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**FACTORS INFLUENCING JOB STRESS AMONG CIVIL SERVANTS: A  
CASE STUDY OF A TECHNICAL DEPARTMENT IN KUALA LUMPUR**

**By**



**Thesis Submitted to  
Othman Yeop Abdullah Graduate School of Business,  
Universiti Utara Malaysia,  
in Partial Fulfillment of the Requirement for the Master of Sciences  
(Occupational, Safety and Health Management)**



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## Abstract

In a rapidly changing globalized world, employees' job stress level is one of the crucial aspects of modern life that has a profound and direct effect on the state of the nation's mental health. It is an area of study that requires specific investigation, especially stress level contributed by the workplace. The purpose of this study is to examine the relationship between the factors of office environment, workload, organisational support and job stress level and its effect among employees at a Public Works technical department in Kuala Lumpur. Quantitative methodology is applied to investigate the factors influencing employees' job stress level. Three independent variables such as office environment, workload and organisational support are identified. The result of this study indicates that there is a significant and positive relationship between employees' job stress level such as found in the office environment and workload. On the contrary, however, there is insignificant and negative relationship between organisational support and employees' job stress level. The results will facilitate improvements in the said technical agency in maintaining a healthy workplace by maximizing the good factors that alleviate job stress level among employees. It will also strengthen the organisational performance. Hence, examining the factors influencing employees' job stress level is a key factor to ensure employee performance.

**Keywords:** Office Environment, Workload, Organisational Support, Job Stress Level



## Abstrak

Di dalam dunia yang pesat berkembang secara global, tekanan kerja merupakan aspek kritikal kehidupan moden yang mempunyai kesan yang mendalam ke atas tahap kesihatan mental negara. Ia merupakan bidang kajian yang memerlukan siasatan yang spesifik terutamanya tekanan kerja yang berpunca dari tempat kerja. Tujuan kajian ini adalah untuk mengenalpasti hubungkait antara faktor-faktor seperti persekitaran pejabat, beban kerja, sokongan organisasi dengan tahap tekanan kerja dalam kalangan pekerja di sebuah jabatan teknikal di Kuala Lumpur. Metodologi kuantitatif digunakan untuk mengkaji faktor-faktor yang mempengaruhi tahap tekanan kerja pekerja. Dengan melihat tekanan kerja sebagai satu set pembolehubah, tiga pembolehubah bebas telah dinilai iaitu; persekitaran pejabat, beban kerja dan sokongan organisasi. Keseluruhan hasil kajian ini menunjukkan bahawa terdapat hubungkait yang signifikan dan positif antara tekanan kerja dengan faktor persekitaran pejabat dan bebanan kerja. Sedangkan tidak ada hubungkait yang signifikan dan negatif dengan faktor sokongan organisasi. Oleh itu, dengan dapatan kajian ini, ia akan menjadi pemangkin untuk proses penambahbaikan di dalam jabatan teknikal tersebut dalam mengekalkan suasana persekitaran yang sihat di tempat kerja secara memaksimumkan faktor yang dapat mengurangkan tahap tekanan kerja di kalangan pekerja dan akan menyumbang untuk mengukuhkan prestasi organisasi. Oleh itu, faktor-faktor yang menyebabkan tekanan kerja haruslah dicegah bagi menghasilkan pekerja yang produktif.

**Kata Kunci:** Persekitaran Pejabat, Beban Kerja, Sokongan Organisasi, Tahap Tekanan Kerja

## Acknowledgement

First and foremost, my sincerest gratitude is for Allah s.w.t., the Most Gracious and the Most Merciful for giving me the opportunity to go through this Master degree in Occupational, Safety and Health Management until the end.

I wish to extend my greatest appreciation and gratitude to my Supervisor, Dr Zuraida binti Hassan, for her time and effort in diligently providing me supervision and guidance towards completing this dissertation. This research paper would not have been a success without her constant support and concern. I would also like to convey my gratitude to all the lecturers who had taught and shared their knowledge with me.

I am sincerely grateful to my parents, my beloved wife, Dr. Sally Sarena binti Hj. Hasbolah and my children, Daniel Hazman, Ezzatul Farah Husna and Ezz Muhammad who always prayed for my success, their patience and encouragement to me throughout the duration of my study.

Last but not least, to all my dearest friends especially to Datuk Seri Ar. Dr. Amer Hamzah bin Mohd Yunus, Ar. Hj. Zairul Azidin bin Badri and Ar. Hjh. Rosila binti Mohamed, I deeply thank them for their help, support and encouragement throughout the duration of my study. May Allah bless all of us.

*Insya Allah.*

## Table of Contents

Permission to Use	iii
Abstract	iv
Abstrak	v
Acknowledgement	vi
Table of Contents	vii
List of Tables	xi
List of Figures	xii
List of Appendices	xiii
<b>CHAPTER ONE: INTRODUCTION</b>	<b>1</b>
<b>1.1 Introduction</b>	<b>1</b>
<b>1.2 Background of Study</b>	<b>1</b>
<b>1.3 Problem Statement</b>	<b>4</b>
<b>1.4 Research Questions</b>	<b>5</b>
<b>1.5 Research Objectives</b>	<b>6</b>
<b>1.6 Scope and Limitations of Study</b>	<b>6</b>
<b>1.7 Significance of Study</b>	<b>7</b>
<b>1.8 Organisation of the Dissertation</b>	<b>7</b>
<b>1.9 Conclusion</b>	<b>8</b>

<b>CHAPTER TWO: LITERATURE REVIEW</b>	<b>9</b>
<b>2.1 Introduction</b>	<b>9</b>
<b>2.2 Job Stress Definition</b>	<b>9</b>
<b>2.3 Job Stress and Workplace Environment</b>	<b>10</b>
<b>2.4 Job Stress and Workload</b>	<b>13</b>
<b>2.5 Job Stress and Organisational Support</b>	<b>14</b>
<b>2.6 Underpinning Theory</b>	<b>17</b>
<b>2.7 Theoretical Framework</b>	<b>18</b>
<b>2.8 Conclusion</b>	<b>19</b>
<b>CHAPTER THREE: METHODOLOGY</b>	<b>20</b>
<b>3.1 Introduction</b>	<b>20</b>
<b>3.2 Research Framework</b>	<b>20</b>
<b>3.3 Hypothesis</b>	<b>21</b>
<b>3.4 Research Design</b>	<b>21</b>
<b>3.5 Operational Definitions</b>	<b>22</b>
<b>3.6 Population and Sample Size</b>	<b>23</b>
<b>3.7 Questionnaire Design</b>	<b>24</b>
<b>3.8 Data collection Procedures</b>	<b>26</b>
<b>3.9 Pilot Study</b>	<b>26</b>

<b>3.10</b>	<b>Data Analysis Technique</b>	<b>27</b>
<b>3.11</b>	<b>Conclusion</b>	<b>28</b>
<b>CHAPTER FOUR: FINDINGS</b>		<b>29</b>
<b>4.1</b>	<b>Introduction</b>	<b>29</b>
<b>4.2</b>	<b>Description of Case Study</b>	<b>29</b>
<b>4.3</b>	<b>Respond Rate</b>	<b>30</b>
<b>4.4</b>	<b>Section A : Demographic Information</b>	<b>30</b>
<b>4.5</b>	<b>Section B : Reliability on Independent and Dependent Variable</b>	<b>31</b>
<b>4.6</b>	<b>Descriptive Analysis</b>	<b>33</b>
	<b>4.6.1 Mean Analysis</b>	<b>34</b>
<b>4.7</b>	<b>ANOVA</b>	<b>34</b>
<b>4.8</b>	<b>Multiple Regressions</b>	<b>35</b>
<b>4.9</b>	<b>Conclusion</b>	<b>39</b>
<b>CHAPTER FIVE: DISCUSSION AND CONCLUSION</b>		<b>40</b>
<b>5.1</b>	<b>Introduction</b>	<b>40</b>
<b>5.2</b>	<b>Summary of the Result</b>	<b>40</b>
<b>5.3</b>	<b>Contribution of the Study</b>	<b>44</b>
<b>5.4</b>	<b>Limitations</b>	<b>46</b>
<b>5.5</b>	<b>Recommendation and Future Research</b>	<b>47</b>
<b>5.6</b>	<b>Conclusion</b>	<b>48</b>

<b>REFERENCES</b>	<b>49</b>
<b>Appendix A: QUESTIONNAIRE</b>	<b>I</b>
<b>Appendix B : FREQUENCY DATA</b>	<b>X</b>



## List of Tables

Table	Page
Table 2.1 : <i>Workplace Stressors relationship to organisational structure</i>	16
Table 3.1 : <i>Definitions of Independent Variables and Sources Citations</i>	20
Table 4.1 : <i>Demographic Information</i>	31
Table 4.2 : <i>Reliability Analysis –Scale Alpha</i>	32
Table 4.3 : <i>Frequency, Percentage and Mean by Respondent Job Stress</i>	34
Table 4.4 : ANOVA test	35
Table 4.5 : <i>Result of Multiple Regression Stepwise Method on Factors influencing the level of Job stress</i>	36



## List of Figures

Figure	Page
Figure 2.1 : <i>Workstation Setup</i> (Source: <a href="http://www.nismat.org">www.nismat.org</a> )	13
Figure 2.2 <i>Job Demands-Resources Model</i> (Bakker & Demerouti, 2007)	18
Figure 2.3 : <i>Research Framework</i>	19
Figure 4.1 : <i>Level of Job Stress</i>	33
Figure 4.2 : <i>Histogram</i>	36
Figure 4.3 : <i>Scatterplot</i>	37



## List of Appendices

Appendix	Page
Appendix A Questionnaire	I
Appendix B Frequency Data	IX



# CHAPTER ONE

## INTRODUCTION

### 1.1 Introduction

This chapter will focus on the preliminary ideas of the research that outline its background, problem statement, objectives, questions and most importantly, its significance. This chapter will also discuss the limitation and the organisation of the research. A brief description of the research is presented in the last part of this chapter.

### 1.2 Background of Study

All human beings work to make a living. Inasmuch as work is an important element in modern human lives, stress as a product of work can emerge in any type of occupation. In today's challenging modern environment, work as an aspect of modern human phenomenology, requires special attention from all parties including employees, employers and the policy maker. Occupational hazard caused by job stress happens when employees are incapable of handling certain tasks given by the employer which may result in working long hours, under a tight schedule or deadline given by their employer, and also other frequent activities that may distract employees from performing their job properly (WHO, 2010). Job stress may also happen when employees are bored, underpaid, in a dull working environment, doing repetitive job and not respected or acknowledged for their achievement by colleagues or employers (Brookes et al., 2013).

Resolving job stress is not just a case of simply getting rid of the source of stress. There are in fact, many other factors that contribute to it. Stress which is related to a person's occupation is indeed one of the most problematic type of stress faced by employees in any organisation (Darus, Azizan, & Ahmad, 2016). Stress has been observed as the latest social sickness which develops in various forms in all workplace (Yadav et al., 2017). Zafir and Fazilah (2006) are of the opinion that the escalating level of stress happening at work can be traced to root causes related to progress in a rapidly globalised world such as the systemic changes of a society in transition, of progress in technology and the availability of resources; and of the entire structure of our social system in the quest to attain optimal profitability and resilient-competitive advantage. Houdmont, Cox, and Griffiths (2010) define job stress as the pressures and demands any organisation inflict on its employees. Bhagat et al. (2010) has found that job stress can create a physical disorder, for example heart disease, higher blood pressure, heartburn, cancer, insomnia and persistent fatigue. Other than that, stress also can attack people from the psychological aspect such as dissatisfaction, lack of concentration and depression.

In Malaysia, it is expected that more people will experience increased stress due to work and family pressure, escalating the cases of depression, burnout and mental disorder among employees as reported by a local newspaper, The Star StarOnline (2018), whereby "...depression will be a major mental health illness among Malaysians by 2020...". According to Tan Sri Lee Lam Thye, the Patron of the Malaysian Psychiatric Association (MPA) in quoting the 2017 National Health and Morbidity Survey has cited that 29% of Malaysians suffer from anxiety disorder

and depression. This is more than doubled as compared to 12% in 2011. Employers are encouraged to implement mental health policy in their organisation in order to promote a healthy working environment and to reduce job stress among their employees. An earlier, similar article by themalaymailonline.com quoted the Malaysian Psychiatric Association (MPA) president Prof Dr Nor Zuraida Zainal stating that more people in this country will experience stress due to work and family pressure (Menon, 2016). MPA stated that most people may find it hard to deal with problems and cannot handle the stress at workplace. Research done by MPA indicates a 50 per cent increase in depressed patient from 2011 to 2015. As recent as two weeks before this project paper was written, the Deputy Prime Minister of the day, Datuk Seri Dr. Wan Azizah Wan Ismail, lamented the predicament of stress being the cause behind the 18,000 depression cases in 2017 stating mental health as a pressing matter (Lim, 2018). The Deputy Prime Minister went on to address ways to maintain health as ways to cope with the said mental illness.

The cases illustrated above are clear indications that stress at workplace plays a major role as the root cause of the escalating physical and mental health issues in Malaysia and this is a potential threat to the productivity and well-being of the people of a nation aspiring to achieve the developed nation status in the near future. It is therefore imperative that a research is carried out to reveal what is the nature of job stress, why it happens and how it affects people in their respective working environment.

### 1.3 Problem Statement

In the current economic situation, the pressure to provide quality of product, innovative management and to increase the productivity is the focus of every organisation. To cope with today's challenging global environment has caused job demand on employees to rise dramatically which leads to job stress (Yadav et al., 2017). According to Yaacob and Long (2015), while total elimination or avoidance of job stress seems impossible, it is nevertheless manageable both at management and staff level.

These real Malaysian issues cited above beg us to ask critical questions which are unfortunately not being fully addressed by the three newspaper reports. Whilst acknowledging the symptoms and implications of the problems such as the growing depression and suicide cases as a result of mental health-related issues and ways to cope with the escalating reality of stress such as maintaining physical and spiritual health (Lim, 2018), there were almost nothing mentioned on what *causes* the stress due to work and family pressures that has resulted in such depression and anxiety disorder (StarOnline, 2018) .

There is indeed a real cause for concern to identify the problem in question: what are the factors that cause such stress, especially those of the occupational kind? According to Hart (1999) and Mark and Smith (2008), stress is the product of complex interactions of multiple interrelated variables, explainable through several models of psychological theories on stress. As there are multiple factors involved, it

is imperative that a model is selected to best represent the complexity of such vast array of variables. In this instant, the “Person-Environment Fit Model” may be used as an appropriate model which proposes a match between a person and the various domains or subsets of the environment as a set of key factors in influencing stress-free phenomenon (Kristof-Brown & Guay, 2011). The domains or subsets will also include factors generally found under the “Person-Job Fit”, “Person-Organisation Fit”, and various other subsets (Kristof-Brown, Zimmerman, & Johnson, 2005).

Three factors are ultimately chosen to best represent each model’s subset. Under the ‘Person-Environment Fit’ or P-E fit model, ‘workplace environment’ is the selected factor as it is quoted in many literature cited in Unutmaz (2014). Under the ‘Person-Job Fit’ or P-J fit model, ‘workload’ is selected and finally, ‘organisational support’ fits the factor described under ‘Person-Organisation Fit model or P-O fit; all as cited in Unutmaz (2014).

#### **1.4 Research Questions**

The problem statement presented above raises a few critical questions that address why job stress occurs, under what circumstances do the factors that cause job stress happen and what the relationships are. The questions that beg to be asked are:

1. What is the relationship between workplace environment and job stress?
2. What is the relationship between workload and job stress?
3. What is the relationship between organisation support and job stress?

## **1.5 Research Objectives**

The main aim of the research is to examine the job stress level among employees of a Public Works technical department in Kuala Lumpur. This may be achieved through a few objectives such as;

1. To investigate the relationship between office environment and job stress in a technical department.
2. To examine the relationship between workload and job stress.
3. To assess the relationship between organisation support and job stress.

## **1.6 Scope and Limitations of Study**

This study shall firstly focus on job stress caused by a limited number of factors such as the office environment, workload and organisational support on the employees in the Public Works technical department located in the central business district of Kuala Lumpur. As explained earlier, because there are so many factors that contribute to job stress, this study looks at only three factors due to the short duration of this project paper.

Secondly, from the study, findings shall determine whether the factors mentioned above do have any impact on the job stress of the employees of such government technical department. These targeted respondents have similar job assignments and work at the same premise in the city centre. The job description involves the production of building designs and technical drawings for the federal government.

## **1.7 Significance of Study**

The research on relationship of office environment, workload and organisation support related to the employee's job stress being carried out on a Public Works technical department in Kuala Lumpur has significant contribution, as it will assist such technical department to maintain a healthy workplace by reducing the factor that affects job stress among the employees. The proper management of the job stress will contribute toward organisational healthy working environment.

Secondly, there is clearly a gap in the research as very little has been carried out on a government technical department specialising in the production of design and technical drawings of public buildings as compared to research done on a department that is administrative, managerial, manufacturing, teaching or health-related department. It is a marked difference from other disciplines, as it involves performing tasks related to the production of design and technical drawings.

Finally, this research intends to ascertain the factors related to job stress especially to the employees of the said government technical department. This study shall enable employer to identify specific problem related to job stress encountered at the said government department, based on respondents in their current office environment.

## **1.8 Organisation of the Dissertation**

There are five chapters in this research. Chapter One introduces the research background, its problem statement, research objectives, questions, significance and its limitations. Chapter Two establishes the context by examining the literature

review. Chapter Three outlines the research methodology adopted. Chapter Four elucidates the findings of the fieldwork and the accompanying discussions and Chapter Five focuses on the summary, conclusions and recommendations.

## **1.9 Conclusion**

Chapter one introduces the research and establishes its background, the problem statement, research questions, research objectives, research methodology, scope and limitation, research gap, the significant of study, and dissertation's structure.



# **CHAPTER TWO**

## **LITERATURE REVIEW**

### **2.1 Introduction**

This chapter contains six primary sub-sections, which includes the review on job stress; the relationship between job stress and each of the factor mentioned such as workplace environment, workload and organisational support; the underpinning theoretical framework on job stress and finally, the hypothesis is discussed.

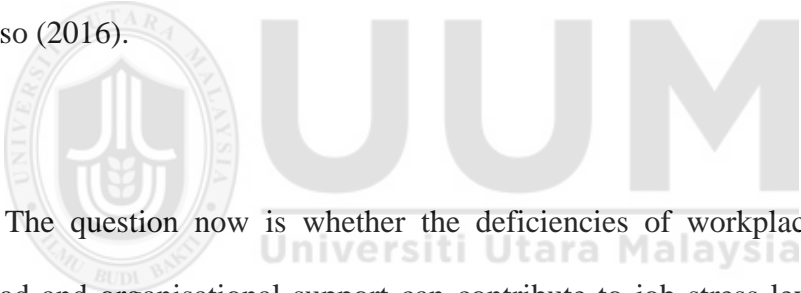
### **2.2 Job Stress Definition**

According to Conner and Douglas (2005), job stress can be defined as a preceding condition of a person and of the environment that leads to a bad behavioural, psychological, or physiological response. The term 'job stress' is a relatively known name for describing the conflict result between individual's perception of target and the ability or inability to meet those targets (Crandall, 2017). Furthermore, Crandall (2017) stated that job stress can affect working performance, communication and team working spirit among the employees. Therefore, every employer must handle the job stress issue efficiently and effectively for the benefit of his or her employees. The healthy working environment will reduce the job stress of the employees and improve the occupational health and safety at workplace.

Basically, an aesthetically pleasing and pragmatic office ambience often builds up to an employee's efficiency and productivity. To acknowledge this, the current design and décor of most government office buildings take into account the

needs of employees to ensure a better workplace environment. But there are cases where due to limitation of monetary funding and the urgency of jobs and in determining to follow the orders, office environment is often taken for granted. The basic requirements of employees regarding health and safety issues are neglected and left unattended by the management.

There are challenges and deficiencies where employees face while attending their job and there should be a way to aware dissatisfaction to the top management. Therefore, job stress management program is formulated to avert and heal the damaging aspects of job stress (Van der Hek & Plomp (1997) from Kinnunen-Amoroso (2016).



The question now is whether the deficiencies of workplace environment, workload and organisational support can contribute to job stress level during work among employees. This will be discussed in the following sub-chapters.

### **2.3 Job Stress and Workplace Environment**

The workplace environment is defined as a working environment influenced by physical, psychosocial and organisational factors including focus areas such as the architectural design and décor of the office, its spaciousness, privacy, group size (Bodin Danielsson, Wulff, & Westerlund, 2013); which altogether inform the employees' perceptual construct of the management and its leadership.

Physical factors represented by elements in the workplace define the workplace environment. According to Asante (2012), workplace environment deals with issues on how key elements of the office such as personal computers and desktops, chairs, room temperature, noise level, ambient lighting, workstations, and many others could be focused to boost the performance, safety, and health of employees in general.

Physical elements in the workplace correlate with good employee performance when architectural and ergonomic design is applied. Norhidayah, Ismail, and Abdullah (2015) believe that work duties in the workplace can be carried out successfully and effectively if the important design philosophy of ergonomics is applied throughout in the development of the workplace environment. Van Der Voordt (2004) mentioned it is important to balance organisation achievement with gaining pleasure from the employee throughout their work in flexibly designed workplaces, and this is supported by Kämpf-Dern and Konkol (2017) who purported that the level of job stress can be influenced by how effective the design is for such workspace environment. Brooks (1998) indicated that the ergonomic design of workplace environment will give a big impact to employee job stress level.

There is significant relationship between job stress, the workplace's psychosocial environment and organisational performance. It is revealed that job stress due to workplace environmental factors indeed affects the overall organisational performance. This is evidence irrespective of Malaysian (Javaid, Isha, Sabir, Ghazali, & Nübling, 2018) as well as at the international level (Osibanjo,

Salau, Falola, & Oyewunmi, 2016). Whilst Awang Idris, Dollard, and Winefield (2010) found that job stress influences health and wellness, the lack of job control in the working environment are also attributable to job stress in the workplace. The psychosocial environment is one of the most often-cited crucial factors other than aspects relating to the management, human being, and finance. Research conducted by O'Brien and Beehr (2016) found that workplace environment influences occupational stress including the character of occupational demands in physical or social situations as they affect the reactions involving a person's well being (physical or mental health). Job stress happens when workplace demands (or stressors) bring about a certain decline in employees' health and well-being, and stress is indeed a financial burden for organisations as productivity is severely reduced due to sick leave, insurance costs, and other medical setbacks.

Physiological discomfort contributes significantly to job stress in the workplace environment and this affects employees' job performance. Research conducted by Helander, Czaja, Drury, Cary, and Burri (1987) as cited by Cooke (2014) established that the design of the chair contributes significantly to the level of comfort and well-being in the workplace which has a bearing on the level of job stress. For example, an adjustable chair or a detachable keyboard may encourage movements and are important in preventing postural strain. Kämpf-Dern and Konkol (2017) said that most complaints made on the subjects of discomfort and dissatisfaction are regarding to the ambient lighting, micro-climate (temperature and air quality), noise level and crowding of office environment. Van Der Voordt (2004) posited that employees are empowered to perform well in the workplace environment that possesses good lighting, daylight, view and convenience. Figure 2.1 illustrates

the ideal human ergonomic posture and anthropometric fit in an office environment. The chair, desktop peripheral devices and the entire work station arrangement coupled with sitting posture, angles, and distances best support human function in the office and improve performance, safety and general health of employees. (Kämpf-Dern & Konkol, 2017).

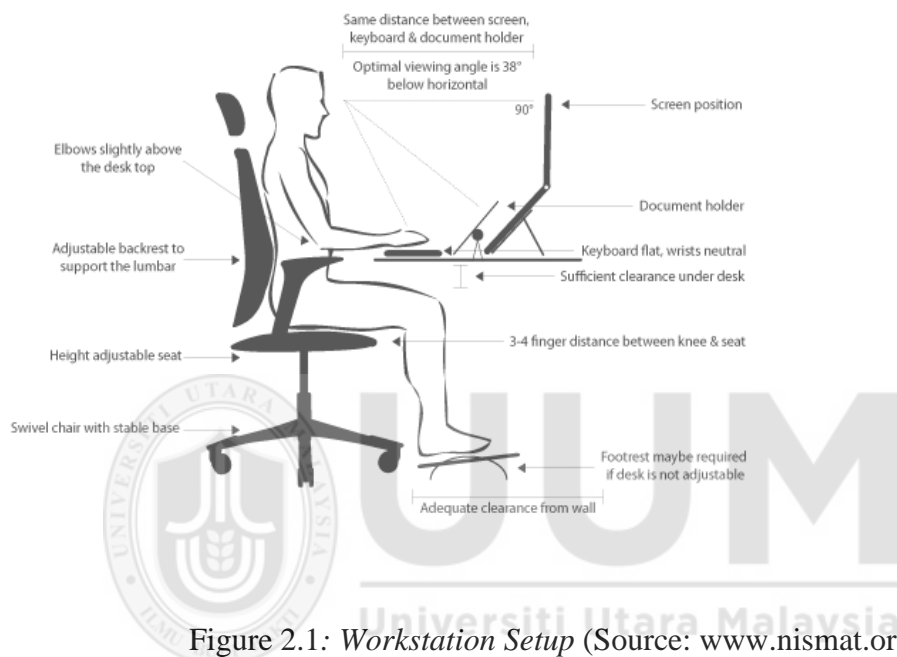


Figure 2.1: Workstation Setup (Source: www.nismat.org)

## 2.4 Job Stress and Workload

Employee workload is defined as the employee's perception that he or she has much more tasks to be done than he or she can execute in any given time frame (Jex, 1998 cited in Oplatka (2017). Greenlee et al., (2016) considers workload to be one of the stress-causing factors among professionals. Workload is also identified as "...having high amounts of work, having to work fast, and working under time pressure..." (Ilies, Huth, Ryan, & Dimotakis, 2015), pp. 2-3). Due to the impacts of severity of workload in organisational performance, employee workload has come

under much scrutiny especially in the management and organisational literatures (De Silva, Samanmali, and De Silva (2017); Harris and Fleming (2017); Oplatka (2017).

In Malaysia, cases of the impacts of workload are subjects of research as contributing factors of job stress in the medical field (Hafiz, Ima-Nirwana, & Chin, 2018). Hafiz et al (2018) discovered that workload in private hospitals contributed to a higher stress level as the demands related to patient care responsibilities are higher.

As mentioned by Darmody and Smyth (2016), job done within intense time pressure with limited capacity to meet work schedule or standards and quality performance are more vulnerable to burnout issues and health problems. As a result, the spiritual, emotional and physical conditions of employees become uncontrolled when the prevention and strategies to minimize it are not taken seriously. For example, work overload may be taken to mean doing additional tasks on top of the regular work, being required to complete tasks faster, the pressure of having to work over time and ultimately longer working hours (Capel, 2016). Hence, the priorities to set up and organising the workload are required to manage the job stress.

## **2.5 Job Stress and Organisational Support**

Organizational support is defined as a theory which posits that in the pursuit of socio-emotional needs so as to assess the benefits of doing more work, employees form "...a general perception concerning the extent to which the organisation values their contributions and cares about their well-being." (Eisenberger, Huntington,

Hutchison, & Sowa, 1986; pp. 505-506). Such perceived organisational support (POS) would increase employees' organisational commitment, to an extent that they feel obligated to assist the organisation attain its objectives, and thereby expect the organisation to reward their improved performance. Examples of such behavioural outcomes of POS can be seen where there is a significant boost in in-role and extra-role performance and a decline in withdrawal and stress behaviours such as absenteeism and turnover resulting in higher job performance (Eisenberger et al., 1986).

In fact the lack of such organisational support becomes one of the many factors of organisations that can produce stress (Lazarus & Cohen, 1977) in addition to deadlines, severity of workloads, inadequate salaries, poor relationships with bosses and co-workers, few opportunities to participate in decision making, role conflicts, and lack of appreciation. Organisational support is often cited as one of the factors in contemporary workplace environment prompted by technological progress, organisational health (McHugh & Brennan, 1992) and various design options have given rise to an increase in the percentage of employees who are satisfied with their jobs (Conner et al, 2005).

According to a Malaysian research conducted by Mahdi and Jamaludin (2017), the relationship between workplace design and organisational support can increase the employee's productivity through the extra attention given to the key contribution stressors (i.e. role in the organisation), and that the management team is able to alleviate the impact of job stress on employees. In order to comprehend the

relationship between the impact of organisational workplace stressors to its respective structure, a closer examination of organisational support structure is stated in the Table 2.1 to illustrate such impact (Conner et al, 2005).

Table 2.1: *Workplace Stressors relationship to organisational structure*  
*cited from Conner & Douglas (2005)*

<b>Researcher</b>	<b>Impacts</b>
Leana and Feldman (1990)	Job loss (including the threat of and layoffs)
Anderson et al. (2002)	Increased work-family conflict
Cropanzano et al., (1997); Ferris et al. (1996)	Increased organisational politics
Carlson and Perrewe, (1999)	Social support
Bunce and West (1996)	Stress management interventions
Edwards, 1992	Workplace stress studies on person-organisation factors
Frone, 1990; Grover, (1993); Grunberg et al., (1998)	Role behaviour (e.g., role overload, role ambiguity, role conflict)

The impacts illustrated have influenced the employees productivity creating stress that contributes to heightened anxiety, job displeasure, depersonalization, cardiovascular and stomach problems (Mosadeghrad (2014); McHugh and Brennan (1992) and behavioural reactions such as withdrawal behaviour in the form of increased absenteeism and turnover which frequently cause negative organisational outcomes such as lower job performance (Darmody & Smyth, 2016).

In this modern day challenging environments, organisational support structure is an important feature in the performance of the organisation. Based on research by Van der Voordt (2004), high attention to the needs, health and welfare of

employees can avoid obsolescence. Thus, present organisations are able to structure more natural forms of environment that give better consideration to the several causes of stressors. This will encourage employees to produce positive impact to the respective organisation.

## 2.6 Underpinning Theory

As a summary of the reviews pertaining to the three factors contributing to job stress featured in the sub-chapters above, a theoretical framework can be formulated to help determine what are the operational definitions of each of the factors, rather possible constructs of job stress.

To understand further such phenomenology, the ‘job demands-resources’ (JD-R) model (Bakker & Demerouti, 2007) is an occupational stress model that suggests strain is a response to disproportioned lopsidedness between demands on the resources and the individual; and the employees would have to deal with those demands. Many scholars hold the view that variables considered as ‘demand’ variables such as work overload are more significantly correlated to the emotional exhaustion aspect of stress rather than ‘resource’ variables such as social support (Bakker & Demerouti, 2007). ‘Demand’ variables tended to gravitate away from the depersonalization and personal accomplishment components of stress, while ‘resource’ variables tended to significantly lean towards those two components (Halbesleben & Buckley, 2004). The term JD-R model is defined as *job stress* processes having negative associations with evaluations of the work environment, whereas *motivational* processes are found to have positive associations with evaluations of the work environment (Bakker & Demerouti, 2007). Figure 2.2 explains the JD-R model.

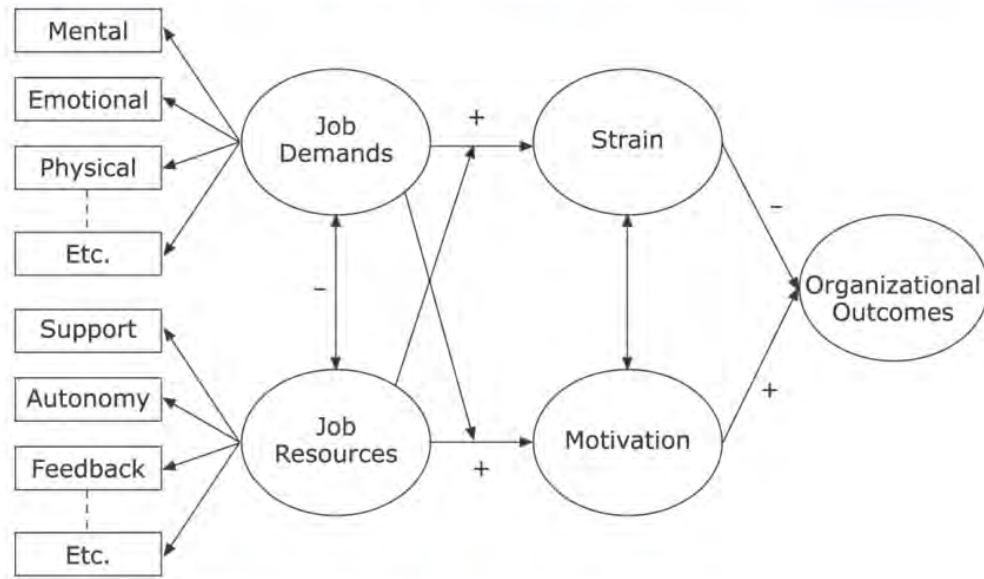


Figure 2.2 *Job Demands-Resources Model* (Bakker & Demerouti, 2007)

Bakker & Demerouti (2007) study of JD-R model is considered to be the most important, but it does suffer from the fact that employees are motivated to protect their resources because job resources attain their potentials in motivation especially when high job demands are placed. The above summarises the theoretical underpinning in the research of this project paper. In another literature, job stress and motivational processes have indirectly affected personal and organisational outcomes (Mackey, Perrewé, & McAllister, 2017).

## 2.7 Research Framework

The research framework defines the set of job stress influence factors perceived to impact on an employee's performance. From literature review there are many types of job stress influence factors identified; such as ergonomics, lighting, indoor air quality, temperature, noise level; to name a few. However, due to the limitations and scope of this study, the research framework limits the factors to three

categories only - namely office environment, workload and organisational support as the major causes of work-related stress in this particular technical government department. These three factors; - office environment, workload and organisational support - are fundamentally the independent variables in this research, which have great impact on employees' job stress level. The link between these three factors towards employees' job stress level can be conceptualized in Figure 2.3.

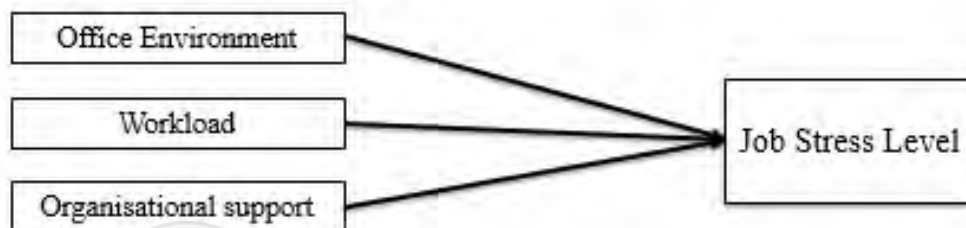


Figure 2.3 *Research Framework.*

The model is formulated as a result of the researcher's perspective on how to perceive the distress level among the civil servants in such government agency in regard of the job stress, and insights gained from study of the literature.

## **2.8 Conclusion**

This chapter discussed the literature review regarding to the factors of job stress level. The factors such as office environment, workload and organisation support are identified as the independent variables and the job stress level is the dependent variable.

## CHAPTER THREE

### METHODOLOGY

#### 3.1 Introduction

This chapter discusses the research design, research framework, research instrument, sample and sampling method, pilot study, data collection procedure and data analysis.

#### 3.2 Research Framework

The research framework correlated a categorical dependent variable (DV) to three factors identified as the independent variables (IV). Dependent variable is the job stress level of civil servants of the technical department in the government agency. Independent variables are the factors forming the theoretical framework of the research, which is derived from the review of the literature. It is representative of the theoretical model put forward in the literature review that may have defined what job stress is. The IV are as per the following items:

Table 3.1: *Definitions of Independent Variables and Sources Citations*

<b>Independent Variables</b>	<b>Definition</b>	<b>Sources</b>
Office Environment	A working environment influenced by physical, psychosocial and organisational factors including focus areas such as the architectural design and décor of the office, its spaciousness, privacy, group size which altogether inform the employees' perceptual construct of the management and its leadership.	Norhidayah, Ismail, and Abdullah (2015); Kämpf-Dern and Konkol (2017);

Workload	The employee's perception that he or she has much more tasks to be done than he or she can execute in any given time frame.	Hafiz et al (2018); Awang Idris et al (2010); De Silva et al (2017).
Organisational Support	A theory which posits that in the pursuit of socio-emotional needs so as to assess the benefits of doing more work, employees form "...a general perception concerning the extent to which the organisation values their contributions and cares about their well-being."	Mahdi and Jamaludin (2017); Eisenberger, Huntington, Hutchison, & Sowa (1986; pp. 505-506);

### 3.3 Hypothesis

Based on the theoretical framework discussed earlier, this research will define the solution on the following hypotheses:

H1: There is significant and positive relationship between workplace environments and job stress.

H2: There is significant and positive relationship between workload with job stress.

H3: There is significant and positive relationship between organisational supports with job stress.

All these hypotheses will be tested in order to understand whether there is any significant contribution on any or all of the listed variables to the job stress of employees.

### 3.4 Research Design

Research design is defined as the outline for data collection, measurement, and analysis (Cooper & Schindler, 2003). This research adopts the quantitative

methodology as the main research design. In quantitative research, empirical logic is used to inform descriptions and inferences about the natural and social phenomena being studied. Under any normal circumstances, the method employs statistical data in prearranged approaches such as typically closed-ended questionnaires. Creswell and Creswell (2017) proposed that quantitative methods are best used in theoretical testing or verification, in the study of relationship between variables in questions and hypotheses, and the identification of significant variables for future researches. All these objectives are to be achieved by way of conducting standard validity and reliability tests through statistical procedures.

### **3.5 Operational Definitions**

The theoretical underpinning of this research as outlined in the preceding chapter cited the job demands-resources model (JD-R Model) proposed by Bakker and Demerouti (2007). For the first independent variable (Workplace Environment), physical factors such as architectural features and spatial openness are measured by the office design, decoration, furnishing, spatial arrangement and flexibility, size of personal space (Bodin Danielsson et al. (2013). Physiological factors such as comfort are measured in the physical space by air temperature and quality, office furniture and equipment's ergonomic design, lighting, noise level and proportion of workspace in relation to the individual (Kämpf-Dern and Konkol, 2017; Norhidayah, Ismail, and Abdullah, 2015).

For the second variable (Workload), organisational factors such as management are measured by types of tasks assigned, individual and collective responsibility of employees, and management style of superiors in task distribution

(Jex, (1998) cited in Oplatka (2017). Quality performance of employees are measured by conditions of anxiety, disruption, time-off sessions, and clutter in the workplace (Darmody and Smyth, 2016; Capel, 2016).

For the third variable (Organisational Support), perceptual and real support from employers with regards to employer's appreciation, support, and attention are measured in terms of early confirmation, involvement of staff in policy making, managers' behaviour towards employees, and adequate equipment support to employees. Teamwork's dynamics and support at intra-employee level are measured in terms of the degree of co-working, team spirit, and the motivation level of colleagues (Mahdi and Jamaludin, 2017; Eisenberger et al., 1986; Conner & Douglas, 2005). The complete list of operational definitions will be tabulated under the sub-chapter of 3.7 , Questionnaire Design.

### **3.6 Population and Sample Size**

The population represents what the researcher desires to investigate and infer and this includes the entire group of people, events, or things of curiosity. A subset of the population is known as a sampling and this is represented by some members selected from the population (Sekaran & Bougie, 2010).

The sampling used is a non-probability sampling. Data is not necessarily collected from readily or conveniently available sources; most of the times it comes from specific target group which is the employee of the Public Works technical department. The population of the entire target group is 220 people obtained from the records of registered employees for the year 2017. In this research, from out of 200 questionnaires distributed, a sampling of 147 employees responded, the criteria of

which is set by the researcher to be adapted to suit the specific target group required to provide the intended data for the research. This number (147) is consistent with the sample size for a population of 220 as proposed by Krejcie & Morgan, (1970).

### **3.7 Questionnaire Design**

The questionnaires are the instruments to measure the variables; and the type of instrument used in this research was a set of questionnaire developed by Asante (2012) on employee's job stress. The measures used were operational definitions reviewed from previously done researches with some operational definitions modified to suit the present research. The questionnaires related to office ergonomics, employee health, employee performance, stress, severity of workload and related to organisation support. Every item uses 5-point Likert scales i.e Section B & C: 1 (Very Unsatisfied), 2 (Unsatisfied), 3 (Neutral), 4 (Satisfied), 5 (Very Satisfied); Section D: 1 (Not At All), 2 (Slightly), 3 (Moderately), 4 (Very), 5 (Extremely).

The questionnaire comprises four major parts as follows:

- A : Demographic data of respondent with the goal of identifying their profiles.
- B : Office environment with job stress level with aim to assess the relationship among these factors.
- C : Provision of the relationship of workload and job stress level.
- D : Assessment of job stress level through employee's response. It is on organisational support.

The questionnaire uses general statement as the pattern of questions. Table 3.2 below shows the measurement of variables or instrumentation.

Table 3.2 : *Measurement of Variables or Instrumentation*

Sections and Sources	Measure	No. of questions
<b>A. Workplace Environment</b>  Norhidayah, Ismail, and Abdullah (2015); Kämpf-Dern and Konkol (2017);	1. Current design and office decoration is suitable for employee's health and performance.	10
	2. Current spatial arrangement & furnishing is suitable for employee's health and performance.	
	3. Current level of office flexibility and comfort is suitable for employee's health and performance.	
	4. Current size of space allocated for your workplace is suitable for employee's health and performance.	
	5. Current ease of communication and collaboration is suitable for employee's health and performance.	
	6. Current state and suitability of office furniture is suitable for employee's health and performance.	
	7. Current state of office equipment (computers etc) is suitable for employee's health and performance.	
	8. Current room temperature and air quality is suitable for employee's health and performance.	
	9. Current quality of lighting - artificial lighting is suitable for employee's health and performance.	
	10. Current level of noise from speech, equipment etc. is suitable for employee's health and performance.	
<b>B. Workload</b>  Hafiz et al (2018); Awang Idris et al (2010); De Silva et al (2017)	1. New tasks or unusual tasks are created.	10
	2. Dealing with a critical or anxious atmosphere.	
	3. Create an out-of-work task	
	4. Increased tasks that increase job responsibilities.	
	5. Making a critical decision suddenly.	
	6. Frequent disruption of work.	
	7. Frequency of change of work activity.	
	8. Too many papers.	
	9. Time for completion of work.	
	10. Less time to relax (example: morning drink / daily meal)	
<b>C. Organisational support</b>  Mahdi and Jamaludin (2017); Eisenberger et al(1986)	1. Less opportunity to progress in a career.	10
	2. Co-workers do not do the job.	
	3. Less support from supervisors.	
	4. Less appreciation to good work done.	
	5. Not enough equipment or less quality.	
	6. Unconfirmed by the supervisor.	
	7. Experiencing a negative behavioral experience from the organisation.	
	8. Lack of involvement in policy making.	
	9. Less supervisory and attention from the superior.	
	10. Unmotivated colleagues.	
<b>Total</b>		<b>30</b>

### **3.8 Data collection Procedures**

Data collection procedures are reviewed in the literature to determine the best method. For this research methods employed are questionnaires: either personally administered via face-to-face interaction, sent through the mail, or electronically administered. Observations of individuals and events via videotaping, audio recording or simply note-taking plus a variety of other motivational techniques such as projective tests are also being carried out. In this study, the structured questionnaires will represent the primary data collected and this is initially obtained by the researcher on the variables of interest for the specific purpose of such study (Sekaran and Bougie, 2010). These questionnaires were eventually distributed to 200 employees at the said Public Works technical department, out of which 147 responded. (The respondents were required to answer instantly and return the questionnaires to the researcher.) Personally-administered questionnaire distribution provides a golden opportunity for the researcher to carry out data collection as efficiently as possible (Sekaran & Bougie, 2010).

### **3.9 Pilot Study**

Pilot test was conducted before the main data collection of the questionnaire was performed as opined by Van Teijlingen and Hundley (2002). Thirty (30) respondents participated in this pilot test. They represent the employees of the said technical department of the government agency in question.

The objective of the pilot study is to test whether the respondents understand and complete the questions asked in the questionnaire. The questionnaire was briefly

explained to the respondents to get better feedback. In this study, the improvement and adjustment of the questionnaire was not made to the actual respondents. `

### **3.10 Data Analysis Technique**

Data analysis was performed quantitatively through statistical method. The techniques employed are as per the list provided below:

- a) Descriptive analysis was used to interpret all variables in the questionnaire.
- b) Mean analysis utilized to examine the most respondents' responses to the questionnaire. It was to determine whether the questionnaire asked is related with the objective of the study or not.
- c) Analysis of variance (ANOVA) is used to compare group means by making simultaneous evaluation of variances between several means. It is a method in data analysis that brings values that could be tested to find out if a statistically significant relationship does exist among the means. The test analyzes multiple groups to determine the types between and within samples (Pham, 2006).

In this case study, the 147 population of employees are divided into distinctive groups such as gender, age, rank and length of service. From these four sample groups the ANOVA method is used to test whether the data is statistically significant among the group means. As it analyses variances between several group means, the ANOVA setting takes the observed variance of a particular variable and partitions it into components attributable to different sources of variation. In its simplest form, ANOVA provides a

statistical test of whether or not the means of several groups are equal, and therefore generalizes the t-test to more than two variables. Therefore, the ANOVA method used in this analysis is justified.

- d) Multiple regression was used to analyse relationships between the dependent variable which is Job Stress; and one or more independent variables, in this case the workplace environment, workload and organisation support.

### **3.11 Conclusion**

This research uses quantitative approach to assess the relationship between workplace environment, workload and organisational support as independent variables and the dependent variable of job stress management towards employee job satisfaction among civil servants. The data was collected from consenting respondents by means of a questionnaire and analysed using the statistical method. The result from the analysis will be presented in the following chapter.

## **CHAPTER FOUR**

### **FINDINGS**

#### **4.1 Introduction**

This chapter provides the information of the data collected from the survey questionnaires from respondents. The discussion of the research findings is according to the research objectives that have been outlined in Chapter 1.

#### **4.2 Description of Case Study**

Research was carried out at a technical department of a government agency located in the central business district of Kuala Lumpur. The employees in the department are mostly assigned with the same job scope whether as a technical designer or as a technical assistant for many years. Therefore their working attitude or behaviour need to be monitored as the job stress cannot be seen or detect physically. Excessive job assignments, demanding job task, shortage of employee and lack of organisational support might increase the job stress among the employees. Workload sometimes treated as a burden and not as responsibility or duties to be done. By replicating the same job scope for years will make them feel bored or are they easily adapted to it and their stress level manageable while perform their work.

Overcrowded office space is common is any government owned building where employees are put together with their colleagues and supervisors at an open office layout for a long working hours. How comfortable is their current office

environment and the working space provided to them by their employer. Every year, a certain number of employees will be awarded with annual achievement award for their contribution to the department.

### **4.3 Respond Rate**

Distribution of questionnaires were collected from employees of the Public Works technical department. From the 200 set of questionnaires distributed, 147 questionnaires were returned with a 73.5% return rate. All 147 returned questionnaires were being used for data analysis.

### **4.4 Section A : Demographic Information**

The respondents' data are segregated by gender, age, position level, and length of service. On gender category, 38.8 percent were male while the female group formed 61.2 percent of the total number of respondents. In terms of age category, 5.4 percent of the respondent is 20-29 years old, 47.6 percent is 30-39 years old, 34 percent is 40-49 years old and 12.9 percent is 50-60 years old (age). In terms of position levels, 4.1 percent is Grade 1-19, 71.4 percent is Grade 22-38, and 24.5 percent is Grade 41-54.

The respondents are mainly junior employees; which render services for less than five years representing about 6.8 percent of the populations. The longest range by 11-15 years of service, representing 32 percent, followed by 16-20 years of service, representing 24.5 percent. The highest level of service is from more than 20 years, representing 15.6 percent. Table 4.1 shows the details demographic profile of respondents.

Table 4.1a: *Demographic Information*

	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	57	38.8
Female	90	61.2
<b>Age</b>		
20-29 years old	8	5.5
30-39 years old	70	47.6
40-49 years old	50	34.0
50-60 years old	19	12.9
<b>Position Level</b>		
Grade 1-19	6	4.1
Grade 22-38	105	71.4
Grade 41-54	36	24.5
<b>Length of Service</b>		
Less than 5 years	10	6.8
6-10 years	31	21.1
11-15 years	47	32.0
16-20 years	36	24.5
More than 20 years	23	15.6
Total	147	100.0

#### **4.5 Section B : Reliability on Independent and Dependent Variable**

George & Mallery (2010) stated that data reliability is referred to the test that could detect error and yield consistent result. This is supported by Strijker, Sijtsma & Wiersma (2000) where reliability refers to “consistency an observed score can be seen and the other part an ‘error’ score”.

Cronbach's Alpha is a psychometric statistics to analyse data so as to estimate the consistency reliability of data since such consistency in measurement, *ceteris paribus*, is a good thing in data analysis because it will mean the data has less error variance. It is a *coefficient*, therefore it ranges from 0 to 1, with 0.00 being no consistency in measurement, and vice versa, 1.00, is perfect consistency, which is needed in a reliable research with consistent data (George & Mallery, 2010). The values over 0.80 are considered as good, 0.70 are acceptable, and those with coefficient value of less than 0.60 is considered to have less consistency (Sekaran et al., 2010). What is being estimated in this research is the consistency reliability in the measurement of the variation of the construct, *i.e.* the hypothetical variable being measured (O'Rourke and Hatcher, 2013). Under current data analysis practices, it is measured by the SPSS's Alpha option. Computation of alpha is based on the consistency reliability of the individual item's score relative to the composite scores with same number of items, and measuring the same construct of interest (O'Rourke et al., 2013).

Before results are analysed, the reliability of the survey questionnaire has to be tested. The researcher used a Cronbach's Alpha coefficient to test such reliability in consistency and the results are as per the Table 4.2 below.

Table 4.2 : *Reliability Analysis –Scale Alpha*

Variable	Cronbach's Alpha	N of Items
Office Environment	0.87	10
Workload	0.87	10
Organisational Support	0.86	10
Total	0.82	30

The reliability statistics as shown indicates that the Cronbach's Alpha level for office environment is 0.87. The workload on Cronbach's Alpha is 0.87 and organisational support is 0.86. Therefore, the reliability of all the measures were comfortable above 0.60, ranging from 0.86 to 0.87 for all items. While for all items (N: 30) is 0.82.

#### 4.6 Descriptive Analysis

This is a descriptive analysis of the research question in general. The transformation of raw data into an easy-to-understand data with regards to the level of job stress on the variables (refer Figure 4.1).

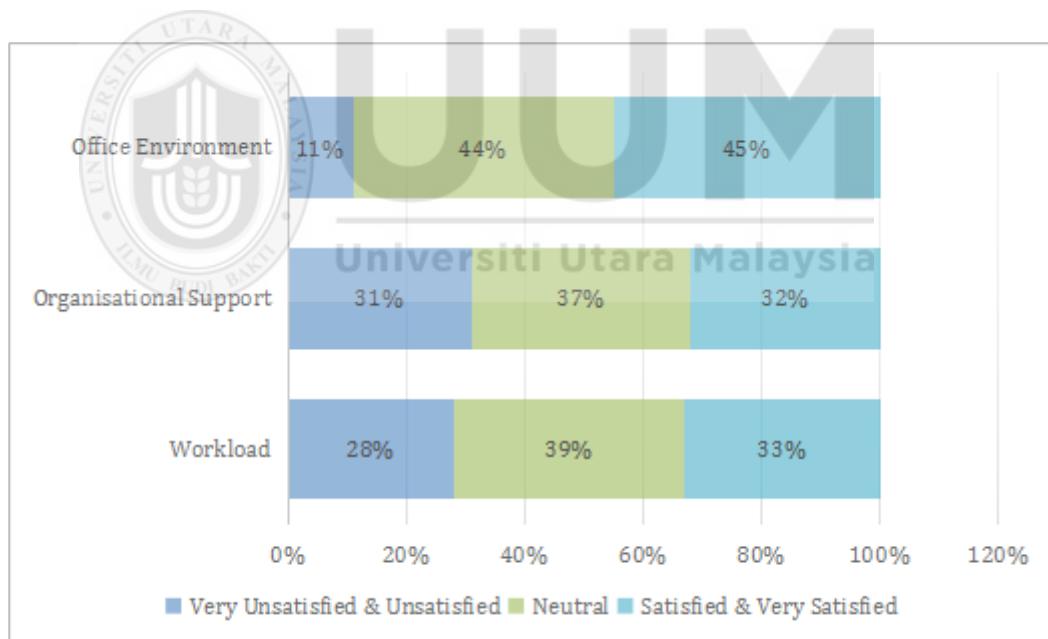


Figure 4.1 : *Level of Job Stress*

Figure 4.1 explained that the workplace environment elements contribute to more than half of the total percentage (45%). This variable ranks higher than other

elements contributed to job stress. The workload only 28% unsatisfied while organisational support, 31%. Most of the respondents are neutral.

#### 4.6.1 Mean Analysis

The findings reveals that the level of job stress from respondents with regards to the workplace environment at the government agency is at moderate level of mean score around 3.37. It also reveals that the levels of job stress regarding workload and organisational support during their working daily are shown to be 2.93 to 3.04 respectively, which means low levels of mean scores. The results are tabulated in Table 4.3.

Table 4.3: *Frequency, Percentage and Mean by Respondent Job Stress*

	Mean	Std. Deviation	Level	N
Workload	3.044	0.694	Moderate	147
Office Environment	3.370	0.567	Low	147
Organisational Support	2.957	0.675	Low	147

#### 4.7 ANOVA

As explained in the preceding chapter, One-way ANOVA is used to compare the relationship between the three means of the independent variables between the various units of samples in the population as explained in 3.10 (Data Analysis Technique). It is a way to establish whether there exists a relationship between these samples with three independent variables as factors influencing job stress stated as workplace environment, workload and organisational support. The dependent variable was the level of job stress. Table 4.4 compares means of 3 variables by level of job stress.

Table 4.4: ANOVA test

		Sum of				
		Squares	df	Mean Square	F	Sig.
Office Environment	Between Groups	5.073	1	5.073	17.592	0.000*
	Within Groups	41.815	145	.288		
	Total	46.888	146			
Workload	Between Groups	24.455	1	24.455	78.626	0.000*
	Within Groups	45.100	145	.311		
	Total	69.555	146			
Organisational Support	Between Groups	27.914	1	27.914	105.003	0.260
	Within Groups	38.546	145	.266		
	Total	66.460	146			

The test reveals that there is **significant** and **positive relationship** between mean level of job stress with office environment,  $F(1,146) = 17.592, P < 0.000$ ) and workload,  $F(1, 146) = 78.628, P < 0.000$ . However, there is **insignificant relationship** with organisational support  $F(1,146) = 105.003, p < 0.260$ ). Significant value is  $p < 0.05^*$ .

#### 4.8 Multiple Regressions

Multiple regressions analysis is a procedure to analyse associate relationships between one or more independent variables with the dependent variable. This analysis is used to answer research questions one, two and three. Its purpose is also to establish the impact of several independent or predictor variables have on the dependent or criterion variable and in the process, will ascertain the relationship between them and establish whether these several independent variables may inform the variation occurring in the dependent variable. Table 4.5 illustrates the result of how several independent variables (workload, office environment, impact of office ergonomics and organisational support) influence the dependent variable (level of job stress) in a Multiple Regression Stepwise Method procedure.

Table 4.5i: **Result of Multiple Regression Stepwise Method on Factors influencing the level of Job stress**

	B	Beta	P	95.0% Confidence Interval for B		Collinearity Statistics		R <sup>2</sup>	Adjusted R <sup>2</sup>
				Lower Bound	Upper Bound	Tolerance	VIF		
(Constant)	0.25		0.46	-0.41	0.91			0.50	0.50
Office Environment	0.81	0.75	0.00	0.67	0.94	0.86	1.16		
Workload	0.14	0.15	0.02	0.03	0.25	0.86	1.16		

The Multiple Regression analysis (refer Table 4.5i) shows the factors entering value  $P < 0.25$  in the regression model. From Stepwise method, only significant factors are selected to dependent variable, i.e. the level of job stress. Only two factors are strongly significant with the level of job stress, which are office environment and workload. The result of R-square is 0.50, adjusted R-square is at 0.50.

Table 4.5ii **Correlations**

		Workload	Office Environment	Impact of Office Ergonomics	Organisational Support
Pearson Correlation	Workload	1.00	-0.37	-0.13	0.61
	Office Environment	-0.37	1.00	0.70	-0.44
	Impact of Office Ergonomics	-0.13	0.70	1.00	-0.21
	Organisational Support	0.61	-0.44	-0.21	1.00
Sig. (1-tailed)	Workload		0.00	0.06	0.00
	Office Environment	0.00		0.00	0.00
	Impact of Office Ergonomics	0.06	0.00		0.01
	Organisational Support	0.00	0.00	0.01	
N	Workload	147	147	147	147
	Office Environment	147	147	147	147
	Impact of Office Ergonomics	147	147	147	147
	Organisational Support	147	147	147	147

Table 4.5iii **Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.627a	0.39	0.38	0.55	0.39	30.87	3.00	143.00	0.00

a. Predictors: (Constant), Organisational Support, Impact of Office Ergonomics, Office Environment

Table 4.5iv **ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.601	3	9.200	30.869	0.000b
	Residual	42.621	143	0.298		
	Total	70.223	146			

a. Dependent Variable: Severity of Work Stress

b. Predictors: (Constant), Lack of Organisational Support, Impact of Office Ergonomics On Employee Health and Job Performance, Level Of Employee Satisfaction With Office Environment

Table 4.5v **Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.843	0.448		4.113	0.000
	Office Environment	-0.300	0.122	-0.245	-2.450	0.015
	Impact of Office Ergonomics	0.178	0.105	0.156	1.698	0.092
	Organisational Support	0.545	0.076	0.530	7.207	0.000

a. Dependent Variable: Severity of Work Stress

Table 4.5vi **Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.8407	3.9960	3.0442	0.4348	147
Residual	-1.1367	2.0708	0.0000	0.5403	147
Std. Predicted Value	-2.7681	2.1890	0.0000	1.0000	147
Std. Residual	-2.0820	3.7932	0.0000	0.9897	147

a. Dependent Variable: Severity of Work Stress

The Multiple Regression analysis shows the factors entering value  $P < 0.25$  in the regression model. From Stepwise method, only significant factors are selected to the dependent variable (job stress). Only two factors are strongly significant with the level of job stress, which are office environment and workload. The result of R-square is 0.50, adjusted R-square is at 0.50. The result shows the independent variables of office environment and workload have the strongest impact to level of job stress among the civil servants. The prediction model is as illustrated below:

$$\text{Level of Job Stress} = 0.248(\text{constant}) + 0.808(\text{office environment}) + 0.135(\text{workload})$$

From this result, every variation changes will increase 50 percent (R-square = 0.50) significantly on the level of job stress.

To recapitulate, the research question and hypothesis testing are as follows:

**RQ1:** What is the relationship between office environment and job stress?

H1: There is significant and positive relationship between office environment with job stress.

**RQ2:** What is the relationship between workload and job stress?

H2: There is significant and positive relationship between workload with job stress.

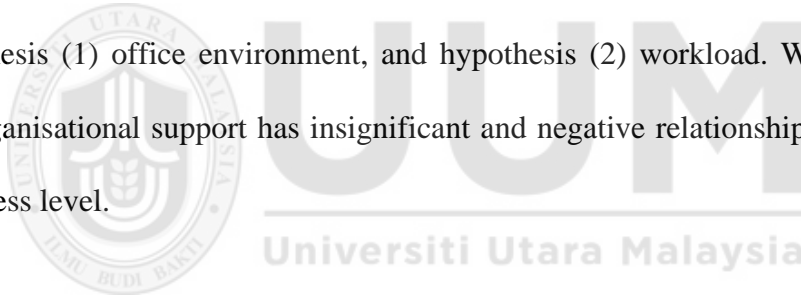
**RQ3:** What is the relationship between organisational support and job stress?

H3: There is significant and positive relationship between organisational supports with job stress.

#### **4.9 Conclusion**

Three independent variables were tested at a 5 percent level  $p < 0.05$  of significant. As a result, from hypothesis it shows that workload and office environment job stress factors indeed have relationships with the level of job stress among employees.

Hence, the employee job stress has significant and positive relationship with hypothesis (1) office environment, and hypothesis (2) workload. While hypothesis (3) organisational support has insignificant and negative relationship with employee job stress level.



# CHAPTER FIVE

## DISCUSSION AND CONCLUSION

### 5.1 Introduction

This chapter begins with the summary of the findings, based on the response by respondents and from the previous researchers. This chapter will explain the limitations from the findings and for the future research in this area. Recommendations are highlighted in order to inform any interested party and to improve future research. The conclusion thereof, summarizes the key points of the findings.

### 5.2 Summary of the Result

This research has investigated the factors influencing employees' job stress of the Public Works technical department. The important results to achieve the research objectives are as follows:

**RO1:** To investigate the relationship between office environment and job stress.

The respondents are moderately satisfied with workplace environment as shown by the mean score of the Likert Scale (3.37). On the other hand, employees are more dissatisfied with the causes related to workload and organisational support (mean scores of 3.04 and 2.96 respectively). The office environment of the Public Works technical department are generally thermally comfortable with good indoor

air quality, well-lit, spacious, well-equipped with good office equipment, reduced noise level, aesthetically-pleasing décor and furniture and having generally flexible design layout. These factors have influenced the general perception of employees where they have less to complain about being stressed-out in such generally pleasing workplace environment.

However, it must be understood that a government office operates within a limited public budget so therefore it is understood that there will only be a moderate level of satisfaction, which contributes to a moderate relationship with job stress level.

The F-test value to measure the variance levels of **workplace environment** between or within sample means taken from the sample means under various categories such as gender, age, rank and length of service is valued at 17.592 taken as  $F(1, 146)$ .

From Stepwise method result, office environment factor is strongly significant with job stress. The result of R-square is 0.50, adjusted R square is at 0.50. The result shows the independent variable of office environment has the **strongest** impact to job stress among the said employees. Another evidence of significance is where the probability or *P*-value is less than 0.000 with significant value set at a *P*-value of  $<0.05$ .

Hence, it can be concluded that there is a **significant** and **positive** relationship between mean level of job stress with workplace environment.

**RO2:** To examine the relationship between workload and job stress.

The respondents' level of satisfaction with workload factor is low as shown by the mean score (3.04) of the Likert Scale. This means that the workload experienced by the technical department displays a somewhat low job stress level among employees, with an equally low satisfaction level. In the said department, the main contributor to job stress with regards to workload are sudden decisions made by the employer causing frequent disruptions to employees' flow of tasks, which results in performing job under severe time pressure and also in having less time for break such as lunch breaks. With an increase in paper work load, all these factors contribute towards a low mean score in both satisfaction and job stress levels.

The results indicate that workload has a **significant** and **positive** relationship with employees' job stress. However, there is no such relationship with length of working experience. Therefore, it is important for the said Public Works technical department to give attention to the effects of workload where performing tasks under severe time pressure and having restricted capacity to meet work schedule will in turn, cause employees to be more vulnerable to burnout and issues concerning general health (Darmody & Smyth, 2016).

The F-test value to measure the variance levels of **workload** between or within sample means taken from the sample means under various categories such as gender, age, rank and length of service is valued at 78.626 taken as F (1, 146). Another evidence is the probability or *P*-value which is less than 0.000 with significant value set at a *P*-value of <0.05. Hence, it can be concluded that there is a **significant** and **positive** relationship between mean level of job stress with workload.

**RO3:** To assess the relationship between organisational support and job stress.

The respondents' level of satisfaction with workload factor is low as shown by the mean score (2.96) of the Likert Scale. This means that organisational support experienced by the technical department displays a low satisfaction level among employees. In the said department, the main contributor to job stress with regards to organisational support are uncooperative co-workers, indecisive and ambivalent supervisors, experiencing a negative behavioral experience from the organisation, lack of involvement in policy making, less supervisory attention and unmotivated colleagues.

However, from the ANOVA test, the findings from comparing the variance levels of organisational support between or within sample means taken from the sample means under various categories such as gender, age, rank and length of service is inconsistent. The F-test value to measure the variance levels of **organisational support** is valued at 105.003, taken as F (1, 146). Another evidence is the probability or *P*-value which is less than 0.260 with significant value set at a *P*-value of <0.05.

Hence, it can be concluded that there is an **insignificant** and **negative** relationship between mean level of job stress with organisational support.

As a summary, it is revealed that there is a strongly significant relationship between workload and office environment with job stress among employees. This is similar to the research done by Kämpf-Dern & Jennifer Konkol (2017) that job stress is influenced by the environment of office furniture and the quality of the furniture while Brooks (1998) indicates that office environment will give a big impact to employees' job stress.

### 5.3 Contribution of the Study

The contribution of this quantitative study is presented in this section. The findings of this study have contribution for employees, employers, and for further research. The literature review demonstrated there is an evidence of increased stress among employees contributing to job stress in the workplace. For example, lack of job control is attributable to employees' job stress (Awang Idris, Dollard, & Winefield, 2010).

However, there is insufficient research on areas to lessen these negative factors that would affect job stress of such similar civil servants in the technical department. This research is intended to determine whether the office environment, workload and organisational support have the influence to enhance the attitude of the employees to reduce job stress.

For such technical civil servants, having a well-designed and functional office environment is often seen as increasing the employees' efficiency and productivity. But there are cases where due to limitation of financial factor, the urgency of jobs, determined to follow orders, the office environment is often taken for granted. The basic requirements of employees regarding health and safety issues are neglected and left unattended by the management. Often, workloads factors have influenced employees' return to perform the job under severe time pressure with restricted capacity to meet work schedule or standards and quality performance will in turn cause the employee to be more vulnerable to burnout and issues concerning general health. As a result, the spiritual, emotional and physical conditions of

employees become uncontrolled when the prevention and strategies to minimize it is not taken seriously (Darmody & Smyth, 2016).

From the research on the Public Works technical department, it is obvious that the results of all the means are very close to the median (3 in this case) which shows that in this government office, the office environment is neither giving full satisfaction nor giving the least. As the relationship is significant and positive, the technical office's workplace environment has enough to offer sufficient satisfaction not amounting to creating job stress among employees.

In terms of workload, the relationship is also significant and positive however, the mean is in the median range. The contribution to job stress is sudden decisions by the employer that contribute to disruption in the workflow causing duress but not sufficient enough to cause high stress level as the workload is acceptable.

Organisational support has negative and insignificant relationship to job stress in a government technical office. The higher the support, the less job stress is experienced by employees. In large government offices such as where the case study is conducted, the slight dissatisfaction causing job stress tends to be around the factors of uncooperative and unmotivated co-workers, indecisive and ambivalent supervisors who are, by the way, co-workers too and the lack of involvement of the employers in the policy-making processes. Organisational support is seen as an initiative by employees and in the absence of 'real' authority figures, this has contributed to the perception of apathy, which can lead to a high degree of job stress in this perception of an absence of organisational support. Hence the negative relationship between the two.

While this research certainly cannot claim to have the ability to solve any of the defined factors of work-related stress, this research believes it is crucial for the technical civil servants to be more capable in improving the work-related stress and make bold attempts for prevention. The continued study of the job stress factors is essential for employees to give overall commitment to the organisation.

#### **5.4 Limitations**

As is expected in all research, a few limitations are associated with this dissertation. The first limitation is related to the geographical area. This study is limited to a Public Works technical department in Kuala Lumpur, and there are other technical departments in other states in Malaysia performing similar task and job scope. Thus, it is unacceptable to use this study to represent the whole Malaysian technical civil servants' job stress.

The dissertation's second limitation relates to the dissertation's questionnaire. The questionnaire consists of five scales and four demographic questions. The participants had to answer a total of 44 items and four demographic questions, which means that participants took approximately ten minutes to complete the questionnaire. In this situation, participants may have become anxious about time.

The third limitation of the dissertation is on the subjects. This study is only limited to the three factors that influence employees' job stress, which are office environment factor, workloads, and organisational support. From the three of the factors indicated only office environment and workload have influence employees' job stress.

## **5.5 Recommendation and Future Research**

Through the dissertation, the researcher provides some insight into the level of job stress among the said employees. However, the dissertation is limited in its ability to fully explain and justify the factors influencing job stress among all government agency technical employees. Thus, parts of this dissertation should be assessed thoughtfully for its validity.

Moreover, the factors for employees' job stress relationships are limited to empirical examinations of the sample of technical employees in the said government agency in Kuala Lumpur. Further studies should replicate the dissertation with different employees' groups from other geographical areas. Further study would improve the understanding of employees' level of job stress and enforce a stronger relationship among the dissertation's findings.

Although the researcher of this dissertation examined the factors of job stress, another research can be oriented toward assessing the relationship between stress and job. Further research could focus on exploring the other factors that may influence the level of job stress.

Future researcher may also need to examine the employee satisfaction based on office ergonomics and job stress is an area of study that requires specific investigation and study. Furthermore, by focusing on this subject, the organisation will have a better satisfaction level of employees and significantly reduce job stress while performing their work.

## 5.6 Conclusion

Overall the result of this study indicates that there is a significant and positive relationship between the factors from office environment and workload. On the contrary, there is insignificant and negative relationship between job stress factors such as organisational support.

The purpose of this study is to examine the relationship between three selected job stress factors with job stress itself. The result shows the relationship of three variables. Among three variables, office environment factor and workload have significant and positive relationship with employees' job stress.



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## APPENDIX A: QUESTIONNAIRE



UNIVERSITI UTARA MALAYSIA  
CAWANGAN KUALA LUMPUR

### BORANG SOAL SELIDIK

TAJUK KAJIAN:

**KAITAN ERGONOMIK PEJABAT DENGAN PENGURUSAN STRES  
PEKERJAAN DI JABATAN KERJA RAYA MALAYSIA (THE CONNECTION  
BETWEEN OFFICE ERGONOMIC AND OCCUPATIONAL STRESS  
MANAGEMENT AT JABATAN KERJA RAYA MALAYSIA)**

---

Tuan dan Puan yang dihormati,

Tuan/ Puan telah terpilih sebagai responden bagi kajian ini. Kajian ini dilakukan bagi memenuhi syarat penganugerahan Ijazah Sarjana Pengurusan Keselamatan dan Kesihatan Pekerjaan dan borang soal selidik ini merupakan salah satu cara yang dilakukan bagi melengkapkan kajian ini. Semua maklumat yang diperolehi semasa kajian ini dilakukan adalah rahsia dan hanya digunakan bagi tujuan akademik sahaja. Segala masa, tenaga dan kerjasama yang diberikan untuk menjawab borang soal selidik ini amat dihargai dan didahulukan dengan ucapan ribuan terima kasih.

---

**DISEDIAKAN OLEH:**

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MASTER IN OCCUPATIONAL, SAFETY AND HEALTH (MANAGEMENT)

UNIVERSITI UTARA MALAYSIA (UUM)

## SECTION A: Data Socio-Demografik dari Responden / SocioDemographic Data of Respondent

---

1. Jantina / Gender. Mark only one oval.

- Male  
 Female

2. Umur / Age. Mark only one oval.

- 20-29 years old  
 30-39 years old  
 40-49 years old  
 50-60 years old

3. Tahap Kedudukan / Level of Position. Mark only one oval.

- Gred 1-19  
 Gred 22-38  
 Gred 41-54

4. Tempoh Perkhidmatan / Length of Service. Mark only one oval.

- Less than 5 years  
 6-10 years  
 11-15 years  
 16-20 years  
 More than 20 years

## SECTION B: Tahap Tekanan Pekerja Dengan Persekitaran di Pejabat / Level of Job Stress with Office Environment

Sila berikan pendapat anda tentang reka bentuk kerja di organisasi anda. Bulatkan satu angka yang sesuai dengan persepsi anda terhadap kenyataan di bawah berdasarkan skala berikut :

Please indicate your level of satisfaction with each of the under listed workplace elements using the ratings from 1 to 5 described below (by ticking) as:

1 (Very Unsatisfied), 2 (Unsatisfied), 3 (Neutral), 4 (Satisfied), 5 (Very Satisfied)

5 Reka bentuk umum dan hiasan pejabat / General design and office decoration.  
Mark only one oval.

	1	2	3	4	5	
Very Unsatisfied	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Satisfied

6. Susunan ruang & kelengkapan / Spatial arrangement & furnishing. Mark only one oval.

	1	2	3	4	5	
Very Unsatisfied	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Satisfied

7. Tahap fleksibiliti dan keselesaan pejabat / Level of office flexibility and comfort. Mark only one oval.

	1	2	3	4	5	
Very Unsatisfied	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Satisfied

8. Saiz ruang yang diperuntukkan untuk anda / Size of space allocated for your.  
Mark only one oval.

	1	2	3	4	5	
Very Unsatisfied	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Satisfied

9. Kemudahan komunikasi dan kerjasama / Ease of communication and collaboration Mark only one oval.

	1	2	3	4	5	
Very Unsatisfied	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Satisfied

10. Suasana dan kesesuaian perabot pejabat / State and suitability of office furniture. Mark only one oval.

1      2      3      4      5

Very Unsatisfied      Very Satisfied

11. Suasana peralatan pejabat (komputer dan lain-lain) / State of office equipment (computers etc). Mark only one oval.

1      2      3      4      5

Very Unsatisfied      Very Satisfied

12 Suhu bilik dan kualiti udara / Room temperature and air quality. Mark only one oval.

1      2      3      4      5

Very Unsatisfied      Very Satisfied

13. Kualiti pencahayaan - pencahayaan tiruan / Quality of lighting - artificial lighting. Mark only one oval.

1      2      3      4      5

Very Unsatisfied      Very Satisfied

14. Tahap bunyi dari ucapan, peralatan dan sebagainya / Level of noise from speech, equipment etc.

Mark only one oval.

1      2      3      4      5

Very Unsatisfied      Very Satisfied

SECTION C: Penilaian Punca Stres Melalui Tanggapan Pekerja  
(Keterukan Stres Kerja) / Assessment of Stress Through  
Employee Response Workload

---

Sila nyatakan keperluan penambahbaikan yang diperlukan untuk setiap elemen tempat kerja tersenarai yang menggunakan penilaian dari 1 hingga 5 yang diterangkan di bawah (dengan menandakan) sebagai:

Please indicate the need of improvement needed for each of the listed workplace elements using the ratings from 1 to 5 described below (by ticking) as:

1 (Not At All), 2 (Slightly), 3 (Moderately), 4 (Very), 5 (Extremely)

(i) Keterukan Beban Kerja / Severity of Workload

---

15. Tugas baru atau tugas yang tidak biasa dibuat / New tasks or unusual tasks are created.

Mark only one oval.

	1	2	3	4	5	
Not At All	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely

16. Berurusan dengan suasana yang kritikal atau cemas / Dealing with a critical or anxious atmosphere.

Mark only one oval.

	1	2	3	4	5	
Not At All	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely

17. Membuat tugas yang di luar bidang kerja / Create an out-of-work task. Mark only one oval.

1      2      3      4      5

---

Not At All      Extremely

---

18. Pertambahan tugas yang meningkatkan tanggungjawab kerja / Increased tasks that increase job responsibilities. Mark only one oval.

1      2      3      4      5

---

Not At All      Extremely

---

19. Membuat keputusan yang kritikal secara tiba-tiba / Making a critical decision suddenly. Mark only one oval.

1      2      3      4      5

---

Not At All      Extremely

---

20. Gangguan kerja yang kerap / Frequent disruption of work. Mark only one oval.

1      2      3      4      5

---

Not At All      Extremely

---

21. Kekерapan perubahan aktiviti kerja / Frequency of change of work activity. Mark only one oval.

1      2      3      4      5

---

Not At All      Extremely

---

22. Terlalu banyak kertas kerja / Too many papers. Mark only one oval.

1      2      3      4      5

---

Not At All      Extremely

---

23. Kesuntukan masa untuk menyiapkan kerja / Time for completion of work.  
Mark only one oval.

	1	2	3	4	5	
Not At All	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely

24. Kurang masa untuk berehat (contoh: minum pagi/makan tegahari) / Less time to relax. (example: morning drink / daily meal) Mark only one oval.

	1	2	3	4	5	
Not At All	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely

#### SECTION D: Sokongan Organisasi / Organisational Support

25. Kurang peluang untuk maju dalam kerjaya / Less opportunity to progress in a career. Mark only one oval.

	1	2	3	4	5	
Not At All	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely

26. Rakan sekerja tidak melakukan tugas / Co-workers do not do the job. Mark only one oval.

	2	2	3	4	5	
Not At All	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely

27. Kurang sokongan daripada penyelia / Less support from supervisors. Mark only one oval.

	3	2	3	4	5	
Not At All	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely

28. Kurang penghargaan kepada tugas yang baik / Less appreciation to good work done. Mark only one oval.

	4	2	3	4	5	
Not At All	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely

29. Peralatan yang tidak cukup atau kurang kualiti / not enough equipment or less quality. Mark only one oval.

5      2      3      4      5

---

Not At All      Extremely

---

30. Tidak bersefahaman dengan penyelia / Unconfirmed by the supervisor. Mark only one oval.

6      2      3      4      5

---

Not At All      Extremely

---

31. Mengalami pengalaman tingkah laku negatif daripada organisasi / Experiencing a negative behavioral experience from the organisation. Mark only one oval.



1      2      3      4      5

---

Not At All      Extremely

---

32. Kurang penglibatan dalam membuat keputusan dasar / Lack of involvement in policy making. Mark only one oval.

1      2      3      4      5

---

Not At All      Extremely

---

33. Kurang penyeliaan dan perhatian daripada pihak atasan / Less supervisory and attention from the superior. Mark only one oval.

1    2    3    4    5

---

Not At All      Extremely

---

34. Rakan sekerja yang tidak bermotivasi / Unmotivated colleagues. Mark only one oval.

2    2    3    4    5

---

Not At All      Extremely

---



## APPENDIX B : FREQUENCY DATA

### Section A: Sociodemographic Data

Table i: Different Categories of Participants

Categories		Frequency	Percent
<b>Gender</b>	Male	57	38.8
	Female	90	61.2
<b>Age</b>	20-29 years old	8	5.4
	30-39 years old	70	47.6
	40-49 years old	50	34.0
	50-60 years old	19	12.9
<b>Level of Grade</b>	Grade 1-19	6	4.1
	Grade 22-38	105	71.4
	Grade 41-54	36	24.5
<b>Length of Service</b>	Less than 5 years	10	6.8
	6-10 years	31	21.1
	11-15 years	47	32.0
	16-20 years	36	24.5
	More than 20 years	23	15.6
	Total	147	100.0

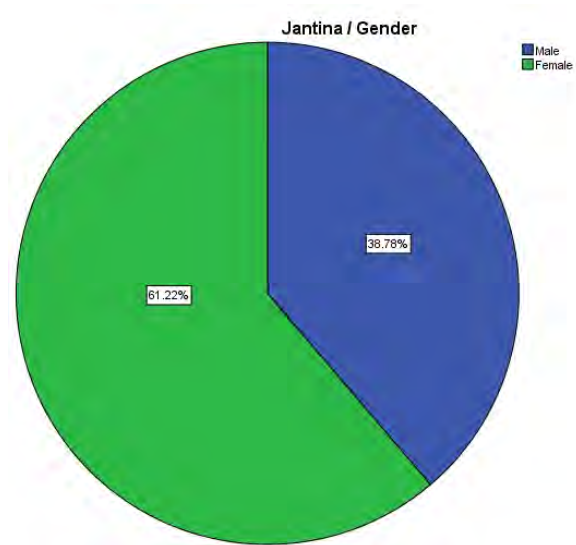


Figure i: Pie Chart by Gender

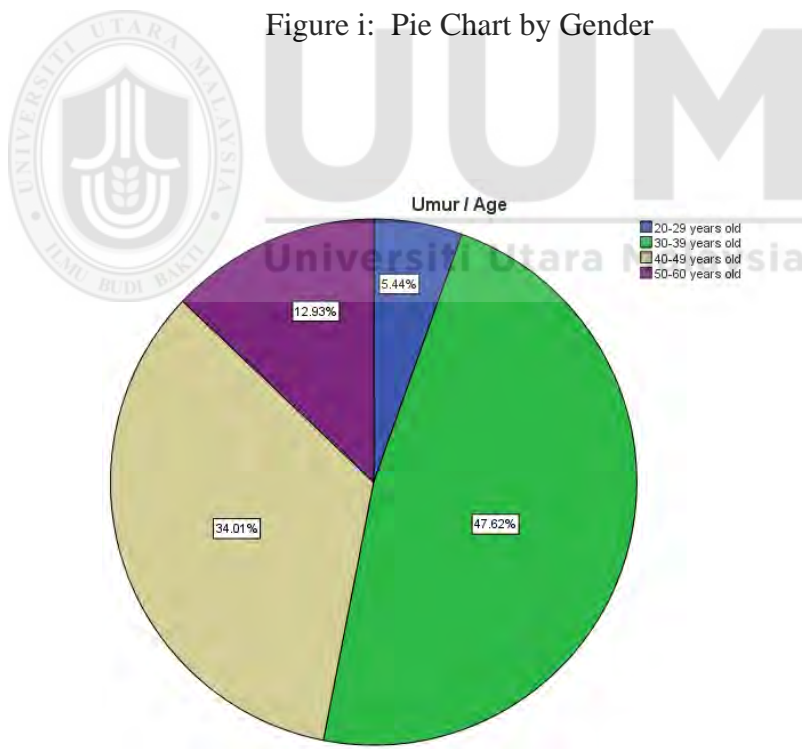


Figure ii: Pie Chart by Age

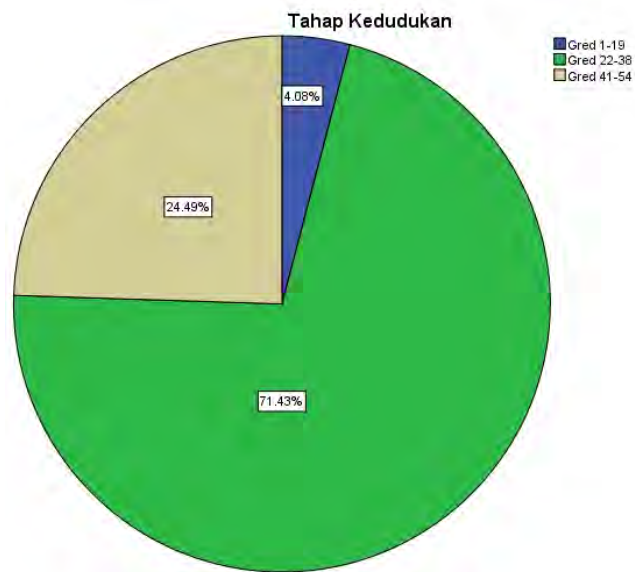


Figure iii: Pie Chart by Level of Grade

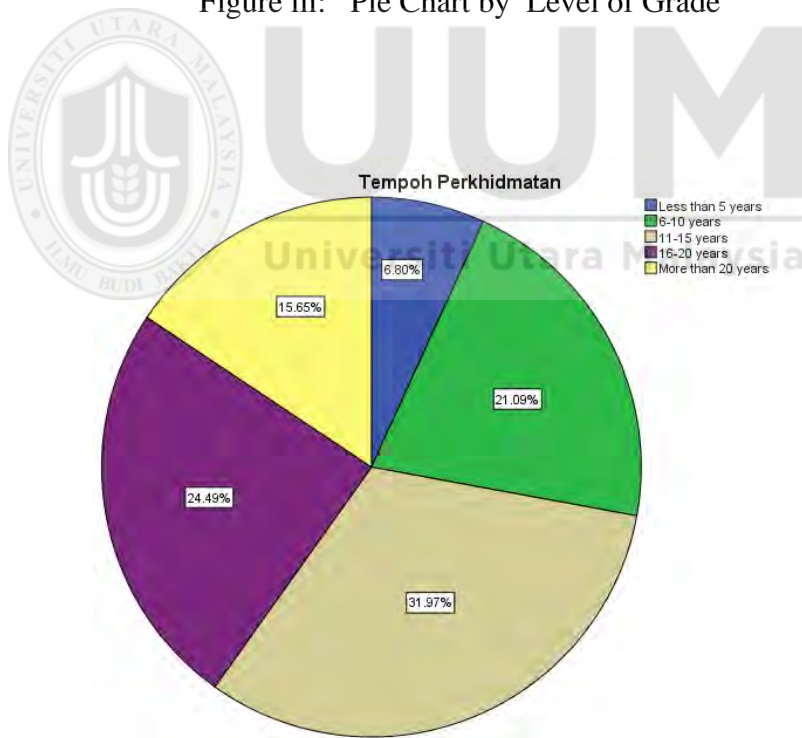


Figure iv: Pie Chart by Length of Service

Section B: Level of Job Stress with Office Environment

Table ii: Frequency and Percentages by Item

	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
General design and office decoration	1 (0.7)	12 (8.2)	65 (44.2)	66 (44.9)	3 (2)
Spatial arrangement & furnishing	2 (1.4)	20 (13.6)	58 (39.5)	65 (44.2)	2 (1.4)
Level of office flexibility and comfort	0 (0)	24 (16.3)	56 (38.1)	65 (44.2)	2 (1.4)
Size of space allocated for you	0 (0)	18 (12.2)	64 (43.5)	54 (36.7)	11 (7.5)
Ease of communication and collaboration	1 (0.7)	9 (6.1)	62 (42.2)	69 (46.9)	6 (4.1)
State and suitability of office furniture	1 (0.7)	11 (7.5)	67 (45.6)	64 (43.5)	4 (2.7)
State of office equipment (computers, etc.)	0 (0)	18 (12.2)	58 (39.5)	65 (44.2)	6 (4.1)
Room temperature and air quality	1 (0.7)	15 (10.2)	69 (46.9)	57 (38.8)	5 (3.4)
Quality of lighting - artificial lighting	2 (1.4)	14 (9.5)	72 (49)	52 (35.4)	7 (4.8)
Level of noise from speech, equipment, etc.	1 (0.7)	10 (6.8)	76 (51.7)	56 (38.1)	4 (2.7)

Section C: Assessment of Stress Through Employee Response (Workload)

Table iii: Frequency and Percentages by Item

	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
New tasks or unusual tasks are created	1 (0.7)	24 (16.3)	65 (44.2)	52 (35.4)	5 (3.4)
Dealing with a critical or anxious atmosphere	5 (3.4)	36 (24.5)	64 (43.5)	37 (25.2)	5 (3.4)
Create an out-of-work task	3 (2)	34 (23.1)	56 (38.1)	50 (34)	4 (2.7)
Increased tasks that increase job responsibilities	3 (2)	23 (15.6)	58 (39.5)	53 (36.1)	10 (6.8)
Making a critical decision suddenly	7 (4.8)	39 (26.5)	58 (39.5)	40 (27.2)	3 (2)
Frequent disruption of work	7 (4.8)	38 (25.9)	59 (40.1)	37 (25.2)	6 (4.1)
Frequency of change of work activity	6 (4.1)	41 (27.9)	58 (39.5)	39 (26.5)	3 (2)
Too many papers	7 (4.8)	42 (28.6)	51 (34.7)	40 (27.2)	7 (4.8)
Time for completion of work	3 (2)	34 (23.1)	54 (36.7)	48 (32.7)	8 (5.4)
Less time to relax	16 (10.9)	45 (30.6)	52 (35.4)	29 (19.7)	5 (3.4)

Section D : Organisational Support

Table iv: Frequency and Percentages by Item

	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
Less opportunity to progress in a career	10 (6.8)	16 (10.9)	44 (29.9)	69 (46.9)	8 (5.4)
Co-workers do not do the job	12 (8.2)	45 (30.6)	50 (34)	37 (25.2)	3 (2)
Less support from supervisors	10 (6.8)	21 (14.3)	64 (43.5)	49 (33.3)	3 (2)
Less appreciation to good work done	6 (4.1)	27 (18.4)	46 (31.3)	59 (40.1)	9 (6.1)
Not enough equipment or less quality	6 (4.1)	21 (14.3)	61 (41.5)	55 (37.4)	4 (2.7)
Unconfirmed by the supervisor	18 (12.2)	31 (21.1)	59 (40.1)	38 (25.9)	1 (0.7)
Experiencing a negative behavioral experience from the organisation	14 (9.5)	45 (30.6)	50 (34)	37 (25.2)	1 (0.7)
Lack of involvement in policy making	7 (4.8)	57 (38.8)	52 (35.4)	31 (21.1)	0 (0)
Less supervisory and attention from the superior	7 (4.8)	39 (26.5)	70 (47.6)	30 (20.4)	1 (0.7)
Unmotivated colleagues	16 (10.9)	48 (32.7)	53 (36.1)	26 (17.7)	4 (2.7)

Section E : Charts

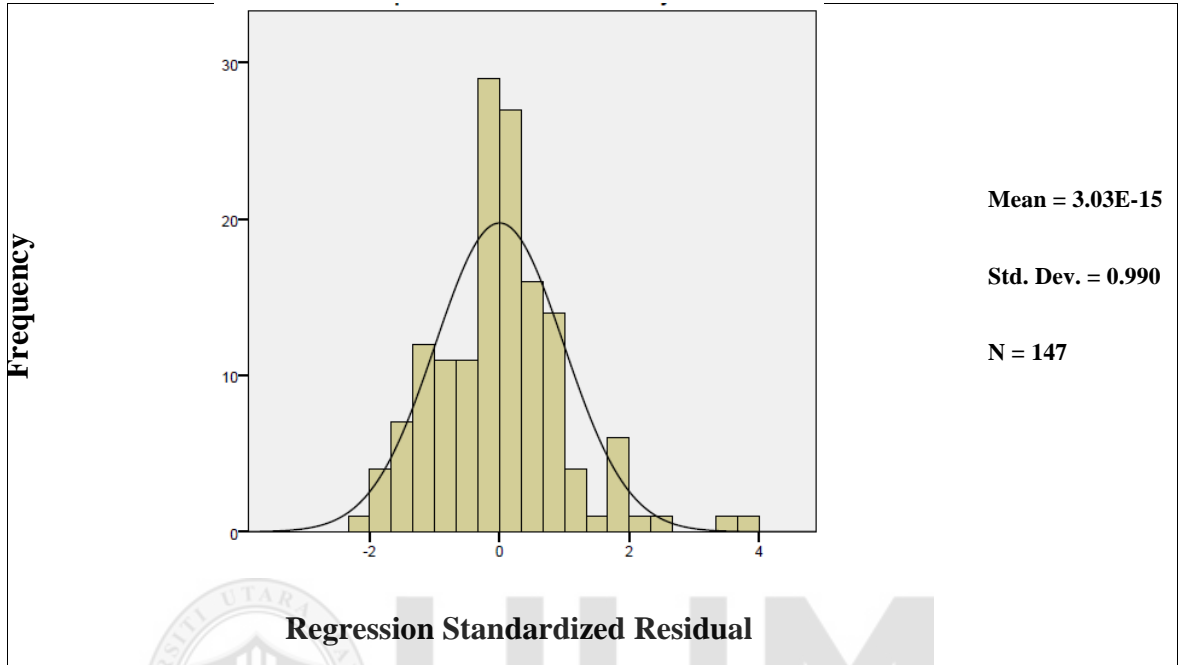


Figure v: Histogram

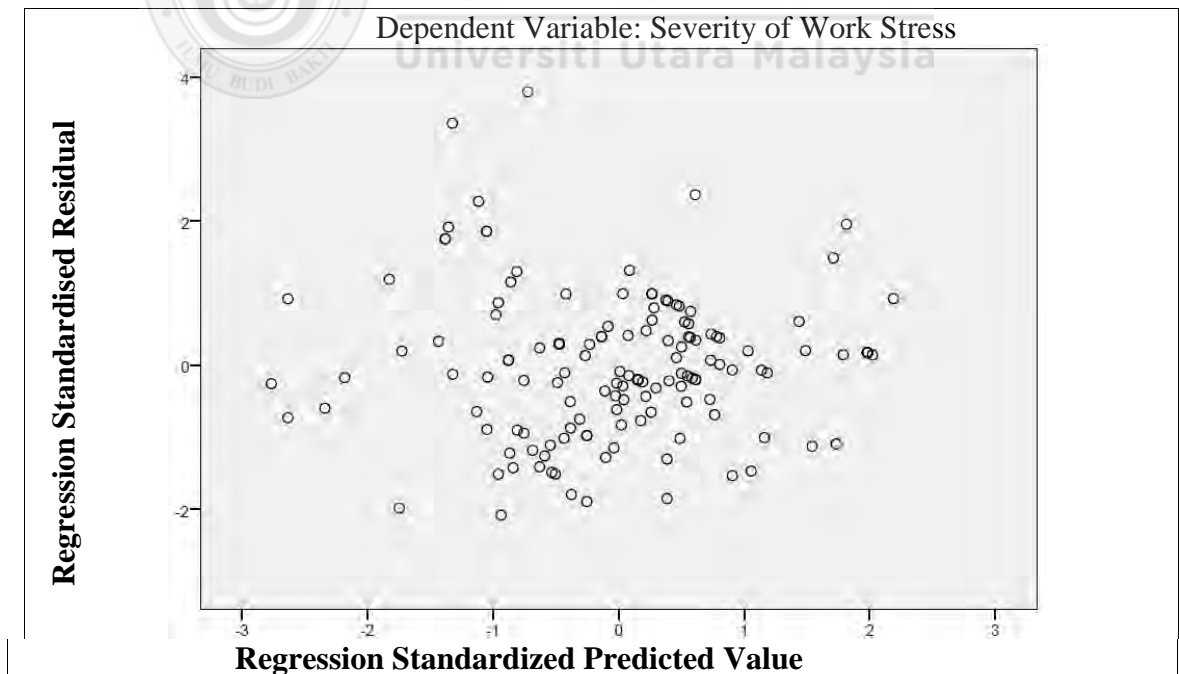


Figure vi: Scatterplot  
Dependent Variable: Severity of Work Stress