OCCUPATIONAL STRESS FEATURES, EMOTIONAL INTELLIGENCE AND JOB SATISFACTION: AN EMPIRICAL STUDY IN PRIVATE INSTITUTIONS OF HIGHER LEARNING

Estrés ocupacional, inteligencia emocional y satisfacción en el trabajo

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ABSTRACT
This study was conducted to measure the effect of occupational stress (i.e., physiological stress and psychological stress) and emotional intelligence on job satisfaction in private institutions of higher learning in Sarawak, Malaysia. A survey method was used to gather 80 usable questionnaires from academic employees who have worked in the organizations. The results of exploratory factor analysis confirmed that the measurement scales used in this study satisfactorily met the standards of validity and reliability analyses. The outcomes of testing research hypothesis using a hierarchical regression analysis showed two major findings: First, interaction between emotional intelligence and physiological stress significantly correlated with job satisfaction. Second, interaction between emotional intelligence and psychological stress insignificantly correlated with job satisfaction. This result demonstrates that the capability of academic employees to manage their emotions and other employee emotions has increased their abilities to control psychological stress in implementing job. As a result, it could lead to higher job satisfaction. Conversely, the incapability of academic employees to manage their emotions and other employee emotions has decreased their abilities to control psychological stress in implementing job. Consequently, it could lead to lower job satisfaction. Further, this study confirms that emotional intelligence does act as a partial moderating variable in the occupational stress models of the organizational sector sample. In addition, implications and discussion are elaborated.

KEY WORDS: Occupational stress, emotional intelligence, job satisfaction

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BACKGROUND OF THE STUDY

Rapidly development of private institutions of higher learning in Malaysia has been affected by several dynamic changes, such as relevance of courses to the job market, quality of educational services, and costs of education (Tham & Kam, 2007). The number of private institutions of higher learning actively operating in Kuching city is 36. Most of the higher institutions are established in Sarawak city as branch campuses of Malaysian universities in Peninsular Malaysia, Malaysia (Ministry of Higher Education, Malaysia, 2008). Location of this study is nine private institutions of higher learning in Sarawak, Malaysia (PIHES).

In order to understand the nature of occupational stress, the in-depth interview method was conducted involving four experienced academic employees in PIHES. Information gathered from the in-depth interviews shows that the higher institution have introduced expansion plans and cost-cutting strategies in order to sustain their businesses in an era of global competition. For example, an expansion strategy has motivated the owners of the institutions to invest a lot of money to establish new premises, equip with new facilities, and provide employee rewards. In order to enhance and retain their operations, academic employees are given high amounts of duties and responsibilities to ensure that they may accomplish the organizational core businesses. In terms of workload, academic employees carry out too many non academic and academic job functions, such as teaching, research, service to the university and community, administrative work and even sales and marketing (e.g., educational road shows and exhibition). In order to accomplish these works, academic employees have to work longer hours with inadequate resources and rewards. If they cannot perform such works as scheduled their employers will give low performance ratings and they may be laid off within 24 hours notice or given one month notice. This situation has decreased the capability of academic employees to handle high level of occupational stresses, and this may lead to decreased job satisfaction.

A thorough review of the in-depth interview results reveals that effect of occupational stress conditions on job satisfaction is not
consistent if academic employees perceive that they may or may not manage their emotions and other employee emotions in implementing job. For example, the capability of academic employees to manage their emotions and other employee emotions will decrease their physiological and psychological stress in implementing job. As a result, it may lead to increased job satisfaction in the workplace. Although the nature of this relationship is significant, little is known about the moderating effect of emotional intelligence because of the limited empirical studies published in Malaysia.

EXPOSITION OF THE PROBLEM

Stress is a multi-dimensional concept and may be defined based on language and organizational perspectives. In terms of language, it is originally derived from the Latin word, that is *stringere*, which refers to draw tight, to describe hardships and/or affliction (Cartwright & Cooper, 1997). It often occurs when individuals’ physical and emotional do not match or cannot handle their job demands, constraints and/or opportunities (Leka et al., 2004; Ugoji, 2003; Ugoji & Isele, 2009) may establish two major types of stress: eustress (good stress) and distress (bad stress) (Fevre et al., 2003; Sullivan & Bhagat, 1992). Eustress is often defined as individuals who have experienced moderate and low stress levels and distress is frequently defined as individuals who have experienced high stress level. Individuals who experience eustress will be able to meet job demands and this may help them to increase positive work life (e.g., satisfaction and positive moral values). Conversely, individuals who experience distress will not able to fulfill job demands and this may motivate them to decrease quality of work life (e.g., dissatisfaction and negative moral values) (Fevre et al., 2003; Leka et al., 2004; Millward, 2005; Newell, 2002).

In an organizational context, occupational stress is also known as job stress and/or work stress. These terms are often used interchangeably in organizations, but its meaning refers to the same thing (AbuAlRub, 2004; Harrison, 1978; Larson, 2004). It has two major dimensions: physiological stress and psychological stress. Physiological stress is often viewed as a physiological reaction of the
body (headache, migraine, abdominal pain, lethargic, backache, chest pain, fatigue, heart palpitation, sleep disturbance and muscle ache, as well as changes in eating, drinking, sleeping and smoking habits) to various stressful triggers at the workplace (Antoniou et al., 2003; Beehr et al., 2001; Critchley et al., 2004; Mansor et al., 2003). On the other hand, psychological stress is often seen as an emotional reaction (anxiety and depression, burnout, job alienation, hostility, depression, tension, anger, anxiety, nervousness, irritability and frustration) experienced by an individual as a result from the stimuli at the workplace (Antoniou et al., 2003; Millward, 2005; World Health Organization, 2005). If employees cannot control such stresses this may negatively affect their work attitudes and behavior (satisfaction, commitment, productivity, quality and health) at the workplace (Seaward, 2005; Newell, 2002; Sy et al., 2006; World Health Organization, 2005).

In terms of eustress perspective, occupational stress occurs 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 (Adler et al., 2006; Cartwright & Cooper, 1997; Wetzel et al., 2006; World Health Organization, 2005). Conversely, in a distress perspective, occupational stress presents when employees’ knowledge, skills, abilities and attitudes cannot cope with or do not match to their work demands and pressures in organizations. Consequently, it may decrease the ability of employees to control and manage physiological and psychological stresses, such as disturb their self-regulatory bodies, and cannot meet their duties and responsibilities as a member of an organization (Cox et al., 2000; Critchley et al., 2004; Fairbrother & Warn, 2003; Mansor et al., 2003).

Recent studies in this area show that the ability of employees to manage their physiological and psychological stresses may have a significant impact on job satisfaction (Fairbrother & Warn, 2003; Snelgrove, 1998; Swanson et al., 1998). According to an organizational behavior perspective, job satisfaction is broadly described as a result of employees’ perception or appraisal of their jobs (McShane & Von Glinow, 2005) 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; Vecchio et al., 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 implementing job may lead to higher job satisfaction in organizations (Antoniou et al., 2003; Fairbrother & Warn, 2003; Stacciarini, 2004). This finding is significant, but it has neglected to explain why and how effect of occupational stress on job satisfaction is not consistent in different situations (Fairbrother & Warn, 1993; Guleryuz et al., 2008; Stacciarini, 2004).

Surprisingly, a careful observation of such relationships reveals that effect of occupational stress on job satisfaction is not consistent if individuals’ emotional intelligence is present in organizations (Guleryuz et al., 2008; Kafetsios & Zampetakis, 2008; Quoidah & Hansenne, 2009). Several scholars like Goleman (1998, 2003), Manna et al., (2009), and Salovey & Mayer (1990, 1997) state that emotional intelligence (EI) is formed based on two interrelated components: interpersonal competency and intrapersonal competency. According to Goleman (1998), EI specifically has five major components: self-awareness, self-regulation, motivation, 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 the perspectives, EI components may be divided in the two major dimensions: firstly, intrapersonal competencies (how well individuals manage themselves) consists of three elements, i.e., self-awareness, self-regulation, and motivation. Secondly, interpersonal competencies (how well individuals interact with other
people) includes two elements, i.e., empathy and social skills (Goleman, 1998). Many scholars view 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 they will 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; Stacciarini, 2004).

Within an organizational stress framework, many scholars think that occupational stress, emotional intelligence and job satisfaction are distinct constructs, but highly interrelated. For example, the ability of employees to properly manage their emotions and manage other employees’ emotions will strongly increase their abilities to cope with physiological and psychological stresses in implementing job. As a result, it may lead to higher job satisfaction in organizations (Guleryuz et al., 2008; Sy et al., 2006; Thiebaut et al., 2005). Although this relationship is significant, little is known about the moderating effect of emotional intelligence in occupational stress models (Kafetsios & Zampetakis, 2008; Quoidah & Hansenne, 2009). Many scholars state that the moderating effect of emotional intelligence is less highlighted in previous studies because they have much described the emotional intelligence characteristics, and neglected the role of human emotion in influencing the effect of occupational stress on employee outcomes (AbuAlRub, 2004; Stacciarini, 2004).

**OBJECTIVE OF THE STUDY**

The study has four major objectives: First, to measure the relationship between physiological stress and job satisfaction. Second, to measure the relationship between psychological stress and job satisfaction. Third, to quantify the moderating effect of emotional intelligence in the relationship between physiological stress and job satisfaction. Finally, to quantify the moderating effect
of emotional intelligence in the relationship between psychological stress and job satisfaction.

LITERATURE REVIEW
Theoretical and empirical evidences have been used to support two types of relationships: 1) relationship between occupational stress and job satisfaction; and 2) relationship between occupational stress, emotional intelligence and job satisfaction.

RELATIONSHIP BETWEEN OCCUPATIONAL STRESS AND JOB SATISFACTION
Early theories about organizational behavior much highlight a direct relationship between job and human emotion. For example, Harrison’s (1978) person-environment (P-E) fit model, and Karasek & Theorell’s (1990) job-demand-control model state that individuals who have experienced high work demands with low work-control will have difficulties to meet the job demands, this may lead to increased occupational strains. Lazarus’s (1994) transactional stress model explains that inability of individuals’ cognitive processes and emotional reactions to manage strain environments may lead to increased occupational tensions. Spector & Goh’s (2001) emotion-centered model of occupational stress posits that individuals who feel stressful when exposing with an event in particular environments may experience occupational strains. Cannon-bard theory of emotion (Cannon, 1927) states that a person who experiences physiological stress (e.g., heart attack) may simultaneously experience psychological stress (e.g., mental illness). Then, the concept has been expanded by Mueller & Maluf (2002) to establish a physical stress theory, which posits that the level of one’s physical stress will determine the person’s predictable biological response. For instance, a person who can habitually reduce his/her level of physical stress will be more experience a positive biological response compared to a person who often has high level of physical stress. This situation may lead to higher job satisfaction.
Ursin & Eriksen’s (2004) cognitive arousal theory of stress states that a person’s feelings of hopelessness, helplessness and inability to cope in stressful situations can trigger lower emotional health, which can potentially lead to feelings of frustration, deprivation or discontentment. For example, if a person feels that he/she is not able to cope with stressful conditions this may invoke his/her feelings of dissatisfaction with job. Bandura’s (1977) self-efficacy theory proposes that if a person has high self-efficacy (i.e. belief to his/her ability in executing a course of action) this will not invoke his/her negative cognitive thoughts. Application of this theory in an occupational stress model shows that if a person has high self-efficacy (i.e. belief to his/her ability to manage emotions) this will effectively decrease his/her job stressors, and increase his/her emotional health and lower level of psychological stress. This situation can potentially result in higher job satisfaction (Antoniou et al., 2003; Mansor et al., 2003; Zhong et al., 2006).

The notion of these theories is consistent with occupational stress research literature. For example, previous studies were conducted on the relationship between occupational stress and job satisfaction based on different samples, such as 68 health visitors, 56 district nurses, and 19 community/psychiatric nurses in one health authority in the UK (Snelgrove, 1998), 547 male and female general practitioners and 449 consultant doctors in Scotland health science (Swanson et al., 1998), 440 Malaysian managers in multinational companies (Mansor et al., 2003), 335 male and female Greek junior hospital doctors in Greater Athens area (Antoniou et al., 2003), 461 nurses recruited from the public health and educational system in the Federal District Brazil (Stacciarini, 2004), and 23 nursing teams (Quoidah & Hansen, 2009). Findings from these studies reported that the ability of employees to cope with physiological stress (i.e., workloads, working conditions, physical health and working hours) and psychological stress (i.e., relationships at work, support, mental health and positive thinking) had increased job satisfaction at the workplace. Thus, the literature has been used to develop a direct relationship framework as shown in Figure 1.
RELATIONSHIP BETWEEN OCCUPATIONAL STRESS, EMOTIONAL INTELLIGENCE AND JOB SATISFACTION

A recent emotion based theory that is emotional intelligence theory generally explains that individuals who have sufficient interpersonal and intrapersonal competencies can properly manage their emotions (i.e., self-awareness, self-regulation, and motivation) and other employee emotions (i.e., empathy and social skills) to cope with environmental challenges (Bar-On, 1997; Goleman, 1998, 2003; Salovey & Mayer, 1990, 1997). Specifically, 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 & 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 at the workplace stress shows that the ability of employees to properly manage their interpersonal and intrapersonal skills will increase their abilities to cope with physiological and psychological stresses in implementing job. As a result, it may lead to higher positive personal outcomes, such as job satisfaction at the workplace (Guleryuz et al., 2008; Kafetsios & Zampetakis, 2008; Sy et al., 2006).

The notion of these theories is consistent with occupational stress research literature. For example, several studies used an indirect effects model to examine the workplace stress based on different samples, such as 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). These studies found that the level of physiological and psychological stresses did not decrease job satisfaction if employees could properly manage their emotions and other employee emotions in the organizations (Guleryuz et al., 2008; Kafetsios & Zampetakis, 2008; Sy et al., 2006; Quoidah & Hansenne, 2009; Thiebaut et al., 2005).

Thus, the literature has been used to develop a moderating model as shown in Figure 2.
Based on the framework, it can be hypothesized that:

H3: Emotional intelligence significantly moderates the relationship between physiological stress and job satisfaction.

H4: Emotional intelligence significantly moderates the relationship between psychological stress and job satisfaction.

**METHODOLOGY: RESEARCH DESIGN**

This study used a cross-sectional method which allowed the researchers to integrate the occupational stress research literature, the in-depth interview, the pilot study and the actual survey as a main procedure to collect data. The use of such methods may gather accurate, less bias and high quality data (Cresswell, 1998; Sekaran, 2003). This study was conducted at PIHES. At the initial stage of data collection procedure, the interview was conducted based on the guidelines established by Easterby-Smith, Thorpe & Lowe, (1991), and Usunier (1998). Firstly, the researchers designed flexible interview questions which related to three issues: occupational stress features, emotional intelligence characteristics, and job satisfaction facets. Secondly, a purposive sampling technique was used to identify two female lecturers and two male lecturers who have working experienced from 3 to 20 years in the organizations. They
have adequate knowledge about occupational stress features, emotional intelligence characteristics, and job satisfaction facets that occur in the studied organizations. Thirdly, in-depth interview method was used to interview the participants in order to understand their perceptions about occupational stress, emotional intelligence, job satisfaction, effect of occupational stress on job satisfaction, and effect of occupational stress on job satisfaction via its impact upon emotional intelligence. Fourthly, information gathered from such interviews was categorized and constantly compared to the related literature review in order to understand clearly the particular phenomena under study and put the research results in a proper context. Further, the results of the triangulated process were used as a guideline to develop the content of survey questionnaires for a pilot study. Next, pilot study was done by discussing pilot questionnaires with the participants. Information gathered from such participants was used to verify the content and format of survey questionnaire for an actual study. 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 three sections. Firstly, physiological stress had a 6-item scale adapted from Seaward’s (2005) physiological stress scale. The items used to measure the variable were: (1) Indigestion and/or abdominal pain, (2) Weight loss or weight gain, (3) Breakouts of pimples and/or acne, (4) Excessive sweating, (5) Colds and/or flu, and (6) Slower recovery from illnesses. Secondly, psychological stress had a 4-item scale developed based on psychological stress literature (Beehr et al., 2001; Cox et al., 2000; Newell, 2002). The items used to measure the variable were: (1) Feel unable to cope in my work, (2) Feel angry/fearful/anxious/depressed about workload, (3) Find it difficult to control emotions, and (4) Feel confuse and/or cannot concentrate. Thirdly, emotional intelligence had a 7-item scale developed based on emotional intelligence literature (Consortium for Research on
Emotional Intelligence in Organizations (CREIO), 2008; Stough, 2003). The items used to measure the variable were: (1) Having good understanding of own emotions, (2) Finding right words to express what I feel about an issue, (3) Considering own feelings in decision making or problem-solving, (4) Calming down quickly, (5) Setting goals for myself and try my best to achieve them, (6) Remaining focused on what I am doing, and (7) Thinking through what I have done and said.

Finally, job satisfaction had a 5-item scale developed based on job satisfaction literature (Dua, 1994; Fairbrother & Warn, 2003; Smith et al., 1969; Sullivan & Bhagat, 1992; Tett & Meyer, 1993; Terry et al., 1993). The items used to measure the variable were: (1) My basic salary is sufficiently paid according to my daily working hours and workload, (2) I am satisfied with my chances for salary increases, (3) The work I do is appreciated, (4) I believe those that do well on the job have a fair chance of being promoted, and (5) It is possible to get promoted fast in my job. 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).

Relying on the theoretical and empirical evidences, employee attitudes are more salient factors than demographic variables in influencing the problem of this study (Bar-On, 1997; Goleman, 1998, 2003; Guleryuz et al., 2008; Kafetsios & Zampetakis, 2008; Quoidah & Hansenne, 2009; Salovey & Mayer, 1990, 1997). In testing the research hypotheses, demographic variables were used as controlling variables because this study focused on employee attitudes.

SAMPLE

The number of private institutions of higher learning actively operating in Kuching, Sarawak is 36 (Ministry of Higher Education, Malaysia, 2008). Of the number, 9 private institutions were agreed to participate in this study. The targeted population for this study is academic employees who work in the studied organizations. In the first step of data collection, the researchers met HR managers of the studied organizations to get their opinions about the rules for
distributing survey questionnaires in their organizations. Considering the organizational rules, a quota sampling was used to determine the number of sample size based on the period of study and budget constraints, that is 200 academic employees. After that, a convenient sampling was chosen to distribute survey questionnaires because the list of registered employees was not given to the researchers and this situation did not allow the researchers to choose randomly respondents in the organizations. Therefore, 200 survey questionnaires were distributed to employees who were willing to answer the questionnaires. Of that total, 80 usable questionnaires were returned to the researchers, yielding 40 percent of response rate. The number of this sample exceeds the minimum sample of 30 participants as required by probability sampling technique, showing that it may be analyzed using inferential statistics (Sekaran, 2003). The survey questionnaires were answered by participants based on their consents and a voluntarily basis.

DATA ANALYSIS

A Statistical Package for Social Science (SPSS) version 16.0 was used to analyze the questionnaire data. Firstly, exploratory factor analysis (varimax rotation) and confirmatory factor analysis (i.e., Kaiser Meyer Olkin, Bartlet’s test of sphericity, eigenvalues, variance explained and Cronbach alpha) were used to assess the validity and reliability of measurement scales (Hair et al., 2006). Secondly, analysis of variance, Pearson correlation analysis and descriptive statistics were conducted to assess the research variables and the usefulness of the data set (Foster et al., 1998; Yaacob, 2008). Finally, a hierarchical regression analysis, as recommended by Cohen & Cohen (1983), was used to measure the moderating effect of emotional intelligence in the hypothesized model. Moderating effect is an interaction that shows the degree of relationship between the independent variables and dependent variables and that will change if other variables exist in the relationship (Cohen & Cohen, 1983; Jaccard et al., 1990).
FINDINGS:  
RESPONDENTS’ CHARACTERISTICS

Table 1 shows that the majority respondents were female lecturers (60 percent), lecturers aged between 26 and 30 years old (40 percent), bachelor degree holders (71.3 percent), lecturers (85 percent), specialized in computer science / information technology (28.8 percent), served between 2 and 5 years (41.3 percent), permanent and confirmed staff (51.2 percent), and taught between 10 and 15 hours per week (37.5 percent).

Table 1: Respondents’ Characteristics (N=80)

<table>
<thead>
<tr>
<th>Respondents’ Characteristics</th>
<th>Sub-Profile</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>60.0</td>
</tr>
<tr>
<td>Age</td>
<td>Less than 25 years old</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>26 – 30 years old</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>31 – 35 years old</td>
<td>23.8</td>
</tr>
<tr>
<td></td>
<td>36 – 40 years old</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>41 – 45 years old</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>&gt; 46 years old</td>
<td>1.3</td>
</tr>
<tr>
<td>Education</td>
<td>Diploma</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>Bachelor Degree</td>
<td>71.3</td>
</tr>
<tr>
<td></td>
<td>Master Degree</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Doctorate</td>
<td>2.5</td>
</tr>
<tr>
<td>Position</td>
<td>Senior Lecturer</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Lecturer</td>
<td>85.0</td>
</tr>
<tr>
<td></td>
<td>Assistant Lecturer</td>
<td>12.5</td>
</tr>
<tr>
<td>Field of Specialization</td>
<td>Accounting, Finance, Banking</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Arts</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Business, Commerce, Economics</td>
<td>16.2</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Computer Science / Information Technology</td>
<td>28.8</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>13.8</td>
</tr>
<tr>
<td></td>
<td>Linguistics</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>Pure Sciences</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Social Sciences</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Business &amp; Law</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>Communication &amp; Social Science</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>Communication, Linguistic &amp; Social Science</td>
<td>1.2</td>
</tr>
</tbody>
</table>
VALIDITY AND RELIABILITY ANALYSES FOR MEASUREMENT SCALES

Table 2 shows the results of validity and reliability analyses for measurement scales. A factor analysis with the varimax rotation was first done for four variables with 22 items. After that, Kaiser-Mayer-Olkin Test (KMO) which is a measure of sampling adequacy was conducted for each variable and the results indicated that it was acceptable. Relying on Hair et al., (2006) and Nunnally & Bernstein’s (1994) guideline, these statistical analyses showed that (1) 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, (2) all research variables exceeded the acceptable standard of Kaiser-Meyer-Olkin’s value of 0.6, were significant in Bartlett’s test of sphericity, (3) all research variables had eigenvalues larger than 1, (4) the items for each research variable
exceeded factor loadings of 0.50 (Hair et al., 2006), and (5) all research variables exceeded the acceptable standard of reliability analysis of 0.70 (Nunally & Bernstein, 1994). These statistical analyses confirm that measurement scales have measured the same constructs and met the acceptable standard of construct validity and reliability analyses as shown in Table 2.

### Table 2: The Results of Validity and Reliability Analyses for Measurement Scales

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Factor Loading</th>
<th>KMO</th>
<th>Bartlett’s Test of Sphericity</th>
<th>Eigenvalue</th>
<th>Variance Explained</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiological Stress</td>
<td>6</td>
<td>.58 - .72</td>
<td>.78</td>
<td>138.59</td>
<td>3.02</td>
<td>50.35</td>
<td>.80</td>
</tr>
<tr>
<td>Psychological Stress</td>
<td>4</td>
<td>.63 - .74</td>
<td>.78</td>
<td>159.51</td>
<td>2.90</td>
<td>72.58</td>
<td>.87</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>7</td>
<td>.65 - .78</td>
<td>.87</td>
<td>250.28</td>
<td>4.00</td>
<td>57.27</td>
<td>.87</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>5</td>
<td>.77 - .82</td>
<td>.74</td>
<td>264.64</td>
<td>3.36</td>
<td>67.24</td>
<td>.87</td>
</tr>
</tbody>
</table>

### ANALYSIS OF CONSTRUCTS

Analysis of variance techniques are used to compare the mean scores between two or more groups in the studied organization. In this case, independent samples t-tests were used to compare two different (independent) groups of people (i.e., gender) and ANOVA is used to compare three and more different (independent) groups of people (i.e., age) (Hair et al., 2006; Yaacob, 2008). The results of one-way ANOVA that have significance differences are reported. This statistical result showed that age was found to have a significant difference (F=3.77, p<0.01), signifying that physiological stress was differently perceived by age structures. While, field of specialization was found to have a significance difference (F=1.81, p<0.05), showing that job satisfaction was differently viewed by field of specialization.

Table 3 shows the result of Pearson correlation analysis and descriptive statistic. The means for the variables ranging from 2.32 to
4.23 signifying that the level of physiological stress, psychological stress, emotional intelligence and job satisfaction are 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 dependent variable (i.e., job satisfaction) 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.

Table 3 also shows the results of testing the relationship between occupational stress features and job satisfaction. First, physiological stress insignificantly correlated with job satisfaction (r=.01, p>0.05), therefore H1 was not supported. Second, psychological stress significantly correlated with job satisfaction (r=-.23, p<0.05), therefore H2 was supported. These statistical results showed that psychological stress is an important predictor of job satisfaction, and physiological stress is not an important predictor of job satisfaction in the organizational sector sample.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Pearson Correlation Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Physiological Stress</td>
<td>2.32</td>
<td>.8</td>
<td>1</td>
</tr>
<tr>
<td>Psychological Stress</td>
<td>2.77</td>
<td>.8</td>
<td>.48 **</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>3.73</td>
<td>.6</td>
<td>-.49 **</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>4.23</td>
<td>1.4</td>
<td>-.23 *</td>
</tr>
</tbody>
</table>

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

OUTCOMES OF TESTING RESEARCH HYPOTHESES

Table 4 shows the results of testing hypotheses using a hierarchical regression analysis. It shows that demographic variables
were entered in Step 1 and then followed by entering independent variable (occupational stress and emotional intelligence) in Step 2, and moderating variable (interaction between occupational stress features and emotional intelligence) in Step 3. Job satisfaction was used as the dependent variable. An examination of multicollinearity in the Table 4 shows that the tolerance values for the relationships: (1) between physiological stress and job satisfaction was .83, and (2) between psychological stress and job satisfaction was .83. While, the tolerance values for the relationships: (1) between the physiological stress, emotional intelligence and job satisfaction were .78, and (2) between the psychological stress, emotional intelligence and job satisfaction were .89. These tolerance values were more than tolerance value of .20 (as a rule of thumb), indicating the variables were not affected by multicollinearity problem (Fox, 1991; Tabachnick & Fidell, 2001).

Table 4: Results for Hierarchical Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dependent Variable (Job Satisfaction)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1</td>
</tr>
<tr>
<td><strong>Controlling Variable</strong></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.03</td>
</tr>
<tr>
<td>Age</td>
<td>.16</td>
</tr>
<tr>
<td>Education</td>
<td>.16</td>
</tr>
<tr>
<td>Position</td>
<td>.13</td>
</tr>
<tr>
<td>Field of Specialization</td>
<td>.37***</td>
</tr>
<tr>
<td>Length of Service</td>
<td>-.17</td>
</tr>
<tr>
<td>Employment Status</td>
<td>.04</td>
</tr>
<tr>
<td>Teaching Hours Per Week</td>
<td>-.20</td>
</tr>
<tr>
<td><strong>Independent Variable</strong></td>
<td></td>
</tr>
<tr>
<td>Physiological Stress</td>
<td></td>
</tr>
<tr>
<td>Psychological Stress</td>
<td>-.25</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>-.02</td>
</tr>
<tr>
<td><strong>Moderating Variable</strong></td>
<td></td>
</tr>
<tr>
<td>Physiological Stress X Emotional Intelligence</td>
<td>1.55 *</td>
</tr>
<tr>
<td>Psychological Stress X Emotional Intelligence</td>
<td></td>
</tr>
<tr>
<td><strong>R</strong>²</td>
<td>.24</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>.15</td>
</tr>
<tr>
<td>R Square Change</td>
<td>.24</td>
</tr>
<tr>
<td>F</td>
<td>2.78 *</td>
</tr>
<tr>
<td>F Change R Square</td>
<td>2.78 *</td>
</tr>
</tbody>
</table>

Note: Significant at * p<0.05; ** p<0.01; *** p<0.001
Table 4 shows the result of hierarchical regression analysis were summarised in the three models. Model 1 showed that field of specialization was found to be a significant predictor of job satisfaction ($\beta=.37, p<0.001$), accounting for 24 percent of the variance in dependent variable. Model 2 displayed that physiological stress ($\beta=.27, p<0.05$) was found to be a significant predictor of job satisfaction, and psychological stress ($\beta=-.25, p>0.05$) was found not to be a significant predictor of job satisfaction, accounting for 29 percent of the variance in dependent variable. Model 3 revealed that the interaction between physiological stress and emotional intelligence positively and significantly correlated with job satisfaction ($\beta=1.55, p<0.05$), therefore H3 was supported. While, the relationship between psychological stress and emotional intelligence negatively and insignificantly correlated with job satisfaction ($\beta=-.79, p>0.05$), therefore H4 was not supported. In terms of explanatory power, the inclusion of emotional intelligence in Model 3 had explained 38 percent of the variance in dependent variable. Statistically, the result demonstrates that interaction between physiological stress and emotional intelligence has increased job satisfaction, and interaction between psychological stress and emotional intelligence has decreased job satisfaction. Further, the study confirms that emotional intelligence does act as a partial moderating variable in the occupational stress models of the organizational sector sample.

**DISCUSSION AND IMPLICATIONS**

The findings of this study confirmed that emotional intelligence acts as a partial moderating variable in the relationship between occupational stress and job satisfaction in the organizational sector sample. In the studied organizations, management teams have planned and implemented challenging jobs for academic employees in order to sustain and achieve their organizational strategies and goals. Majority academic employees perceive that the levels of their physiological and psychological stresses in implementing job are high, the ability to manage their emotions and other employee emotions in implementing job are high, and the levels of job
satisfaction are high. Besides that, majority academic employees feel that they can properly manage their emotions and other employee emotions to cope with physiological stress in implementing job. As a result, it may lead to higher job satisfaction at the workplace.

The study presents three major implications: theoretical contribution, robustness of research methodology, and practical contribution. In terms of theoretical contribution, the results of this study confirmed that emotional intelligence has moderated the effect of physiological stress on job satisfaction in the studied organizations. It indicates that the ability of academic employees to properly manage their emotions and other employee emotions can increase their capabilities to cope with physiological stress in implementing job. As a result, it may lead to higher job satisfaction in the studied organizations. This result is consistent with the studies by (Guleryuz et al., 2008; Kafetsios & Zampetakis, 2008; Quoidah & Hansenne, 2009).

Conversely, emotional intelligence has not moderated the effect of psychological stress on job satisfaction in the studied organizations. It explains that the incapability of academic employees to manage their emotions and other employee emotions have not increased their capabilities to cope with psychological stress in implementing job. As a result, it may lead to lower job satisfaction in the studied organizations. A careful observation of the interview results reveals that emotional intelligence does not moderate the effect of psychological stress on job satisfaction may be affected by external factors. Firstly, employees have high responsibilities to achieve job targets, but majority of them has little awareness about the dangerous of psychological stress. Such employees have not taken proactive actions to cope with psychological stress symptoms. As a result, this may lead to lower health and performance, as well as higher dissatisfaction in organizations. Secondly, individual employees who have different backgrounds have different levels of knowledge and skills about emotional intelligence. For employees who have little knowledge and skills about emotional intelligence will have inadequate capabilities to manage their emotions and other employee emotions in controlling psychological stress. Consequently, it may lead to higher dissatisfaction at the workplace.
With respect to the robustness of research methodology, the survey questionnaires that are developed based on the information gathered from the occupational stress literature, the in-depth interviews and the pilot study have satisfactorily met the standards of validity and reliability analysis. This situation 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 overcome occupational stress problems in organizations. Several suggestions are: Firstly, update the content and training method. For example, the content of current training programs that emphasized more on technical skills need to be reduced and the amount of emotional intelligence should be increased in order to enable employees have more time to understand the concept and principles of emotional intelligence in improving their personalities at the workplace. The content of such trainings will be easily implemented if employees are trained to use proper case studies and role play techniques. Secondly, management should encourage employee participation in teamwork. For example, involving employees in teamwork planning and administration will help them to increase positive socialization, improve career and increase psychosocial well-being. In a long term, it may lead to increased employee satisfaction, commitment and performance in organizations. Thirdly, promote work-life balance initiatives. For example, in order to reduce the employee occupational stress, management should organize company trips for the employee to relax their minds and bodies, as well as initiate physical fitness and sport games. Finally, encourage employee assistance program through professional external consultants and/or internal counseling and guidance unit. For example, providing moral and material supports to employees who have experienced personality, social and financial problems may help to enhance their abilities to control deviant behaviors at the workplace. If management heavily considers these suggestions this may upgrade the capability of employees to sustain and increase organizational competitiveness in a global economy.
CONCLUSION
The findings of this study confirm that emotional intelligence does act as a moderating variable in the relationship between physiological stress and job satisfaction, whereas emotional intelligence does not act as a moderating variable in the relationship between psychological stress and job satisfaction in the organizational sector sample. These findings explain that effect of physiological stress on job satisfaction is not direct, but its impact of job satisfaction is moderated by emotional intelligence, therefore H3 was supported. Conversely, effect of psychological stress on job satisfaction is direct, and its impact of job satisfaction is not moderated by emotional intelligence, therefore H4 was not supported. Therefore, current research and practice within occupational stress needs to consider emotional intelligence as a crucial element of occupational stress. This study further suggests that the capability of academic employees to control their stresses will increase positive attitudinal and behavioural outcomes (i.e., satisfaction, commitment, performance and good ethical values) because they can properly manage their emotions and other employee emotions in implementing job. As a result, it may strongly motivate employees to sustain and achieve organizational strategy and goals in an era of global competition.

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Azman Ismail, Amy Yao, Elizabeth Yeo, Kong Lai-Kuan, Ju Soon-Yew (2010). OCCUPATIONAL STRESS FEATURES, EMOTIONAL INTELLIGENCE AND JOB SATISFACTION: AN EMPIRICAL STUDY IN PRIVATE INSTITUTIONS OF HIGHER LEARNING / www.revistanegotium.org.ve 16 (5) 5-33


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