THE IMPACT OF OCCUPATIONAL STRESS ON MENTAL HEALTH AMONG LOGISTIC EMPLOYEES IN MALAYSIA

By

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ABSTRACT

Numerous scholars have looked into how employee's mental health is affected by work-related stress. However, there has been little or no focus on the effect of key workplace factors such as working hours and work load on employee's mental health. The current study examines the effect of occupational stress on mental health among employees of logistic companies in Klang Valley area. The study employed a quantitative methodology. Data was collected through a survey questionnaire. Cluster random sampling was used and a total of 384 questionnaires with complete answers were returned. Logistic employees in Klang Valley area are the targeted population. The analysis techniques employed in the study included descriptive statistics, Cronbach's alpha estimates for reliability, factor analysis, correlation analysis and regression analysis. The multiple regression analysis confirmed that both the independent variables- working hour and workload positively influence employee's mental health. The beta coefficients indicate the strength and direction of these relationships, with working hour (β = .275) and workload (β = .664) all being significant at the $p <$ .00The findings of the study show that there is a positive relationship between occupational stress which are working hour and workload with mental health of employees. The findings also have indicated that there is a direct effect of working hour and workload on mental health.

Keywords: Mental health, Occupational stress, Working hour, Workload

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LIST OF ABBREVIATIONS

GVA	Gross Value Added
CMD	Common Mental Disorders
SI	Suicidal Ideation
DV	Dependent Variable
IV	Independent Variables
PMWB	Poor Mental Well-Being
CES-D	Centre for Epidemiological Studies Depression
JD-R	Job Demands-Resources
JDC	Job Demand Control
JDCS	Job Demand- Control- Support
SPSS	Statistical Package for Social Sciences
PCA	Principal Component Analysis
KMO	Kaiser-Meyer-Olkin Measure
HADS	Hospital Anxiety and Depression Scale

CHAPTER 1

INTRODUCTION

This chapter provides an overview of a research on the effect of occupational stress on mental health among employees of logistic companies. Mental health of employees is crucial where it contributes to company's productivity. Poor mental health can cause employees to burn out, which has a major negative impact on their capacity to make meaningful contributions in both their personal and professional life.

By identifying the factors that effects employee's mental health, the study will yield a valuable insight that can help both employees and employers to provide more attention on mental health of employees.

The sub-topic consists of background of the study, research problems, research objectives and research questions followed by scope and significance of the study. The last part of this chapter discusses the definitions of the key terms. A chapter summary is provided at the end of the chapter.

1.1 Background of study

Interdependence and globalisation have created new opportunities for the expansion and improvement of the world economy. While globalisation was a strong and dynamic growth factor, there have been significant changes on working conditions and the employment market. Workers everywhere must deal with a variety of new organisational structures and procedures, including downgrading, contingent labour, and heavier workloads than before. Majority of individuals in the globe spend their time working for work-related goals because of how competitive the work environment is; thus, they tend to experience pressure or stress that eventually lead to mental issues.

Mental health is becoming significant health issue which lead to tremendous social and economic consequence, as well as severe effects on physical health (Herrman et al., 2005). In recent times, mental health has gained significant attention from both individuals and professionals. According to National Health and Morbidity Survey 2023 (NHMS) report, the number of people suffering from mental health doubled from 2019 to 2023 (Institute for Public Health, 2023). According to NHMS 2023 report, the number of people suffering from mental health doubled from 2019 to 2023 (Institute for Public Health, 2023). Moreover, due to the corona virus disease outrage the work practices have changed which demands more from employees. Mental health issues have become more common during the COVID-19 pandemic (Yonemoto & Kawashima, 2023).

Logistics industry consist of transportation, storage of goods and packaging that contributes on global economy. Logistic industry controls the whole process of

delivering goods to customer at distribution hubs and warehouse (Lovas et al., 2021). In Malaysia, the domestic transport and logistics industry contributed 3.8% of Malaysia's GDP, with a gross value added (GVA) estimate of RM57 billion in 2021 (Good Prospects for Malaysia's Transport and Logistic sector, 2023).

The workers at the logistics centre is always under pressure to gather and pack the required goods (Yoo et al., 2022). Due to the high demand logistic industry workers as at high risk of mental health. There are few researches done on logistic workers. According to Sabir et al. (2016) drivers who are transporting oil and gas goods are facing fatigue due to work stress. Also, due to the corona virus pandemic the demand for logistic industry has increased tremendously worldwide (Yoo et al., 2022).

Stress have a direct relationship with health where it affects directly through neuroendocrine and autonomic responses and indirectly through changes in behaviour (Hill et al., 2017). Fatigue, hypertension, headaches, depression, and anxiety are common symptoms of stress (Holden et al., 2019). Many academics have studied the causes of occupational stress and found out that stress is one of the main contributing factors to mental health. Occupational stress refers to stress that have a as a result they found out that connection with one's place of employment and is caused by unplanned tasks and responsibilities that don't match one's knowledge, skills, or expectations and are challenging to cope with (Kassim et al., 2018). Workload and working hours are one of the major occupational stress that affects mental health. Prasad et al., (2020) have conducted research on occupational stress and staff's wellbeing which conducted that workload is one of the variables.

Stress or pressure is a modern epidemic that leads to public health concerns now. The incidence of occupational stress and the factors that predict it among Malaysians are reviewed by Mohd Shaiful et al. (2017). According to the study's findings, primary school teachers ranked highest overall (71.7%), followed by prison guards (45.8%), police (38.8%), secondary school teachers (34.0%), and university professors (22.1%).

This study was conducted to investigate the factors that contributes to occupational stress of logistics industry employees and how it effects their mental health. Factors that is discussed which are work load and working hours are the main focus of this study.

1.2 Problem statement

As a result of the rapid development and socioeconomic change in recent times the study of mental health and the relationship with occupational stress has become a focused area of research (Shen et al., 2014). According to empirical studies, anxiety is significantly predicted by work stress (Mark et al., 2014; DiGiacomo and Adamson, 2001).

According to National Health and Morbidity Survey 2023 (NHMS) report, the number of people suffering from mental health doubled from 2019 to 2023 (Institute for Public Health, 2023). This indicates that mental health burden in this nation is increasing. According to the 2019 National Health and Morbidity Survey report

findings, up to 500,000 Malaysian individuals may have had depression (National Health and Morbidity Survey, 2019).

In terms of occupation, according to the National Health and Morbidity Survey (NHMS) conducted in 2015 by the Institute for Public Health (IPH) of Malaysia using the 12-item General Health Questionnaire (GHQ-12), the prevalence of mental health problems among the general adult population in Malaysia was 29.2% (Institute for Public Health, 2015).

According to a survey conducted by AIA in the year 2018 (before pandemic), the largest but least discussed workplace concern continues to be mental health. Due to stigma and a lack of understanding, mental health is frequently overlooked and goes not diagnosed. Factors including stress, organisational culture, bullying, and leadership may also have a detrimental effect on employee's mental health and wellbeing, which in turn has a negative influence on the organization's performance and productivity.

Recently, the total demand for the logistics sector has started to rise, particularly in the wake of the corona virus disease 2019 pandemic (Park, 2020). The logistics sector makes up a major component of the global economy and may be roughly broken down into three categories: transportation, products storage, and packaging materials (Kim, 2022). At warehouses and distribution industry, the industry is in charge of managing the overall process of delivering goods to customers (Lovas, 2021).

The labour force at the logistics industry is constantly under pressure to gather and pack the required goods. Workers in logistic industry are said to be at risk of occupational stress and mental health concerns due to the high demands of their jobs and the lack of workplace management, and logistic industry are constantly under pressure to collect and pack the products that customers have purchased (Kim, 2023). According to a market research report by Gii Global Information, the size of the Malaysian freight and logistics market is projected to be USD 27.81 billion in 2024 and is expected to rise at a compound annual growth rate (CAGR) of 4.77% to reach USD 35.10 billion by 2029.

The transportation industry's growing need for freight and logistics services is mostly due to trade flow, or the number of imports and exports. Malaysia's overall commerce reached RM 236 billion in December 2022, up 8.6% year over year from RM 217.4 billion in the same month the previous year. In December 2022, exports reached RM 131.9 billion, a 6% rise. With a 12% year over year growth, imports reached RM 104.1 billion (Mordor Intelligence, 2024).

In addressing the mental health issues among employees of logistics industry so far, the researchers need to continue to focus on some of the most important factors that contributes to the occupational stress. In this study there are several factors that contributing to key occupational stress and eventually lead to mental health issues such as working hours and work load.

1.3 Research questions

The following research questions were addressed based on the variables of the study:

1. What is the relationship between occupational stress which are working hours and work load of the job and mental health of employees in the logistic industry in Klang Valley?
2. Which occupational stress effects the mental health of an logistic employees the most in Klang Valley?

1.4 Research objective

This study examined the effect of occupational stress on mental health among the employees in logistic field in the Klang Valley area. Working hour and workload are the occupational stress that effects mental health, will be studied in this research and the objectives are as below:

1. To determine the relationship between occupational stresses which are working hours and work load of the job and mental health of employees in logistic companies

2. To identify the which occupational stress that effects the mental health of logistic employees

1.5 Scope of the study

A quantitative research design will be used for the study and the data will be gathered from the employees of logistic industry via online survey. Using a stratified random selection approach, the sample size will be determined to ensure representativeness. Participants were chosen from a variety of age, gender, and positions. Despite all the variations, the main objective of the study the relationship between occupational stress and mental health of employees among logistic industry in Klang Valley. The focus of the study will be on occupational stress which are working hours and workload.

The collected data was based on the respondents who are employees who are work in logistic industry in Klang Valley. The study is anticipated to contribute to the existing literature on the mental health and occupational stress in the Malaysian logistic industry. The findings of the study will help the Malaysian logistic industry to comprehend the factors that contributes to the poor mental health of the employees and develop tactics to improve mental health of employees.

1.6 Significance of study

In recent years, the logistic industry in Malaysia has been a demanding industry especially the covid-19 pandemic. This leads to increased competition among logistic industry. In such competitive market, employee's mental health is essential to the success and sustainability of logistic companies. Thus, it is essential for logistic companies to comprehend the factors that effects the mental health in order to improve the working environment for the employees.

This research will assist in identifying the most critical occupational stress that influence employee's mental health. By identifying and understanding these factors, logistic companies can prioritise and focus on the areas that are most important to their employees.

The study of the relationship of workload and working hour on employee's mental health will allow other researchers, employees and organisation to gain benefit. The effects of occupational stress on worker's mental health remain poorly understood. There are more researches has been conducted on employee's mental health but only few researchers have been conducted in a specified logistic industry. In this study we identify the effect of occupational stress on employee's mental health who are working in logistic industry.

The findings of the research will help improve the understanding on how employees in this particular field has been affected by the factors and help employers to gain more knowledge about this issue. Moreover, the knowledge that obtain from this research can be a guideline for employees and employers to work more on their performance to be better. Thus, this study is conducted to create an awareness of the mental health of the employees and to increase the productivity of employees at workplace.

1.7 Key terms definition

1.7.1 Mental health. According to the World Health Organization (2001), mental health is defined as a continuous variable that ranges from a negative, symptom-based pole to a positive pole that focuses on psychological functioning. The idea of "mental health" can be thought of as based on negative symptoms like psychological damage, diseases like depression and burnout, and their associated physical symptoms such sleeping difficulties (Stuber et al., 2020). The ability of a person to manage both internal and external requirements, such as job responsibilities, is a component of mental health (Behle, 2005). High degrees of anxiety, sadness, exhaustion, and drowsiness are considered to be indicators of an increasing level of poor mental health (Jarrar et al., 2023). The effects of working circumstances may be transmitted to and interfere with non-work-related domains, such as family life, as well as domain-unspecific components of happiness, such as mental health and psychological discomfort, through work-related emotional weariness (Anagnostopoulos et al., 2015).

1.7.2 Working hour. Long hours are defined as working for a period of time longer than usual working hours. However, different nations may have different definitions of what constitutes a typical workday. According to Wickramasinghe (2010) working hour can be identified by three indicators which are working late into the night, showing up at work on weekends, and short rest periods (Sato et al., 2020). One hour increase in the overtime on weekdays or weekends results in the mental burden by the employees (Sato et al., 2020). Longer working hours were associated with absences and lower quality of work (Nymark et al., 2021). There are few employees that willing to work more hours due to extrinsic or intrinsic motivation (Watanabe and Yamauchi, 2018). They may believe this is connected to their chances for promotion,

their own growth, or their desire to take advantage of extra compensation when it is offered (Watanabe and Yamauchi, 2018).

1.7.3 Work load has been referred to by a variety of words since the 1970s. Experts have proposed several various definitions, making it challenging to draw a definite judgement on workload. Workload is the amount of stress people suffer as a result of believing they can't handle or be effective with the amount of work assigned to them (De Bruin and Taylor, 2006). Moreover, workload is the number of responsibilities that each employee in an organisation or its components must complete in a certain amount of time and with a specified number of workers (Saratian et al., 2019). Excessive workload will have negative consequences, including physical and mental tiredness, as well as physical reactions like headaches, stomach problems, and irritation (Irawati and Carollina, 2017).

Workload is the discrepancy between a worker's capacity or aptitude and the demands of the job that has to be done (Tarwaka, 2015). Another definition of employee workload is the perceived correlation between the amount of mental processing ability or resources needed to execute a task (Hart and Staveland, 1998).

1.8 Summary

This chapter focuses on the background and problem statement of the study. It also describes the research objectives and research questions that are significantly related to the outcome of the study, which is mental health of employees.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In this chapter, past studies and hypothesis which are related to this research will be discussed and explained. The past studies will be explaining the relationship between dependent and independent variables. The last section of this chapter includes a summary of the chapter.

2.2 Conceptualization of variables

2.2.1 Mental health

World Health Organization (WHO) defines mental health as" A state of well-being in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community". The ability of a person to manage both internal and external requirements, such as job responsibilities, is a component of mental health (Behle, 2005). Reduced subjective work capacity is correlated with perceived unfavourable or problematic job qualities, particularly high mental work demands, a lack of autonomy, and a bad physical work environment (Van den Berg et.al, 2008).

According to Jing Kiat (2018), a frequent ailment known as a mental health disorder affects a person's thoughts, emotions, and behaviour and results in functional impairment. according to Chong, Mohamad, & Er (2013), in Malaysia, the Ministry

of Health has stated that mental health is "the capacity of the individual, the group, and the environment to interact with one another to promote subjective wellbeing and optimal functioning, and the use of cognitive, affective, and relational abilities towards the achievement of individual and collective goals consistent with justice,"

According to the Labour Force Survey, Malaysia's workforce, which includes employees in both the public and private sectors, rose by 2.0% to roughly 15.6 million people in 2019 from 15.3 million people in 2018 (Department of Statistic, 2019). No matter if they are employed in the public or private sectors, Malaysian workers are at a significant risk of health issues, such as mental health issues brought on by increased workplace stress (Ram, 2019).

An effect of work stress is sadness or anxiety, which may lead to mental health issues. Sadly, it was revealed that depression is projected to become a significant mental health issue for Malaysians by 2020 as more people are anticipated to encounter higher stress from pressures at work and in their personal lives (Thye, 2019). The problem of occupational or work-related stress "may no longer be seen as a problem that arises rarely or personally by those working within the company," (Mallow, 2016). It has spread around the world, impacting all types of workers in every type of business in every nation, including Malaysia (Mallow, 2016).

2.2.2 Working hour

Long hours are defined as working for a period of time longer than usual working hours. However, different nations may have different definitions of what constitutes a typical workday. For instance, the typical work week in France, Denmark, and the United States, respectively, is 35, 37, and 40 hours (Akira& Akiko, 2014). Meanwhile, Malaysia's standard working week is 45 hours per week.

Given that depression is known to increase the risk of work disability and worse quality of life in persons of working age, the effect of long work hours on employees' mental health has drawn significant scientific attention (Virtanen et al., 2011). In many nations, excessive working hours and associated detrimental impact on health are a major problem. Long working hours cause karoshi (death brought on by overwork or job-related tiredness), cerebrovascular and cardiovascular disorders, high blood pressure, sleep deprivation, lethargy, feelings of melancholy and confusion, and fatigue (Yasumasa et al, 2009).

Long-hour workers have been found to suffer from negative consequences on their mental as well as physical health. Overwork makes employees more exhausted, which has a detrimental impact on how they feel about their health. Malaysians work an average of 15 hours a day, which is more than the contracted hours established by the Malaysian government (Econ, 2017). Thus, long work hours are not the only factor that contribute to mental health but extended work hours, increased after-hours work connectivity, and work-related stress are all linked to physical health (Econ, 2017).

2.2.3 Work load

In modern culture, the issue of workload is growing more and more essential. Workload research has been studied and investigated ever since man and machine first made contact. The activities that employees must do within a specific time frame are one way that experts define workload (Dhania, 2010). Businesses want to make the most money possible, whereas employees want to work as little as possible. Finding a method to precisely measure workload and determining what levels of exertion are excessive is the answer to this problem. When the term "workload" was originally used, emphasis was placed on physical workload (de Beer et al., 2015). The world has changed since yesterday. Machines now perform the majority of physical labour, including heavy lifting and moving.

2.3 Hypothesis development

The notion that there are two types of occupational stress- good and bad, or healthy and unhealthy-is not supported by research especially in private sectors. An accurate statement regarding this connection cannot be generalised since the distinctive features of each employee and the particular working conditions determine whether the good or negative consequences of an occupational stress predominate. These challenges are unquestionably brought on by the multifaceted complexity of occupational stress and mental health, whose empirical assessment is invariably fraught with difficulty and high levels of uncertainty. Instead, it is necessary to analyse both the occupational stress and the workforce's mental health in all of their facets in order to find both good and negative associations.

Basically, identifying the occupational stress in an organization is vital. These issues are the subject of occupational health which examines many elements of working life in terms of the potential for promoting mental and physical health as well as the possible hazards of doing so. Based on these findings, the objective of this empirical study is to improve our comprehension of the relationships between occupational stress which are working hours and workload and employees' mental health in the logistic industries.

2.3.1 The relationship between working hours and mental health of employees

Due to the fact that depression is known to increase the risk of work disability and worse quality of life in persons of working age, there has been an increase in study on the effects of long work hours on workers' mental health. Kim et al., (2016) has concluded that higher probabilities of depressive symptoms were linked to long work hours and unstable employment status and as result workers who are working for longer hours experiencing negative mental than those working less hours.

According to Nakata (2017) one of the common mental health disorders is depression and has recognised that long working hour is a significant risk factor for depression. When the working hour increases stress, depression and suicide tended of workers increases as well (Park et el., 2020). According to Ma (2023) longer working hours increase the mental health issues among employees. Working hours revealed a negligible correlation with negative emotions, indicating that there is little connection between the two. Long working hours have a positive association with common mental disorders (CMD) and suicidal ideation (SI) (Petrie et al., 2020). Long working

hours, working on weekends and midnight working schedule effects employee's mental health (Sato et al., 2020).

In Malaysia, the covid-19 pandemic has created huge impact in many things but the impact of working hours and mental health is remaining the same before or after the pandemic which long working hours lead to depression and stress (Maung et al., 2022). Ratanasiripong et al. (2016) has identified that long working hours has a significant impact on small and medium enterprise workers. (Bannai & Tamakoshi, 2013) also concluded that working long hours is linked to coronary heart disease, anxiety, depression, and sleep issues. Comparing participants in the group who worked 11–12 hours per day to those who worked 7-8 hours, major depressive episode risk was considerably higher for the 11-12-hour group (Virtanen et al., 2012).

Time is very important when it comes to work, to investigate the importance of working hours on employee's mental health research has come up with below hypothesis,

H^1: The working hours will have significant correlation with mental health of employees in logistic industry.

2.3.2 The relationship between work load and mental health of employees

According a study by (Zoer et al., 2011) various age groups have different relationships between different psychosocial workload components and concerns about one's mental health. The younger employee's worse emotional workload and the older employee's lack of social support were linked to a higher likelihood of mental

health issues. In all age categories, increased job pressure was a substantial risk factor for mental health issues (Zoer et al., 2011). According to Wang et al. (2023) workload was a strong predictor of anxiety disorders, sadness, and somatization. Increasing employee's workload might put more strain on them, which can lead to mental exhaustion, tension, anxiety, and panic attacks (Ahmad et al., 2019).

In Malaysia health care employees especially were facing depression, stress and anxiety due to the heavy workload and extra work shifts (Ismail et al., 2023). An overwhelming workload may cause employees to lose attention, which would be bad for their performance and eventually will lead to depression (Kumareswaran et al., 2023).

Burnout and psychological ill-health symptoms at time three were both predicted by work overload at time one and burnout at time two, respectively (de Beer et al., 2015). Burnout and psychological ill-health symptoms time three were found to have indirect impacts through burnout and work overload time one and psychological ill-health symptoms through burnout, respectively (de Beer et al., 2015).

Job dissatisfaction was substantially correlated with high quantitative workload, although depressed symptoms were not significantly linked to workload (Samsudin et al., 2021). When employees were given more workload that what capable of carry out, it will lead to a negative impact for their mental health. Below hypothesis is important to study how the work load impact the employees in private sectors.

H^2: The workload will have significant correlation with mental health of employees in logistic industry.

2.4 Conceptual framework of the study

In this research, the conceptual framework explains the relationship between one variable to another. Dependent variable (DV) is the major interest to carry out the research. In this research mental health of employees in private sector is the dependent variable. There are total 2 independent variables (IV) in this research which are working hours and work load. Mental health of employees in private sectors is the independent variable of the research. The diagram below will show the relationship between the DV and IV of this research.

This study is based on the theoretical assumption that factor occupational stress influence employee's mental health. Specifically, the study's theoretical framework will be based on theories and models that suggest a relationship between work load and working hours on employee's mental health.

There is sufficient evidence in the literature to suggest that occupational stress affect an employee's mental health. Egan et al., (2019) have found that long working hours affects worker's mental health especially it leads to depression and poor mental well-being (PMWB). Bannai and Tamakoshi (2014) long work hours are linked to depression, suicidal thoughts, anxiety, and other mental health issues. A prospective cohort created in Australia between the years of 2001 and 2012 used the SF-36 survey's Mental Component Summaries to evaluate outcome, findings showed that respondents' mental health was lower when they worked 49–59 hours per week and 60 hours or more per week than when they worked 35–40 hours per week (Milner et al., 2015). Using the Centre for Epidemiological Studies Depression (CES-D) scale to measure depressive symptoms, a longitudinal study based on the Korea Welfare Panel

Study (KOWEPS) from 2010 to 2013 discovered that employees working over 68 hours had higher odds of experiencing depressive symptoms in comparison to those working 35 to 40 hours per week (Kim et al., 2016).

Another research's outcome showed that higher risk of depressive symptoms and anxiety symptoms among employees working more than 55 hours per week compared to employees working 35–40 hours per week in a prospective analysis of participants with no depressive or anxiety symptoms at baseline (Virtanen et al., 2011). The risk mental health tends to rise as working hours lengthen (Park et al., 2020).

Nurhanis et al., (2021) have examined the prevalence of burnout, its causes, and Malaysian healthcare professionals' experiences during the COVID-19 epidemic and they found of that long working hours effects their mental health. Mohd Shahril Abu Hanifah and Norazura Ismail (2020), have carry out research to identify the risk factor that effects fatigue among sift workers and one of the significant factors is overtime or long working hours.

In the other hand, there are researchers has been conducted and the outcome has showed non-significant effect of working hours on mental health of employees. Results of a state-wide prospective follow-up research among top Danish medical consultants refuted the idea that depression can be made more likely by extended work hours (Anshu, 2012). Additionally, a systematic review and meta-analysis with a prospective or cohort study design inclusion standard and a restriction on the outcome of depressive disorders clinically diagnosed or assessed by a structured interview revealed an association between overtime work and a small, non-significant,

elevated risk of developing a depressive disorder and concluded that the relationship between long working hours and mental health remained ambiguous (Watanabe, 2016).

I Lee and Hsiu-Hung Wang (2002) have conducted study to examine occupational stress and related factors, they found that work load is one of the significant factors of occupational stress. Yurur et al., (2012) have examine the effects of workload of service workers and the findings suggested that increased workload might worsen emotional weariness and depersonalisation in social workers. Another research done to study the relationship between mental health and workload of female doctors and the outcome showed that increasing workload impacts the mental health such as depression and suicidal thoughts of the doctors (Győrffy1 et al., 2016).

Moreover, Qian Zhou and Xinping Zhang (2020) found that the increase in the workload significantly increase mental health based on the research on healthcare workers. Meanwhile, another research that done in Klang valley area that researched the stress factors that impact primary school teachers and workload is one of the stress factors that affected the respondents in medium level (Samad et al., 2010). Ali et al., (2020) have researched about the relationship of stress and mental health of teachers as well, where the results shows that the respondents are experiencing a significant stressor caused by workload that contributing significantly on their mental health.

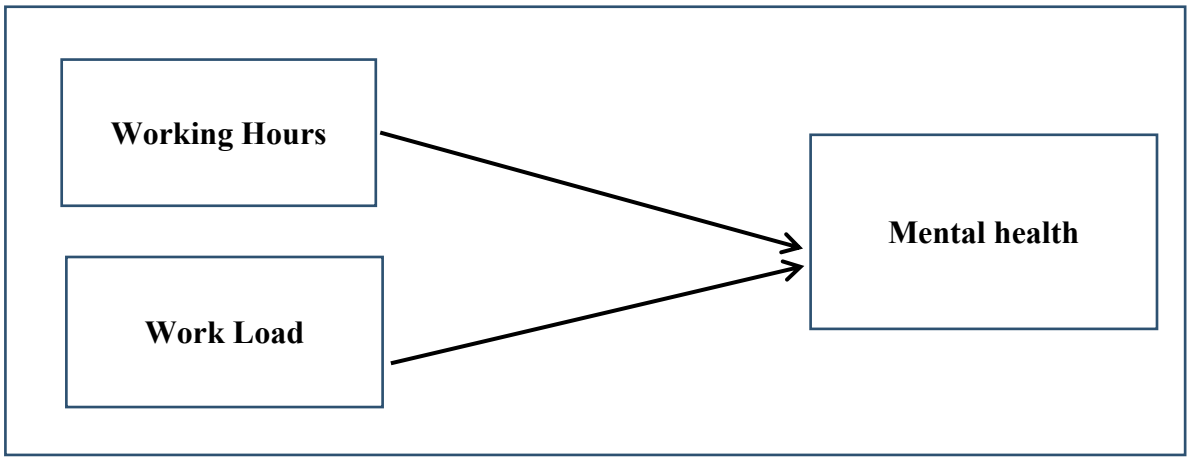

Figure 2.1: *Conceptual Framework*

2.5 Related Theory

2.5.1 Job Demands-Resources Theory

One of the most widely used models of job stress in occupational health psychology is the Job Demands-Resources (JD-R) model. It provides a helpful framework for understanding burnout and well-being at various levels of analysis (Bakker & Demerouti, 2017). The job demands-resources theory, an expansion of the work demands-resources model, was introduced in the current chapter. The physical, psychological, or social characteristics of a job that call for prolonged effort and are linked to stress and burnout are referred to as job demands which includes workload, time pressure, and emotional demands (Hossan et al., 2023). JD-R theory contends that work characteristics may be divided into two groups: job demands and job resources, which overcomes the constrained, static, and one-sided early theories of stress and motivation. These two types of work characteristics are prevalent in almost all occupations, making them significant since they serve as the catalysts for two distinct processes: the motivating process and the impairment of health. Demands and

resources affect employee motivation and health in different ways, but they also combine to affect employee wellbeing. The model reveals that, rather than being mechanical, personal resources are also significant determinants of motivation and can mitigate the negative impacts of professional demands (Bakker and Demerouti, 2014).

The research that looked at so far supports a clear pattern of the causes and effects of burnout and job engagement. On the one hand, it has been determined that the primary causes of burnout are job pressures, which also contribute to poor health and unfavourable organisational outcomes. The primary factors that influence work engagement, on the other hand, have been identified as job resources. Thus, enhanced well-being and favourable organisational outcomes follow. These patterns serve as the foundation for the JD-R model, an articulated model of occupational well-being (Bakker & Demerouti 2007, 2014; Demerouti et al., 2001).

Employee strain results from a prolonged exposure to job expectations because of the constant effort needed to meet demands in the workplace. The JD-R model's emphasis on broad categories of job demands that may be applicable in a variety of organisational situations gives it an advantage over other models (Bakker & Demerouti, 2007).

2.5.2 The Job Demand Control (-Support) model

The Job Demand Control (JDC) model (Karasek, 1979) and Job Demand- Control-Support (JDCS) model l (Johnson and Hall, 1988) model seeks to explain why mental

strain occurs in a work environment. The two variables of workplace demand and job control are used to bring negative effects of employment into context. Often, operationalizing job expectations in terms of quantitative elements like workload and time pressure (Karasek, 1985). The JDC claims that the disparity between job control and demands—originally known as choice latitude—may be a powerful indicator of workers' well-being.

2.6 Summary

In Chapter II, research relating the variables involved in this study which are interpersonal relationship, organisational culture, work life balance, working hours and work load. Also, hypothesis development between independent variable and dependent variable were discussed. For an enhanced understanding conceptual framework were from the previous studies, it is stated that better interpersonal relationships, organisational culture and work life balance will not impact the mental health of the employees. Moreover, the higher the working hours and work load will lead to negative impact. An overview of the research technique utilised to carry out the study is presented in Chapter III. In particular, the study's instrumentation, data analysis methods, and data gathering method are covered.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter describes the study's research methodology that consists of a brief description of research design, research population and sample size, sampling technique, data collection procedure and finally, a description of the procedures and methods utilised to analyse the data. The method was developed to ensure that reliable and relevant data is collected and analysed in order to address the objectives and challenges of the study.

3.2 Research design

The goal of this study was to address the research question and provide evidence for the supporting hypotheses on the connections between occupational stress (working hours and workload) and employee's mental health in logistic industry in Klang Valley. The research is fully applied by cross-sectional survey method with a qualitative research method.

Quantitative research has been used because this research is examining the influence of independent variables on dependent variables and this variable can examined by statistical procedure. Since questionnaires are being distributing to random individuals who are working in logistic industry quantitative approach will be the best approach in this study. It is intended that by collecting and analysing numerical data from a representative sample of Klang Valley respondents, this study would be able to shed

light on the connections between occupational stress and mental health. In this study, a quantitative technique was used, with an emphasis on using measurements to look at the relationships between variables (Salkind et al., 2020).

3.3 Research population

The population of this study included employees who are working in logistic industry in Klang Valley area. Selangor state, the federal territories of Kuala Lumpur and Putrajaya are part of the Klang Valley region. According to the Department of Statistics Malaysia, in 2022 the population accounted in Selangor is 7 million, 1.9 million in Kuala Lumpur and 0.1 million in Putrajaya. The location was chosen because it is livelier and contains the nation's capital, its administrative and economic centres, as well as being bordered by urban regions. Furthermore, the Klang Valley functions as a vibrant hub for domestic, regional, and global markets. The Klang Valley locations have several benefits, including a diversified multicultural community (including Malay, Chinese, and Indians), a skilled workforce, effective and competitive marketplaces.

3.4 Research sample size

Sample is defined as subset of elements from whole group of targets or known as population. The sample size for the current research's target population is 384, according to Krejcie and Morgan (1970) formula. This formula is considered adequate for this study because it provides a balance between the need for sufficient statistical power and the practical constraints of data collection.

3.5 Sampling technique

The sampling technique that was used to apply in this research is probability sampling which is stratified sampling technique. This method's cost-effectiveness and viability were the main reasons for its adoption, particularly in consideration of the huge and widely distributed target population. It allows to quickly obtain a sample population that best represents the entire population being studied. The population of interest for this study was the employees of the logistic industry residing in the Klang Valley. The stratified random sampling method has widespread uses and is particularly useful in diverse populations where certain segments might otherwise be underrepresented. The data collection was done online via a survey created with Google Forms. Employees were sent the link to the Google Form survey by email, WhatsApp and LinkedIn randomly. Prior to distributing the surveys, was made sure to get the consumers' approval and to guarantee that all answers were anonymous in order to respect their privacy.

3.6 Survey instrument

The constructs and items from earlier research served as the basis for the development of the instruments for this survey. Details regarding these frameworks, their elements, and their respective sources are provided in Table 1. In this research online closed-ended questionnaires will be used as communication tool since it is quantitative research. The questionnaires contain two sections, A and B. Section A contain all demographic details of the respondents, for instance, age, race, years of working experience and type of work.

Section B, the second part of the questionnaire, that contain statements that related to independent and dependent variables which are working hours, workload and mental health. Likert scale will be use to each section B questions. The respondents are required to rate their agreement for each question based on Likert scale which are (1) strongly disagree, (2) disagree, (3) neutral, (4) agree and (5) strongly agree. By choosing Likert scale the attitude can be measure directly.

Section A consist of 5 statements that interested in obtaining demographic information of the targeted respondents. Gender, age, education level, years of service in current organisation and position in current organisation are the 5 statements.

Section B examine the dependent variable and independent variables of the study. All the variables are subdivided according to the variables in the questionnaire that ease variable identification for respondents. Also, the instruments were developed by adapting the instruments that were constructed by other researchers. First variable is working hour contains 7 statements, work load variable consists of 9 statements and followed by dependent variable that consist of 9 statements.

Table 3.1: *Adapted Survey Instruments for Independent Variables and Dependent Variables*

Independent variable: Working hours			
No.	**Item**	**Modified item**	**Source**
1	I am able to sustain the level of energy throughout the week	I am able to sustain the level of energy throughout the week	Mohd et al., (2016)
2	I am willing to work on	I am willing to work	

	Saturday or Sunday	overtime and on weekends	
3	I work more than 8 hours a day	Most of the days, I have to work more than 8 hours	Razak et al., (2014)
4	I voluntary overtime work for money and reputation	Extra benefits such as extra pay and promotions motivate me to work.	Watanabe and Yamauchi (2018)
5	I feel satisfied with the working hours fixed by the organization	I am content with the hours that the company has set for work.	Makhbul and Idrus (2009)
6	I am given sufficient rest in a working hour period	During the working hour I get enough of sufficient rest	
7	The fixed working hour does not affect my personal life	My personal life is not impacted by the working hours	
Independent variable: Work load			
No.	**Item**	**Modified item**	**Source**
1	I feel that there are too many deadlines in my work that are difficult to meet	I feel that there are too many deadlines in my work that are difficult to meet	De Bruin and Taylor (2006)

2	I work more than 8 hours a day	I work more than 8 hours a day to finish works	
3	I work for long hours even on holidays	I put in a lot of overtime, even on weekends and public holidays to finish my work	
4	I have to work very fast	I must work quickly.	
5	My daily activities affected because of workload (i.e, exercise, eating time and sleeping time)	Due to my workload, it has impacted my everyday activities (i.e., exercise, eating time and sleeping time)	
6	I like to wake up at night because of problem at work	Due to issues at work, I like to get up at night.	
7	I have no energy left at the end of the working day	By the end of the workday, I am completely exhausted.	
8	I have unrealistic time pressure	I'm under a lot of strain.	
9	I am so busy and find it difficult to concentrate on the job in front of me	I am so busy that it is difficult for me to focus on the task at hand.	
Dependent variable: Mental health			
No.	**Item**	**Modified item**	**Source**
1	I was under constant time pressure	Due to my extensive	Morten et al.,

	due to heavy workload.	workload, I was constantly under time pressure.	(2013)
2	My work was emotionally demanding	It is emotionally drain doing my job.	
3	By the end of the working day, I feel really worn out	I feel exhausted by end of the working day	Zoer et al., (2011)
4	Have you been a happy person	I have been experiencing sadness and unhappiness at my working place	Anagnostopoulos et al., 2015)
5	Lost much sleep over worry?	I have been experiencing a lot of sleep disturbed by worrying about workload	Michael et al., (1980)
6	Felt constantly under strain?	I feel strained all the time at workplace	
7	I was unable to become enthusiastic about anything	I have trouble becoming enthusiastic about anything at workplace	Christyne et al., (2020)
8	My work makes me nervous	I get anxious at work	
9	My work is mentally intense	I have a mentally challenging job.	

3.7 Pilot test

Barsili and Fletcher (1991) stated that is to make sure the questionnaire that is distributed is achieved its aim throughout this research, pilot test is carrying out which will enhance the research and minimizing the error. In this research pilot test will be carry out with 40 respondents. A pilot test should ideally have a sample size of between 20 and 30 people, according to Julie Pallant (2007). She mentioned that this figure keeps the pilot study within reasonable limitations of time and resources while enabling researchers to detect any problems with the survey instrument. A pilot study also accomplishes a number of other significant functions and can offer other researchers' insightful information (Junyong, 2020).

Therefore, in order to test and improve the survey instrument prior to the primary data collecting phase, 40 questionnaires were planned to distribute for the pilot study. A completion rate of 100% was achieved since 40 of the 40 surveys that were given had complete responses returned. Version 27 of the Statistical Package for Social Sciences (SPSS) was used to calculate the independent and dependent variable's Cronbach's Alphas. The results of this pilot research were shown in Table 3.2 after the data was evaluated to determine the instrument's dependability.

3.7.1. Reliability of the Instrument

Reliability test for the pilot study has been conducted and the findings for the independent variables and dependent variable were shown in Table 3.2 below. The reliability of the survey will be assessed by measuring the internal consistency of the scales on the questionnaire using the Cronbach's alpha coefficient. A score of 0.7 or

higher is generally considered acceptable, indicating that the items on each scale are accurately evaluating the same underlying concept. In this pilot study the Cronbach's alpha on working hours was 0.776, work load was 0.672 and mental health was 0.783. If the score of the reliability analysis showed between 0.80 to 0.90, the result shown is very good and if the result shown is 0.7 it is considered good (Hair et al., 2017). Therefore, the results of Cronbach's alpha shown in all the instruments in this study were described as very good for working hour and mental health (0.80 to 0.90) and for working load the Cronbach's alpha is 0.7 is considered good.

Table 3.2: *Coefficient of independent and dependent variables for Pilot Study*

Variables	**Case Processing Summary**	**n**	**%**	**Cronbach's Alpha**
Independent variable- Occupational stress				
Working hours	Valid	40	100	0.776
	Excluded	0	0	
	Total	40	100	
Work load	Valid	40	100	0.672
	Excluded	0	0	
	Total	40	100	
Dependent variable				
Mental health	Valid	40	100	0.783
	Excluded	0	0	
	Total	40	100	

3.8 Data analysis

The demographic profile of the respondents who took part in the survey will be analysed using descriptive statistics, which are further explained in Chapter 4. Meanwhile, the study will employ inferential statistics to investigate the research questions, objectives, and hypotheses (Said, 2018).

Description Analysis. William G. Zikmund (2003) has stated that descriptive analysis is a process that help to transform raw data into a summarized form that will ease the process of generating descriptive information. The purpose of descriptive analysis is to present an understandable demographic profile based on the information and data collected from the respondent (Burn and Bush, 2000). The number of respondents, the range of scores, and the means, medians, modes, and standard deviations for each question were all included in the descriptive statistics.

Reliability Analysis is used to assess the degree to which item scores are free from "errors of measurement" or to verify the homogeneity of items measuring a variable, also state that reliability is a prerequisite for validity (Pedhazur and Schmelkin, 1991). According to Pedhazur and Schmelkin (1991), when evaluating internal consistency dependability, the most used method is Cronbach's alpha, also known as the alpha coefficient.

Factor Analysis was employed to evaluate the items' validity. Factor analyses are considered the most valuable and useful method for examining the internal organisation of a group of items or indicators (Pedhazur and Schmelkin, 1991. In this study, factors were extracted using the Principal Component Analysis (PCA) method,

and rotation was done using the Varimax approach. PCA is a data reduction technique that is applied to determine a comparatively small number of elements that will effectively extract the majority of the variation from a comparatively big collection of indicators (Pedhazur & Schmelkin, 1991).

Correlation Analysis. To determine if there were positive or negative correlations between the variables under investigation in this study, the researcher employed the correlation coefficient (r). To determine if two variables are related or whether there is observable covariance between the two variables of interest, correlation analysis is used (Kachigan, 1991).

Multiple Regression Analysis is one of the common linear regression analyses. Generally, the nature of the relationship between two variables is described by a regression analysis equation, which also provides variance measurements that let us evaluate how well the regression equation predicts values on the criterion variable, according to Kachigan (1991). Plus, the simultaneous examination of the impact of two or more independent variables on a single, interval-scaled dependent variable is made possible by multiple regression analysis. In this research, it is hypothesised that working hour and work load will predict the mental health of the logistic employees.

3.9 Summary

The demographic of the study and the specifics of the sample were covered in Chapter III. It was also described how data was collected, including the process and the various instruments involved. A thorough explanation of the many studies the researcher carried out to assess the study's hypotheses was also presented. The findings of the researcher's analysis will be provided in Chapter IV, which follows.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

4.1 Introduction

The data analysis, which comprises data analysis, which includes normality test, descriptive analysis, correlation analysis and multiple regression analysis will be covered in this chapter. All of the study questions will be interpreted and addressed by the analysis. In order to study and assess whether the samples that were obtained are genuine and consistent, reliability and validity are crucial. For the reliability test, the Cronbach's alpha approach will be employed. The link between independent and dependent variables will be further examined using both the correlation test and the multiple regression test.

4.2 Response rate

After the pilot test, a few changes were made to the questionnaires that were distributed. Over the course of 25 days, 384 surveys were completed, and all of the data were functional. All of the respondents provided answers to all of the questions, and no missing values were discovered.

4.3 Demographic analysis

4.3.1 Gender

Gender disclosure was mandatory for those involved in the study, and the resulting data is presented. It was discovered that, of the 384 respondents, 186 were men and

198 were females with the percentage of 48.4% and 51.6% respectively. In this study, gender segregation is balanced. For a visual representation of the data presented here, please refer to appendix 2.

4.3.2 Age

Respondents were asked on their age intervals and it was found that, majority of the respondents come from the age group between 37 to 42 years old (27.9%). The lowest respondents come from the age group of 56 years old and above (1.0 %). The second majority of the respondents come from the age group between 31-36 (25.5%) and followed by the age group between 25-30 (18.5%), 43-48 (16.1%), 49-55 (6.0%) and below 25 (4.9%). Please refer to appendix 3 for visual presentation of the data presented above.

4.3.3 Education levels

Academic qualifications were part of the demographic data involved in this study. Based on the data collected, it was found that majority of the respondents has an education level of bachelor's degree which is 156 out of 384 (40.6 %). The second majority of academic qualification is diploma which is 140 (36.5%) respondents has obtained diploma and flowed by STPM (12.5 %), master degree (6.5%) and certificate (3.9%). For a visual representation of the data presented here, please refer to appendix 4.

4.3.4 Years of service in current organization

Respondents were asked for the years of service in their current company and majority of the employee's service period is between 6-8 years (38.0%). Based on the data, found that a total of 114 (29.7%) employees are working between 3-5 years in

their current organization. From data it is clear that the sustainability of the employees in their current organization is low. 16.1% of the employees are working between 9-11 years, 6.5% are working 12-14 years and followed by 6.3 % who are working more than 15 years. Please refer to appendix 5 for visual presentation of the data presented above.

4.3.5 Position in current organization

Employees position in their current organization were compulsory for those who involved the study. Majority of the employees were from junior level position and the least employees were in management level position, 40.4% and 6.8% respectively. The second majority of the employees are from middle level (37.2%) and followed by upper level (15.6%). Please refer to appendix 6 for visual presentation of the data presented above.

Table 4.1: *Demographic Characteristics of Participants*

Characteristics	**n**	**%**
Gender		
Female	198	51.6
Male	186	48.4
Age		
Below 25	19	4.9
25-30	71	18.5
31-36	99	25.5
37-42	107	27.9
43-48	62	16.1

49-55	23	6.0
Above 55	4	1.0
Education level		
SPM	48	12.5
Certificate	15	3.9
Diploma	140	36.5
Bachelor degree	156	40.6
Master degree	25	6.5
Years of service in current organisation		
0-2	12	3.1
3-5	114	29.7
6-8	146	38.0
9-11	62	16.1
12-14	25	6.5
15 years and above	24	6.3
Position in the organisation		
Junior level	155	40.4
Middle level	143	37.2
Upper level	60	15.6
Management level	26	6.8

4.4 Normality test

From the descriptive table below, it shows that the mean response for the scaled items for working hour has a mean of 2.5 with a standard deviation of 0.4. Workload has a mean of 3.5 and standard deviation of 0.6 and mental health has a mean of 3.7 and a standard deviation of 0.5.

The skewness and kurtosis standard error threshold is to be between -2 to 2 (Wulandari et al., 2021). The researcher found the overall skewness value of the data collected is to be between -1 to 1 and kurtosis to be between -2 to 2. From this study, the skewness value of working hour, workload and mental health is -.322, -.654 and -.571 is respectively. The kurtosis value of the study is 0.282, 0.498 and 0.999 respectively. Hence, the skewness and kurtosis are approximately normally distributed.

Table 4.2: *Descriptive Statistics, Skewness and Kurtosis of Each Variable Constructs*

Constructs	Mean	Standard deviation	Skewness	Kurtosis
Working hours	2.4594	0.3947	-0.322	0.182
Working load	3.5298	0.5594	-0.654	0.498
Mental health	3.6889	0.5112	-0.571	0.999

Since the number of respondents are greater than 50, Kolmogrov-Smirnov test result will be interpreted. From the result it shows that p value is greater than 0.05, therefore the data is normally distributed. Please refer to appendix 7 for further reference.

Table 4.3: *Descriptive Statistics, Kolmogrov-Smirnov and Shapiro-Wilk*

Constructs	**Kolmogrov-Smirnov**			**Shapiro-Wilk**		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Working hours	.234	384	.096	.724	384	.067
Working load	.125	384	.153	.943	384	.077
Mental health	.139	384	.880	.838	384	.0122

4.5 Reliability and Validity

Reliability is a study measure the consistencies and a construct and it shows if study obtained same results if the study was repeated by another researcher. Is a construct being reliable, it will give a reliable result across different circumstances or over a period of time (Açikgöz & Güler, 2021). The construct validity signifies the extent of which the test can truly measure the behaviour of a construct. Tests such as construct validity, factor analysis, internal consistency analysis, and hypothesis test are used as a part of measuring validity (Açikgöz & Güler, 2021). In this study, the outer model evaluation measures three constructs which is working hours, working load and mental health. Working hour variable has 7 items; workload variable has 9 items and

mental health variable has 9 items. In initial stage before data screening, working hour had 9 items, 9 items that measures workload and 9 items measure mental health. However, after screening process, the items that covers working hour construct has been reduced by 2 question in order to achieve high reliability results.

4.5.1 Cronbach's Alpha Scores

A reliable construct is determined by Cronbach alpha where the threshold value of Cronbach alpha is ought to be greater than .700, signifying a reliable study (Albers, 2017). Conferring to the table below, the researcher found the overall reliability test of the study is to be .759 and each variable Cronbach's Alpha value is to be .736 (working hours), .687 (work load) and .770 (mental health). Hence, there will be no changes in the construct as all of them are useable after the data screening process were conducted.

Table 4.4: *Cronbach's Alpha Scores for Measurement Models*

Variables	Number of items	Cronbach's alpha	Total Cronbach's alpha
Working hours	7	0.736	0.759
Work load	9	0.687	
Mental health	9	0.770	

4.5.2 KMO and Bartlett's Test of Sphericity

The Kaiser-Meyer-Olkin Measure (KMO) is a test that displays the proportion or percentage of variance in a variable that responds to relevant inputs. A variable is deemed beneficial when its value is closer to 1. Values that are less than 0.5 are

considered not useful data (IBM, 2021). One of the requirements for performing a factor analysis is to perform the KMO test, which determines if the data set is sufficient for factoring (Andersen & Herbertsson, 2003). Bartlett's test of sphericity is a hypothesis test that is done to check on data relationship or suitability of constructs in a study. p <.001 is considered as useful data (IBM, 2021). The table below indicates that the KMO test has a value of 0.89 and it is close to 1. Bartlett's test of sphericity indicates of 0.000 which is less than 0.001. This indicates that all the factors used in this study is suitable. Eigenvalue and total variance explained respectively giving the value of 10.98 and 70.6%. Hence, it shows that 70.6% variance is explained in this study. Accumulative variance that indicates a percentage of greater than 55% is considered to a good indicator (Nachmias et al., 2015). Please refer to appendix 9 for further reference.

Table 4.5: *KMO & Bartlett sphericity test, Eigenvalue and Total Variance Explained*

No	Constructs	Items	Loading	KMO	Bartlett's	Eigenvalue	ΣVAR
1	Working hour	wh_iv1	0.817	0.886	0.000	10.976	70.60%
		wh_iv2	0.778				
		wh_iv3	0.639				
		wh_iv4	0.789				
		wh_iv5	0.710				
		wh_iv6	0.672				
		wh_iv7	0.670				
2	Work load	wl_iv1	0.758				
		wl_iv2	0.717				

		wl_iv3	0.781	
		wl_iv4	0.688	
		wl_iv5	0.792	
		wl_iv6	0.769	
		wl_iv7	0.748	
		wl_iv8	0.710	
		wl_iv9	0.583	
3	Mental health	mh_dv1	0.859	
		mh_dv2	0.823	
		mh_dv3	0.749	
		mh_dv4	0.751	
		mh_dv5	0.836	
		mh_dv6	0.711	
		mh_dv7	0.709	
		mh_dv8	0.798	
		mh_dv9	0.762	

4.6 Research Findings Based on Research Question and Research Objective

4.6.1 Pearson Correlation Analysis

A statistical test that determines the strength of the correlations between the various variables is the Pearson correlation coefficient, also known as Pearson R (Hayes, 2017). In addition to analyst whether or not two variables are connected, the

coefficient of correlation also establishes the precise degree of correlation between the variables; the correlation coefficient's values can range from +1 to -1 (Hayes, 2017).

Table 4.6: *Correlation Value (r) and p-value of the Independent Variables*

Independent variables	**Correlation value (r)**	***p*-value**
Working hour	.667	<.001
Work load	.702	<.001

*** Correlation is significant at p <.001 level (2-tailed)*

Working hour has the correlation value of 0.667, which lies within the range of 0.50 to 1.0 according to Cohen's (1988) guidelines, indicating a strong positive correlation. This indicates that working hour has a strong positive relationship with the dependent variable. The p-value is less than 0.001, so the correlation is statistically significant at the 0.001 level. The results are similar and supported the previous study from Cavallari et al., (2021) which stated that working hours that comes together with the intensity and weekend work has a strong correlation.

For workload, the correlation value is 0.702, which lies within the range of 0.50 to 1.0 and according to Cohen's guidelines the value indicates a strong positive correlation. This also indicates that work load has a substantial positive relationship with the dependent variable. The p-value is less than.001, indicating that the correlation is significant at the 0.001 level. The results are similar and supported by the previous study from Ziaei et al., (2015) where stated that workload has positive correlation with mental health.

Both independent variables have a significant positive correlation with dependent variable at the *p* .001 level. This indicates that working hour and work load has a significant positive effect on the dependent variable which is mental health of the employees.

4.6.2 Multiple Regression Analysis

In order to evaluate the predictability of the independent variable or predictor variable on the dependent variable, multiple regression analysis was performed. (Kachigan, 1991). Most researchers use regression and correlation analysis to determine the links between two or more variables (Mcburney & White, 2019). A crucial piece of information about the overall variance explained for a particular pathway between components is provided by the coefficient of determination (R.Sq). The significance result for the relationship test is less than 0.05, and the beta coefficient illustrates the relationships between the independent and dependent variables (George & Mallery, 2021). The results of the regression analysis are provided in Table 4.7.

Table 4.7: *Regression Analysis Summary*

Dimension	Beta (Unstandardized Coefficients)	Std. Error	Beta (Standardized Coefficients)	*t*	*p-value*
Constant	2.422	.166		14.626	<.001
Working hour (wh_iv)	.356	.044	.275	6.067	<.001
Work load (wl_iv)	.607	.031	.664	19.504	<.001

Notes: R = 0.753; R2 = 0.567; Adj. R2 = 0.565; F = 249.408, p = <0.001

The table displays the outcomes of a multiple linear regression analysis that aims to predict mental health of logistic employees, which is assumed to be the dependent variable. The analysis includes two independent variables: Working hour and work load. The presented table provides information on both unstandardized and standardized beta coefficients, along with the standard error of the unstandardized coefficients, the t statistic, and the p-value associated with each coefficient. The estimated constant, commonly referred to as the intercept or the bias term, has been determined to be 2.422.

The unstandardized beta coefficient of working hour is 0.356. This indicates that, while keeping all other variables fixed, a one-unit increase in working hour is associated with an average rise of 0.356 units in mental health of employees. The standardized beta coefficient of 0.275 indicates that there is a positive relationship between mental health and working hour. The t-statistic obtained in this analysis is 6.067, with a corresponding p-value of less than 0.001. This p-value, being smaller than the conventional significance level of 0.01, suggests that the coefficient under consideration is statistically significant at the 0.001 level. Hence, hypothesis H^1 was supported.

The unstandardized beta coefficient for work load is 0.607. This indicates that, while keeping all other variables fixed, a one-unit increase in work load is associated with an average rise of 0.607 units in employee's mental health. The obtained standardized beta coefficient of 0.664 indicates that there is a positive relationship between work load and mental health. Specifically, a one standard deviation rise in Pricing is expected to result in a 0.664 standard deviation increase in mental health of

employees. The t-statistic obtained in this analysis is 19.504, with a corresponding p-value of less than 0.001. These results suggest that the coefficient under consideration is statistically significant at the 0.001 level, thus hypothesis H^2 was supported.

Ultimately, the annotations located at the bottom of the table provide a concise overview of the model's overall adequacy. The multiple correlation coefficient, which is at 0.753, indicates a strong connection between the dependent variable's observed and predicted values. The coefficient of determination, denoted as R^2, is equal to 0.57. This value signifies that 57% of the variability in mental health of employees can be accounted for by the model. In other words, the explanatory variables within this model account for approximately 57% of the variations observed in mental health.

The adjusted R squared value of 0.565 indicates the proportion of variance in the dependent variable that can be explained by the predictors in the model, considering the number of predictors. Adjusted R-squared is very useful in multiple regression since it considers the quantity of variables in the model. The adjusted R-squared value is always less than or equal to the R-squared value. The F statistic and its corresponding p-value are utilized to test the null hypothesis that all regression coefficients are equal to zero. The null hypothesis is rejected based on the huge F statistic and the very small p-value, suggesting that the model has statistical significance.

Among the two independent variables – working hour and work load, work load has the highest beta coefficient (β = .664), followed by working hour (β = .275). This

suggests that, all else being equal, work load has the most significant effect on mental health of employees, followed by working hour.

4.7 Summary

Some highly helpful information on the relationships between the study's variables is provided by the findings of the factor, correlation, and regression analyses. This chapter has provided empirical evidence confirming the relationship between occupational stress which is working hour and workload with mental health of employees. The multiple regression analysis confirmed that both the independent variables – working hour and workload – positively influence employee's mental health. The beta coefficients indicate the strength and direction of these relationships, with working hour ($\beta = .275$) and workload ($\beta = .664$) all being significant at the $p < .001$. The results and suggestions for further study will be covered more in depth in the next Chapter V.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter concludes the research by explaining how the findings were evaluated and whether the research objectives were met. This chapter also covers a discussion of the of the analysis's results, as well as a discussion of testing hypotheses. The study's contribution, limitations, and future research suggestions are described at the end of this chapter.

5.2 Discussion on Analysis Results

The main objective of this study was to investigate the impact of occupational stress on mental health among employees of logistic companies in Klang Valley area. The relationship between working hour and workload was examined, and the findings revealed that all the independent variables had significant positive relationships with mental health.

The result shows that both the independent variable is positively correlated with mental health of employees. Also, from the results it shows that workload is the strongest correlation with mental health compare to working hour. This indicates that the mental health of logistic workers in Klang Valley has affected by workload compare to working hours.

5.3 Discussion on Hypothesis Testing

Regression analysis and correlation is a test done by most researchers to understand the relationships between two or more constructs (Mcburney & White, 2019). Pearson Correlation is a parametric statistical test done to check on the strength of connection or relationships between variables. Regression analysis, on the other hand, is a test used to find the correlation between independent and dependent variables. A hypothesis test provides the answer to the test. The greater the connection, the closer R is to -1 or 1. R-square gives important details about the overall variation that is explained for a particular route between components. When the significance value of a connection test is less than 0.05 and the beta coefficient illustrates the relationships between the independent and dependent variables, the test is considered significant (George & Mallery, 2021).

The research objective examines the relationship between occupational stress and mental health of employees. The findings indicate that both working hour and workload is positively influences employee's mental health. This is consistent with the previous researchers' findings and supported by Ziaei et al., (2015) and Cavallari et al., (2021) where work load and working hour has a significant correlation between mental health.

Hypothesis H^1. According to hypothesis H^1, the working hours will have significant correlation with mental health of employees in logistic industry. The results of correlation analysis indicated direct correlation between working hour and mental health of employees. Similarly, regression analysis results suggested that working hour was significant predictor of mental health. Hence, hypothesis H^1 was supported.

Hypothesis H^2. According to hypothesis H^2, the workload will have significant correlation with mental health of employees in logistic industry. The results of correlation analysis indicated direct correlation between workload and mental health of employees. Similarly, regression analysis results suggested that workload was significant predictor of mental health. Hence, hypothesis H^1 was supported.

The findings have similarity in several previous studies. According to a study conducted by Afonso et al., (2017), higher corporate positions and Hospital Anxiety and Depression Scale (HADS) scores were significantly positively correlated with working hours which indicates that long working hour leads poorer mental health and higher anxiety and depression syndrome. Moreover, a similar outcome was found by Jarrar et al., (2023) where it stated that working hours are greatly affects employee's wellbeing, reported a positive correlation between working hours and mental health of employees. Sznajder et al., (2022) has found out in the study that working overtime and working at night leads to employees feeling depressed which resulted in working hour and mental health is strongly correlated.

5.4 Limitation of the Study

This study too has potential limitations as much of the studies researched. The survey was conducted focused on mental health employees in logistic industry hence the results collected of this study only reflect significantly towards similar context.

One of the main limitations for this study is focus area of the sample size. The Klang Valley region of Malaysia provided the data for this study, which added to the limited amount of data gathered during the data gathering procedure. The results of this study should not be interpreted as reflecting or generalising to the complete sample population

of Malaysia, since more samples would be needed to guarantee that all of the states are covered.

The second limitation is limited time. Owing to limitations in time and work schedules, the researchers were unable to carry out the study throughout Malaysia. Therefore, it's possible that the study's findings do not fully reflect the Malaysian logistics sector. If more participants from across Malaysia can be reached to be part of the study, more significant conclusion can be derived contributing to the study.

5.4 Suggestions

Provide efficient training to managers or supervisors will promote better well-being in the working environment. To establish a culture that is psychologically healthy, the leadership must be on board. The people who deal directly with employees, like as managers and supervisors, are crucial to the implementation, upkeep, and general supportiveness of the policies and procedures. Oftentimes, mid-level managers are the gatekeepers of employee's well-being. Supervisor and manager training in employee wellness and mental health helps supervisors learn how to support employees and recognize the signs of stress and mental health issues, which helps reduce turnover and absenteeism.

Moreover, by providing workers more choices on where, when, and how employees work will help to improve the mental health of the employees. Employees of today want to choose where they work, whether it be fully in-person, fully remote, or a hybrid of the two. When given the option to choose, employees will happier.

To promote employees' mental health and create a psychologically healthy workplace, it is essential to provide an inclusive and equal work environment. Stress is strongly correlated with experiences of discrimination and unfair treatment in the workplace, which can lead people to resign. Workers with mental, emotional, learning, or cognitive disabilities were more likely to report unhealthy working conditions. Companies with a diverse workforce do better overall, particularly when the management team is varied.

Organising mental health-related training programs, seminars, and workshops on a regular basis will create awareness on mental health among employees. These workshops are a great way to provide the employees with tools and important information. Another critical element is to share information about readily available mental health resources. Make sure employees are aware of the resources for assistance that are available to them, such as counselling services. Team members can use these tools to identify coworkers who could be having mental health issues as well as to reflect on their own mental health. Early identification facilitates prompt support and action, fostering a culture of care in the workplace.

5.5 Recommendations for Future Research

The suggestions made here are aspects that future scholars should think about and work to improve. Despite the fact that the Klang Valley is the only focus of the study's sample size, the researchers were nonetheless able to identify significant elements that have an impact on mental health.

The models used in this study were rather modest, thus, it is strongly recommended that future research should consider other variables that may effect employee’s mental health. The adoption of convenient sampling method in this research has also inevitably limited

the generalizability of the research findings. In addition, the findings should be interpreted with caution when applied to different on the other hand, the future research of similar subject matters should also cover other types of industries.

As this research only covers a small sample size, future study focused on more states in Malaysia will contribute to a clearer understanding on the effect of occupational stress on employee's mental health in logistic industry.

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APPENDIX

1. Descriptive Analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
gender	384	1.00	2.00	1.5156	.50041	-.063	.125	-2.007	.248
age	384	1.00	7.00	3.5391	1.31413	.147	.125	-.444	.248
education level	384	1.00	5.00	3.2474	1.07122	-.801	.125	.093	.248
years of service in current organisation	384	1.00	6.00	3.1250	1.18520	.797	.125	.235	.248
position in your organisation	384	1.00	4.00	1.8880	.90572	.774	.125	-.243	.248
wh_iv1	384	1.00	5.00	2.1094	.54893	.488	.125	1.074	.248
wh_iv2	384	1.00	5.00	1.9427	.78621	-.418	.125	-.027	.248
wh_iv3	384	1.00	5.00	3.9844	.61722	-1.129	.125	.247	.248
wh_iv4	384	1.00	5.00	2.5599	.85292	.371	.125	-.132	.248
wh_iv5	384	1.00	5.00	2.1563	.64356	-.472	.125	.589	.248
wh_iv6	384	1.00	5.00	2.0964	.52963	-.466	.125	.242	.248
wh_iv7	384	1.00	5.00	2.3672	.86599	-.353	.125	1.988	.248
wl_iv1	384	1.00	5.00	4.0755	.87735	-.741	.125	-1.257	.248
wl_iv2	384	1.00	5.00	3.9922	1.07788	-.907	.125	2.820	.248
wl_iv3	384	1.00	5.00	2.7865	1.55364	-.035	.125	-1.670	.248
wl_iv4	384	1.00	5.00	4.5625	.59260	-.720	.125	-1.987	.248
wl_iv5	384	1.00	5.00	3.0677	1.46164	-.244	.125	-1.462	.248
wl_iv6	384	1.00	5.00	1.8151	1.06434	1.393	.125	1.075	.248
wl_iv7	384	1.00	5.00	4.1484	.83422	-1.939	.125	-.023	.248
wl_iv8	384	1.00	5.00	3.9661	.57484	-.871	.125	-.762	.248
wl_iv9	384	1.00	5.00	3.3542	.93919	-.760	.125	-.209	.248
mh_dv1	384	1.00	5.00	4.2917	.76703	-.741	.125	-1.961	.248
mh_dv2	384	1.00	5.00	4.0625	.63513	-.512	.125	.441	.248
mh_dv3	384	1.00	5.00	4.0078	.65232	-.420	.125	.080	.248
mh_dv4	384	1.00	5.00	2.8776	1.16660	.518	.125	-.983	.248
mh_dv5	384	1.00	5.00	2.1979	1.15954	.155	.125	.096	.248
mh_dv6	384	1.00	5.00	4.0807	.76901	-.211	.125	-.313	.248
mh_dv7	384	1.00	5.00	3.5964	.91182	-.734	.125	-.150	.248
mh_dv8	384	1.00	5.00	3.6823	.80669	.300	.125	.325	.248
mh_dv9	384	1.00	5.00	4.4036	.69017	.250	.125	.247	.248
Valid N (listwise)	384								

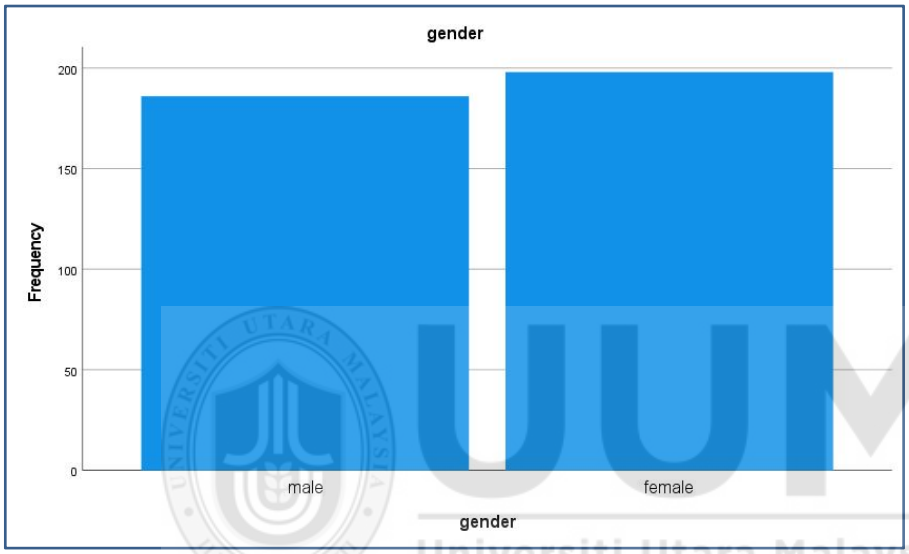
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
wh_iv	384	1.57	4.57	2.4594	.39466	-.322	.125	.182	.248
wl_iv	384	1.22	4.89	3.5298	.55935	-.654	.125	.498	.248
mh_dv	384	1.00	4.56	3.6889	.51115	-.571	.125	.999	.248
Valid N (listwise)	384								

2. Gender

gender

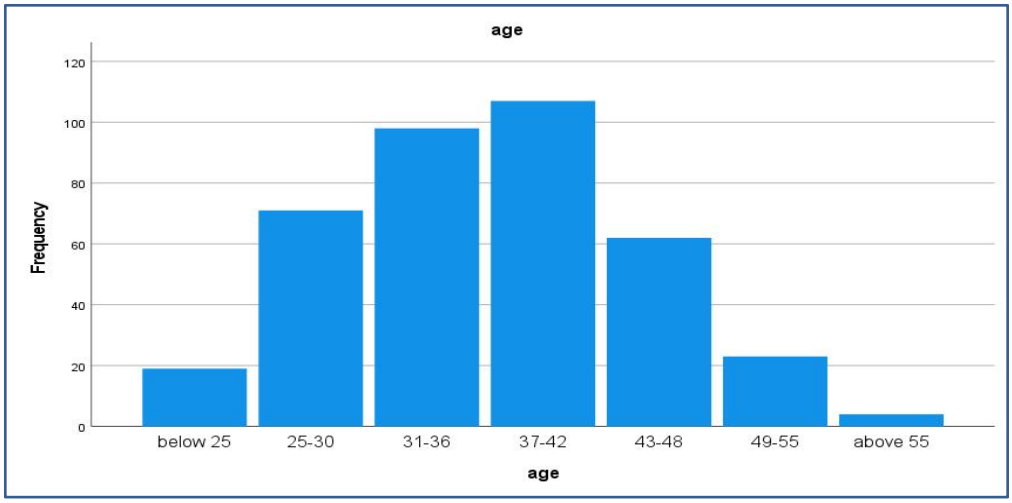
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	186	48.4	48.4	48.4
	female	198	51.6	51.6	100.0
	Total	384	100.0	100.0	



3. Age

age

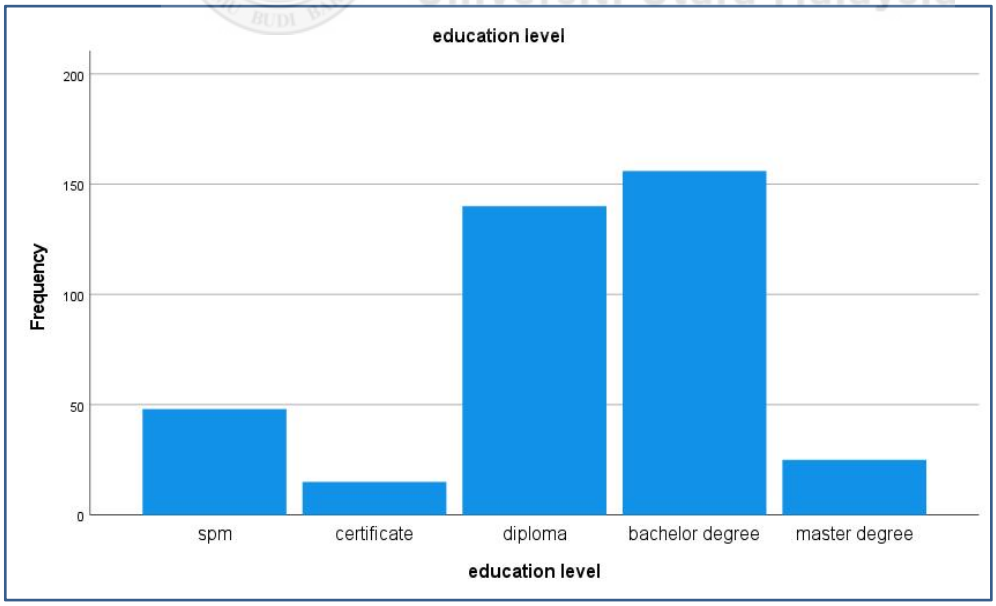
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 25	19	4.9	4.9	4.9
	25-30	71	18.5	18.5	23.4
	31-36	98	25.5	25.5	49.0
	37-42	107	27.9	27.9	76.8
	43-48	62	16.1	16.1	93.0
	49-55	23	6.0	6.0	99.0
	above 55	4	1.0	1.0	100.0
	Total	384	100.0	100.0	



4. Education level

education level

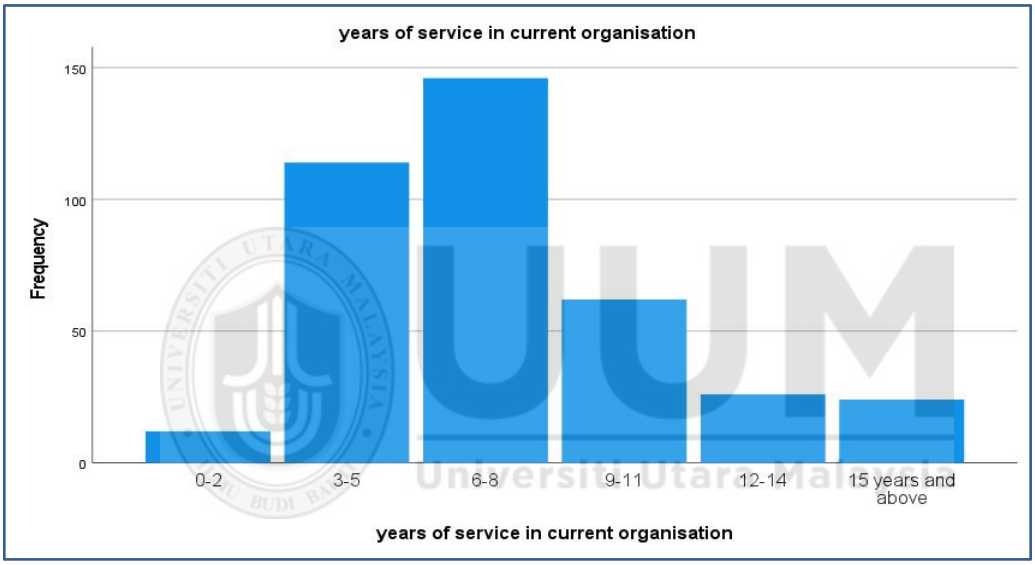
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	spm	48	12.5	12.5	12.5
	certificate	15	3.9	3.9	16.4
	diploma	140	36.5	36.5	52.9
	bachelor degree	156	40.6	40.6	93.5
	master degree	25	6.5	6.5	100.0
	Total	384	100.0	100.0	



5. Years of service in current organisation

years of service in current organisation

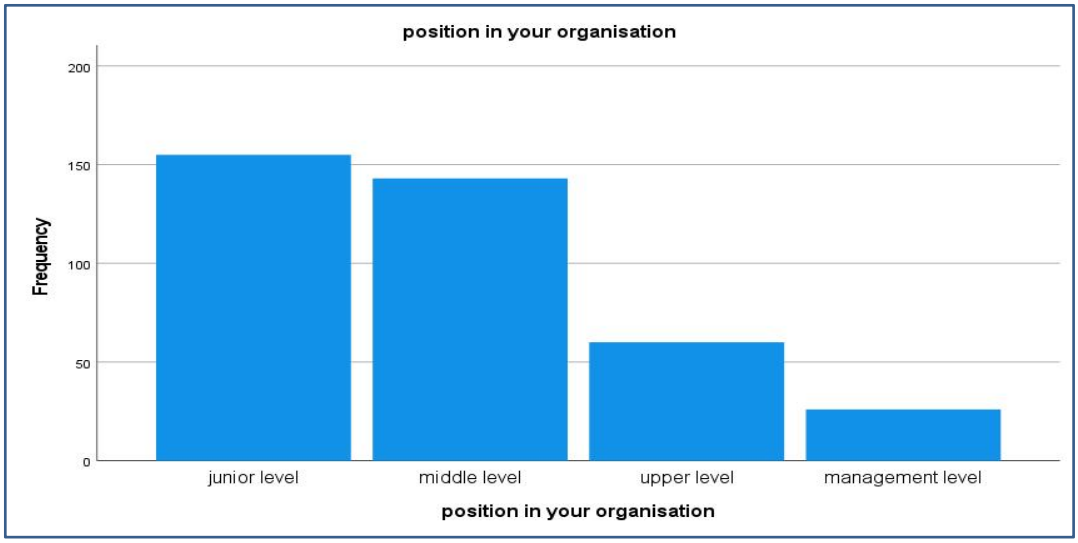
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-2	12	3.1	3.1	3.1
	3-5	114	29.7	29.7	32.8
	6-8	146	38.0	38.0	70.8
	9-11	62	16.1	16.1	87.0
	12-14	26	6.8	6.8	93.8
	15 years and above	24	6.3	6.3	100.0
	Total	384	100.0	100.0	



6. Position in the the organisation

position in your organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	junior level	155	40.4	40.4	40.4
	middle level	143	37.2	37.2	77.6
	upper level	60	15.6	15.6	93.2
	management level	26	6.8	6.8	100.0
	Total	384	100.0	100.0	

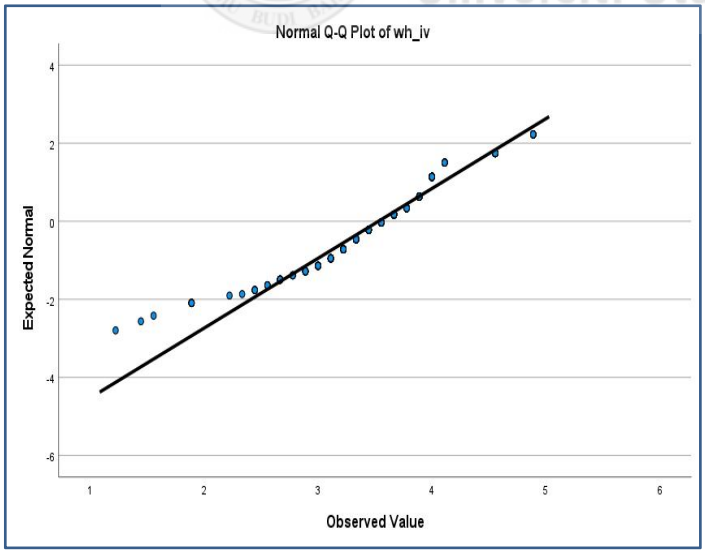


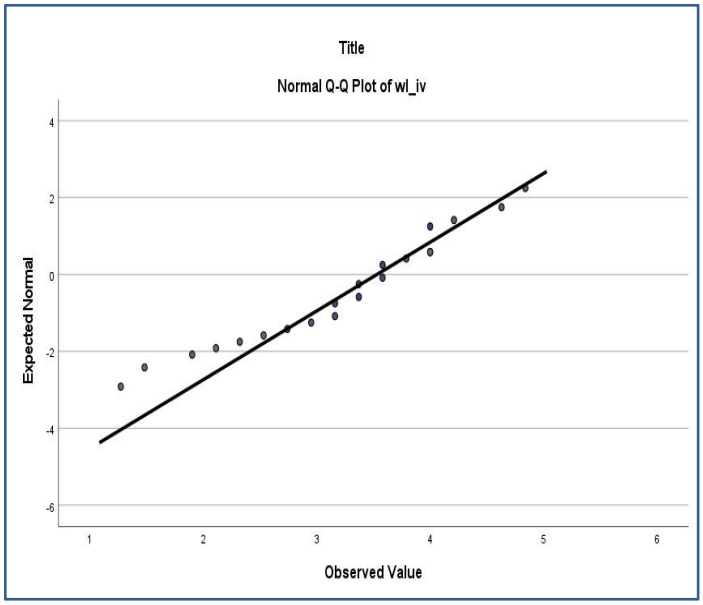
7. Normality

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
wh_iv	.234	384	.096	.724	384	.068
wl_iv	.125	384	.153	.943	384	.077
mh_dv	.139	384	.880	.838	384	.122

a. Lilliefors Significance Correction





8. Cronbach Alpha

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.758	.753	25

Work hours

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.736	.858	7

Work load

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.687	.716	9

Mental health

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.770	.815	9

9. Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.886
Bartlett's Test of Sphericity	Approx. Chi-Square	6385.623
	df	300
	Sig.	.000

Communalities

	Initial	Extraction
I am able to sustain the level of energy throughout the week	1.000	.641
I am willing to work overtime and on weekends	1.000	.525
Most of the days, I have to work more than 8 hours	1.000	.786
Extra benefits such as extra pay and promotions does motivates me to work	1.000	.629
I am content with the hours that the company has set for work.	1.000	.466
During the working hour I get enough of sufficient rest	1.000	.630
My personal life is not impacted by the working hours	1.000	.545
I feel that there are too many deadlines in my work that are difficult to meet	1.000	.439
I work more than 8 hours a day to finish works	1.000	.475
I put in a lot of overtime, even on weekends and public holidays	1.000	.482
I must work quickly	1.000	.773
Due to my workload, it has impacted my everyday activities (i.e, exercise, eating time and sleeping time)	1.000	.592
Due to issues at work, I like to get up at night.	1.000	.640
By the end of the workday, I am completely exhausted	1.000	.536
I'm under a lot of strain	1.000	.607
I am so busy that it is difficult for me to focus on the task at hand	1.000	.620
Due to my extensive workload, I was constantly under time pressure	1.000	.795
It is emotionally drain doing my job	1.000	.743
I feel exhausted by end of the working day	1.000	.609
I have been experiencing sadness and unhappiness at my working place	1.000	.635
I have been experiencing a lot of sleep disturbed by worrying about workload	1.000	.720
I feel strained all the time at workplace	1.000	.354
I have trouble becoming enthusiastic about anything at workplace	1.000	.571
I get anxious at work	1.000	.503
I have a mentally challenging job	1.000	.627

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.976	52.267	52.267	10.976	52.267	52.267	4.696	22.363	22.363
2	1.510	7.193	59.460	1.510	7.193	59.460	4.523	21.538	43.900
3	1.314	6.258	65.718	1.314	6.258	65.718	3.994	19.019	62.920
4	1.026	4.884	70.602	1.026	4.884	70.602	1.613	7.683	70.602
5	.911	4.336	74.939						
6	.704	3.353	78.291						
7	.563	2.682	80.974						
8	.536	2.551	83.525						
9	.493	2.347	85.872						
10	.449	2.139	88.010						
11	.434	2.065	90.075						
12	.341	1.623	91.698						
13	.297	1.416	93.114						
14	.244	1.163	94.277						
15	.231	1.098	95.374						
16	.203	.965	96.340						
17	.179	.851	97.191						
18	.178	.849	98.854						
19	.171	.814	98.854						
20	.122	.579	99.433						
21	.119	.567	100.000						

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component			
	1	2	3	4
I am able to sustain the level of energy throughout the week	.817	.548	-.063	.123
I am willing to work overtime and on weekends	.778	.345	.094	.468
Most of the days, I have to work more than 8 hours	.639	-.350	.244	-.176
Extra benefits such as extra pay and promotions does motivates me to work	.789	.445	.237	-.110
I am content with the hours that the company has set for work.	.710	.432	.064	.211
During the working hour I get enough of sufficient rest	.672	.553	-.085	-.004
My personal life is not impacted by the working hours	.670	.567	-.242	.158
I feel that there are too many deadlines in my work that are difficult to meet	.758	-.041	.092	-.025
I work more than 8 hours a day to finish works	.717	.168	.304	.150
I put in a lot of overtime, even on weekends and public holidays	.781	.631	.173	.200
I must work quickly	.688	.119	-.373	-.187
Due to my workload, it has impacted my everyday activities (i.e, exercise, eating time and sleeping time)	.792	.543	-.154	-.326
Due to issues at work, I like to get up at night.	.769	.359	.476	-.412
By the end of the workday, I am completely exhausted	.748	.347	-.436	.061
I'm under a lot of strain	.710	.067	.122	.288
I am so busy that it is difficult for me to focus on the task at hand	.583	.148	.342	.583
Due to my extensive workload, I was constantly under time pressure	.859	.174	-.160	.035
It is emotionally drain doing my job	.823	.248	.062	.022
I feel exhausted by end of the working day	.749	.201	-.022	.081
I have been experiencing sadness and unhappiness at my working place	.751	.241	-.652	-.188
I have been experiencing a lot of sleep disturbed by worrying about workload	.836	.441	.374	-.545
I feel strained all the time at workplace	.711	.023	.146	-.002
I have trouble becoming enthusiastic about anything at workplace	.709	-.033	-.609	.130
I get anxious at work	.798	-.201	.150	.523
I have a mentally challenging job	.762	.134	.120	.113

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
I am able to sustain the level of energy throughout the week	.762	.162	-.072	.041
I am willing to work overtime and on weekends	.641	.772	-.260	-.202
Most of the days, I have to work more than 8 hours	.605	-.556	-.083	.145
Extra benefits such as extra pay and promotions does motivates me to work	.524	.215	-.254	.315
I am content with the hours that the company has set for work.	.649	.103	-.187	-.003
During the working hour I get enough of sufficient rest	.720	.220	-.025	.124
My personal life is not impacted by the working hours	.707	.162	.107	-.020
I feel that there are too many deadlines in my work that are difficult to meet	.473	-.372	.640	.170
I work more than 8 hours a day to finish works	.040	-.122	.636	.231
I put in a lot of overtime, even on weekends and public holidays	.295	.198	.592	.273
I must work quickly	.088	-.151	.569	.101
Due to my workload, it has impacted my everyday activities (i.e, exercise, eating time and sleeping time)	.168	.121	.540	.508
Due to issues at work, I like to get up at night.	.246	-.069	.757	-.043
By the end of the workday, I am completely exhausted	.294	.097	.663	.018
I'm under a lot of strain	.726	-.205	.193	.026
I am so busy that it is difficult for me to focus on the task at hand	.174	.113	.752	-.108
Due to my extensive workload, I was constantly under time pressure	-.262	.612	.572	.157
It is emotionally drain doing my job	.172	.672	.399	.298
I feel exhausted by end of the working day	.014	.614	.408	.179
I have been experiencing sadness and unhappiness at my working place	-.039	.796	.196	.017
I have been experiencing a lot of sleep disturbed by worrying about workload	.123	-.023	.072	.836
I feel strained all the time at workplace	.163	-.279	.155	.463
I have trouble becoming enthusiastic about anything at workplace	.159	-.143	.156	.656
I get anxious at work	.166	-.187	.039	.566
I have a mentally challenging job	.176	-.240	.273	.676

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 12 iterations.

10. Correlation

Correlations

		wh_iv	wl_iv	mh_dv
wh_iv	Pearson Correlation	1	.639**	.667**
	Sig. (2-tailed)		<.001	<.001
	Sum of Squares and Cross-products	79.654	65.742	72.344
	Covariance	.266	.231	.251
	N	384	384	384
wl_iv	Pearson Correlation	.639**	1	.702**
	Sig. (2-tailed)	<.001		<.001
	Sum of Squares and Cross-products	65.742	119.832	76.887
	Covariance	.231	.313	.201
	N	384	384	384
mh_dv	Pearson Correlation	.667**	.702**	1
	Sig. (2-tailed)	<.001	<.001	
	Sum of Squares and Cross-products	72.344	76.887	100.069
	Covariance	.251	.201	.261
	N	384	384	384

**. Correlation is significant at the 0.01 level (2-tailed).

11. Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.753[a]	.567	.565	.33725

a. Predictors: (Constant), wl_iv, wh_iv

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56.734	2	28.367	249.408	<.001[b]
	Residual	43.334	381	.114		
	Total	100.069	383			

a. Dependent Variable: mh_dv

b. Predictors: (Constant), wl_iv, wh_iv

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.422	.166		14.626	<.001	2.096	2.748
	wh_iv	.356	.044	.275	6.067	<.001	.442	.269
	wl_iv	.607	.031	.664	19.504	<.001	.546	.668

a. Dependent Variable: mh_dv

APPENDIX II: QUESTIONNAIRE

SURVEY

OCCUPATIONAL STRESS ON MENTAL HEALTH AMONG EMPLOYEES OF LOGISTIC COMPANIES IN KLANG VALLEY

Dear Respondent,

I am Pravina Inbasagaram, a student of Master of Science Occupational Safety and Health Management from Universiti Utara Malaysia. I am conducting a survey for my master's research, and I humbly seek your kind cooperation to complete the questionnaire of my study. This study is required in completing my master program and it is about **the occupational stress on mental health among employees of logistic companies in Klang Valley**. Your information will be kept confidential and will be used only for statistical analysis and academic purposes. Your contribution is very much important to this study and I deeply appreciate your kind cooperation and participation. Thanking you in advance.

Researcher:
Pravina A/L Inbasagaram (pravinainbasagaram94@gmail.com)
Supervisor:
Dr. Edora Binti Ismail (edora@uum.edu.my)

Section A: Personal Profile

This section is about your personal information. Please fill out each of the following question or place a **check** mark in the appropriate box to indicate your response.

1. Gender
   - Male
   - Female

2. Age
   - Below 25 years old
   - Above 25 years old

3. Education level

    - SPM
    - Certificate
    - Diploma
    - Bachelor Degree
    - Master Degree
    - Others

4. Years of service in current organization

    - 0-2 years
    - 3-5 years
    - 6-8 years
    - 9-11 years
    - 12-14 years
    - 15 years and above

5. Position in your organization

    - Junior level
    - Middle level
    - Senior level
    - Upper management

Section B

The following set of statements are related to the two independent variables that mental health of employees which are working hours and workload. Besides that, there is also set of statements that related dependent variable that is mental health.

Instruction: For each item, please answer by marking a circle at the appropriate box.

1	2	3	4	5
Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**

Working hours

1. I am able to sustain the level of energy throughout the week	**1**	**2**	**3**	**4**	**5**
2. I am willing to work overtime and on weekends	**1**	**2**	**3**	**4**	**5**
3. Most of the days, I have to work more than 8 hours	**1**	**2**	**3**	**4**	**5**
4. Extra benefits such as extra pay and promotions motivate me to work.	**1**	**2**	**3**	**4**	**5**

5. I am content with the hours that the company has set for work	**1**	**2**	**3**	**4**	**5**
6. During the working hour I get enough of sufficient rest	**1**	**2**	**3**	**4**	**5**
7. My personal life is not impacted by the working hours	**1**	**2**	**3**	**4**	**5**

Workload

1. I feel that there are too many deadlines in my work that are difficult to meet	**1**	**2**	**3**	**4**	**5**
2. I work more than 8 hours a day to finish works	**1**	**2**	**3**	**4**	**5**
3. I put in a lot of overtime, even on weekends and public holidays to finish my work	**1**	**2**	**3**	**4**	**5**
4. I must work quickly	**1**	**2**	**3**	**4**	**5**
5. Due to my workload, it has impacted my everyday activities (i.e., exercise, eating time and sleeping time)	**1**	**2**	**3**	**4**	**5**
6. Due to issues at work, I like to get up at night	**1**	**2**	**3**	**4**	**5**
7. By the end of the workday, I am completely exhausted	**1**	**2**	**3**	**4**	**5**
8. I'm under a lot of strain	**1**	**2**	**3**	**4**	**5**
9. I am so busy that it is difficult for me to focus on the task at hand	**1**	**2**	**3**	**4**	**5**

Mental Health

1. Due to my extensive workload, I was constantly under time pressure	**1**	**2**	**3**	**4**	**5**
2. It is emotionally drain doing my job	**1**	**2**	**3**	**4**	**5**
3. I feel exhausted by end of the working day	**1**	**2**	**3**	**4**	**5**
4. I have been experiencing sadness and unhappiness at my working place	**1**	**2**	**3**	**4**	**5**
5. I have been experiencing a lot of sleep disturbed by worrying about workload	**1**	**2**	**3**	**4**	**5**
6. I feel strained all the time at workplace	**1**	**2**	**3**	**4**	**5**
7. I have trouble becoming enthusiastic about anything at workplace	**1**	**2**	**3**	**4**	**5**
8. I get anxious at work	**1**	**2**	**3**	**4**	**5**
9. I have a mentally challenging job	**1**	**2**	**3**	**4**	**5**