis, Carleton University (Canada). ISBN : 0-612-67044-9

Edwards,J.R.; Caplan,R.D.; and Harrison,R.V.(1998). *"Person-environment Fit theory: conceptual foundations, empirical evidence, and directions for future research."* In C.L.Cooper (ed.) –Theories of Organizational Stress (28-67). Oxford University Press.

Furnham, A. (1995). *Personality at work: the role of individuals at workplace*. N.Y.: Routledge.

Greenberg, J. & Baron, R.A. (1993). *Behavior in organizations : understanding and managing the human side of work*. (4ed.) Allyn & Bacon.

Greenhaus,J.H. & Beutell, N.J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*. 10 : 76-88.

Hendrix, W.H. (1989). Job and Personal Factors Related to Job Stress and Risk of Developing Coronary Artery Disease. *Psychological Reports*. 65 :1136-1138.

Hsieh, T.Y.T. (1991). The Effects Of Locus Of Control On Occupational Stress, Manifestations Of Stress And Coping Strategies. Masters Thesis, University Of Waterloo (Canada), 1991. *Masters Abstracts International*. 30-04

Jex, S.M. (1998). *Stress and job performance: theory, research and implications for managerial practice.* Sage Publications.

Jex, S.M. & Beehr, T.A. (1991), "Emerging and Theoretical and Methodological Issues in the Study of Work-Related Stress". *Research in Personnel and Human Resources Management,* 9.

Johnson, S.J., & Black, N. (1981). The relationship between sex-role identity and beliefs in personal control. *Sex Roles*. 8 : 425-431.

Krause, N.; & Stryker, S. (1984). Stress and well being " the buffering role of locus of control beliefs. *Social Science and Medicine*. 18 : 783-790.

Keenan, A., & Newton, T. J. (1985). Stressful events, stressors, and psychological strains in young professional engineers. *Journal of Occupational Behavior*. *6* : 151-156.

Kumari, P. & singh, A.P. (1998). *Gender differences in stress, job outcomes and some personality variables in different sex-typed jobs*. In Hasan, Q. (ed) Applied psychology: Indian perspective. Gyan publishing.

Lofquist, L.H. and Davis R.V. (1969), *Adjustment of Work*. New York : Appleton-Century-Crofts.

Lucas, R.E., Diener, E., and Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*. 71 : 616-28.

Motowildo, Packard and Manning (1986). In Furnham, A. (1995). *Personality at work: the role of individuals at workplace*. N.Y.: Routledge.

Muldary, T.W. (1983). *Burnout and health professionals: manifestations and mangement*. Connecticut : Appleton-Century-Crofts/ Norwalk.

Noor, N.M. (2002). Work-Family Conflict, locus of control, and women's well being : tests of alternative pathways. *The Journal of Social psychology*. 142 (2) : 645-662.

Parasaruman, S. & Alutto, J.A. (1984). Sources and Outcomes of Stress in Organizational Settings: Toward the Development of a Structural Model. *Academy of Management Journal*. 27 (2) : 330-350.

Parks, Katharine R. (1984), "Locus of Control, Cognitive Appraisal, and Coping in Stressful Episodes," *Journal of Personality and Social Psychology*. 46 : 655-668.

Perrewe, P, (1986) Locus of Control and Activity Level as Moderators in the Quantitive Job Demands-Satisfaction/Psychological Anxiety Relationship An Experimental Analysis," *Journal of Applied Social Psychology*. 16 : 620-632.

Peters, L.H. & O'Connor, E.J. (1980). Situational constraints and work outcomes: The influences of a frequently overlooked construct. *Academy Of Management Review*. 5:391-397.

Riggio,R.E. (1996). *Introduction to Industrial/Organizational Psychology*. 2ed. New York. : Harper Collins College.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80, 1-28.

Schultz, D.P. & Shultz, S.E. (1998). *Psychology and Work Today : An introduction to Industrial and Organizational Psychology*. (7ed.). New Jersey : Prentice Hall.

Sethi,A.S.; Caro,D.H., & Schuller, R.S. (1987). *Strategic management of techno-stress in an information society*. New York : C.J.Hogrefe.

Sherman, A.C.; Higgs, G.E.; & and Williams, R.L. (1997). Gender differences in the locus of control construct. *Psychology and Health*. 12 :239-248.

Singh, S. and Sinha, A.K. (1986). Stress at work: Correlates of perceived time urgency and challenge in work. *Psychological Studies.* 31(1) : 48-50.

Siu,O.; Spector, P.E.; Cooper, C.L. ; et al. (2002). Managerial stress in greater China: The direct and moderator effects of coping strategies and work locus of control. *Applied Psychology: An International Review*. 51(4) : 608-632, Blackwell, U. K.

Spector, P. E. (1982). Behavior in organizations as a function of employee's locus of control. *Psychological Bulletin*. 91(3) : 482-497.

---------- (1986). Perceived Control by Employees: A Meta-Analysis of Studies Concerning Autonomy and Participation at Work. *Human Relations*, 39 :1005-1016.

---------- (1988). Development of the work locus of control scale. *Journal of Occupational Psychology*. 61 : 335-340.

----------. (1998).Development of the Work Locus of Control Scale. *Journal of Occupational Psychology*. 61(4) : 335-340, British Psychological Society, U. K.

Spector, P. E. and O'Connell, B.J. (1994). The Contribution of Personality Traits, Negative Affectivity, Locus of Control and Type A to the Subsequent Reports of Job Stressors and Job Strains. *Journal of Occupational and Organizational Psychology*. 67 1-11.

Spector, P. E., & Jex, S. M. (1998). Development of Four Self-Report Measures of Job Stressors and Strain: Interpersonal Conflict at Work Scale, Organizational Constraints Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *Journal of Occupational Health Psychology. 3* : 356-367.

Spector, P. E.; Dwyer, D.J.; & Jex, S. M. (1988). Relations of job stressors to affective, health and performance outcomes: A comparison of multiple data sources. *Journal of Applied Psychology*. 73 (1) : 11-19.

Spector, P. E.; Cooper,C.L.; Sanchez, J.I.; et.al. (2001). Do individual levels of individualism and internal locus of control and relate to well-being : an ecological level international study. *Journal of Organizational Behavior*. 22 : 815-832.

Spector, P. E.; Cooper,C.L.; Sanchez, J.I.; et.al. (2002). Locus of Control and well-being at work: How generalizable are Western findings? *Academy of Management Journal*. 53-466.

Syrotnick, J.M. & D'Arcy, C. (1982). Occupational Stress, Locus of Control and Health Among Men in a Prairie Province. *Canadian Journal of Behavioral Science*. 14 : 122-133.

Szilagyi, A.D., Jr. & Sims, H.P., Jr. (1975). Locus of control and expectancies across multiple organizational levels. *Journal of Applied Psychology*. 60 : 156-165.

Thailand Information Database. (2002). Retrieved: http://www.Thailandoutlook.com

Tudor,T. R. (1997). The effects of self-efficacy, work locus of control, and job involvement on perceived work stressors and strains. *Dissertation Abstracts International* Section A: Humanities & Social Sciences. 58(6-A) : 2297.

Turnage and Spielberger (1991).Job stress in managers, professionals and clerical workers. *Work & Stress*. 5 : 165-176.

U.S. Commercial Service, Thailand (2004).Retrieved 24 April 2004 from: http://www.cisco.com/th

Van Katwyk, P. T.; Fox, S.; Spector, P. E.; et al.. (2000). Using the Job-related Affective Well-being Scale (JAWS) to investigate affective responses to work stressors. *Journal of Occupational Health Psychology*. *5* : 219-230.

Warr, P.B. (1990) The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology*. 63 : 193-210.

Warr, P.B. (1999). *Well-being and the workplace*. In Daniel Kahneman, Ed Diener and Norbert Schwarz (ed), Well-Being: The foundations of Hedonic Psychology. New York : Russel Sage.

Wright, T.A. & Doherty, E.M. (1998).Organizational behavior rediscovers the role of emotional well-being. *Journal of Organizational Behavior*. 19 : 481-485.

Year-End Economic Review. (2002). Retrieved: http://www.bangkokpost.net

APPENDEX

APPENDIX A

Letter of Introduction to the subjects

Subject: **Research On Job Well-Being**

Dear Sir/Madam,

I am a research student, enrolled for Ph.D. at the Behavioral Science Research Institute, Srinakharinwirot University, Bangkok, Thailand. I am conducting a research about the **Job related well being among the managers working in the Telecom and IT field.**

You are well aware that the rapidly changing nature of work places many demands on the employees and fuels the concern about its impact on the well-being of both the employees and organizations. This research project is directed to understand how the well being of employees in the organizations can be improved.

You would agree it would be not be possible to conduct such a research without cooperation from the industry.

The research is in form of a short questionnaire (needs about 15 minutes to fill up). I would greatly appreciate if you could kindly help me by filling this questionnaire. Your responses and the name of your organization would be kept confidential during the report of the research findings.

Thanking you,

Yours Sincerely,

Kanu Priya.

Mobile Tel.No. 06-603 4412

Tel/Fax No. 02-258 8044

Email address: kanu_priya@hotmail.com

APPENDIX B

The Survey Questionnaire

JOB RELATED WELL-BEING

I seek your help to fill up this questionnaire on **job related well-being**. Your response will be of great value in understanding and improving the well-being of the employee and also of the organization.
Kindly spare a few minutes to fill up the required information.
Thank You!

I. Kindly **tick mark (√)** the relevant choice in each item or fill up the details , as necessary.

1. Your position in the organization : _____
2. Your Department : _____ 3.Industry that you work in:_____
4. Gender: ____ Male ____ Female
5. Your age:
    a) 20-29 years
    b) 30-39 years
    c) 40-49 years
    d) 50-59 years
    e) More than 59 years
6. What is your marital status?
    a) Single
    b) Married
    c) Living with a partner
    d) Separated, Divorced
    e) Widowed
7. What is your family size?
    a) Living alone
    b) 1-2 members
    c) 3-5 members
    d) More than 5 members
8. How long have you worked for this organization?
    a) Less than 1 year
    b) 1-5 years
    c) 5-10 years
    d) 10-20 years
    e) More than 20 years
9. Which of the following roles most nearly describes your job?
    a) Supervisory
    b) Entry level managerial
    c) Middle Managerial
    d) Top managerial
    e) Any other, specify _____
10. What is your educational background?
    a) Diploma, Certificate
    b) Bachelors degree
    c) Masters degree
    d) Higher than Masters degree
    e) Any other specialization, please specify _____

II Below are a number of statements that describe different emotions that a job can make a person feel. Please indicate the amount to which any part of your job (e.g., the work, coworkers, supervisor, clients, pay) has made you feel that emotion in the past 30 days.

For each item, use the following scale
1 = Never 2 = Rarely 3 = Sometimes 4 = Quite often 5 = Extremely often
Please **circle one response** for each item that best indicates how often you've experienced each emotion at work over the past 30 days.

1. My job made me feel at ease *(comfortable)*	1	2	3	4	5
2. My job made me feel angry	1	2	3	4	5
3. My job made me feel annoyed *(slightly angry)*	1	2	3	4	5
4. My job made me feel anxious *(worried)*	1	2	3	4	5
5. My job made me feel bored	1	2	3	4	5
6. My job made me feel cheerful	1	2	3	4	5
7. My job made me feel calm	1	2	3	4	5
8. My job made me feel confused	1	2	3	4	5
9. My job made me feel content *(happy & satisfied)*	1	2	3	4	5
10. My job made me feel depressed *(very sad)*	1	2	3	4	5
11. My job made me feel disgusted	1	2	3	4	5
12. My job made me feel discouraged	1	2	3	4	5
13. My job made me feel elated *(overjoyed)*	1	2	3	4	5
14. My job made me feel energetic	1	2	3	4	5
15. My job made me feel excited	1	2	3	4	5
16. My job made me feel ecstatic *(thrilled)*	1	2	3	4	5
17. My job made me feel enthusiastic *(very excited)*	1	2	3	4	5
18. My job made me feel frightened	1	2	3	4	5
19. My job made me feel frustrated *(Annoyed because you cannot do what you want to)*	1	2	3	4	5
20. My job made me feel furious	1	2	3	4	5
21. My job made me feel gloomy *(sad& without hope)*	1	2	3	4	5
22. My job made me feel fatigued *(extremely tired)*	1	2	3	4	5
23. My job made me feel happy	1	2	3	4	5
24. My job made me feel intimidated *(scared)*	1	2	3	4	5
25. My job made me feel inspired *(encouraged)*	1	2	3	4	5
26. My job made me feel miserable *(unhappy)*	1	2	3	4	5
27. My job made me feel pleased	1	2	3	4	5
28. My job made me feel proud	1	2	3	4	5
29. My job made me feel satisfied	1	2	3	4	5
30. My job made me feel relaxed	1	2	3	4	5

III. Please **circle one response** for each item

The following questions concern your beliefs about jobs in general. They do not refer only to your present job.	Disagree very mcuch	Disagree	Disagree slightly	Agree slightly	Agree moderately	Agree very much
1. A job is what you make of it.	1	2	3	4	5	6
2. On most jobs, people can pretty much accomplish whatever they set out to accomplish	1	2	3	4	5	6
3. If you know what you want out of a job, you can find a job that gives it to you	1	2	3	4	5	6
4. If employees are unhappy with a decision made by their boss, they should do something about it	1	2	3	4	5	6
5. Getting the job you want is mostly a matter of luck	1	2	3	4	5	6
6. Making money is primarily a matter of good fortune	1	2	3	4	5	6
7. Most people are capable of doing their jobs well if they make the effort	1	2	3	4	5	6
8. In order to get a really good job, you need to have family members or friends in high positions.	1	2	3	4	5	6
9. Promotions are usually a matter of good fortune	1	2	3	4	5	6
10. When it comes to landing a really good job, who you know is more important than what you know	1	2	3	4	5	6
11. Promotions are given to employees who perform well on the job	1	2	3	4	5	6
12. To make a lot of money you have to know the right people	1	2	3	4	5	6
13. It takes a lot of luck to be an outstanding employee on most jobs	1	2	3	4	5	6
14. People who perform their jobs well generally get rewarded	1	2	3	4	5	6
15. Most employees have more influence on their supervisors than they think they do	1	2	3	4	5	6
16. The main difference between people who make a lot of money and people who make a little money is luck	1	2	3	4	5	6

IV. Please **tick mark (√) one response** for each item

	Never	Rarely	Sometimes	Quite Often	Very Often
1. How often do you get into arguments with others at work?					
2. How often do other people yell at you at work?					
3. How often are people rude to you at work?					
4. How often do other people do nasty things to you at work?					

V. Please **tick mark (√) one response** for each item

In doing your job, how often do you find it difficult or impossible to do it because of the following situations?	Less than once per month or never	Once or twice per month	Once or twice per week	Once or twice per day	Several times per day
1. Poor equipment or supplies.					
2. Organizational rules and procedures.					
3. Other employees.					
4. Your supervisor.					
5. Lack of equipment or supplies.					
6. Inadequate training.					
7. Interruptions by other people.					
8. Lack of necessary information about what to do or how to do it.					
9. Conflicting job demands.					
10. Inadequate help from others.					
11. Incorrect instructions.					

VI. Please **tick mark (√) one response** for each item

	Less than once per month or never	Once or twice per month	Once or twice per week	Once or twice per day	Several times per day
1. How often does your job require you to work very fast?					
2. How often does your job require you to work very hard?					
3. How often does your job leave you with little time to get things done?					
4. How often is there a great deal to be done?					
5. How often do you have to do more work than you can do well?					

Thank you so much for sparing your valuable time and efforts!

APPENDIX C

Item Analyses of the Measures

RELIABILITY ANALYSIS - JAWS SCALE (ALPHA)

Item-total Statistics (n=38)

Item No.	Item Total Correlation	Item deleted from scale
1	0.2035	No
2	0.2408	No
3	0.4408	No
4	0.3164	No
5	0.6839	No
6	0.7396	No
7	0.2490	No
8	0.4466	No
9	0.6439	No
10	0.0929	Yes
11	0.5210	No
12	0.5124	No
13	0.0500	Yes
14	0.5065	No
15	0.4342	No
16	0.1273	Yes
17	0.0435	Yes
18	0.2974	No
19	0.3776	No
20	0.5210	No
21	0.7021	No
22	0.5055	No
23	0.5828	No
24	0.5629	No
25	0.1279	Yes
26	0.5904	No
27	0.6990	No
28	0.7692	No
29	0.7210	No
30	0.3516	No

Original scale :	No. of items=30.	Reliability Coefficient Alpha=.95
Revised scale :	No of items=25	Reliability Coefficient Alpha=.91

RELIABILITY ANALYSIS - WLCS SCALE (ALPHA)

Item-total Statistics

Item No.	Item Total Correlation	Item deleted from scale	
1	0.1990	No	
2	0.2124	No	
3	0.1154	Yes	
4	0.2782	No	
5	0.4501	No	
6	0.3189	No	
7	0.4124	No	
8	0.2517	No	
9	0.3962	No	
10	0.4403	No	
11	0.1726	No	
12	-0.2145	Yes	
13	0.2280	No	
14	-0.0326	Yes	
15	-0.1333	Yes	Original scale : No. of items=16, Alpha Coeff=.83
16	0.3863	No	Revised scale : No. of items=11, Alpha Coeff=.71

RELIABILITY ANALYSIS - ICAW SCALE (ALPHA)

Item-total Statistics

Item No.	Item Total Correlation	Item deleted from scale	
1	0.4072	No	
2	0.7903	No	
3	0.6014	No	
4	0.6874	No	Scale : No. of items=4, Alpha Coeff= .80

RELIABILITY ANALYSIS - QWI SCALE (ALPHA)

Item-total Statistics

Item No.	Item Total Correlation	Item deleted from scale
1	0.689	No
2	0.7201	No
3	0.8318	No
4	0.6508	No
5	0.5541	No

Scale : No. of items=5, Alpha Coeff=.86

RELIABILITY ANALYSIS - OCS SCALE (ALPHA)

Item-total Statistics

Item No.	Item Total Correlation	Item deleted from scale
1	0.3105	No
2	0.5215	No
3	0.6495	No
4	0.6336	No
5	0.5365	No
6	0.4592	No
7	0.5456	No
8	0.5431	No
9	0.7663	No
10	0.7083	No
11	0.7415	No

Scale : No. of items=11, Alpha coeff=.87

APPENDIX D

Alpha Coefficients Of The Scales

ALPHA COEFFICIENTS OF THE MEASURES (N=78)

	Measure	Alpha Coefficients of the scale used	No. of items in the scale used	Alpha Coefficients of the original scale	No. of items in the original scale
1	Interpersonal Conflict At Work	.80	4	.74	4
2	Organizational Constraints	.87	11	-	11
3	Quantitative Workload	.86	5	.82	5
4	Job Related Well Being	.91	25	.95	30
5	Work Specific Locus of control	.71	11	.83	16

This table shows the reliability of the scales. All the scales have a high reliability and also when compared to the Coefficient Alpha of the measures from that of the “authors”. After the pilot study, the items with low reliability were deleted.

CURRICULUM VITAE

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