## INTERACTION BETWEEN OCCUPATIONAL STRESS AND EMOTIONAL INTELLIGENCE AS AN ANTECEDENT OF PERSONAL OUTCOMES

Azman Ismail!, Amy Yao', Elizabeth Yeo<sup>3</sup> & NKY Yunus <sup>4</sup> (Email: azisma08@gmail.com)

<sup>123</sup> Faculty of Economics and Management Universiti Kebangsaan Malaysia, Bangi, Malaysia

<sup>4</sup>Faculty of Management & Economics, Universiti Pendidikan Sultan Idris, Tg Malim, Malaysia

## **Abstract**

The purpose of the study was to quantify the effect of emotional intelligence and occupational stress on personal outcomes. The survey method was employed to gather self-report questionnaires from academic employees in Malaysian private higher learning sector in Borneo Island.Outcomes of hierarchical regression analysis showed three important findings:firstly, the levels of physiological and psychological stresses cannot increase job satisfaction when employees have not adequate competencies to manage their emotions in executing job. Secondly, the level of physiological stress can increase job performance when employees have adequate competencies to manage their emotions in executing job. Thirdly, the level of psychological stress cannot increase job performance when employees have not adequate competencies to manage the emotions in executing job. This result demonstrates that emotional intelligence does act as a partial moderating variable in the relationship between occupational stress and personal outcomes in the studied organizations. Further, discussion, implications and conclusion are elaborated.

# *Key Words:* Physiological Stress, Psychological Stress, Emotional Intelligence, Job Satisfaction and Job Performance

## Introduction

Occupational stress is often viewed as the result of the interaction between the individual and his/her environment has unlocked new dimension on the stress of different job groups and its undesirable effect on individual attitudes and behavior (Brown & Uehara, 2008; Ismail *et al., 2009,* 2010; Keshavarz & Mohammadi, 2011; Santos *et al.,* 2010). It has two major dimensions: physiological stress and psychological stress (Abu AIRub, 2004; Beehr & Glazer, 2005; Larson, 2004. Physiological stress is normally related to as a physiological reaction of the body (such as headache, migraine, abdominal pain, lethargic, backache, chest pain, fatigue, heart palpitation, sleep disturbance and muscle ache) to various stressful triggers at the workplace that directly and negatively affects an individual's productivity, effectiveness, quality of work and personal health (Ismail *et al.,* 2009, 2010; Newell, 2002; World Health Organization, 2005). Some examples of physiological stress are changes in eating, drinking, sleeping and smoking habits (Beehr *et al.,* 2001; Beehr & Glazer, 2005). While, psychological stress is often seen as an emotional reaction (such as anxiety and depression burnout, job alienation, hostility, depression, tension, anger, nervousness, irritability and frustration) experienced by an individual as a result from the stimulate at the workplace (Ismail *et al.,* 2009, 2010; Millward, 2005; World Health Organization, 2005).

In terms of eustress perspective, occupational stress will usually occur when employees' knowledge, skills, abilities and attitudes can cope with or match to their work demands and pressures in organizations. In this situation, it may increase the ability of employees to manage their physiological and psychological stresses in order to fulfill job demands (Adler *et al.*, 2006; Wetzel *et al.*, 2006; World Health Organization, 2005). Conversely, in a distress perspective, occupational stress will often exhibit when employees' knowledge, skills, abilities and attitudes cannot cope with ordo not match to their work demands and pressures in organizations.

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Consequently, it may decrease the ability of employees to control and manage physiological and psychological stresses, such as upsetting their self-regulatory bodies, and not able to meet their duties and responsibilities as a member of an organization and a good citizen of a country (Basowitz *et al.*, 1995; Keshavarz & Mohammadi, 2011).

Recent studies in this area show that the levels of occupational stress may have a significant correlation with personal outcomes, especially on job satisfaction (Fairbrother & Warn, 2003; Ismail *et al.*, 2010) and job performance (Hsieh *et al.*, 2004; Ismail *et al.*, 2009; Wetzel *et al.*, 2006). Job satisfaction is broadly described as a result of employees' perception or appraisal of their jobs that may create a pleasurable or emotional state (Locke, 1976; Locke & Latham, 1990a, 1990b; Kreitner & Kinicki, 2007), a positive reaction (Mathis & Jackson, 2006), and action tendencies toward work (Vecchio, 2000; McShane & Von Glinow, 2005). On the other hand, job performance is often defined as the ability of individuals to accomplish their respective work goals, meet their expectations, achieve benchmarks or attain their organizational goals (Bohlander *et al.*, 2001; Campbell, 1990; Eysenck, 1998). In an occupational stress model, several scholars believe that the ability of employees to properly control and manage their physiological and psychological stresses in executing job may lead to higher job performance in organizations (Adler *et al.*, 2006; Hourani *et al.*, 2006; Wetzel *et al.*, 2006; Zhong *et al.*, 2006).

Surprisingly, a thorough review of such relationships reveals that the magnitude and nature of the relationship between occupational stress and personal outcomes may change when emotional intelligence is present in organizations (Kafetsios & Zampetakis, 2008; Lopes et al., 2006; Lyons & Schneider, 2005; Quoidah & Hansenne, 2009). Many scholars, such as Goleman (1998, 2003), Manna et al., (2009), and Salovey and Mayer (1990, 1997) state that emotional intelligence (EI) has interpersonal competency (how well we manage ourselves) and two major dimensions: intrapersonal competency (how well we interact with others). According to Goleman (1998), interpersonal competency consists of three components, i.e., self-awareness, self-regulation, and motivation. Interpersonal competency includes of two components, *i.e.*, empathy and social skills. Self-awareness refers to the ability of individuals to recognize their strengths, emotions, worth and capabilities. Self-regulation is often seen as the ability of individuals to resist emotional wish (think before acting). Motivation is often related to the internal driving force that enables individuals to focus on the task at hand and continue to reach the desired goals. Empathy is frequently viewed as the ability of individuals to understand the feelings of others and this may help them to act on those feelings and meet others' needs. Social skills are needed to develop and nurture good working relationships. Relying on an organizational behavior perspective, several scholars generally conclude that EI is a group of non-cognitive capabilities, competencies, and skills (Bar-On, 1997), as well as a form of social intelligence (Salovey & Mayer, 1990, 1997) where EI will act as a catalyst to increase the ability of individuals to identify emotions, use emotions to guide thinking and actions, understand and manage emotions, and to promote emotional and intellectual growth. As a result, it may motivate employees to properly handle external demands and pressures (Bar-On, 1997; Salovey & Meyer, 1990, 1997).

In an organizational stress model, many scholars think that occupational stress, emotional intelligence, job satisfaction and job performance are distinct constructs, but highly interrelated. For example, the ability of employees to properly manage their emotions and other employees' emotions will increase the ability of employees to cope with physiological and psychological stresses in implementing job. As a result, it may lead to higher job satisfaction (Guleryuz *et al.*, 2008 Kafetsios & Zampetakis, 2008; Quoidah & Hansenne, 2009) and job performance in organizations (Bar-On, 1997; Gillespie et al., 2001; Spector & Goh, 2001). Although the nature of this relationship has been studied, the moderating effect of emotional intelligence has been not been thoroughly investigated in the workplace stress research literature (Slaski & Cartwright, 2002, 2003; Nikolau & Tsaosis, 2002). Therefore, this study was conducted to further explore the moderating effect of emotional intelligence in the relationship between occupational stress (*et al.*, physiological and psychological stresses) and personal outcomes (i.e., job satisfaction and job performance).

#### Literature Review

Several studies used an indirect effects model to examine the relationship between occupational stress, emotional intelligence and personal out comes using difference samples like 178 academic and general staff in 15 Australian universities (Gillespie et al., 2001), 320 middle managers working in a major United Kingdom retailer (Slaski & Cartwright, 2002), and 212 professionals from a mental health institution in Greece (Nikolau & Tsaosis, 2002), 146 adult mix sample (Thiebaut et al., 2005), 187 food service employees from 9 different locations of the same restaurant franchise (Sy et al., 2006), 267 nurses working at different departments in Nursing Services Administration (Guleryuz et al., 2008), 523 educators who completed the Wong Law Ei scale (Kafetsios & Zampetakis, 2008), and 23 nursing teams (Quoidah & Hansenne, 2009). Findings from these studies reported two important outcomes: firstly, the levels of physiological and psychological stresses had not decrease job satisfaction when employees could properly manage their emotions and other employee emotions in the different organizations (Guleryuz et al., 2008; Kafetsios & Zampetakis, 2008; Sy et al., 2006; Ouoidah & Hansenne, 2009; Thiebaut et al., 2005). Secondly, the levels of physiological and psychological stresses had not decreased job performance when employee could properly manage their emotions and other employee emotions in the respective organizations (Gillespie et al., 2001; Slaski & Cartwright, 2002; Nikolau & Tsaosis, 2002).

The findings strongly support the notion of emotional intelligence theory. For example, Bar-On's (1997) model of emotional-social intelligence posits that the level of emotional intelligence will increase individuals' competencies and this may help them to decrease external demands and pressures, as well as increase human well-being. Salovey and Mayer's (1990, 1997) ability based model of emotional intelligence explains that the level of emotional intelligence will increase individuals' competencies and this can increase their ability to decrease stress situations and increase positive individual attitudes and behaviors. Goleman's (1998, 2003) emotional intelligence stresses that the level of emotional intelligence will increase individuals' competencies and this may help them to decrease environmental strains and increase leadership effectiveness in organizations. Application of the emotional intelligence theories in an organizational stress model shows that the levels of physiological and psychological stresses will not directly decrease job satisfaction and job performance, but its effect upon them may increase when employees have sufficient abilities to properly manage their emotions (i.e., self-awareness, self-regulation, and motivation) and other employee emotions (et al., empathy and social skills) in the workplace (Gillespie et al., 2001; Guleryuz et al., 2008; Kafetsios & Zampetakis, 2008; Nikolau & Tsaosis, 2002; Quoidah & Hansenne, 2009; Slaski & Cartwright, 2002).

The literature has been used as foundation of developing a conceptual framework for this study as shown in Figure 1.



**Emotional Intelligence** 

Figure 1: Conceptual Framework

- Based on the framework, it can be hypothesized that:
- H1: Interaction between emotional intelligence and physiological stress positively impact on job satisfaction.
- H2: Interaction between emotional intelligence and psychological stress positively impact on job satisfaction.
- H3: Interaction between emotional intelligence and physiological stress positively impact on job performance.
- H4: Interaction between emotional intelligence and psychological stress positively impact on job performance.

## Materials and Methods Research Design

This study used a cross-sectional method which allowed the researchers to combine the occupational stress research literature, the in-depth interview, a pilot study and the actual survey as a main procedure to collect data for this study. Using this method may solve the inadequacy of single method and increase the ability to gather accurate, less bias and high quality data (Cresswell, 1998; Ismail et al., 2009, 2010; Sekaran & Bougie, 2010). In the first step of data collection, in-depth interviews were conducted involving four experienced academicians, namely two female lecturers and two male lecturers who have working experienced from three to 20 years. This interview was used to understand the nature of occupational stress features, emotional intelligence and job performance characteristics, as well as the relationship between such variables in the organizational sector. The information gathered from such interviews was categorized and constantly compared to the related literature review in order to clearly understand the particular phenomena under study and put the research results in a proper context. Further, the results of the triangulated information were used as a guideline to develop the content of survey questionnaires for a pilot study. Next, a pre-test study was done by discussing questionnaires with the lecturers. Information gathered from such participants was used to verify the content and format of survey questionnaire for an actual study. Back-to-back translation technique was used to translate the content of questionnaires in Malay and English in order to increase the validity and reliability of the instrument (Hulland, 1999; Wright, 1996).

## Measures

The survey questionnaires have four sections: firstly, physiological stress had 9 Items and psychological stress had 3 items that were adapted from occupational stress literature (Beehr *et al.*, 2001; Cox *et al.*, 2000; Newell, 2002; Seaward, 2005). Secondly, emotional intelligence had 10 items that were adapted from emotional intelligence literature (Consortium for Research on Emotional Intelligence in Organizations, 2008; Goleman,1998, 2003; Salovey & Mayer, 1990, 1997; Stough, 2003). Thirdly, job satisfaction had seven items that were adapted from job satisfaction literature (Dua, 1994; Fairbrother & Warn, 2003; Smith *et al.*, 1969; Sullivan & Bhagat, 1992; Tett & Meyer, 1993; Terry *et al.*, 1993). Finally, job performance had 17 items that were adapted from job performance literature (AbuAlRub, 2004; Adler *et al.*, 2006; Bechr *et al.*, 2001; Hourani *et al.*, 2006; Hsieh *et al.*, 2004). All items used in the questionnaires were measured using a 5-item scale ranging from "never/does not meet" **(1)** to "always/exceeds all expectation" (5). Demographic variables were used as controlling variables because this study focused on employee attitudes.

## Unit of Analysis and Sample

The population of this study is academic employees who have worked in nine Malaysian private higher learning institutions in Borneo Island. In the first step of data collection, the researchers met HR managers of the studied organizations in order to get permission to conduct this study and obtain their opinions about the rules for distributing survey questionnaires in their organizations. Taking into considerations about the organization's rule, and the researcher constraints in term of length of study and budget, the quota sampling was chosen to determine a sample size for this study was 300 and next, the convenient sampling was employed as a guideline to distribute the survey questionnaires to academic employees in the organizations. From this number, the 104 useable questionnaires were returned, yielding a 34.7% response rate. The number of this sample exceeds the minimum sample of 30 respondents, showing that it may be analyzed using inferential statistics (Sekaran & Bougie, 2010). The survey questionnaires were answered by participants based on their consents and on voluntarily basis.

## **Data Analysis**

A Statistical Package for Social Science (SPSS) version 16.0 was used to analyze the questionnaire data. First, exploratory factor analysis were used to assess the validity and reliability of the instrument (Hair *et al.*, 2006; Nunally & Bernstein, 1994). Second, Pearson correlation analysis and descriptive statistics were conducted to assess the colinearity problems

and estimate the validity and reliability of constructs (Foster *et al.*, 1998; Yaacob, 2008). Finally, a moderated multiple regression analysis (as recommended by Cohen and Cohen, 1983) was used to test the moderating effect of emotional intelligence in the hypothesized model. This procedure stresses the development of a multiplicative term, which is used to encompass the interaction effect, and to calculate two  $R^2s$ , one for the equation, which includes only main effects (main-effect model) and the other for a three-term equation (product-term model), which includes both the main and interaction effects. This technique may separate the component parts of the product term from the term itself to account for the complex combination of variance due to main and interaction are evident when the relationship between interacting terms and the dependent variable is significant. The fact that the significant main effects of predictor variables and moderator variables simultaneously exist in analysis it does not affect the moderator hypothesis and is significant to interpret the interaction term (Baron & Kenny, 1986).

## Results

## Sample Profile

Table 1 shows that the majority respondents were female lecturers (59.1 %), lecturers' aged between 26 and 30 years old (38.5 %), bachelor degree holders (72.1 %), lecturers (79.8 % served between 2 and 5 years (41.3 percent).

<b>Respondents'</b> Characteristics	Sub-Profile	Percentage(%)
Gender	Male	40.4
	Female	59.6
Age	Less than 25 years old	22.1
	26 - 30 years old	38.5
	31 - 35 yearsold	22.1
	36 - 40 years old	9.6
	41 - 45 yearsold	3.8
	> 46 years old	3.8
Education	Diploma	2.9
	Bachelor Degree	72.1
	Master Degree	22.1
	Doctorate	2.9
Position	Senior Lecturer	2.9
	Lecturer	79.8
	Assistant Lecturer	17.3
LengthofService	Less than 1 year	33.7
	2 - 5 years	41.3
	6 - 9 years	16.3
	More than 10 years	8.6

#### Table I: Respondents' Characteristics (N I04)

Table 2 shows the results of validity and reliability analyses for measurement scales. A factor analysis with the varimax rotation was first done for three variables with 46 items. After that, Kaiser-Mayer-Olkin Test (KMO), which is a measure of sampling adequacy was conducted for each variable based on Hairetal., 2006) and Nunally and Bernstein's(1994) guideline. Outcomes of these statistical analyses showed that (a) the value of factor analysis for all items that represent each research variable was 0.5 and more, indicating the items met the acceptable standard of validity analysis, (bi) all research variables exceeded the acceptable standard of Kaiser-Meyer-Olkin's value of 0.6, were significant in Bartlett's test of sphericity,

(c) all research variables had eigenvalues larger than 1 and variance explained were more than 0.45, (d) the items for each research variable exceeded factor loadings of 0.50 (Hair *et al.*, 2006), and (e) all research variables exceeded the acceptable standards of reliability analysis of 0.70 (Nunally & Bernstein, 1994). These statistical results confirmed that measurement scales met the acceptable standards of validity and reliability analyses as shown in Table 2

Table 2. The Results of V	Validity and Reliability	Analyses for Measur	ement Scales
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Variable	Items	Factor Loading	KMO	Barlett's Test of Sphericity	E genvalues	Variance Explained	Cronbach Alpha
Physiological Stress	9	.65 to .82	.86	271.72	3.82	47.71	.84
Psychological Stress	3	.60 to .72	.66	81.00	2.13	53.29	.70
Emotional Intelligence	10	.58 to .81	.90	592.19	5.62	56.17	.91
Job Satisfaction	7	.68 to .80	.83	447.36	4.22	60.34	,87
Job Performance	17	.67 to .83	.91	1.312	9.26	54.47	.95

Table 3 shows the result of Pearson correlation analysis and descriptive statistics. The means for the variables are from 2.3 to 4.2 signifying that the levels of physiological stress, psychological stress, emotional intelligence, job satisfaction and job performance ranging from moderately high(2) to highest level (5). The correlation coefficients for the relationship between the independent variable *(i.e., physiological stress and psychological stress)* and the moderating variable *(i.e., emotional intelligence)*, and the relationship between the independent variable *(i.e., physiological stress and psychological stress)* and the moderating variable *(i.e., physiological stress and psychological stress)* and the dependent variable *(i.e., job performance)* were less than 0.90, indicating the data were not affected by serious collinearity problem (Hair *et al., 2006)*. The measurement scales that had validity and reliability were used to test research hypotheses.

Variable	Mean	Standard	Pearson Correlation Analysis				is
		Deviation	1	2	3	4	5
1. Physiological Stress	2.3	.8	1				
2. Psychological Stress	3.6	.7	,12	I			
3, Emotional Intelli- gence	3.7	.7	10	.39**	1		
4. Job Satisfaction	4.2	1.2	·.14	,07	.06	1	
5. Job Performance	4,1	.7	·.04	.12	.26**	.04	

**Table 3: Pearson Correlation Analysis and Descriptive Statistics** 

Note: Significant at \*p<0.0S;\*\*p< 0,01

Table 4 shows the results of testing hypotheses using a hierarchical regression analysis. These tables show that demographic variables were entered in Step 1 and then followed by entering independent variable *(i.e., physiological stress)* in Step 2. Job satisfaction was used as the dependent variable. An examination of the tolerance value in the regression analysis showed that the relationship between physiological stress and job satisfaction was 0.91, and the tolerance value for the relationship between emotional intelligence and job satisfaction was

0.97. These tolerance values were more than .20 (as a rule of thumb), indicating the variables were not affected by any multicollinearity problem (Fox, 1991; Tabachnick & Fidell, 2001). Further, Table 4 shows the result of testing moderating effect of emotional intelligence in the Step 3. Interaction between emotional intelligence and physiological stress insignificantly correlated with job satisfaction (15=0.53, p<0.05), therefore Hl was not supported. This result sends a signal that emotional intelligence does not act as an important moderating variable in the relationship between physiological stress and job satisfaction in the studied organizations.

Variable	Dependent Variable (Job Satisfaction)				
	Step 1	Step2	Step 3		
Controlling Variable					
Gender	•,04	·,04	05		
Age	,10	.08	.10		
Education	.05	.05	.06		
Position	.12	.12	,12		
Length of service	•,12	·,11	·,12		
Independent Variable					
Physiological Stress		·.02	•,50		
Emotional Intelligence		.06	·.19		

 Table 4: Results for Hierarchical Regression Analysis

<b>Moderating Variable</b> Physiological Stressx Emotional Intelligence			.53
RSquare	.03	,03	.04
Adjusted R Square	02	04	05
R Square Change	.03	.00	.01
F	.55	.44	.45
F Change	.55	.19	.50

Note: Significant at \*p<0.05;\*\* p<0.01

Table 5 shows the results of testing hypotheses using a hierarchical regression analysis. These tables show that demographic variables were entered in Step 1 and then followed by entering independent variable (*i.e.*, psychological stress) in Step 2. Job satisfaction was used as the dependent variable. An examination of the tolerance value in the regression analysis showed that the relationship between physiological stress and job satisfaction was 0.95, and the tolerance value for the relationship between emotional intelligence and job satisfaction was

0.97. These tolerance values were more than .20 (as a rule of thumb), indicating the variables were not affected by any multicollinearity problem (Fox, 1991; Tabachnick & Fidell, 2001). Thus, Table 5 shows the result of testing moderating effect of emotional intelligence in the Step

3. Interaction between emotional intelligence and psychological stress insignificantly correlated with job satisfaction (is=1.4, p<0.05), therefore H2 was not supported. This result sends a signal that emotional intelligence does not act as an important moderating variable in the relationship between psychological stress and job satisfaction in the studied organizations.

Variable	Dependent Variable (Job Satisfaction)			
	Step I	Step 2	Step 3	
Controlling Variable				
Gender	04	05	06	
Age	.10	.08	.08	
Education	.05	.06	.05	
Position	.12	.13	.15	
Length of service	12	10	10	
Independent Variable				
Physiological Stress		.07	84	
Emotional Intelligence		.04	73	
Moderating Variable				
Physiological Stress x Emotional Intelligence			1.4	
RSquare	.03	.04	.07	
Adjusted R Square	02	04	01	
R Square Change	.03	.01	.03	
F	.55	.49	.82	
F Change	.55	.37	3.04	

Table 5: Results for Hierarchical Regression Analysis

Note: Significant at \*p<0.05;\*\* p<0.01

Table 6 shows the results of testing hypotheses using a hierarchical regression analysis. These tables show that demographic variables were entered in Step 1 and then followed by entering independent variable (*i.e.*, physiological stress) in Step 2. Job performance was used as the dependent variable. An examination of the tolerance value in the regression analysis showed that the relationship between physiological stress and job performance was 0.91, and the tolerance value for the relationship between emotional intelligence and job performance was 0.97. These tolerance values were more than 0.20 (as a rule of thumb), indicating the variables were not affected by any multicollinearity problem (Fox, 1991; Tabachnick & Fidell, 2001). Hence, Table 6 shows the result of testing moderating effect of emotional intelligence in the Step 3. Interaction between emotional intelligence does are an important moderating variable in the relationship between physiological stress significantly correlated with job performance (J5=2.6, p<0.001), therefore H3 was supported. This result sends a message that emotional intelligence does act as an important moderating variable in the relationship between physiological stress and job performance in the studied organizations.

Variable	Dependent Variable (Job Satisfaction)				
	Step I	Step2	Step 3		
Controlling Variable					
Gender	12	12	14		
Age	02	06	.02		
Education	.08	.08	.12		
Position	08	07	07		
Length of service	01	.03	01		
Independent Variable					
Physiological Stress		01	-2.3***		
Emotional Intelligence		.26*	96**		
Moderating Variable					
Physiological Stress x Emotional Intelligence			2.6***		
RSquare	.03	.09	.21		
Adjusted R Square	-,02	03	.15		
R Square Change	.03	.06	.12		
F	.55	1.38	3.20**		
FChange	.55	3.38*	14.62***		

Table 6: Results	for	Hierarchical	Regression	Analysis
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Note: Significant at \*p<0.05;\*\* p<0.01

Table 7 shows the results of testing hypotheses using a hierarchical regression analysis. These tables show that demographic variables were entered in Step 1 and then followed by entering independent variable *(i.e.,* psychological stress) in Step 2. Job performance was used as the dependent variable. An examination of the tolerance value in the regression analysis showed that the relationship between physiological stress and job performance was 0.95, and the tolerance value for the relationship between emotional intelligence and job performance was .97. These tolerance values were more than 0.20 (as a rule of thumb), indicating the variables were not affected by any multicollinearity problem (Fox, 1991; Tabachnick & Fidell, 2001). Further, Table 7 shows the result of testing moderating effect of emotional intelligence in the Step 3. Interaction between emotional intelligence and psychological stress insignificantly correlated with job performance (B=0.12, p>0.05), therefore H4 was not supported. This result sends a message that emotional intelligence does not act as an important moderating variable in the relationship between psychological stress and job performance in the studied organizations.

Variable	Dependent Variable (Job Satisfaction)			
	Step I	Step 2	Step 3	
Controlling Variable				
Gender	-,11	12	12	
Age	02	-,06	06	
Education	.08	.08	.08	
Position	08	07	06	
Length of service	01	.03	.03	
Independent Variable				
Physiological Stress		01	07	
Emotional Intelligence		.26*	.19	
Moderating Variable			'•	
Physiological Stress x Emotional Intelligence			.12	
R Square	.03	.09	.09	
Adjusted R Square	02	03	02	
R Square Change	.03	.00	.00	
F	.55	1.38	1.20	
F Change	.55	3.38*	0.2	

Table 7: Results for Hierarchical Regression Analysis

Note: Significant at \*p<0.05;\*\* p<0.01

## Discussions

The findings of this study highlight three important findings: first, emotional intelligence does act as an important moderating variable in the relationship between one

occupational stress feature (*i.e.*, physiological stress) and job performance. This result explains that the level of physiological stress cannot decrease job performance when academic employees have adequate capabilities to use their emotions in managing physiological stress in the studied organizations. This result has also supported studies by Gillespie et al., (2001), Slaski and Cartwright (2002), Nikolau and Tsaosis (2002), and Ismail et al., (2009). Second, emotional intelligence does not act as an important moderating variable in the relationship between two occupational stress features (*i.e.*, physiological and psychological stress) and job satisfaction. This result describes that the levels of physiological and psychological stress to use their emotions "in managing physiological and psychological stress in the relationship between two intelligence does not act as an important moderating variable in the relationship between two occupational stress features (*i.e.*, physiological and psychological stress) and job satisfaction. This result describes that the levels of physiological and psychological stress to use their emotions "in managing physiological and psychological stress in the studied organizations. Third, emotional intelligence does not act as an important moderating variable in the relationship between relationship between one occupational stress feature (*i.e.*, psychological stress) and job performance. This result illustrates that the level of psychological stress cannot increase job performance when academic employees have not enough capabilities to use their emotions in managing psychological stress in the studied organizations.

The second and third findings are not consistent with the studies by Gillespie et al., (2001), Slaski and Cartwright (2002), Nikolau and Tsaosis (2002), and Ismail et al. (2010). Based on the information gathered from the in-depth interviews, this result may be influenced by external factors. Firstly, majority academic employees have high responsibilities to accomplish job targets, but they have little consciousness about the hazardous of physiological and psychological stresses at the early stage. For example, academic employees who have not responsive to job stress usually will not taken proactive steps to prevent negative physiological stress (e.g., physical sickness) and psychological stress (e.g., mental illness) at the beginning. When the levels of physiological and psychological stresses have critically increased and affected academic employee lives, this situation will decrease their physical and spiritual capacities to meet the stakeholders' expectations, and increase the stakeholder complaints about their performances. As a result, it may increase their satisfaction in accomplishing jobs in the organizations. Secondly, majority academic employees have different levels of knowledge and skills to recognize, use and regulate their emotions in dealing with dynamic and uncertainty environments. For example, academic employees who have little knowledge and skills about their emotions will not have adequate competencies to plan, monitor, and handle their psychological stress in fulfilling their stakeholder demands. As a result, it may not increase their motivation to perform job in the workplace.

With regard to the robustness of research methodology, the survey questionnaires used in this study have met the acceptable standards of validity and reliability analyses. Thus, it may lead to the production of accurate and reliable findings.

In terms of practical contributions, the findings of this study can be used as a guideline by the management to manage occupational stress problems in organizations. This objective may be achieved if management follows the suggestions: firstly, provide emotional intelligence training programs in order to create awareness and upgrade the competency of employees to recognize, use and regulate their emotions and other employee emotions in dealing with occupational stress. Secondly, management needs to implement mentoring programs in order encourage senior employees and supervisors to help junior and inexperienced employees in planning and managing jobs in the work place. Finally, management needs to promote work-life balance initiatives, such as sport, family day and outing in order to increase physical and spiritual health. If these suggestions are heavily considered this will increase the capability of employees to manage their personal emotions and use their positive emotions to decrease problems in performing organizational functions.

#### Conclusion

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This study proposed a conceptual framework based on the occupational stress literature. The results of exploratory factor analysis confirmed that the measurement scales used in this study met acceptable standards of validity and reliability analyses. The outcomes of hierarchical regression analysis showed that emotional intelligence able to moderate the effect of physiological stress on job performance. This finding is consistent with the occupational stress

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literature mostly published in Western countries. Conversely, emotional intelligence unable to moderate the effect of physiological and psychological stresses on job satisfaction, and unable to moderate the effect of psychological stress on job performance. According to information gathered from the in-depth interviews, this result may be affected two important external factors, *i.e.*, majority academic employees have little consciousness about the hazardous of physiological and psychological stresses at the early stage, and they have not adequate knowledge and skills to recognize, use and regulate their emotions in dealing with dynamic and uncertainty environments. In sum, this study confirms that emotional intelligence does act as a partial moderating variable in the relationship between occupational stress and personal outcomes in the studied organizations. Therefore, current research and practice within workplace stress needs to consider emotional intelligence as a critical element of occupational stress domain. This study further suggests that the competency of employees to properly recognize, use and regulate their emotions and other employees in implementing job will strongly increase the capability of employees to decrease occupational stress problems and increase their positive attitudinal and behavioural outcomes (e.g., satisfaction, performance, commitment, health and ethics). Thus, these positive outcomes may lead to sustained and supported the vision, mission and goals of higher learning institutions in an era of global competition.

## References

- AbuAlRub, R.F. (2004). Job stress, job performance and social support among hospital nurses. *Journal of Nursing Scholarship*, 36(1), 73-78.
- Adler, D.A., McL ughlin, T.J., Rogers, W.H., Chang, H., Lapitsky, L., & Lerner, D. (2006). Job performance deficits due to depression. *The American Journal of Psychiat 1y*, 163, 1569-1576.
- Bar-On, R. (1997). *EI in men and women*. Bar-On Emotional Quotient Inventory: Technical Manual. Multi-Health Systems. Toronto.
- Baron, R.M., & Kenny, D.A. (1986). This moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6),1173-1182.
- Basowitz, H., Persky, H., Korchin, S.J., & Grinker, R.R. (1995). *Anxiety and Stress*. New York: McGraw-Hill Book Company, Inc.
- Beehr, T. A., & Glazer, S. (2005). Organizational role stress. In J. Barling, K. Kellaway, & M. Frone (Eds.), *Handbook of work stress*. Thousand Oaks, CA: Sage, 7-33.
- Beehr, T.A., Jex, S.M., & Ghosh, P. (2001). *The management of occupational stress*. In Johnson, C.M., Redmon, W.K., & Mahwhinney, T.C. (Eds.), Handbook of Organizational Performance: Behavior Analysis and Management. New York: The Haworth Press.
- Brown, Z.A., & Uehara, D. L. (2008). *Coping with teacher stress:* A research synthesis for Pacific Resources for Education and learning. Retrieved June 29, 2009, from http://www.prel.org/products/.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioural sciences*. Hillsdale, NJ: Lawrence Erlbaum.
- Consortium for Research on Emotional Intelligence in Organizations (CREIO). (2008). *The genos emotional intelligence assessment*. Retrieved April 20, 2007, from http://www.eiconsortium.org/measures.genos.htmL
- Cox, T., Griffiths, A., & Rial-Gonzalez, E. (2000). *Research on Work-Related Stress*. European Agency for Safety & Health at Work. Belgium, Luxembourg: Office for Official Publications of the European Communities.
- Cresswell, J.W. (1998). *Qualitative inquiry and research design:* Choosing among five traditions. London: SAGE Publications.

- Dua, J.K. (1994). Job stressors and their effects on physical health, emotional health, and job satisfaction in a university. *Journal of Educational Administration*, 32(1), 59-78.
- Fairbrother, K., & Warn, J. (2003). Workplace dimensions, stress & job satisfaction. *Journal of Managerial Psychology*, 18(1), 8-21.
- Foster, D.P., Stine, B., & Waterman, R. (1998). Business analysis using regression: A casebook, Springer-Verlag.
- Fox, J. (1991). Regression diagnostics. Thousand Oaks, CA: Sage Publications.
- Gillespie, N.A., Walsh, M., Winefield, A.H., Dua, J., & Stough, C. (2001). Occupational stress in universities: Staff perceptions of the causes, consequences and moderators of stress. *Work & Stress*, 15(1), 53-72.
- Goleman, D. (1998). Working with emotional intelligence. New York: Bantam Books.
- Goleman, D. (2003). Getting emotions back into the workplace. BizEd, 18-23.
- Guleryuz, K., Guney, S., Aydin, E.M., & Asan, 0. (2008). The mediating effect of job satisfaction between emotional intelligence and organizational commitment of nurses: A questionnaire survey. *International Journal of Nursing Studies*, 45(11), 1625-1635.
- Hair, J.P., Anderson, R.E., Tatham, R.L., & Black, W.C. (2006). *Multivariate data analysis*. New Jersey: Prentice Hall International, Inc.
- Hourani, L.L., Williams, T.V., & Kress, A.M. (2006). Stress, mental health and job performance among active duty military personnel: Findings from the 2002 Department of Deference health-related behaviors survey. *Military Medicine*, 171(9), 849-856.
- Hsieh, H-L., Huang, L-C., & Su, K-J. (2004). Work stress and job performance in the hi-tech industry: A closer view for vocational education. *World Transactions on Engineering and Technology Education*, 3(1), 147-150.
- Bulland, J. (1999). Use of partial least square (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195-204.
- Ismail, A., Yao, A., Yeo, E., Lai-Kuan, K., & Soon-Yew, J. (2010). Occupational Stress Features, Emotional Intelligence and Job Satisfaction: An Empirical Study in Private Institutions of Higher learning. *Revista Negotium*, 16 (5) 5-33.
- Ismail, A., Suh-Suh, Y., Ajis, M.N., & Dollah, N.F. (2009). Relationship between Occupational Stress, Emotional Intelligence and Job Performance: An Empirical Study in Malaysia. *Theoretical and Applied Economics*, 10 (539), 3-16.
- Karasek, R., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life.* New York: Basic Books.
- Keshavarz, M., & Mohammadi, R. (2011). Occupational stress and Organizational performance, Case study: Iran. *Procedia Social and Behavioral Sciences*, 30, 390 394

Kreitner, R., & Kinicki, A. (2007). Organizational behavior. New York, US: Mcgraw-Hill/Irwin.

- Larson, L.L. (2004). Internal auditors and job stress. *Managerial Auditing Journal*, 19(9), 1119-1130.
- Lazarus, R.S. (1994). *Passion and reason: Making sense of our emotion*. New York: Oxford University Press.
- Locke, E.A. (1976). The nature and course of job satisfaction. In Dunnettee, M.D. *Handbook of Industrial and Organizational Psychology*, 1319-1328. Chicago: Rand McNally & Co.
- Locke, E.A., & Latham, G.P. (1990a) *A theory of goal setting and task pelformance*. Engleewood Cliffs, New Jersey: Prentice-Hall.

- Locke, E.A., & Latham, G.P. (1990b). Work motivation and satisfaction: Light at the end of the tunnel. *Psychological Science*, 1(4), 240-246.
- Lopes, P.N., Grewal, D., Kadis, J., Gall, M., & Salovey, P. (2006). Evidence that EI is related to job performance and affect and attitudes at work. *Psicothema*, 18, 132-138.
- Lyons, J.B., & Schneider, T.R. (2005). The influence of emotional intelligence on performance. *Personality and Individual Differences*, 39, 693-703.
- Manna, D.R., Bryan, L.D., & Pastoria, G. (2009). Professors and practitioners' perceptions of the need for accountants to possess emotional intelligence. *Economics and Organization of Enterprise*, 3(1), 17-34.
- Mathis, R.L., & Jackson, J.H. (2006). *Human resource management*. South-Western College Publishing, Australia.
- McShane, S.L., & Von Glinow, M.A. (2005). Organizational behavior (3th Eds.). McGraw-Hill Inc.
- Millward, L. (2005). Understanding Occupational and Organizational Psychology. Thousand Oaks, California: Sage Publications.
- Newell, S. (2002). Creating the Healthy Organization: Well-Being, Diversity & Ethics at Work. London: Thomson Learning.
- Nikolau, I., & Tsaosis, I. (2002). EI in the workplace: Exploring its effect on occupational stress and organizational commitment. *The International Journal of Organizational Analysis*, 10(4), 327-342.
- Nunally, J.C., & Bernstein, I.H. (1994). Psychometric Theoly. New York: McGraw-Hill.
- Quoidah, J., & Hansenne, M. (2009). The impact of trait emotional intelligence on nursing team performance and cohesiveness. *Journal of Professional Nursing*, 25(1), 23-29.
- Salovey, P., & Mayer, J. (1990). EI, Imagination, Cognition & Personality, 9, 185-211.
- Salovey, P., & Mayer, J. (1997). EI meets traditional standards for an intelligence. *Intelligence*, 27, 267-298.
- Santos, M.C. Barros, L., & Carolina, E. (2010). Occupational stress and coping resources in physiotherapists: a survey of physiotherapists in three general hospitals. *Physiotherapy* 96 (2010) 303-310.
- Seaward, B.L. (2005). *Managing stress: Principals & strategies for health & well-being*. Sudbury, Massachusetts: Jones & Bartlett Publishers.
- Sekaran, U & Bougie, R. (2011). *Research methods for business: A skill building approach*. United Kingdom: John Wiley & Sons, Ltd.
- Slaski, M., & Cartwright, S. (2002). Health, performance and EI: An exploratory study of retail managers. *Stress and Health*, 18(2), 63-68.
- Slaski, M., & Cartwright, S. (2003). EI training and its implications for stress, health and performance. *Stress and Health*, 19(4), 233-239.
- Smith, P.C., Kendall, L.M., & Hulin, C.L. (1969). *The measure of satisfaction in work and retirement*. Chicago: Rand McNally.
- Spector, P.E., & Goh, A. (2001). The role of emotions in the occupational stress process. In P.L. Perrewe & D.C. Ganster (Eds.) *Exploring Theoretical Mechanisms and Perspectives*. New York: JAL
- Sullivan, S.E. & Bhagat, R.S. (1992). Organizational stress, job satisfaction and job performance: Where do we go from here? *Journal of Management*, 18(2), 353-374.

- Sy, T., Tram, S., & O'Hara, L.A. (2006). Relation of employee and manager emotional intelligence to job satisfaction and performance, *Journal of Vocational Behavior*, 68(3), 461-473.
- Stough, C. (2003). *Applying EI in the workplace*. Retrieved April 16, 2007, from http://www. vta.vic.edu.au/vtsdn/presentations2003/Stough%20ei%20presentation %20TAFE.ppt.
- Tabachnick, B.G., & Fidell, L.S. (2001). Using multivariate statistics. Sydney: Allyn & Bacon.
- Thiebaut, E., Breton, A., Lambolez, E., & Richoux, V. (2005). Study of relations between the Bar-On Emotional Intelligence EQ-I scores and self-reports of job satisfaction. *Psychologie du Travail et des Organisations*, 11(1), 35-45.
- Terry, D.J., Nielson, M., & Perchard, L. (1993). Effects of work stress on psychological well-being and job satisfaction: The stress-buffering role of social support. Australian Journal of Psychology, 45(3), 168-175.
- Tett, R.P., & Meyer, J.P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analysis based on meta-analytic findings. *Personnel Psychology*, 46(2), 259-293.
- Vecchio, R.P. (2000). Organizational behaviour: Core concepts. Fort Worth: The Dryden Press.
- Wetzel, C.M., Kneebone, R.L., Woloshynowych, M., Moorthy, K., & Darsy, A.D. (2006). The effects of stress on surgical performance. *The American Journal of Surgery*, 191(1), 5-10.
- World Health Organization (V/HO) (2005). Mental health and worldng life. \, VHO European Ministerial Conference on Mental Health: Facing the Challenges, Building Solutions. Retrieved June 19, 2007, from www.euro.who.int/document/mnh/ebrief06.pdf,
- Wright, L.L. (1996). Qualitative international management research. In Punnett, B.J., & Shenkar, 0. (Eds.). *Handbook for International Management Research*, 63-81.Oxford, UK: Blackwell.
- Yaacob, M.R. (2008). SPSS for business and social science students: Version 14 for windows. Pustaka Aman Press Sdn. Bhd.
- Zhong, F., Yano, E., Lan, Y., Wang, M., Wang, Z., & Wang, X. (2006). *Mental ability and* psychological work performance in Chinese workers. Industrial Health, 44, 598-603.