RELATIONSHIP BETWEEN SOURCES OF JOB STRESS, PERSONALITY TRAITS AND JOB STRESS: THE MODERATING ROLE OF COPING STRATEGIES

KUMARESAN V. SATHASIVAM

PERPUSTAKAAN UNIVERSITI MALAYSIA SABAH

THESIS SUBMITTED IN FULFILLMENT FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

FACULTY OF MEDICINE AND HEALTH SCIENCES
UNIVERSITI MALAYSIA SABAH
2016



UNIVERSITI MALAYSIA SABAH

BORANG PENGESAHAN STATUS TESIS

JUDUL:

RELATIONSHIP BETWEEN SOURCES OF JOB STRESS,

PERSONALITY TRAITS AND JOB STRESS: THE MODERATING

ROLE OF COPING STRATEGIES

DAZAH:

DOCTOR OF PHILOSOPHY (MEDICAL SCIENCE)

Saya <u>KUMARESAN V SATHASIVAM</u>, Sesi Pengajian <u>2010-2016</u>, mengaku membenarkan tesis Doktor Falsafah ini disimpan di Perpustakaan Univesiti Malaysia Sabah dengan syarat-syarat kegunaan seperti berikut:-

- 1. Tesis ini adalah hak milik Universiti Malaysia Sabah.
- 2. Perpustakaan Universiti Malaysia Sabah dibenarkan membuat salinan untuk tujuan pengajian sahaja.
- 3. Perpustakaan dibenarkan membuat salinan tesis ini sebagai bahan pertukaran antara institusi pengajian tinggi.
- 4. Sila tandakan (/)

SULIT	(Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub di dalam AKTA RAHSIA 1972)
TERHAD	(Mengandungi maklumat TERHAD yang telah ditentukan oleh organisasi/badan di mana penyelidikan dijalankan)
TIDAK TERHAD	

KUMARESAN Y SATHASIVAM PU20109097

Tarikh: 29 Mac 2016

Disahkan oleh,

NURULAIN BINTI ISMAIL

LIBRARIAN

SIZYMAKAYSIA SABAH

UNIVERSITI MALAYSIA SABA

(Tandatangan Pustakawan)

(Prof. Masya Dr. Mohd. Dahlan Hj. A Malek)

Penyelia

PROF. MADYA DR. MOHD DAHLAN HJ. A. MALEK
Timbalan Dekan

(Akademik & Antarabangsa)

DECLARATION

I hereby acknowledge that I have stated the source of each extraction, summary and reference in this study. I declare that the thesis is my original work except for quotations, citations, summaries and references which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at University Malaysia Sabah or at any other institution.

25 February 2016

Kumaresan V Sathasivam PU20109097

CONFIRMATION

NAME : KUMARESAN V SATHASIVAM

METRICS NUMBER : PU 20109097

TITLE : RELATIONSHIP BETWEEN SOURCES OF JOB STRESS,

PERSONALITY TRAITS AND JOB STRESS: THE

MODERATING ROLE OF COPING STRATEGIES

DEGREE : DOCTOR OF PHILOSOPHY (MEDICAL SCIENCE)

VIVA DATE : **11 JAN 2016**

CERTIFIED BY

1. SUPERVISORS

Prof. Madya Dr. Mohd. Dahlan Hj. A Malek

PROF. MADYA DR. MOHD DAHLAN HJ. A. MALEK

Timbalan Dekan

(Akademik & Antarabangsa) Fakulti Psikologi dan Pendidikan Universiti Malaysia Sabah

2. CO-SUPERVISOR

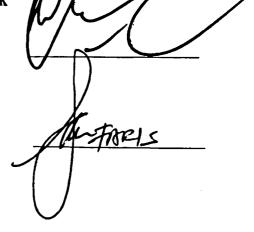
Prof. Dr. Ahmad Faris Abdullah

PROF. DR AHMAD FARIS ABDULLAH
Deputy Dean Academic & Student Attairs

Faculty of Medicine & Health Sciences

Universiti Malaysia Sabah

MMC No: 30859



Signature



ACKNOWLEDGMENTS

I would like to extend my gratitude to my research supervisor and co-supervisor, Associate Professor Dr. Mohd Dahlan Hj. A. Malek and Professor Dr. Ahmad Faris Abdullah for their invaluable guidance and coaching. Dr. Mohd. Dahlan has shown so much of care for my work and who have responded to all my questions and queries immediately. Both my supervisors have shown valuable support by providing scientific orientation in this research and constructive feedbacks to further strengthen the quality of the study. Special thanks to Dr. Nagashekhar for his assistance in my statistical analysis of this study. I wish to thank every researcher cited in this dissertation for providing the knowledge that formed the basis of my study. I also wish to thank every manager that participated in my study, directly or indirectly in any ways.

This dissertation is dedicated to my parents, Mr. V. Sathasivam and Mrs. K. Seethaletchumi, who have supported and loved me throughout my academic and life journeys, regardless of the twists, turns, and challenges. Thank you for your patience, encouragement and support. I love you very much and hope to give back enough of my support. I will not be who I am today, if it was not for you both.

My thanks go to my loving partner, my wife, Dr. Lalitha Pereirasamy, for being there for me throughout the journey. Your love, time, and help have made this process and my life in general so much more pleasurable and fulfilling. I can only look forward to what the future holds. And not forgetting my three beloved sweethearts, my children, Subashree, Shailashree and Haresh, for their presence physically and emotionally with me all during my study. They have lost a lot of my quality times with them due to my time spent on this research and without their encouragement and understanding it would have been impossible for me to succeed in this work. Special thanks to my best friend, Karthikesan, for his invaluable support and help throughout this study. This dissertation belongs to all my family members as much as it is mine. I would also like to thank all my managers, peers and sub-ordinates at work, whom was ever willing to help and support during my research period.

This study would not have even been initiated without the idea and support from my beloved friend and former supervisor, Associate Professor Dr. Kumaraswamy Narasappa. He was the instrumental pillar in giving me hope and believe to pursue this study and to complete it. He was greatly missed during my final stages of the research and may his soul rest in peace. This study is dedicated to him.

Finally and most importantly, I pray and thank God infinitely for helping and allowing me to succeed in this work.

Thank You. Kumaresan V Sathasivam February 2016



ABSTRACT

Job stress is ubiquitous in today's organizations, and the costs of these phenomena cut across all levels of society. In recent years, researchers considering job stress in the workplace have made great strides in understanding several aspects of the stress phenomenon in the field of organizational behavior. Thus, it becomes more important that the coping strategies of these job stresses are well explored and directly linked to individuals experiencing this situation, in order to ensure the right methods can be used for the best benefits in coping with work place stresses. This research presents an integration of past research and theory that models the relationship of antecedents of job stress and coping strategies among managers in electronics firms in Malaysia. A total of 400 electronic company managers participated in this study. This study is a survey using multiple questionnaires, namely, 'Job Stress' to measure the levels of job stress, 'Organizational Sources of Job Stress', to measure the sources of job stress, while 'NEO Five Factor Inventory' to gauge the personality of the manager and 'Coping Resources Inventory' to measure coping strategies. A set of demographic factors like gender, marital status and educational status, are also studied as influencing factors to job stress. Coping strategies in this study is positioned as a moderating variable. The implication of the study would be extremely beneficial for electronics organizations in not only identifying the organizational sources of job stress, but also to understand the personality behaviors of their management staffs. More importantly, this study recommends the best coping strategies for managers that would enable the leadership team in the electronics organizations to be able to handle job stress more efficiently. In the years to come, acknowledging the presence of job stress in major industries such as electronics industry in Malaysia, would become critical and the study would be able to help identify coping strategies that organizations can use to enable the best productivity from their management team. Contributions in of this study would prove essential to electronics firms in terms of managing their leadership workforce in terms of their stress management, productivity and wellbeing of the individuals. This will also allow companies to develop avenues to suit the rightful facilities and forums to address job stress for their employees that would result in work life effectiveness, which will result in highly motivated managers, highly productive organizations and a huge economy boost for the nation.



ABSTRAK

HUBUNGAN ANTARA SUMBER STRES PEKERJAAN , PERSONALITI DAN STRES KERJA: STRATEGI DAYA TINDAK SEBAGAI MODERATOR

Stres pekerjaan merupakan satu fenomena yang berlaku dalam sesebuah organisasi yang melibatkan setiap lapisan masyarakat. Sejak kebelakangan ini, kebanyakan para pengkaji telah memfokuskan kepada konsep memahami fenomena ini dalam bidang tingkahlaku organisasi. Oleh itu, ia menjadi lebih penting bahawa kaedah yang diguna untuk menghadapi masalah stres pekerjaan dapat dikaji secara langsung kepada pekerja yang mengalami masalah ini, untuk memastikan kaedah yang sesuai boleh digunakan dalam menangani stres di tempat kerja yang semakin serius yang boleh menjejaskan produktiviti semasa bekerja. Seramai 400 orang pengurus syarikat elektronik terlibat dalam kajian ini. Kajian ini merupakan kajian berbentuk survei dengan menggunakan soalselidik 'Job Stress' bagi mengukur stres pekerjaan, 'Organizational Sources of Job Stress', bagi mengukur sumber stres pekerjaan, manakala 'NEO Five Factor Inventory 'untuk mengukur personaliti para pengurus dan 'Coping Resources Inventory' bagi mengukur strategi daya tindak. Fokus utama kajian ini ialah untuk melihat hubungan antara sumber stres pekerjaan, personaliti dan stres kerja serta peranan strategi daya tindak sebagai moderator dalam kalangan pengurus di perindustrian elektonik di Malaysia. Faktor sosio demografi seperti jantina, status perkahwinan dan taraf pendidikan juga dikaji sebagai faktor-faktor yang mempengaruhi stres kerja dan juga strategi daya tindak yang sesuai. Implikasi kajian ini amat berguna untuk industri elektronik, bukan sahaja untuk mengenal pasti sumber-sumber stres kerja dalam sesebuah organisasi, tetapi juga untuk memahami tingkah laku serta personaliti kakitangan pengurusan mereka. Lebih penting lagi, kajian ini akan mengenalpasti kaedah terbaik untuk menangani masalah stres kerja dengan lebih efisien. Adalah diharapkan kajian ini dapat memberi sumbangan kepada bidang industri elektronik dalam memastikan para pengurus di dalam industri ini dapat bekerja dengan lebih efisien. Sumbangan kajian ini adalah penting untuk firma elektronik dalam menguruskan tenaga kerja mereka dari segi pengurusan stres pekerjaan, produktiviti dan kesejahteraan individu. Ini juga akan membolehkan syarikat-syarikat untuk menyediakan latihan atau kemudahan yang sesuai bagi menangani stres pekerjaan untuk pekerja mereka serta melahirkan para pekerja yang produktif dan bermotivasi yang dapat memberi rangsangan ekonomi yang tinggi untuk negara.



TABLE OF CONTENTS

			Page
TITLE			i
DECL	ARATION	N	ii
CONF	IRMATI	ON	iii
ACKN	OWLEDO	GEMENTS	iv
ABST	RACT		v
ABST	RAK		vi
TABL	E OF COI	NTENTS	vii
LIST	OF TABL	ES	xii
LIST	OF FIGU	RES	xv
LIST	OF ABBF	REVIATIONS/SYMBOLS	xvi
CHAP	TER 1:	INTRODUCTION	
1.1	Backgro	pund	1
1.2	Researc	ch Problem	5
1.3	Researc	ch Questions	8
1.4	Objectiv	ve of Study	9
1.5	Signific	ance of Study	10
	1.5.1	Impacts to the Individual Manager	12
	1.5.2	Impact to the Organization	12
	1.5.3	Impact to the Economy and Nation	13
1.6	Scope	of Study	13
1.7	Definiti	on of Key Variables	15
1.8	Concep	otual Research Framework	19
1.9	Hypoth	neses	20
1.10	The St	ructure of the Theses	22
1.11	Summa	arv	24



CHAPTER 2: LITERATURE REVIEWS

2.1	Overvie	w of Electronics Industry in Malaysia	25
2.2	Importa	ance of Managers in Organizations	29
2.3	Job Str	ess: An Overview and its Implications	36
2.4	Job Str	ess among Managers	38
2.5	Indepe	ndent Variables: An Overview of its impact to Job Stress	40
2.6	Transa	ctional Stress Model, Job Stress, Personality	41
	And Co	ping Dimensions	
2.7	Organi	zational Variables as Sources of Stress	44
	2.7.1	Conflict	46
	2.7.2	Work Overload	48
	2.7.3	Unfavorable work conditions	50
2.8	Person	ality Traits as Sources of Stress	53
	2.8.1	Neuroticism	59
	2.8.2	Extraversion	60
	2.8.3	Openness	61
	2.8.4	Agreeableness	62
	2.8.5	Conscientiousness	63
2.9	An Ove	erview of Coping	65
	2.9.1	The Concept of Coping	68
	2.9.2	The Historical Development of Coping	70
	2.9.3	General Coping Theory	71
	2.9.4	The Individual and Organizational Perspective	72
	2.9.5	The Coping Mechanism for Job Stress	73
	2.9.6	Coping Strategies as Moderators	76
	2.9.7	Definition of Coping Resources and Scales	77
		a. Cognitive	79
		b. Social	80
		c. Emotional	81
		d. Spiritual/Philosophical	82
		e. Physical	83
	2.9.8	Key Research Validity and Outcomes	84
2.10	Demo	graphic Factors	87



2.10.1	Gender	87
2.10.2	Educational status	89
2.10.3	Marital status	90
Summar	γ	91
TER 3: I	RESEARCH METHODOLOGY	
Introduc	ction	93
Researc	h Design	94
Populati	ion and Unit of Analysis	95
Samplin	g Strategy	96
Data Co	llection Techniques	98
Survey	Instrument	99
Questio	nnaire Design	102
3.7.1	Job Stress Variable	103
3.7.2	Organizational Variables	103
3.7.3	Personality Variables - NEO Five Factor Inventory	103
3.7.4	Coping Variables – Coping Resource Inventory	104
Data A	nalysis	106
3.8.1	Validity and Reliability of the Measurement	107
	Instruments	
3.8.2	Normality Testing	109
3.8.3	Descriptive Statistic Analysis	109
3.8.4	Multivariate Analysis	109
3.8.5	Hypotheses Testing	111
3.8.6	Research Ethics	113
Pilot St	tudy	113
3.9.1	Demographic Details	114
3.9.2	Validity and Reliability of the Instruments	117
3.9.3	Qualitative Results	120
Summ	ary	121
	2.10.2 2.10.3 Summar TER 3: I Introduct Research Populati Samplin Data Co Survey Question 3.7.1 3.7.2 3.7.3 3.7.4 Data Ar 3.8.1 3.8.2 3.8.3 3.8.4 3.8.5 3.8.6 Pilot St 3.9.1 3.9.2 3.9.3	2.10.2 Educational status 2.10.3 Marital status Summary TER 3: RESEARCH METHODOLOGY Introduction Research Design Population and Unit of Analysis Sampling Strategy Data Collection Techniques Survey Instrument Questionnaire Design 3.7.1 Job Stress Variable 3.7.2 Organizational Variables 3.7.3 Personality Variables - NEO Five Factor Inventory 3.7.4 Coping Variables - Coping Resource Inventory Data Analysis 3.8.1 Validity and Reliability of the Measurement Instruments 3.8.2 Normality Testing 3.8.3 Descriptive Statistic Analysis 3.8.4 Multivariate Analysis 3.8.5 Hypotheses Testing 3.8.6 Research Ethics Pilot Study 3.9.1 Demographic Details 3.9.2 Validity and Reliability of the Instruments



CHAPTER 4: DATA ANALYSIS AND FINDINGS

4.1	Introduc	tion	123
4.2	Socio-de	mographic and Job Stress Profile of the Respondents	124
4.3	Validity of	of the Instruments	127
	4.3.1	Factorial structure and scores of Job Stress	128
	4.3.2	Factorial structure and scores of Organizational	129
		Variables ·	
	4.3.3	Factorial structure and scores of Personality	131
		Traits	
	4.3.4	Factorial structure and scores of Coping Strategies	134
4.4	Reliabili	ty of the Instruments	137
4.5	Normali	ty Testing	139
	4.5.1	Missing Data and Outliers	139
	4.5.2	Normality Statistics Test for all variables	141
4.6	Model S	Summary and Coefficient of ANOVA	144
	4.6.1	Organizational and Personality variables	144
	4.6.2	Coping strategies	146
4.7	Correlat	tion Analysis	148
4.8	Regress	sion Analysis	151
	4.8.1	Organizational and Personality variables	152
	4.8.2	Coping Strategies	153
4.9	Testing	of Hypotheses	154
	4.9.1	Organizational Variables relationship to Job Stress (H1)	154
	4.9.2	Personality Variables relationship to Job Stress (H2)	155
	4.9.3	Demographics Factors relationship to Job Stress (H3)	157
	4.9.4	Coping strategy relationship to Job Stress (H4)	165
	4.9.5	Coping Strategy as a moderator (H5)	166
	4.9.6	Summary of Hypotheses testing	177
4.10	Summa	ary	180
СНА	PTER 5:	DISCUSSIONS AND CONCLUSIONS	
5.1	Introd	uction	182
5.2	Recapi	tulation of Study	182



5.3	Discus	sion of Major Findings	183
	5.3.1	Organizational variables and job stress	184
	5.3.2	Personality variables and job stress	188
	5.3.3	Demographics and job stress	190
	5.3.4	Coping Strategies and job stress	194
	5.3.5	Coping Strategies as moderators	198
5.4	Implica	ations and Contribution of the Study	200
5.5	Limita	tion of Study	203
5.6	Recom	nmendations	205
5.7	Implic	ations for Future Research	209
5.8	Conclu	usion	211
REF	ERENCE	es s	213
APP	ENDICE	S .	
App	endix A	Cover Letter	230
App	endix B	Final Survey Questionnaire	231
BIO	DATA O	F STUDENT	248
LIS	T OF PU	BLICATIONS AND CONFERENCES	249



LIST OF TABLES

		Page
Table 2.1:	Brief Description of NEO-PI Domains. Adapted the NEO Personality Inventory Manual	57
Table 3.1:	Electronics Firms Distribution by States in Malaysia	97
Table 3.2:	Different variables and the respective questions in the questionnaire	101
Table 3.3:	Overall summary of the pilot study's demographic profile	116
Table 3.4:	Reliability tests for all variables during pilot study	119
Table 4.1:	Overall Summary of Demographic profile of the respondents by frequency and percentage	125
Table 4.2:	Overall Summary of job stress profile of the respondents by frequency and percentage	126
Table 4.3:	Principle component analysis of job stress: item loading, scale reliabilities and mean relative score	129
Table 4.4:	Principle component analysis of organizational sources of job stress: item loading, scale reliabilities and mean relative score	130
Table 4.5:	Principle component analysis of personality traits: item loading, scale reliabilities and mean relative score	132
Table 4.6:	Principle component analysis of coping: item loading, scale reliabilities and mean relative score	135
Table 4.7:	Reliability tests (Cronbach's Alpha value) for all variables	137
Table 4.8:	Inter correlation strength for all variables	139
Table 4.9:	Skewness and Kurtosis value for all variables	140
Table 4.10:	Descriptive Statistics for Organizational, Personality and Job Stress variables	144
Table 4.11:	Model Summary for Organizational and Personality Variables	145
Table 4.12:	Coefficient of determination of ANOVA for Organizational and Personality variables	146



Table 4.13:	Descriptive Statistics for Coping and Job Stress variables	147
Table 4.14:	Model Summary for coping variable	147
Table 4.15:	Coefficient of determination of ANOVA for coping variables	148
Table 4.16:	Pearson Correlation Analysis among job stress and all other independent variable	150
Table 4.17:	Pearson correlation between job stress and coping strategies	151
Table 4.18:	Regression weights of all organizational and personality variables	152
Table 4.19:	Regression weights of all coping strategies and job stress	153
Table 4.20:	Mean comparison for Male and Female managers against other variables	159
Table 4.21:	Levene's Test/T-test for male and female respondents against all other variable	160
Table 4.22:	Mean comparison for Single and Married managers against other variables	161
Table 4.23:	Levene's Test/T-test for single and married respondents against all other variables	162
Table 4.24:	Mean comparison for Degree and Masters Holders managers against other variables	163
Table 4.25:	Levene's Test/T-test for degree and masters holders' against all other variables	164
Table 4.26:	Hierarchical regression analysis of predicting job stressfrom conflict interacting with coping strategies	167
Table 4.27:	Hierarchical regression analysis of predicting job stress from work overload interacting with coping strategies	169
Table 4.28:	Hierarchical regression analysis of predicting job stress from unfavorable work condition interacting with coping strategies	170
Table 4.29:	Hierarchical regression analysis of predicting job stress from neuroticism interacting with coping strategies	17:



Table 4.30:	Hierarchical regression analysis of predicting job stress	173
	from extraversion interacting with coping strategies	
Table 4.31:	Hierarchical regression analysis of predicting job stress	174
	from openness interacting with coping strategies	
Table 4.32:	Hierarchical regression analysis of predicting job stress	175
	from agreeableness interacting with coping strategies	
Table 4.33:	Hierarchical regression analysis of predicting job stress	176
	from conscientiousness interacting with coping strategies	
Table 4.34:	Table 4.34: Summary of all hypotheses (H1, H2, H3 & H4)	178
	test results	
Table 4.35:	Summary of hypotheses (H5) on moderating effect of	179
	coping strategies test results	

LIST OF FIGURES

		Page
Figure 1.1:	Conceptual Research Framework for this research	20
Figure 2.1:	Top 10 Major Export Products, 2013 and 2014	26
Figure 2.2:	Map of free industrial zones in Malaysia	29
Figure 2.3:	Levels of Management	30
Figure 4.1:	Job stress categories breakdown for all managers	127
Figure 4.2:	Normality statistics test for Organizational factors and job stress	141
Figure 4.3:	Normality statistics test for Personality Traits	142
Figure 4.4:	Normality statistics test for coping strategies	143



LIST OF ABBREVIATIONS/SYMBOLS

CRI Coping Resource Inventory

E&E Electrical and electronics

FFM Five Factor Model

FIZ Free Industrial Zones

H1 Hypotheses 1

H2 Hypotheses 2

H3 Hypotheses 3

H4 Hypotheses 4

ICT Information and communication technology products

LED Light-emitting diode

MATRADE Malaysia External Trade Development Corporation

MIDA Malaysian Industrial Development Authority

MNC Multi National Corporation

NEO-PI NEO – Personality Inventory

NEO-PI-R NEO – Personality Inventory - Revised

OEM Original Equipment Manufacturers

SPSS Statistical Package for the Social Sciences

VIF Variance inflation factor

WHO World Health Organization

Df Degree of freedom

CON Conflict

OVERL Work Overload

WRKENV Unfavorable Work Conditions

NEU Neuroticism

EXT Extraversion

OPN Openness

AGR Agreeableness

CONS Conscientiousness

COG Cognitive

SOC Social



EMO Emotional

SPR Spiritual/Philosophical

PHY Physical



CHAPTER 1

INTRODUCTION

1.1 Background

Today's managers face many challenges in the highly competitive working environments, characterized by lack of time, more uncontrollable factors, background distractions, lack of space, general uncertainty, and more administrative tasks that has resulted in job stress. In short, managerial work in organizations in exposed to highly stressful environments. Keichel (1993) identified job stress as one of the key problem in the workforce for the next century. For instance, in a survey by the UK Institute of Directors, 40% of the responding members said stress was a big problem in their company and 90% thought that working practices could be a factor affecting the level of reported stress (Suzanne, et al., 1998). The increasing workloads and roles at the workplace have placed managers under a lot of pressure. This has led to a significant effect on managers' psychological health that inevitably leads to stress and burnout. With job stress becoming an alarming factor for managerial staffs, coping strategies to adopt and overcome the psychological distress has become significantly important.

Furthermore, the weakening of the global economy in the past years has resulted in severe stressful happenings among local and foreign firms in terms of the recent downsizing and retrenchment activities, to stay competitive. Much of the problem stems from Malaysia's heavy reliance on electronics industry, which accounts for 39.1% of total exports (Malaysia's Trade Performance 2010, Malaysian External Trade Development Corporation). Among the working class, jobs have been lost, salaries cut, bonuses trimmed and over time work slashed. With these happenings around the industrial sector, job stress becomes a major phenomenon among Malaysians.



Stress can be described as the distress that is caused as a result of demands placed on physical or mental energy. Stress can arise as the result of factors including anxiety and tension, according to Holmes and Rahe (1967). Stress is caused when life events are felt to be threatening to individual physical, social or mental well-being. The amount of stress experienced by an individual depends on how threatening these life events are perceived to be, individual coping strategies and how many stressful events occur in a short period of time (Smeltzer, 1987). Tension is a natural reaction to anxiety. It is part of a primitive survival instinct where physiological changes prepare the individual for 'fight or flight'. sympathetic response, as it is known, results in a chemical Adenosine Triphosphate (ATP) being released in the body and causes muscles to tense ready for action (Holmes and Rahe, 1967). Physiologically, blood vessels near the skin constrict, to slow bleeding if injury is sustained, and to increase the blood supply to the muscles, heart, lungs and brain. Digestion is inhibited, the bladder relaxes, the heart rate and breathing speed increase, the body sweats more. The person affected becomes more alert, their eyes dilate and a surge of adrenaline gives rise to an increase in energy. These responses are extremely useful in situations of physical danger but, unlike for primitive humans, many of the anxieties of modern life are not ones that can be solved by a 'fight or flight' reaction or by any physical response (Holmes and Rahe, 1967). Modern day stressful situations tend to continue for much longer periods of time and an immediate response does not relieve the anxiety-provoking situation. Therefore, prolonged states of anxiety can lead to symptoms of stress which prevent the individual from returning to his or her normal, relaxed state. Prolonged stress can therefore be detrimental to health and wellbeing (Williams and Cooper, 2002).

When stressed, individuals often indulge in behaviors which may relieve the immediate feelings of anxiety in the short-term, but which only add to their problems in the longer term (Sutton and Rafaeli, 1987). For example, alcohol, drugs, smoking and/or over-eating are often used to cope with immediate problems of stress. Avoiding, ignoring or failing to recognize underlying problems is also a common occurrence. When too many work demands are placed upon someone, he or she may work harder for longer hours and attempt to keep up with an



impossible schedule instead of trying to reduce such demands. In the long term, such behaviors will only serve to increase the physiological symptoms of tension and deplete physical energy reserves (Sutton and Rafaeli, 1987).

Job stress is stress involving work. According to the current World Health Organization's (WHO) definition, occupational or job-related stress "is the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope". Job stress in the workplace appears to be a wide spread cross-cultural phenomenon. Most of the research work on stress has focused on basic elements, namely (a) antecedents of stress, (b) moderators of stress and (c) outcomes of stress (Jerusalem, 1993; Deary and Blenkin, 1996). Depending on the subject's characteristic coping response, potential stressors may result in different outcomes in terms of physical and psychological disturbances (Jerusalem, 1993). Stress models typically show personality and environmental factors as having a strong influence on stress outcomes and coping strategies Deary and Blenkin, 1996). In the case of personality, the dimension of neuroticism, one of the five personality traits, is thought to be an influential antecedent in human stress process (Deary and Matthews, 1993).

Not all job stress is deemed harmful. Stress affects people differently. Some people seem to thrive on extremely stressful lifestyles, while others struggle to cope with everyday life (Williams and Cooper, 2002). Everyone has an optimum level of stress. Too little excitement and too few challenges may lead to an extremely dull life, yet too much stress can lead to health problems. Nevertheless, a certain amount of stress can actually prove to be good for individuals (Beehr and Newman, 1978). Positive stress can act as a spur to achieve better results than would otherwise be attained, and no-one would wish to avoid such potentially stressful but enjoyable events as the birth of a child, forming new relationships or undertaking new challenges (Beehr and Newman, 1978). Stress is also extremely useful in acting as an enabler to avoid problems and dangers. It is a motivator to solve problems and is an important warning signal that something is wrong with an



individual's life, thereby allowing him or her to take some action (Williams and Cooper, 2002).

In many countries, employers have a legal responsibility to recognize and deal with stress in the workplace so that employees do not become physically or mentally ill. It is important to tackle the causes of stress in the workplace as stress at work can lead to problems for the individual, working relationships and the overall working environment. These issues may include lowered self-esteem and poor concentration skills for the employee. The employer may suffer from increasing customer complaints, staff turnover and days lost to sickness. Managing stress in the workplace is therefore an essential part of both individual and corporate responsibility.

In the UK, the Health & Safety Executive (HSE) has issued a guide entitled Tackling stress: The Management Standards Approach (2005) which outlines six key areas of the workplace that should be monitored in order to assess levels of stress. These key areas are as follows,

- a. Demands Including such issues as workload, work patterns and work environment.
- b. Control How much the person has control in the way they do their work?
- c. Support Includes the encouragement, sponsorship and resources provided by the organization, line management and colleagues.
- d. Relationships Includes promoting positive working to avoid conflict and dealing with unacceptable behavior.
- e. Role Whether people understand their role within the organization and whether the organization ensures that the person does not have conflicting roles.
- f. Change How organizational change is managed and communicated within the organization.



Effectively coping with stress, managing stress and finding ways to reduce unnecessary or unhealthy levels of stress are important life skills that everybody needs. Negative stress, tension and anxiety are extremely common problems in modern life and most people will suffer from potentially dangerous or debilitating symptoms of stress and stress related issues at some point in their lives.

In addition to stress being caused by events, certain situations can lead to people feeling stressed; although as mentioned before the degree of stress will depend, amongst other things, on that individual's coping strategies. The environment can make us stressed: for example, noise, crowds, poor lighting, pollution or other external factors over which we have no control can cause us to feel anxious and irritable.

Adjusting to modern-day life can also be a source of stress. People now communicate with other people in many different ways, for example, through the internet, mobile phones and various broadcast media, thus the expectation of a quick response has increased. We also have many more commodities available to us and some people feel an expectation to maintain a certain lifestyle and level of consumerism. In addition, for many people it is now the norm to manage a full or part-time job and to be the primary career nurturing a family. All of these changes mean that stress is now unfortunately commonplace in both our personal and professional lives.

1.2 Research Problem

Stress is a state that occurs when people are faced with events they perceive as endangering their physical or psychological well-being, and are unsure of their ability to deal with these events (Cook and Hunsaker, 2001). Sources of stress are called stressors. Stressors, based on most studies include variables like environment, individual and organization (Matteson and Ivancevich, 1999). For the past decade, the manufacturing sector has been undergoing constant technological development (Jestin and Gampel, 2002). This is inevitably led to high pressure and job stress among managers in the work environment. Above all, the recent economic slowdown in the global economy from the year 2000 has a significant



effect on the local and multinational firms involving thousands of managers in the country. Many different job stressors contribute to job stress problems among these managers. Stressors prominently related to the organization itself, include conflict, work overload, unfavorable work conditions, and so forth. The other key stressor relates to individual variables like personality traits, personal problems and demographic factors and others. With the presence of job stress in the current world unavoidable, the big question is, whether the managers are aware of the best methods to cope and adapt to this challenges. During the coping phase, the individual acts on the stressor and the activities and efforts chosen are largely dependent on the variety of personal and environmental resources that are at the disposal of the individual (Schafer, 2000).

Almost all studies of job stress and health have focused on formal workers, such as police officers (Boonkuna, 2012) and health professionals (e.g. nurses, physicians) (Cheng et al., 2001). Among formal workers, job stress is a serious and costly occupational health problem that leads to adverse effects on physical and mental health, such as musculoskeletal disorders (Cheng et al., 2001), cardiovascular disease (Schermerhorn et al., 2005), anxiety and depression (Boonkuna, 2012), as well as unhealthy behaviors (E.g., smoking, alcohol, and drug usage) (Cheng et al., 2001), absenteeism and lower productivity (Schermerhorn et al., 2005).

Categories associated with occupational stress are namely associations to factors unique to the job, role in the organization, career development, interpersonal work relationships and organizational structure/climate (Colligan and Higgins, 2006). These individual categories demonstrate that stress can occur specifically when a conflict arises from the job demands of the employee and the employee itself. If not handled properly, the stress can become distress, accordingly to Hurrell (1995). The ability of the employee coping with the specific hours worked, the level of productive rate expected, the physical environment, as well as the expectancy of the work desired by management (Colligan and Higgins, 2006). For instance, research shows that night shifts in particular has a high possibility of negative impact towards the health of the employee. In relation to



REFERENCES

- Aiken, L. S. and West, S. G. (1991). *Multiple Regression: Testing and Interpreting Interactions*, Newbury Park: Sage.
- Antonovsky, A. (1974). Conceptual and methodological problems in the study of resistance resources and stressful life events. In B. S. Dohrenwend & B. P. Dohrenwend (Eds.), Stressful life events: Their nature and effects (pp.245-258). New York: Wiley.
- Antonovsky, A. (1979). Health, stress, and coping. San Francisco: Jossey-Bass.
- Antonovsky, A. (1987). Unravelling the mystery of health: How people manage stress and stay well. San Francisco, CA: Jossey-Bass.
- Aryee, S. (1992). Antecedents and outcomes of work-family conflict among married professional women: Evidence from Singapore. *Human relations*, **45**(1), 813-837.
- Attia, N. (2013). Big Five personality factors and individual performance. Masters Dissertation. University of Quebec, Chicoutimi, 2013.
- Bacharach, S., Bamberger, P. and Conley, S. (1991). Work home conflict among nurses and engineers: Mediating the impact of role stress on burnout and satisfaction at work. *Journal of Organizational Behavior*, **12**(1): 39-53.
- Babbie, E. (2007). The practice of social research. In E. Babbie. Belmont California: Thomson Wadsworth.
- Bajgier, A. L. (1991). Powers of goodness of fit statistics in detecting balanced mixed normal distributions. *Educational and Psychological Measurement*, **51**, 253-269.
- Barnett, P. A. and Gotlib, I. H. (1990). Cognitive vulnerability to depressive symptoms among men and women. *Cognitive Therapy and Research*, **14**, 47-61.
- Barnett, V. and Lewis, T. (1996). *Outliers in statistical data (3rd edition)*. New York: Wiley.
- Baron, R. M. and 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**: 1174–82.



- Baum, A., and Singer, J. E. (1982). Psychosocial aspects of health, stress, and illness. In A. H. Hastorf & A. M. Isen (Eds.), *Cognitive social psychology* (pp.307-356). New York: Elsevier.
- Beehr, T. A. and Newman, J. E. (1978). Job Stress, Employee Health and Organizational Effectiveness: A Facet Analysis, Model and Literature Review. *Personnel Psychology.* **31**: 665-699.
- Birch, D. N. and Kamali, F. (2001). Psychological stress, anxiety, depression, job satisfaction, and personality characteristics in pre-registration house officers, *Postgraduate Medical Journal*; London, **77**(904), 109-121.
- Boonkuna, T. (2012). Job Stress, Coping Strategies, and Perceived Health Status Among Thai Female Home-based Workers. PhD theses, University of Illinois, Chicago, **10**(2), 5-15.
- Bormann, S., Krishnan, P., and Neuner, M.E. (2010). *Migration in a digital age migrant workers in the Malaysian electronics industry: A case study on Jabil Circuit and Flextronics* (Berlin, World Economy, Ecology and Development (WEED)).
- Bryman, A. (2004). Understanding Research for Social Policy and Practice: Themes, Methods and Approaches. Social Science, Policy, 2004.
- Buckingham, D. A. (2004). Associations among stress, work overload, role conflict, and self-efficiency in Maine principles. Dissertation. The University of Maine, 2004.
- Burke, P. (1996). Gender shock: Exploding the myths of male and female. New York: Anchor Book.
- Cairns, D. 2001. The coping resources and sense of coherence of cancer patients.
 Unpublished Master's treatise. Port Elizabeth: Nelson Mandela Metropolitan
 University.
- Cameron, D. (2005). From work to retirement: How to create a fulfilling life. Australia: Indian Ocean Books.
- Carayon, P. (1995). Chronic Effect of Job Control, Supervisor Social Support, and Work Pressure on Office Worker Stress. In Sauter, S.L. and Murphy, L.R. (Eds.). *Organizational Risk Factors for Job Stress*, Washington DC American Psychological Association, 357-370.
- Cartwright, S. and Cooper, C. L. (1996) Coping in occupational settings. Wiley, New York, pp. 202–20
- Caudron, S. (1994). HR Revamps Career Itineraries. *Personnel Journal*, **73**(4), 64-69.



- Chan, D. W. (1994). The Chinese ways of coping questionnaire: assessing coping in secondary teachers and students in Hong Kong.. Psychological Assessment, 6: 108–16.
- Charan, R. (1991). How networks reshape organizations—for results. Harvard Business Review, September-October, 104-115.
- Cheng, Y., Guo, Y. L. and Yeh, W. Y. (2001). A National Survey of Psychosocial Job Stressors and their Implications for Health among Working People in Taiwan. *International Archives of Occupational Environmental Health*. **74**: 495-504.
- Cieslinska, K. (2007). The Basic Roles of Managers in Business. *Publishing House Agricultural University, Poznan*. 6. Pp3-12.
- Clark, L. A. and Watson, D. (1991). Tripartite model of anxiety and depression: Psychometric evidence and taxonomic implications. *Journal of Abnormal Psychology*, **100**(12), 316-336.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences. (2nd Ed.)
- Colligan, Thomas W. and Higgins M. (2006). "Workplace Stress Etiology and Consequences". *Journal of Workplace Behavioral Health* **21**(2): 89–97.
- Cook, C.W. and Hunsaker, P.L. (2001); *Management and Organizational Behavior*, 3rd Edition, New York: McGraw Hill.
- Cooper, C. L. (1984). Executive stress: A ten country comparison. *Human Resource Management*, **23**(4), 395-407.
- Cooper, C. L., Kirkcaldy, B. D., and Brown, J. (1994). A model of job stress and physical health: The role of individual differences. Personality and Individual Differences, **16**, 653–655.
- Cooper, C., Dewe, P. J. and O'Driscoll, M. P. (2001). Organizational stress: A review and critique of theory, research, and applications. Thousand Oaks, CA: Sage.
- Cooper, C. L., Kirkaldy, B. D. and Brown, J. (1994). A model of job stress and physical health: The role of individual differences. Personality and Individual Differences, **16**, 653-655.
- Costa, P. T., Jr., and McCrae, R. R. (1985). *The NEO personality inventory*. Odessa, FL: Psychological Assessment Resources, Inc.
- Costa, P.T. and McCrae, R.R. (1992). Revised NEO Personality Inventory and NEO Five-Factor Inventory: Professional Manual. Odessa, FL: Psychological Assessment Resources, Inc.



- Couillard, D. (2006). Why Creating a Learning Organization high tech firm to Succeed, *Ivey Business Journal, Jul/Aug2007*, Vol. **71** Issue 6, p1, 9p.
- Cox, T. (1978). Stress. London: Macmillan.
- Cox, T., Leather, P. and Cox, P. (1990). Stress, health and organization. Organizational Health Review, 23, 13-18.
- Davis, M., Elizabeth, R. E. and Matthew, M. (2000). *The Relaxation and Stress Reduction Workbook*. 5th Edition. New Harbinger Publication, Inc., New York.
- Deary, I.J. and Blenkin, H. (1996). Models of job-related stress and personal achievement among consultant doctors. *British Journal of Psychology*, London, **87**(1), 3-27.
- Deary, I.J. and Matthews, G. (1993). Personality traits are alive and well. *The Psychologist*, **6**(12), 299-311.
- Decker, P. and Borgen, F. (1993). Dimensions of work appraisal: Stress, strain, coping, job satisfaction, and negative affectivity. *Journal of Counseling Psychology*, **40**(5), 470-478.
- Digman, J.M. (1990). Personality Structure: Emergence of the Five-Factor Model. *Annual Review of Psychology*, **41**(120), 417-440.
- Dillon, W. R., Madden, T. J. and Firtle, N. H. (1993). The Essentials of Marketing Research. London: Richard & Irwin.
- Dollard, M.F. and Windefield, A.H. (1996). Managing occupational stress: A national and international perspective. *International Journal of Stress Management*, **3**, 69-83.
- Donatelle, R.J. and Hawkins, M.J. (1989). Employee stress claims: Increasing implications for health promotion programs. *American Journal of Health Promotion*, **3**, 19-25.
- Eugene, J. W. (1999). The Impact of Work Resources on Job Stress among Correctional Treatment Staff. *Journal of Addictions and Offender Counseling*, **20**(1), 26-34.
- Field, A. (2005). Discovering Statistics Using SPSS, London: Sage. 2nd Ed.
- Fiesel, T. L. W. (2006). Job Satisfaction, Job Stress and Working Conditions and Their Relationship to Perception of Risk. Dissertation. The University of Wisconsin, Madison, 2006.
- Folkman, S. and Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, **21**, 219—239.



- Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A. and Gruen, R. J. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology*, **50**(5), 992.
- Freedman, D. A. (2005). Statistical Models: Theory and Practice, Cambridge University Press, 2005.
- Frese, M. (1986). Coping as a moderator and mediator between stress at work and psychosomatic complaints. In H. Mortimer & R. Trumbull (Eds.), *Dynamics of stress: Physiological, psychological, and social perspectives* (pp. 183-206). New York, NY: Plenum Press Appley.
- Gill, C. M. and Hodgkinson, G. P. (2007). Development and Validation of the Five Factor Model Questionnaire. *Personnel Psychology*, 2007, **60**(3), 731-766.
- Goldberg, L.R. (1993). The Structure of Phenotypic Personality Traits. *American Psychologist*, 48(1), 26-34.
- Googins, B., Mirvis, P. H. and Rochlin, S. (2007). *Beyond good company: Next generation corporate citizenship*. New York: Palgrave-McMillan.
- Gosling, J. and Mintzberg, H. (2003). The five minds of a manager. *Harvard Business Review*, pp. 1–9.
- Graziano, W. G., Jensen-Campbell, L. A. and Hair, E.C. (1996). Perceiving interpersonal conflict and reaching to it: The case for agreeableness. *Journal of Personality and Social Psychology*, **70**(5), 820-835.
- Graziano, W. G. and Eisenberg, N. H. (1997). Agreeableness: A dimension of personality. *Handbook of Personality Psychology* (pp.795-824), San Diego: Academic Press.
- Greenhaus, J. H. and Beutell, N. J. (1985). Sources of Conflict between Work and Family Roles. *Academy of Management Review*, **12**(6), 120-128.
- Greenhaus, J. H., Bedeian, A. G. and Mossholder, K. W. (1987). Work Experiences, Job Performance, and Feelings of Personal and Family Well-Being. *Journal of Vocational Behavior*, **31**(7), 200-215.
- Griffin R. W. (2000): Principles of managing organizations. Ed. Of Sciences. PWN, Warsaw.
- Gueritault-Chalvin, V., Kalichman, S. C., Demi, A. and Peterson, J. L. (2000). Work-related stress and occupational burnout and AIDS caregivers: test of a coping model with nurses providing AIDS care. AIDS Care, **12**(2): 149–61.
- Hall, K. and Savery, L. K. (1986). Tight rein, more stress. Harvard Business Review, 23(10), 1162-1164.



- Higgins, C.A., Duxbury, L. E. and Lyons, S. T. (2010). Coping with Overload and Stress: Men and Women in Dual-Earner Families. *Journal of Marriage and Family*, Aug 2010; **72** (4), 847-859.
- Hogan, J. and Ones, D. S. (1997). Conscientiousness and integrity at work. Handbook of Personality Psychology (pp. 849-870). San Diego: Academic Press.
- Holmes and Rahe (1967). Life Change Index; *Journal of Psychosomatic Research*, 1967, Vol. **11**, pp. 213-218.
- Hammer, A. L. and Marting, M. S. (1988). Manual for the Coping Resources Inventory. California: Consulting Psychologists Press.
- Hammer, A. L. and Marting, M. S. (2004). Coping Resources Inventory, Revised. California: Consulting Psychologists Press.
- Haroon, H. (2001). The publication of Malay literary works in English translation: problems of translating from a language of limited diffusion (LLD). PhD thesis, University of Warwick.
- Hasan, A. A. B. and Bahisham, Y. (2013). Supply Chain Management Performance: A Study of Electronics Manufacturing Industry in Malaysia. Proceeding of the International Conference on Social Science Research, ICSSR 2013 (e-ISBN 978-967- 11768-1)-8. 4-5 June 2013, Penang, MALAYSIA. Organized by WorldConferences.net.
- Huber, G. P. (1984). The nature and design of post-industrial organizations. Management Science, 30(8), 928-951.
- Hulbert-Williams, N. J. (2009). A systematic review and empirical investigation of adjustment to cancer diagnosis: Predicting clinically relevant psychosocial outcomes and testing Lazarus's Transactional Model of Stress. Dissertation. Cardiff University, School of Medicine.
- Hurrell, J (1995). Police work. Occupational stress and individual coping. *Journal of Organizational Behavior*. 16. pp27-28.
- Idris, F. (2008) The Influence of Individual Attributes On Inter-Ethnic Tolerance among Early Youth In Selangor. PhD thesis, University Putra Malaysia, 32(8), 160-177.
- Innes, J. M. and Kitto, S. (1989). Neuroticism, self-consciousness, and coping strategies and occupational stress in high school teachers. *Personality and Individual Differences*, **10**(2), 303-312.
- Jack, T. D. & Mitz, L. F. (1985). Sex Differences in work stress. *Academy of Management Review*, **10**(1), 408-420.



- Jamal, M. (1981). Shift Work Related to Job Attitudes, Social Participations, and Withdrawal Behavior: A Study of Nurses and Industrial Workers, Personnel Psychology, **34**(1), 535-547.
- Jamal, M. (2005). Burnout among Canadian and Chinese employees: A cross cultural study. European Management Review, **2**, 224-230.
- Jamal, M (2008). Burnout among Employees of a Multinational Corporation in Malaysia and Pakistan: An Empirical Examination. *International Management Review*, Jun2008, Vol. **4** Issue 1, p62-73, 12p
- Jamal, M., and Badawi, J.A. (1995). Nonstandard work schedules and work and non-work experiences of Muslim immigrants: A study of a minority in the majority. Journal of Social Behavior and Personality, **10**, 395-408.
- Jerome, M. L. & Arnold, W. D. (2003). *Research Design and Statistical Analysis* (2nd Ed.). Lawrence Erlbaum. p. 508.
- Jerusalem, M. (1993). Personal resources, environmental constraints, and adaptational processes: The predictive power of a theoretical stress model. Personality and Individual Differences, **14**, 15-24.
- Jestin, W. and Gampel. A. (2002). *The Big Valley, Global Outlook*; Toronto: McGraw Hill.
- John, O. P. and Srivastava, S. (1999). The Big Five-Trait taxonomy: History, measurement, and theoretical perspectives. In L. Pervin & John (Eds.), Handbook of personality: Theory and Research (pp. 102-138), New York: Guilford.
- Johnson, R. Pay (1973). A survey of some research findings. *International Labor Review*, **111**(1), 441-449.
- Johnson, M. L. (2005). The Cambridge Handbook of Age and Aging. Cambridge: University Press.
- Julia, V. O. (1996). Stress at work. British Medical Journal, 313(7059), 700-745.
- Kahler, H. S. Jr. (1987). Stress management among corporate manager: A study of the relationship among management styles, management levels and coping behavior. Dissertation. Iowa State University, Ames, IA.
- Kanter, R. M. (1989). The New Managerial Work. Harvard Business Review. 11-12.
- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative science quarterly*, **24**(2), 285-308.



- Karasek, R. A. and Theorell, T. (1990). *Healthy work and Epidemiological contributions to the study of work stress*. New York: Basic Books, **85**, 134-145.
- Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P. and Amick, B. (1998). The Job Content Questionnaire (JCQ): An Instrument for Internationally Comparative Assessments of Psychosocial Job Characteristics. *Journal of Occupational Health Psychology*, **3**(4), 322-355.
- Katz, D. and Kahn, R. L. (1978). The social psychology of organizations 2ed. New York City: John Wiley.
- Keichel, Walter III. (May 17, 1993). How We Will Work in the Year 2000, Fortune, **127**, 38-52.
- Kephart, P. A. (2003). Job Stress: An Investigation of the Impact of Gender and Other Workplace Diversity Issues on the Causes, Costs, Consequences, and Constructive Coping Strategies of Job Stress. Dissertation. Nova Southeastern University, 2003.
- Kessler, R. C. (1979). A strategy for studying differential vulnerability to the psychological consequences of stress. *Journal of Health and Social Behavior*, **20**, 100—108.
- Kessler, R. C. and Essex, M. (1982). Marital status and depression: The importance of coping resources. Social Forces, **6**(2), 484—507.
- Kirkcaldy, B.D. and Cooper, C.L. (1992), "Cross-cultural differences in occupational stress among British and German managers", *Work & Stress*, Vol. **6** No. 2, pp. 177-90.
- Kirkcaldy, B.D., Cooper, C.L., Furnham, A. and Brown, J. (1993), "Personality, job satisfaction and well-being among public sector management", in Bartram, D. (Ed), The Validity and Utility of Personality Assessment in Occupational Psychology. *European Review of Applied Psychology*, Special Issue, Vol. **43** No. 3, pp. 241-8.
- Kirkcaldy, B.D., Cooper, C.L., Eysenck, M. and Brown, J. (1994). Anxiety & Coping, Personality and Individual Differences.
- Kirkman, B. L., Rosen, B., Tesluk, P. E. and Gibson, C. B. 2004. The impact of team empowerment on virtual team performance: the moderating role of face-to-face interaction. *Academy of Management Journal*, **47**(2): 175–92.
- Kleinke, C. L. (1991). Coping with Life challenges. Pacific Grove, C A.
- Kleinke, C (2007). What does it mean to cope? Westport: The Praeger Handbook on Stress and Coping.



- Kobasa, S.C. (1979). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology*, **37**(1), 1—11.
- Kumaresan, S. (2002). Antecedents and Outcomes of Job Stress: A Study among Managers in the Electronics Industry in Penang. MBA thesis, University Science Malaysia, 59-69.
- Latack, J. C. and Havlovic, S. J. (1992) Coping with job stress: A conceptual evaluation framework for coping measures. *Journal of Organizational Behavior* **13**: 497–508
- Lazarus, R. S. (1966). Psychological Stress and the Coping Process. New York: McGraw Hill.
- Lazarus, R. S. and Folkman, S. (1984). Coping and adaptation. In W. D. Gentry (Ed.). *The handbook of behavioral medicine*. New York: Guilford.
- Lazarus, R.S. and Folkman, S. (1984). Stress, Appraisal and Coping. New York, NY: Springer.
- Lazarus, R.S. and Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, **1**, 141-169.
- Lazarus, R. S. (1993). From psychological stress to the emotions: a history of changing outlooks. *Annual Review of Psychology*, **44**, 22-39.
- Lazarus, R.S. (1999). Stress and Emotion. A New Synthesis. London: Free Association Books Ltd.
- Lazarus, R. S. (2006). Emotions and interpersonal relationships: Toward a person centered conceptualization of emotions and coping. *Journal of Personality*, **74**(1), 9-46.
- Lim, V. and Teo, T. (1996). Gender differences in occupational stress and coping strategies among IT personnel. *Women in Management Review*, **11**, 1, 20.
- Lingard, H. (2003). The impact of individual and job characteristics of 'burnout' among civil engineers in Australia and the implications for employee turnover. *Construction Management and Economics*, **21**: 69–80.
- Lingard, H. and Francis, V. (2006). Does a supportive work environment moderate the relationship between work–family conflict and burnout among construction professionals? *Construction Management and Economics*, **24**: 185–96.
- Listwan, T. (1993): Development of executives of the company. Mimex, Wroclaw: 15-19.



- Lloyd, I. I. (2014) Emotional Intelligence and Stress-coping in High Stress Occupations. Dissertation. North Central University, 2014.
- Long, B. and Haney, C. (1988). "Long-term follow-up of stressed working women: a comparison of aerobic exercise and progressive relaxation". *Journal of sport and exercise psychology* **10** (4).
- Lowe, R. and Bennett, P. (2003). Exploring coping reactions to work-stress: application of an appraisal theory. *Journal of Occupational and Organizational Psychology*, **76**: 393-400.
- Lowenthal, M. F. and Chiriboga, D. (1973). Social stress and adaptation: Toward a life course perspective. In C. Eisdorfer & M. P. Lawton (Eds.). *The psychology of adult development and aging* (pp. 281—310). Washington, DC: American Psychological Association.
- Lowenthal, M. F., Thurnher, M. and Chiriboga, D. (1975). *Four stages of life*. San Francisco: Jossey-Bass.
- Macionis, J.J. and Gerber, L. M. (2010). Sociology 7th Canadian Ed. Toronto, Ontario: Pearson Canada Inc. pp. 129.
- Malaysian Investment Development Authority (MIDA) 2013. "Industries in Malaysia: Electrical and electronics industry", MIDA 2013.
- Malaysian Investment Development Authority (MIDA) 2013. Annual Report.
- MALAYSIA'S TRADE PERFORMANCE IN 2010, Extracted from Malaysian External Trade Development Corporation & Malaysian Industrial Development Authority (MIDA), Latest Update, 2010.
- Marshall, J. and Cooper, C. (1979). Executives under stress: A psychological study. New York: Prager.
- Martin, R.E. and Freeman, S.J. (1998). The economic context of the new organizational reality: Downsizing, restructuring, and revitalization (pp. 520). Washington, DC: American Psychological Association.
- Maslach, C. (2003). Job burnout: New directions in research and intervention. Current Directions in Psychological Science, **2**, 189-192.
- Maslach, C. and Goldberg, J. (1998). Prevention of burnout: New perspectives. Applied and Prevention Psychology, **7**, 63-74.
- Maslach, C., Schaufeli, W. B. and Leiter, M. P. (2001). Job burnout. In S. T. Fiske, D. L. Schacter, and C. Zahn-Waxler (Eds.), *Annual Review of Psychology*, **52**, 397-422.



- Matteson, M. T. and Ivancevich, J. M. (1999); Organizational Behavior and Management, 5th Edition, New York: McGraw Hill.
- McCrae, R.R (Ed.) (1992). The Five-Factor Model: Issues and Applications. *Journal of Personality* (Special Issue), **60**(2), 1-50.
- McCrae, R. R. and Costa, P. T., Jr. (1990). *Personality in adulthood*. New York: The Guilford Press.
- McCrae, R.R. and Costa, P.T., Jr. (1999). A Five-Factor Theory of personality. In L. A. Pervin & O. P. John (Eds.), Handbook of personality: Theory and Research (pp. 102-153). New York: Guilford.
- McMillian, L. (2013). Neuroticism and the Leadership Competencies of Transactional and Transformational Leadership. Dissertation. The Chicago School of Professional Psychology, 2013.
- Meng, Bo. (2012). Research on the Influencing Factors of Job Stress of University Teachers; Canadian Social Science Publications, 23, 61-64.
- Meyer, S. M. and Booth, A. 1996. Mens retirement and marital quality. Journal of Family Issues. Vol. 17 no.3, 336-357.
- Miller, K. and Ellis, B.H. (1990). An Integrated Model of Communication, Stress and Burnout in Workplace. *Communication Research*, **17**(3), 27-300.
- Minter, S. G. (1999). Too Much Stress? Occupational Hazards. 61(5): 49-52.
- Mintzberg. H. (1973). 7776 Nature of Managerial Work, New York: Harper and Row.
- Mintzberg H. (1975): The Manager's Job: Folklore and Fact. Harvard Business Review 53.
- Moos, R. H. 1986. Coping with life crisis: An integrated approach. New York: Plenum Press.
- Mosley D.C., Megginson L.C. and Petri P.H. (1985): Supervisory management: the art of working with and through people. *OH: South-Western Publishing Co., Cincinnati*: 18-19.
- Murray, T. J. and Forbes, D. (1986). Where have all the middle managers gone? *Dun's Business Month*, 31-34.
- Mutran, E., Reitzes, D. C. and Fernandez, M. (1996). Labor Force Participation and Health: A Cohort Comparison of older Male Workers. *Social Science Quarterly*. Vol.**70**: 449-467.



- Nasurdin. M. A., Ramayah, T. and Kumaresan, S. (2004). Organizational and Personality Influence on Job Stress: The Case of Malaysian Managers. *Malaysian Management Review*, **39**(2), 2004, pp 35-43.
- Ndunisi, N. O., Jantan, M. and Ricardson, S. (2001). Is The Technology Acceptance Model Valid For Entrepreneurs? Model Testing and Examining Usage Determinants. *Asian Academy of Management Journal*, **6**(2), 40-46.
- Noblet, A., Rodwell, J., and McWilliams, J. 2001. The Job Strain Model is enough for Managers. *Journal of Managerial Psychology*. **16**(8): 635-649.
- Norris, M. R. (1992). The relationship between personality and perceived success of organizational change. Ph.D. Dissertation. The Fielding Institute, 1992.
- Nunnaly, J. C. and Bernstein, I. H. (1994). Psychometric Theory, New York: McGraw-Hill. 3rd Ed.
- Osborne, J. W. and Costello, A. B. (2004). Sample size and subject to item ratio in principal components analysis.. Practical Assessment, Research and Evaluation, 9(11).
- O'Brien T. B. and DeLongis, A. (1996). The Interactional Context of Problem-, Emotion-, and Relationship-Focused Coping: The Role of the Big Five Personality Factors. *Journal of Personality*, **64** (4), 775-813.
- Page, C. A. (2000). *Applied research design for business and management*. Sydney: McGraw Hill Companies, Inc.
- Palmer, S., Cary, C. and Kate, T. (2004). "A model of work stress." Counselling at Work. Winter. 5 p.
- Park, K. O. (2007). Social support for stress prevention in hospital settings. *Journal of the Royal Society for the Promotion of Health*, **127**(6): 260–4.
- Parker, K. R. (1986). Coping in stressful episodes. The role of individual differences, environmental factors, and situational characteristics. *Journal of Personality and Social Psychology*, **51**, 1277-1292.
- Parker, D. F. and DeCotiis, T. A. (1983). Organizational Determinants of Job Stress. Organizational Behavior and Human Performance, **32**(8), 160-177.
- Parks, L. and Guay, R.P. (2009). Can Personal Values Predict Performance? Evidence in an Academic Setting. *Applied Psychology: An International Review*, 2012, **61** (1), 149-173.
- Pearlin, L. I. and Schooler, C. (1978). "The structure of coping". *Journal of health and social behavior* **19** (1): 2–21.



- Pelletier, K. R. (1984). Healthy people in unhealthy places. New York: Delacorte Press/Seymour Lawrence.
- Penc J. (2000): The Manager, a learning organization. Manager, Lodz: 107-108.
- Penc J. (2003): Manager in action. Ed. C.H. Beck, Warsaw.
- Pocztowski A. (1997): Rewarding managers. In: How to effectively reward employees.

 The Professional School of Business, Krakow.
- Quick, J.C., Quick, J.D., Nelson, D.L. and Hurrell, J.J. (1997). Preventive Stress Management in Organizations. Washington, DC: American Psychological Association.
- Rahim, A. (1996). Stress, Strain, and Other Moderators: An Empirical Comparison of Entrepreneurs and Managers. *Journal of Small Business Management*, **34**(1), 46-58.
- Rankin, T. (2004). A mixed methodological study: Coping resources related to perceptions of management and satisfaction in the role of clergy spouse. Dissertation submitted to Argosy University, Sarasota, FL.
- Raosoft. Sample Size Calculator. Seattle: Raosoft Inc, 2004; [Cited 28 May 2013.]

 Available from URL: http://www.raosoft.com/samplesize.html
- Rashed. A. A. (2001). The Effects of Personal Characteristics on Job Satisfaction: A Study among Male Managers in the Kuwait Oil Industry. *International Journal of Commerce & Management*, 11(3), 91-111.
- Revicki, D.A. and May, H.J. (1985). Occupational stress, social support, and depression. *Health Psychology*, **4**, 61-77.
- Reymont, R. and Joreskog, K.G. (1993). Applied factor analysis in the natural sciences. New York: Cambridge University Press.
- Roberts, J.A., Lapidus, R.A. and Chonko, L.B. (1997). Salesperson and Stress: The Moderating Role of Locus of Control on Work Stressors and Felt Stress. *Journal of Marketing Theory and Practice*, **5**(3), 93-108.
- Roesch, S. C. and Weiner, B. (2001). A meta-analytic review of coping with illness: Do causal attributions matter. *Psychological Review, 2001*; **50**:205-219.
- Rose, R. C., Kumar, N. and Ibrahim, H. I. (2008). The Effect of Manufacturing Strategy on Organizational Performance. *Performance Improvement*, Jan 2008; **47**, 1; ProQuest Education Journals, pg. 18.
- Roth, S. and Cohen, L. (1986). "Approach, avoidance, and coping with stress". *American Psychologist*. 813-819, **41** (7).



- Schaufeli, W. B. (2001). Coping with Job Stress. *International Encyclopedia of the Social & Behavioral Sciences*, ISBN: 0-08-043076-7.
- Schafer, W. (2000). Stress management for wellness, 4th Edition. Belmont, CA: Thomson.
- Schermerhorn, J. R., Hunt, J. G., and Osborn, R. N. (2005). *Organizational Behavior*. 9th Ed. United States of America: John Wiley & Sons, Inc.
- Schnall, P. L., Landsbergis, P. A., & Baker, D. (1994). Job strain and cardiovascular disease. *Annual review of public health*, **15**(1), 381-411.
- Schneider, S. E. (2003). Organizational Commitments, Job Satisfaction and Job Characteristics of Managers: Examining the Relationships across Selected Demographic Variables. Dissertation. The Steinhardt School of Education, New York University, 2003.
- Sekaran, U. (2000). *Research Methods for Business*. 3rd Edition, New York: John Wiley & Sons Inc.
- Sethi, A. S., & Schuler, R. S. (1984). Handbook of organizational stress coping strategies. Cambridge, MA: Ballinger.
- Shapira, Z. and R.L.M. Dunbar, 'Testing Mintzberg's Managerial, Roles Classification Using an In basket Simulation," *Journal of Applied Psychology*, Vol. **65** No. 1, 1980, pp. 87-95.
- Sharpley, C. F., Reynolds, R., Acosta, A. and Dua, J. K. 1996. The Presence, Nature and Effects of Job Stress on Physical and Psychological Health at a Large Australian University. *Journal of Educational Administration*. **34**(4): 73-86.
- Silverman, B. (1986). *Density Estimation for Statistics and Data Analysis*. New York: Chapman and Hall.
- Siu, O.L. and Cooper, C.L. (1998). A study of occupational stress and job satisfaction and quitting intention in Hong Kong firms. *Stress Medicine*, **14**, 55-66.
- Siu, O. L., Spector, P. E. and Cooper, C. L. (2006). A three-phase study to develop and validate a Chinese coping strategies scales in Greater China. Personality and Individual Differences, **41**: 537–48.
- Smeltzer, L. R. (1987). The relationship of communication to work stress. *The Journal of Business Communications*, **17**(4), 47-57.
- Snow, C. C, Miles, R. E. and Coleman, H. J. (1992). Managing 21st century network organizations. Organizational Dynamics, Winter, 5-2.



- Snyder, M. and Ickes, S. W. (1985). Personality and social behavior. In G. Lindzey St E. Aronson (Eds.). *The Handbook of Social Psychology*, **3**(2), 883-947.
- Sonhadji, A. K. H. (1989). A study of job satisfaction of community college faculty with level of education, academic rank, and salary as predictors. Dissertation. The Ohio State University, 1989.
- Spector, P. E. (1992). A consideration of the validity and meaning of self-report measures of job conditions. *International Review of Industrial and Organizational Psychology*, **21**(78), 123-151.
- Spence, J. T. and Robbins, A. S. (1992). Workaholism: Definition, measurement, and preliminary results. *Journal of Personality Assessment*, **58**, 160-178.
- Stansfeld, S., and Candy, B. (2006). Psychosocial work environment and mental health--a meta-analytic review. *Scandinavian journal of work, environment & health*, **32**(6), 443-462.
- Stoner, J. A. F. and Wankel, C. H. (1997): Management. PWE, Warszawa.
- Sutton, R. I. and Rafaeli, A. 1987. Characteristics of Work Stations as Potential Occupational Stressors. *Academy of Management Journal.* **30**(2): 260-276.
- Suzanne, M.C., John, H.W, Jitendra, M.M. and Steve, P. (1998). Stress and Stress Management. *The S.A.M Advanced Management Journal*, **60**(3), 10-19.
- Tabachnick, B. G. and Fidell, L. S. (2001). *Using multivariate statistics*. Needham Heights, MA: Pearson education.
- Tanudsintum, S. (2007). *Job stress among polishing workers using demand-control model*. Unpublished master's thesis, Mahidol University, Bangkok, Thailand.
- Templer, K. J. (2011). Five-Factor Model of Personality and Job Satisfaction: The Importance of Agreeableness in a Tight and Collectivistic Asian Society. *Applied Psychology: An International Review*, 2012, **61** (1), 114-129.
- Tidd, S. and Friedman, R. (2002). Conflict style and coping with role conflict: an extension of the uncertainty model of work stress. *International Journal of Conflict Management*, **13**(3): 236-57
- Trocki, K. F. and Orioli, E. M. (1994). Gender differences in stress symptoms, stress-producing contexts, and coping strategies. In J. J. Hurrell, Jr., (Ed.), Job stress in a changing workforce: Investigating gender, diversity, and family issues (pp. 7-22). Washington, DC: American Psychological Association.
- Tsang, E. W. K. (2009). The relationship between knowledge management enablers and performance. *Industrial Management & Data Systems*, **109**(1), 98-117.



- UK Health and Safety Executive (HSE) Guide: Tackling stress The Management Standards Approach (2005)
- Verité Report (2014). "Forced Labor in the Production of Electronics Goods in Malaysia: A Comprehensive Study of Scope and Characteristics". © Verité September, 2014.
- Wanberg, C. R. (1992). Men and women without jobs: A study of factors predictive of psychological and physical health. Dissertation. Iowa State University, Ames, IA.
- Wang, P., Lawler, J., Walumbwa, F. and Shi, K. (2004). Work–family conflict and job withdrawal intentions: the moderating effect of cultural differences. *International Journal of Stress Management*, **11**(4): 392–412.
- Watson, D. and Pennebaker, J. W. (1989). Health complaints, stress, and distress: Exploring the central role of negative affectivity. *Psychological Review*, **96**, 234-254.
- Wiggins, P. A. (1994). Marital Satisfaction of Aging couples during Retirement. Masters Treatise, Port Elizabeth: University of Port Elizabeth.
- Williams, S. and Cooper, L. (2002). *Managing Workplace Stress*. Great Britain: John Wiley & Sons, Ltd.
- Wyosocki, D. K. (2004). Readings in Social Research Methods. 2nd Ed., Belmont, CA: Wadsworth/Thompson.
- Yip, Y., Rowlinson, S. and Siu, O. L. (2008). Coping strategies as moderators in the relationship between role overload and burnout. *Construction Management and Economics*, **26**(8), 871-882.
- Yiu, C., Au, W. T. and Tang, C. S. K. (2001). Burnout and duration of service among Chinese voluntary workers. *Asian Journal of Social Psychology*, **4**: 103–11.
- Young, M. B. (1997). Does Employees' Life Status Matter? Marital and Parent Status as Antecedents of Work Time and Other Work-Related Outcomes. Dissertation. Boston University, 1997.
- Zeidner, M. and Hammer, A. L. (1990). Life events and coping resources as predictors of stress symptoms in adolescents. *Personality and Individual Differences*, **11**(7), 693-703.
- Zeidner, M. and Hammer, A. L. (1992). Coping with missile attack: Resources, strategies and outcomes. *Journal of Personality*, **60**(4), 709-715
- Zeidner, M. and Endler, N. S. (1995). *Handbook of coping: theory, research, applications*. Wiley, New York, pp.202-20, p. 514.



Ziegler, J. (1998). Spirituality returns to the fold in medical practice. *Journal of national Cancer Institute*, Vol. **90**, 1255-1258.