ANTECEDENTS OF OCCUPATIONAL STRESS AMONG THE PROFESSIONALS IN THE CONSTRUCTION INDUSTRY: MODERATING ROLE OF SELF-EFFICACY

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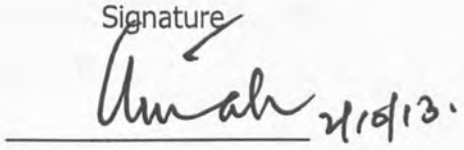

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ABSTRACT

ANTECEDENTS OF OCCUPATIONAL STRESS AMONG THE PROFESSIONALS IN THE CONSTRUCTION INDUSTRY: MODERATING ROLE OF SELF-EFFICACY

Occupational Stress is extensively becoming a serious phenomenon, particularly among the participants involved in the construction industry of rapidly developing countries; however, it had been found that there has been a lack of insight in regards to the Malaysian construction industry context. The construction industry has been reported to be one of the major contributors to Malaysia's GDP therefore it is important that the objective of this study identifies whether there is an occurrence of occupational stress and upon so, determine the main antecedents that contribute towards the experience of occupational stress. More importantly this study aims to close the research gap in statistical data and fill in the voids with relevance to Malaysia's industry. To ensure a refined data was attained, questionnaires were administered to the Architects, Quantity Surveyors and Engineers and data was collected from organizations that were operating in Kota Kinabalu with a response rate of 215 participants. It was revealed that around 68% of the professionals have experienced occupational stress. This study had found that some new antecedents have been created from the original list of antecedents of previous research and it had been discovered that the individual difference of self-efficacy moderates relationships that involve emotional-based occupational stress.

ABSTRAK

Tekanan pekerjaan semakin meluas dan menjadi satu fenomena yang serius, terutamanya di kalangan mereka yang terlibat dalam industri pembinaan di negara-negara yang sedang pesat membangun; namun, terdapat kekurangan informasi dalam konteks industri pembinaan di Malaysia. Industri pembinaan telah dilaporkan menjadi salah satu penyumbang utama kepada Keluaran Dalam Negara Kasar (KDNK) Malaysia, oleh itu ia adalah penting bahawa objektif kajian ini mengenal pasti sama ada terdapat kejadian tekanan kerja dan apabila demikian, penyumbang utama kepada tekanan pekerjaan ini akan ditentukan. Lebih penting lagi, kajian ini bertujuan untuk merapatkan jurang penyelidikan dalam data statistik dan mengisi ruang kosong yang lebih relevan kepada industri di Malaysia. Untuk memastikan data terbaik diperoleh, kertas soal selidik telah diedarkan kepada Arkitek, Juruukur Bahan dan Jurutera dan data hanya dikumpulkan dari organisasi yang beroperasi di Kota Kinabalu dan kerjasama diterima daripada 215 peserta. Kajian telah mendedahkan bahawa kira-kira 68% daripada golongan profesional ini telah mengalami tekanan pekerjaan. Kajian ini mendapati bahawa beberapa latar faktor baru telah diwujudkan dari senarai asal penyelidikan sebelumnya dan telah didapati bahawa perbezaan individu tentang kepercayaan dengan kebolehan diri mempengaruhi tekanan pekerjaan yang melibatkan emosi.

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LIST OF ABBREVIATIONS

BEM	-	Board of Engineers Malaysia
BQSM	-	Board of Quantity Surveyors Malaysia
CFA	-	Confirmatory Factor Analysis
CIDB	-	Construction Industry Development Board
CIOB	-	Chartered Institute of Building
DOSH	-	Department of Occupational Safety and Health
EFA	-	Exploratory Factor Analysis
GDP	-	Gross Domestic Product
GLC	-	Government Linked Company
HSE	-	Health and Safety Executive
IEM	-	Institute of Engineers Malaysia
ISM	-	Institute of Surveyors Malaysia
JKR	-	Public Works Department
KMO	-	Kaiser-Meyer-Olkin
LAM	-	Board of Architects Malaysia
LPPB	-	Lembaga Perumahan dan Pembangunan Bandar
MIA	-	Malaysian Institute of Architects
OSHA	-	Occupational Safety and Health Act
PAM	-	Pertubuhan Arkitek Malaysia
PKK	-	Pusat Khidmat Kontraktor
QS	-	Quantity Surveying/Quantity Surveyor
SWS	-	International Survey of Stress and Mental Health Survey
WHO	-	World Health Organization

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CHAPTER 1

INTRODUCTION

1.1 OVERVIEW

The construction industry is a crucial contributor to a country's economy as it portrays the growth of development being experienced by the nation. Uniquely, the construction industry possesses many characteristics that differentiates it from other sectors (Wahab, 2010). Yip and Rowlinson (2006) have stated that the popularly known nature of the construction industry is it being fundamentally complex and demanding, be it within its internal or external environment. Globally, the construction industry has gone through major evolution and transformation (Ibem, Anosike, Azuh, Mosaku, 2011) which makes it inevitably more vast and challenging to its participants.

The demand for construction projects come from clients of various backgrounds (Sundaraj, 2006) whom of which have no knowledge on the requirements of this industry. It is based on this fact that construction industry professionals are appointed as consultants that are able to translate their client's desires into reality (Leung, Chan, Chong, Sham, 2008a). The practice involved in this translation process is one that is most perplexing and stressful to the construction professionals, due to the client's fluctuating needs and unpredictable environment. On the other hand, apart from keeping up with the client, the construction professional is also required to adapt and operate in a highly competitive market that calls for completion of construction projects within tight deadlines and constraints of budgets (Rothmann and Malan, 2006). Construction professionals provide specific services to its clients, and it has been found by Tan and Ismail (2011) that employees in service-related organizations are potentially exposed to high degrees of occupational stress.

Occupational stress, or workplace stress, is defined as the direct result from the stress experienced based on a person's occupation (Campbell, 2006) and

Mazzola, Scholfeld and Spector (2011) had found that stressors at work were more commonly reported compared to stressors associated with other areas of life. As highlighted by Yip and Rowlinson (2006), the construction industry possesses abundant potential sources of stress in the workplace. Overload of work, hours contributed to long working periods as well as role uncertainty are the main stress causes that are experienced by professionals working in construction projects (Sutherland and Davidson, 1989 in Ibem, *et al.,* 2011). D'Souza, Urs and Siddeqowda (2005) further furnish this list by adding on that the change in working lifestyle such as rushing to meet deadlines, taking over work from colleagues and organizations cutting back on expenses pose additional burden and stress to the professional. This shows that the nature of the construction industry offers a high potential for its participants to experience stress.

It is noted that, a certain amount of stress in a working environment is necessary to motivate (Wahab, 2010; Pulat, 1997 in Abbe, Harvey, Ikuma, Aghazadeh, 2008) and push the professionals to perform better in their work, however, a profusion of occupational stress experienced by the individual will harm the individual, organization and construction industry as a whole. Among the negative effects of occupational stress towards an organization include low job satisfaction levels, decrease in organizational commitment and drop in effectiveness and productivity (Yip and Rowlinson, 2006; Tan and Ismail, 2011), this shows that stress has a significant impression on construction professionals (Leung, Chan, Chong, 2010a). This realization enlightens the need for identification of the main causes of occupational stress in order to mitigate and avoid these problems from occurring.

Yip and Rowlinson (2006) had highlighted that knowledge pertaining occupational stress is significantly important for future research in deriving the most effective handling strategies to tackle job stress and subsequently eliminate the possibilities of negative consequences. Not only does stress affect the psychology of construction professionals, but it will also influence on-going construction projects as well as interpersonal relationships between project members (Wahab, 2010). This study is considered necessary for the well-being of

both construction professionals and the overall performance of the industry, as mishandled stress at an organizational level can prove to be detrimental (Tan and Ismail, 2011).

Therefore, this study aims to investigate the main antecedents that affect the professionals in the construction industry with specific insights based on the Malaysian context. Chan (2008) had explained that different development backgrounds, work nature and work environments resulted in a deviation of how an individual experiences stress, how the stress is managed and how performance is affected due to their occupational stress. As there has been limited research on the construction professionals in Malaysia, this study intends to identify the intensity level of this issue to provide an early awareness to avoid our construction professionals of suffering major stress consequences that are currently being experienced by other countries.

1.2 PROBLEM STATEMENT

It has been found that changes in a developing and blooming economy puts more pressure on the participants of the construction sector (Bahrami, 2010). Ibem *et al.* (2011) further clarifies that generally, the normality of construction procedures that is vibrant and at the same time complicated with its diverse requirement of specialization as well as the attitudes of the construction professionals greatly contribute to the fast-paced growth being experienced within the construction industry. Due to this, the professionals in this industry operate in an extremely competitive environment where projects are designed, constructed and delivered within tight budgets and time frames. Campbell (2006) supports this and states that management and the professional occupations in the construction industry are highly demanding, require deadlines to manage, close-tied margins, and requests an array of skills to complete the multi-complex projects. These reasons described have united and make working in construction to be psychologically and emotionally challenging and stressful (Wahab, 2010 and Ibem *et al.* 2011).

From the observations of Leung *et al.* (2008a) had stated that for the last 20 years, stress of construction professionals has been thoroughly studied. From

these studies it had been found that the stress levels experienced by professionals of the construction industry are significantly higher than those from other industries (Sommerville and Langford, 1994 in Leong *et al.,* 2008a). The study made by D'Souza, Urs & Siddeqowda (2005) supported this when their results illustrated engineers (one of the professionals of the construction industry) as having higher occupational stress when compared to executives and managers. As stated by Yip and Rowlinson (2006; 2009a), this phenomenon not only threatens the well-being of the construction professionals but also reduces industrial efficiency and long-term competitiveness. Occupational stress is progressively being known as a contributing reason for employee absenteeism, high turnover, job performance to decrease and has been accepted as a vital managerial and economic concern (Hashim *et al.* 2012). These prolonged stress experiences may lead to potential job burnout (Yip and Rowlinson, 2006) consequently; there is a calling to measure the levels of construction professionals' stress to clarify whether these stress levels have reached the burnout stage where this paper aims to do so.

In the construction industries of countries such as China, Taiwan, India, Russia and the U.A.E. has shown a high increase in stress levels (Bahrami, 2010) as across the globe, extensive literature on the workplace stress sources of construction professionals has been carried out (Vokić and Bogdanić, 2007; Leung and Chan, 2012). Categorization of these causes can be named as physical environment, within the organization, stress from the professionals role within the organization as well as task demanding factors, which arise from the nature of work itself (Abbe *et al.*, 2008; Leung et al., 2008b; Love *et al.*, 2010; Ibem *et al.*, 2011; Leung and Chan, 2012). These findings demonstrate that there is a need for companies to investigate on occupational stress more seriously (Loosemore and Waters, 2004) therefore this study aims to examine the relationships between the multi-dimensions of stress antecedents and occupational stress experienced by the construction professionals.

The widely cited survey carried out by Campbell (2006) had also reported that there is a serious problem in the industry which needs to be addressed in order to develop a better awareness of the problems and their solutions. However,

it has been realized that there has been no statistical analysis to test the reliability of the data presented by Campbell's survey (Abbe *et al.*, 2008). Looking at this gap, this study intends to measure the stress factors stated by Campbell (2006) and Ibem *et al.* (2011) using statistical methods. Additionally, Vokić and Bogdanić (2007) has stated that the influence of individual differences towards stress appraisals has been studied immensely and Grau, Salanova, Peiro (2001) has found that differences in an individual's self-efficacy creates a difference towards the experience of occupational stress. Based on this, the moderating role of self-efficacy towards occupational stress shall be examined in this study.

It has also been observed that there have been limited research on this area in the Malaysian construction context and there is a need to address this gap to avoid prolonged occurrence of this unfavorable phenomenon. It is with this reason that the researcher is interested to identify the occurrence of occupational stress among the Malaysian construction professionals as previous studies have highlighted the factors that arose from other countries which may not be the same to the Malaysian context due to different working environments.

1.3 RESEARCH QUESTIONS

The main question of this research is to find out whether the professionals of the Malaysian construction industry are experiencing occupational stress. This question then leads to several research questions of the study which are as follows:

i. Is the issue of occupational stress already affecting the professionals of the Malaysian construction industry?
ii. What is the level of occupational stress currently experienced by these professionals?
iii. What are the most significant antecedents that cause occupational stress among the professionals?
iv. Does the role of self-efficacy have an effect on how the professionals experience occupational stress?

1.4 RESEARCH OBJECTIVES

From the research questions, the objectives of this study are then formulated, they are as follows:

i. To investigate the occurrence of occupational stress issues in the context of the Malaysian construction industry.
ii. To measure the intensity level of occupational stress among the construction professionals.
iii. To examine the relationships between antecedents of stress and level of occupational stress of the professionals of the construction industry.
iv. To identify the role of self-efficacy as a moderator between antecedent factors and occupational stress level.

1.5 SCOPE OF THE STUDY

This research focuses on the concept and issues of occupational stress that specifically concentrates on the professionals of the construction industry in Malaysia. The awareness identified is how occupational stress has currently become a major feature of modern living (Latif and Sultana, 2009). As this situation is highly undesirable, it needs to be examined further in order to prevent the construction professionals to succumb to the harmful consequences of occupational stress such as health problems, depression and reduced productivity, etc.

The focus of the study is on the occupational stress antecedents obtained from worldwide studies that have been found as the sources of work-related stress, specifically affecting the professionals of the construction industry. From these antecedents, the ones most relevant to the Malaysian construction professionals can be identified. Specific respondents consisting of Architects, Quantity Surveyors and Construction Engineers are targeted to be attained from selected construction consultancies, developers, contracting firms and government agencies. Due to the limitations of geographical boundaries and time, the respondents of this study will be those working in Kota Kinabalu and will be reached through hand-in distributions as well as emails and administration of online-based questionnaire surveys to represent the construction industry of Malaysia.

1.6 SIGNIFICANCE OF STUDY

The results of this study aim to provide significant information towards many parties involved in the construction industry. It will benefit the following groups such as the construction professional as an individual, the construction-based organizations (both public and private sector) and provide an empirical study for the usage of the professional bodies governing the construction professionals.

Occupational stress, if not found the most appropriate methods to reduce, will turn harmful to an individual's health and well-being. From the study carried out by Mazzola *et al.* (2011), they had found that work is the main source of stress for the employed individual. Therefore it is of utmost relevance that a research on occupational stress is carried out to form a means to reduce overall stress levels. The many construction organizations employing the construction professionals will reap the benefits from the outcomes of this study as when the main sources and level of stress experienced by their employees are known, job-redesign or overall work-flow activities may be revised to suit the maximum productivity level of their staff. Constant experience of stress would only prevent smooth job productivity therefore if this problem is identified earlier the organizations would save more costs on turnover and medical expenses.

This study will be significant for the resources of the professional bodies that regulate the working professionalism and safeguard the interests of each respective profession. These professional bodies include the Board of Architects Malaysia (LAM), Board of Quantity Surveyors Malaysia (BQSM), The Board of Engineers Malaysia (BEM) and associations such as the Malaysian Institute of Architects, The Institution of Surveyors Malaysia (ISM) and The Institution of Engineers Malaysia (IEM) that conduct annual events and publish various articles for the information of their members and the construction industry as a whole. This study will also provide essential information to some other parties such as the Construction Industry Development Board (CIDB) where these results may be further investigated and projected towards the other workers of the construction industry. Identification and awareness of occupational stress occurrence can contribute highly towards the Ministry of Human Resources as well as the Ministry

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