

**THE RELATIONSHIPS BETWEEN SAFETY MANAGEMENT AND SAFETY  
PERFORMANCE:  
A CASE STUDY AT THE MITISA HOLDINGS SDN BHD**

**By**

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Research Project Submitted to the Centre of Graduate Studies,

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In Fulfillment of the Requirement for the Master Degree of Human Resource Management

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## **ABSTRACT**

This study was carried out to investigate current practices in safety aspects with emphasize on relationship between safety management and safety performance among construction employees. Construction sector are very important where it is giving to develop the economy growth in our country. In construction industry the most important are human capital. Safety is an important issue in the current trend, but many employees and nor the employers feel for its vital process to the safety success in the long term. This study applied the questionnaire survey which involved 100 respondent from various position. The finding reveals that the safety management has been implemented effectively and successful reduce the risk of accident at the workplace. Data analysis shows that Mitisa Holdings Sdn Bhd has applied the proper safety management at the worksite with accident percentage less than 5%. Futhermore the correlation analysis shows that there positive relationship between safety management and safety performance.

## **ABSTRAK**

Kajian ini bertujuan mengkaji hubungan pengurusan keselamatan dengan prestasi keselamatan di kalangan pekerja-pekerja sektor pembinaan. Sektor pembinaan adalah merupakan suatu sektor yang penting dimana ianya telah dapat menyumbang kepada pertumbuhan ekonomi negara. Dalam industri pembinaan aset atau modal yang utama adalah sumber manusia. Isu keselamatan pekerja ditapak pembinaan telah menyebabkan pekerja terdedah kepada pelbagai risiko kemalangan. Dalam kajian ini soalselidik telah digunakan dengan melibatkan 100 responden dari pelbagai jawatan. Hasil kajian mendapati bahawa pengurusan keselamatan telah dijalankan dengan berkesan dan telah dapat mengurangkan risiko kemalangan di tempat kerja. Analisis data telah mendapati bahawa syarikat Mitisa Holdings Sdn Bhd ini telah dapat melaksanakan pengurusan keselamatan di tapak bina pada tahap yang memuaskan dengan peratus kemalangan adalah rendah iaitu kurang 5 %. Malahan analisa korelasi menunjukkan hubungan pengurusan keselamatan dengan prestasi keselamatan adalah positif.

## **ACKNOWLEDGEMENT**

I would like to express special sincere appreciation to my supervisor, Dr Fadzli Shah bin Abd Aziz for his valuable guidance and advice in completing this master project. He gives good path, instruction and feedback preparing this master project. He also provides me with valuable assistance and encouragement to the research process. Besides that, I would like to thank the authority of Universiti Utara Malaysia (UUM) for providing me with a good environment and facilities to complete this project. In addition, I would like to take this opportunity to thank the College of Business (COB) of Universiti Utara Malaysia (UUM) in offering this master subject due to fulfill my Master of Science Human Resources Management. It gives me an opportunity to participate and learn about the actual environment of research in the management of human resources field.

Foremost, I would like to thank the management of Mitisa Holdings Sdn Bhd , which provides me with valuable data /information and cooperation and feed backing on the questionnaire that being distributed. Special thanks to the Project Manager Mitisa Holdings Sdn Bhd , Mr Mohd Effendi bin Mat Aris , Mr. Mohd Fathi bin Abdullah as a project Architect, Mr Amiruddin bin Ahmad as Coordinating Officer and architect , Mr. Khairul Nizam bin Alias as a Safety and Health officer and other members whom I may not mention in this project report but their support and contribute the data and report for this study, makes success. Finally, an honorable statement goes to my parents, my children, families, and all friends for their understandings and supports on my study in completing this project. Without their helps of this particular mentioned above, would I face many obstacles while doing this project.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

This chapter will explain the detail overview of the study on the safety management and safety performance in the Mitisa Holdings Sdn Bhd organization. This chapter will briefly include an explain about the research background, area of research, safety practices in Mitisa Holdings, problem statement, objective and research question for this study.

#### **1.2 Research background**

The study on safety perception is currently important to measure the level of safety practices in the organization. A good safety management in the organization will result in reducing the accident rate in the company, Thus, safety management's and involvement in the all employees' about safety have been stressed as the key elements of success in the safety system( Huang (2006).

The concept of safety management has an important implications in the construction development and process. Safety management will be impact as a practical tool that used by management at low cost to evaluate as well as recognize potential problem areas in the safety. In Malaysia the Department of

Occupational Safety and Health (DOSH) would intensify efforts to reduce the accident rate from year by year with cooperation from the employers and participating of employees. However many of employers were still neglecting the aspects of safety at the work place and then will be risk to the employees.

DOSH Director General Datuk Dr Johari Basri said 1,303 deaths were caused by accidents at work place in 2006, 1,337 deaths in 2007, 1,176 in 2008 and another 1,300 in 2009, Bernama (2009). Accidents at work places will give a negative impact to the country and the organization such as loss of lives, property or other damages. This indeed will involve compensation, medical expenses, insurance to families and many other implications.

Human suffering and economic losses (the loss of man power and productivity, increased cost towards medical expenses, compensation, and other hidden liabilities, such as replacement labour and modification of workplaces) are the constant reminders to implement better organizational work design, planning of work time, work safety standards and control technologies P.K. Nag et al (1998).

### **1.3 Mitisa Holdings Sdn Bhd background – Area of study**

Mitisa Holdings Sdn Bhd engages in the design, construction, and delivery of ringgit projects in Malaysia. It develops quarters and facilities for the royal Malaysian police. Pembinaan Mitisa Holdings Sdn Bhd was incorporated in 2002 and is based in Kuala Lumpur, Malaysia.

Mitisa Holdings Sdn Bhd is a registered based in Wilayah Persekutuan Kuala Lumpur. Its main business in construction and the core product is provision of civil structure services. This company is a developer company. Mitisa Holdings was incorporated with the purpose of undertaking the development of quarters and facilities for the Royal Malaysian Police throughout the country.

### **1.3.1 The Project Management in Mitisa Holdings Sdn Bhd**

These are the structure and the project line of the management in the Mitisa Holdings Sdn Bhd who are very committed and directly involve with this construction project to be complete the additional building for the Royal Malaysia Police Kuala Lumpur. Currently the Management of Mitisa Holdings Sdn Bhd are located at 36b, 2nd Floor Damai Complex, JalanLumut Kuala Lumpur, W. Persekutuan Kuala Lumpur. The Managing Director (MD) of Mitisa Holdings allocates the total management and operation in the region. In addition, the Managing Director plays the vital person to influence and decide to any total system improvement in safety and health.

### **1.3.2 Manpower distribution for each unit Business Unit**

Manpower distribution in Mitisa Holdings Sdn Bhd by department and position for the project construction building of the additional building police headquarters Kuala Lumpur are as below.

No.	Unit of Business	Manpower
1	Managerial	20
2.	Engineering Executive	5
3.	Technical	23
4.	Labour Workers	72
	Total	120

#### **1.4 Safety and health practices in Mitisa Holding Sdn Bhd**

There many fundamental elements which are related to the safety performance and safety management in the organization. However in this discussion, would like to focus on safety and health policy, safety committee and safety officer, employee involvement and accident rates.

##### **1.4.1 Safety and Health Policy**

It is a necessity to establish and publish the safety and health policy to all employees. Zohar (2008), in the safety remarks of policies and procedures that established by senior management must be implemented or enacted by unit managers throughout the organizational hierarchy. That is, senior managers are concerned with policy-making and the establishment of procedures to facilitate policy implementation by the organization from the top to the bottom line.

Goetsch, D.L (2008), to achieve the company safety in organization it should have the safety policy. This policy will promote the safety culture from the initial stage. The policy should make it clear that safe work practices are expected of all employees at all level and at all time. The employees and the top management are committed to the safety. Employees expected to perform their duties in a safe manner. The company commitment also extends beyond the wall of its plant to include customers and community.

He suggested that one of the keys elements to promoting safety successfully is to involve and participated from all employees. If every employee is committed to working safely every day, workplace safety will take care of itself. A fundamental rules of management is if want the employees commitment; thus, involve them from the earlier stage. Employees should involve in the implementation, monitoring and follow up of safety system. In all phase, employee should be empowered to take action to improve safety.

David et al (2004), mention that the safety-related policies and programs of the organization been seen as the surface manifestations of the basic values and beliefs of the organization concerning workplace safety. It follows that the safety policies and programs of the organization should be an important contributor to achieve in the implementation of safety performance.

Nor Azimah et al (2009) previous research has shown that high rates of injury and accidents are due to unsatisfactory or non-existent of health and safety systems. Besides management commitment, safety training and safety policy

are also important determinants to enhance safety performance. Found that clear policy statements and safety training played an important role in reducing accident rate. In addition, a company's objective and communication of the objective to all workers is a crucial aspect of effective health and safety management as lack of communication may hinder employee involvement.

For almost 15 years, the management of Mitisa Holdings Sdn Bhd established the Safety and Health policy to various departments and employees. This policy was created since 15 years and implemented for all department and workers in Mitisa Holdings Sdn Bhd. The management should produce and publish a documented safety and health policy statement that gives an overall sense of direction and sets the principles of action for an organization.

The main policy for safety and health implemented in Mitisa Holdings Sdn Bhd are as follow :-

1. Emphasize the importance on safety and health in organization
2. Provide and ensure and maintain a safe working environment to employees, contractors and visitors
3. Provide and ensure safe working system for employees
4. Provide adequate safety and health information to prevent any accident, injury or lost of human life and risk to health
5. Provide adequate safety and health training for all employees from time to time
6. Instill safe working culture among employees.

#### **1.4.2 Safety and Health Committee and Safety Officer as an engine to success in the safety and health program in Mitisa Holdings Sdn Bhd**

Requirement to provide and establish the Safety and Committee in the organization is stated in the Safety and Health at Workplace Act 1994, Section 30(1). Mention that each employer should nominate the Safety and health committee at workplace if more 40 persons employed in the company or directed by the Director General of Department of Safety and Health (DOSH). The main function of this committee is to coordinate the relationship between top management and employees in the organization. Safety and health committee members in Mitisa Holdings Sdn Bhd will review regularly by the management. The members of committee will keep the membership for 2 years continually. The function of committee as mention by Cooper (1995), the general aim of safety committee is to involve both management and workers in the safety planning process. Safety committees are judged by how well they influence and improve safety in an organization. Chairman and vice chairman should be selected from the among managers and will then rotated their duty for 2 years.

#### **1.4.3 Safety and Health programme and planning activities**

Safety and health committee has developed and planning the program/ activities for 1 year period. The main program related with safety and health policy of company are to provide the training to the committee members, old

and new employees, safety and health campaign, review of safety procedure and guideline, periodical safety audit , fire drill for fire or flood evacuation and chemical handling precaution. These activity will organized by the committee together with external parties such as DOSH, Fire Brigade Department, NIOSH, hospital expertise and other related agency with safety and health. An effective safety and health program cannot succeed without the active participants and commitment from the employees in the organization.

Basically this activity and program planned by the committee to fulfill management requirement to encourage participant and involvement from all employees. Management will monitor the progress the activity implement by committee then approve the budget for each program. All program implemented will review and make the post mortem to improve in future for result achievement to succeed in the safety system objective.

#### **1.4.4 Accident rates in Mitisa Holdings Sdn Bhd**

Accident rate is a reactive tool of safety management. It does not point out the cause of problem. The main accident occurred in the Mitisa Holdings Sdn Bhd workplace due to do the construction at work site and using the machine or equipment, wrong handling the equipment or machine due to not proper use the PPE and ergonomic factor ( Crane fall down ). The accident incurred in Mitisa Holdings Sdn Bhd involved with various of demographics factor such



as gender, ages, employment status, job tenures and accident experience employees.

As studies by Varonen & Mattila (2000) were exist to the relationship between the safety management and occupational accidents. The better safety management of the company, the lower was the accident rate. Huang (2009) was study the safety management in the construction site in Hong Kong found that poor safety attitude and poor safety management has statistically proofed to be a major cause of construction accidents.

### **1.5 Problem statement**

The main objective of this project is to determine employee perception to the dimension of safety management and the safety performance of Mitisa Holdings Sdn Bhd. Meantime, this will propose the practical recommendations for long-term safety improvement. The completion of these objectives will enable to investigate and to identify whether Mitisa Holdings Sdn Bhd safety performance and program is achieving the target as stated in the company wide safety policy.

### **1.6 Objectives**

The purpose of this study is to identify and measured the perception of safety management and safety performance either fully comply with the safety

objective as targeted by the management in the company wide Safety Policy.

In order to answer this research problem, this study objective are :

1. To examine the safety management and safety performance on. Mitisa Holdings Sdn Bhd
2. To evaluate the relationships between safety management and safety performance.

### **1.7 Research questions**

Research questions that to be answered by this study were:

1. What level of safety performance in Mitisa Holdings Sdn Bhd ?
2. How safety management has been applied in Mitisa Holdings Sdn Bhd
3. Is there a positive relationship between safety management and safety performance in Mitisa Holdings Sdn Bhd?

### **1.8 Contribution of study**

This research and its findings are considered important to provide insight into the various safety practices needed to perform successfully in the construction industry. From a practical perspective, the findings of this study will be useful to top management of Mitisa Holdings Sdn Bhd as to improve their current safety condition and safety management.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter will review the relevant literature extensively related with safety management and safety performance. In this chapter the concept and definition of safety management and performance will detail explain and relate to this study. Theoretical framework also will be developed based on literature review point of view.

#### **2.2 Safety management and safety performance**

Cooper (2008) defined safety management is the shared perceptions of staff about the way in which safety is managed in their organizations and it is identified as unpredictable which makes it much more amendable to measurement and change. Measuring safety performance offers a pragmatic approach and focuses on staffs' current perceptions of safety in relation to management support, supervision, risk-taking, safety policies and practices, trust and openness. David M. et al. (2004) safety performance emphasizes the perceptions held by employees regarding the importance of safety in their organization. Safety management tends to focus on the deeper and less readily accessible core values and assumptions of the organization regarding safety and human resources.

Susan et al. (2008) safety performance refers to shared perceptions of employees about the safety of their work environment, and provides a background against which day-to-day tasks are performed. These shared perceptions derive from several factors, including management decision making, organizational safety norms and expectations, and safety practices, policies, and procedures which together serve to communicate organizational commitment to safety.

Organizations with strong safety performance tend to have fewer employee injuries, not only because the workplace has well developed and effective safety programs, but also because the very existence of these programs sends 'cues' to employees regarding management's commitment to safety. If there is evidence that the organization is serious about adherence to safe work practices, then employees are more likely to adhere.

Tsung et al. (2007) defined safety performance as employee's perceptions of safety management in the organization and the perceptions, which are influenced by the organizational factors and individual factors, eventually, affect employee's safety behaviors. The quality of performance in an organization may affect the performance of the organization. Under a positive organizational performance, with a kind and friendly atmosphere, employees are more likely to exploit their potential this situation is beneficial for the organization to achieve its objectives.

Ali et al( 2004) defined that the concept of safety performance can be considered as an alternative management indicator and safety performance as the set of work system conditions and practices which result from safety management. Safety performance is a temporal measure of management, focusing perceptions, values and attitudes at a particular time (Thomas 2000)

Choudhry et al. (2009) provided the definition that safety performance reflects employee's perceptions about the organizations safety management system including policies, practices, and procedures that show how safety is implemented in organization.

As a conclusion based on literature review above, the safety management can defined as a subset of organization management and is the shared values and beliefs which characterize safety in an organization. It is the product of individual and group values, attitude, beliefs, competencies and patterns of behavior that determine a commitment to the way the organization manages the safety.

The Committee of CANSO (The Civil Air Navigation Service organization) defined that safety management refers to the enduring value, priority and commitment placed on safety by every individual and every group at every level of the organization. Safety culture reflects the individual, group and organizational attitudes, norms and behaviors related to the safe provision of air navigation services. Safety performance represents what people feel and

the perceptions about safety at a given time point. There safety performance measurement provides a snap-shot of the state of an organization's safety. Typically the safety performance is measured using quantitative questionnaires while assessing safety management requires more qualitative methods.

Tsung (2000) safety management and safety performance are often regarded as important concepts, not much consensus has been reached on the cause, the content and the consequences of safety management and performance in the past twenty years. There is an overall lack of models recounting the relationship of both concepts with safety performance.

Key differences between management versus performance are as below :-

- i) Safety management is a group of individuals guided in their behavior by their joint belief in the importance of safety. Build joint responsibility between individuals from management to employee.
- ii) Safety performance is varies individually depending on current perceptions and can change daily. Perception of safety procedures and rules are a reflection of safety performance.

### **2.3 Benefits in assessing safety performance in organization**

Wong (2009) gives the summary on the advantage to applied the safety performance in organization. Briefly as below:-

- i. The organizations applied on a safety performance assessment display a commitment to continuous improvement in safety and health.
- ii. Regular assessment to promote and maintain a positive safety performance and enables organizations to move safety quality and it is a key element of effective safety management in organization.
- iii. It is proved to be valid to predict safety performance (accident rate). Poor safety attitude and poor safety performance has also been statistically proved to be a major cause of accidents.
- iv. Safety performance, as a proactive safety management tool, has been gaining popularity to be a better indicator of occupational safety. If the company scores low in the safety performance assessment, it reveals a poor safety management in the company. The company can take proactive corrective measures according to the survey results.

### **2.4 Safety Performance in organization**

Zohar (2008) state that commitment-based safety complements compliance in two important ways. First, procedures can rarely cover all possible. Second, in practice, compliance often fails because shortcuts offer immediate benefits

that are rarely offset by personal costs, turning such shortcuts into a utility-maximizing choice. Cooper's(2006) definition of commitment to safety, individuals identification with involvement in safety activities, characterized by a strong acceptance and belief in the organizations safety goals and a willingness to exert effort to improve safety in the workplace. Commitment to safety is very important to determine individual's acceptance of company safety initiatives and their personal approach towards safety in the workplace.

Marsh, T.W et al (1998) suggested that management commitment was rated on five behavioral dimensions: attitude to the introduction and placement of feedback charts; attitude to workers stopping work to attend goal-setting sessions; attendance and support at goal-setting sessions; and attitude to observers taking time away from other duties to perform the measures. Management commitment of care and concern on safety issues, whereby all employees share similar positive perception about organizational safety.

Robert J. Vance, (2006) defined that commitment as both a willingness to persist in a course of action and reluctance to change plans, often owing to a sense of obligation to stay the course. Management commitment to safety will occur to the extent each manager clearly understand the positive benefits derived from their effort. Understanding the benefits will create a strong desire to improve the company safety management.



Cooper (1995) term of commitment to safety is defined as an individual's identification with and involvement in safety activities. The lacks of strong management commitment by the companies are associated with high accident rate. He suggests that the safety management can be enhanced by promoting them to the senior level. Regularly the senior management becomes more visibly involved with safety committee. Companies with strong and clear culture are associated with higher level of employee's commitment.

H.Larry (1995) basically commitment is a passive state and can never direct the complex interactions needed to improve an organization's safety performance. Only active involvement can overcome the corporate inertia that inhibits an organization from attaining higher levels of safe performance. Commitment without action only produces "cynicism".

Robert J. Vance, (2006) Management will take serious for the effective manage by developing program, policies, planning and procedures. They will display leadership through effective accountability and recognition of behaviors and result oriented. Create the visible commitment to safety and process improvement. Visible commitment includes the provision of adequate human and financial resources in a sustained effort towards safety.

Ahmadon Bakri et al (2006), the role of management and the involvement of all employees as important key players in safety and health culture are important in order to cultivate the positive beliefs, practices, norms and

attitudes among all in the company. Safety and health culture within a company is closely linked to the workforce's attitudes in respect to safety.

Safety performance can be described as a self-reported rate of accident and occupational injuries. Oi Ling Siu et al (2004) agreed that have the relationship between safety management and safety performance, and psychological strains. They study about safety management and safety performance among construction workers in Hong Kong. The results of the study shown that safety attitudes predict to the occupational injuries. Safety performance measurement techniques can be categorized into statistical measures, behavioral measures, periodic safety audits, and a balanced scorecard approach.

Neal et al. (2000) examined the impact of organizational climate on safety climate and individual behaviors on a sample consisting of 525 employees from 32 work groups in a large Australian hospital. They concluded that organizational climate exerted a significant impact on safety climate and the effect of safety climate on perceived safety performance was mediated by safety knowledge and motivation. He found empirical support for hypothesized positive relationships among amount of safety training, perceived safety knowledge and supervisor ratings of safety performance.

Evelyn Ai Lin Teo et al. (2005) they identifies two main reasons for unsafe work behavior, first lack of awareness about safety (don't know) and second

poor attitude towards safety (don't care). The research framework found that the number of accidents may be reduced if workers' awareness about safety is increased through training. The more training is given, the fewer the number of accidents will be reduced. In terms of attitude towards safety, authors suggested that poor attitude might overcome by organizational behavior modification. To improve the safety, organizations can systematically apply the tools are positive reinforcements, negative reinforcements, extinction and punishment.

Huang, Smith, and Chen (2006) have studied safety in many workplaces, defined safety performance as employee safety control and self-reported occupational injury. Safety performance is a global performance of safety management systems operated and measured by safety organizations, safety management, safety equipment, safety training practice, safety training evaluation, accident investigations, and measures of accident statistics. He suggests that management commitment to safety as one dimension of safety performance.

As conclusion, safety performance can be measured as a safety process evaluation at both the individual and the organizational level. Safety performance is used for measuring safety management and the organizations competence improvement on the safety audit assessment, accident investigation, management and safety system.

### **2.4.1 Safety management , safety performance and demographic factors**

Many studies have collected personal information about the respondents, such as age, gender, tenure experience in the industry, job status, accident experience and other personal information correlated with safety management and performance. These demographic factors can influence safety management and safety performance for individual and organization.

Mahmod R et al (2010) had study on safety behavior in the petrochemical found that the survey of dimension of safety commitment which reflected employees attitude and behavior at workplace will correlated with education achievement, level of management and seniority. However on gender no difference perception among them.

Rafiq et al (2009) have conducted an interview on construction sites as to summarize the demographic factors that influenced the safety performance at the workplace. Safety performance surveys exerted positive effects upon perceptions of older workers, who are married, and have more family members to support yet have little impact upon those who are in the youngest age, single, or have no family member to support. Interviewees explained that workers with educational levels below primary had less perception of the safety performance.

Oi-ling Siu et al (2003) had study the linear and relationships between age, gender, working experience in the current company and present job and safety

performance (accident rates and occupational injuries) and safety attitudes among construction workers in Hong Kong. They found that inter-correlations among age, tenure, and the main variables significantly correlated with accident rates. Older workers showed more positive safety attitudes than younger ones. Age was not related to safety performance (accident rates or occupational injuries) within the sample. Tenure positively relates to age, safety attitudes, accident rates, and occupational injuries. Older construction workers could be more knowledgeable and experienced, displaying attitudes that are more positive to safety, and possibly more committed to work than younger workers commitment

Vinodkumar et al (2009) was investigated of safety performance on differences between groups of individuals was based on qualification, age, experience, and job category of employees. Employees grouped based on qualification shows employees with higher qualifications may be more receptive to safety rules and regulations as they can understand the processes, hazards and their consequences better than others can. Employees with lower qualifications not only need to be trained to work safely but also need to be educated about the various processes, associated hazards and their consequences. It shows that the age and the length of experience of the employees in the company are highly correlated.

Gil Luria et al (2010) were study the safety perception to the permanent and temporary worker in order to identify the boundaries of safety climate in a

heterogeneous workforce. Safety performance affects temporary and permanent employees differently because they focus on different organizational levels as referents or sources of safety perceptions. The results indicate that permanent worker is more committed and known about safety compare with the temporary workers. Temporary workers are involved in more accidents than of permanent workers.

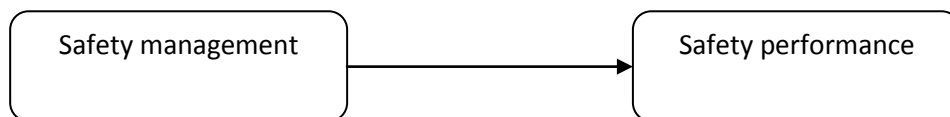
Chin-S.L et al (2005) had study in safety performance among container worker in Taiwan was found that existing the relationship between safety performance dimensions and respondents characteristics (i.e., job title, years of company tenure, age, department, and frequency of safety training). There were no statistically significant differences found for age and department characteristics at the significant level. Some safety performance dimensions were found to statistically significantly differ for job title, tenure, and frequency of safety training. When comparing differences between the perception of junior respondents (those with a tenure of less than 10 years) and senior respondents (those with a tenure of 10 or more years). Results indicated that junior respondents had slightly higher mean scores than senior respondents on the safety management dimension.

One-way ANOVA was used to identify whether perceived differences in safety performance dimensions existed between the groups based on demographic variables, such as job title, age, experience in current company,

department, and frequency of safety training. The views of general employees, such as workers, might differ from those in difference position.

Perceived differences in safety performance dimensions between groups in a specific organization have been examined in previous studies (Glendon & Litherland, 2001).

## 2.5 Theoretical framework



Based on theoretical framework above, this study were involved two variables, which are the safety management, safety performance. Dependent variables in this study were safety performance, while independent variables were safety management.

## 2.6 Hypothesis

Based on literature review and theoretical framework developed above, the hypothesis for this study as below:-

There is exists significant correlation between perception of safety performance and safety management among employees.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter will discuss on methodology how to collect the data, data source and measurements used to process the data. This section will define the research instrument, population, sampling data and data analysis of this study.

#### **3.2 Research instrument**

In this study, primary and secondary research will be used. This will able to provide adequate discussion on the issue and the variables that involve with it. The primary data for the study collected from the survey results through questionnaires that acquired from the sampling respondents. The questionnaires for safety management items was adapted from Fiona et al (1999), while safety performance was based to the safety climate questionnaires adapted from by Cheyne (2000). The questionnaire was intended to identify perceptions on the safety performance and safety management practices in Mitisa Holdings Sdn Bhd. The questionnaire survey consist of detail items as mention in the table 3.1 below and further detail in appendix 1.



Table 3.1 Summarizes the survey instrument in the questionnaires.

<b>Section</b>	<b>Description</b>	<b>No. of items</b>
1	Respondent Personal Profile	5
2	Respondent Work Experience	7
3	Safety performance	43
4	Safety Management	22
5	Comment – open question	1

Survey questionnaire applied the method of scale measured using 5 point Likert type scales as below Table 3.2.

Table 3.2 Method measured the questionnaires using 5 point Likert- type scales.

<b>Scale</b>	<b>Detail Answer</b>
1	Strongly Disagree
2	Disagree
3	Neither Agree or No
4	Agree
5	Strongly Agree

### **3.3 Research population**

The population of this study includes Mitisa Holdings Sdn Bhd employees in various department, shift work, position, gender, experience and age. Mitisa Holdings Sdn Bhd employees are 120 persons and the majority employees are of labour workers on construction site following by technical and management

staff. According Sekaran (1992) population refer to the entire group of people and researcher want to investigate.

### 3.4 Sampling data

Sekaran (1992) identify that the sampling is the process of selecting a sufficient number of elements from the population and the reason for using a sample in the population are due to fairly obvious. Sampling study for this research based on the total employees in Mitisa Holdings Sdn Bhd of 120 persons. However during data collection process only 100 respondent was returned back.

### 3.5 Data collection

Based the disproportionate stratified sampling, the questionnaires distributed to every employees in each of department in Mitisa Holdings Sdn Bhd . The completed questionnaire based to level of position is explained in Table 3.4

Table 3.3 Sampling on data collection for respondents based on position.

<b><u>Position</u></b>	<b>The number of questionnaire was distributed</b>	<b>The Completed questionnaire</b>
Managerial	20	10
Technical level	23	15
Engineering Executives	5	3
Labour Worker	72	72
Total	120	100

### **3.6 Data analysis**

Data analysis is using the statistical analysis from the SPSS version 19, which involve the descriptive and inferential analysis. Descriptive methods used to simplify and characterized the respondents' profile. The correlations analysis was used in order to determine the relationship between the safety management and safety performance.

## **CHAPTER FOUR**

### **RESULT AND FINDINGS**

#### **4.1 Introduction**

This chapter shall provide the finding analysis for this study from questionnaire distributed and collected from the Mitisa Holdings Sdn Bhd employees (respondents). Data analysis will determine, measured and analysis in certain section such as factors of demographic, personal characteristic, experience in accident, perception and dimension of safety performance and management that based on questionnaires collected analysis. This chapter also briefly test the hypothesis and analysis it.

#### **4.2 Response rate**

Initially there are 120 questionnaires had been distributed to the sample identified in Mitisa Holdings Sdn Bhd among employees. However, after the final collection, only 100 valid responses were obtained setting the responses rate at only 83.3% that used the respondents data answered to analysis in this research.

#### 4.30 Reliability test of questionnaire items

All data was subjected to reliability test for preliminary analysis. Table 4.6) above shows the result of Cronbach alpha for reliability test. The Cronbach alpha values for all items are more than 0.7. According to Pallant (2005) Cronbach alpha more than 0.7 is accepted.

Table 4.6 (a) the Cronbach coefficient alpha value reliability test

Instrumentation	Total Item	Cronbach's Alpha value
Safety Management item	22	0.72
Safety Performance item	43	0.62
All items	62	0.762

#### 4.4 Respondents profile

The details of respondents characteristic in this study is explained in Table 4.1.

Table 4.1 Respondents profile

Characteristics of respondent (n= 100)		Frequency	Percent
Gender	male	90	90
	female	10	10
	Total	100	100
Age	below 25	20	20
	25 - 35	43	43
	36 - 45	25	25
	46 - 55	12	12
	Total	100	100

Table 4.1 shows respondents gender and ages in Mitisa Holdings Sdn Bhd for sample study. In gender 90 % were male respondent and only 10 % were female. As shown in manpower data before (figure 1.7), basically male is the majority staff in Mitisa Holdings Sdn Bhd. Thus, for age level rank 25 – 35 years is 43 % the majority group in Mitisa Holdings Sdn Bhd. Following with rank level 36-45 years (25 %) for this respondent ages.

Table 4.2 Job titles / categories respondents in Mitisa Holdings Sdn Bhd

<b><u>Position</u></b>	<b>Frequency</b>	<b>Percentage</b>
Managerial	10	10
Technical level	15	15
Engineering Executives	3	3
Labour Worker	72	72
Total	100	100

Based on Table 4.2, results revealed that 72 % of respondent were blue collar workers. Other categories are indirect staff which consists of management staff and technical staff such as managers, executives, supervisors, engineer, technical staff and clericals.

Table 4.3 Working experience (job tenure) respondent in Mitisa Holdings Sdn Bhd

Characteristics of respondent ( <i>n</i> = 100)		Frequency	Percent
Job tenure	1 -3	55	55
	4 - 5	19	19
	6 - 7	14	14
	8 - 10	13	13
	over 10	44	44
	Total	100	100
Total		100	100

Table 4.3 relates to job tenure that gives an important factor in this study, which determines the respondent's actual understanding and appreciates the importance of safety performance and management in Mitisa Holdings Sdn Bhd. The respondents identify their years of service and working environment in the organization. It was considered important to examine respondent's tenure within their current company to determine whether they really were aware of the safety performance. Most respondent's average level of experience is 1 to 3 years that contributes 55% from total respondents, respectively employees that works more than 10 years figured to 44 % from the total respondents.

Table 4.4 Employment statuses and involved in the accident for respondent in Mitisa Holdings Sdn Bhd.

Characteristics of respondent ( n= 100)		Frequency	Percent	Valid Percent	Cumulative Percent
Employment status	Permanent	34	28.3	28.3	28.3
	Temporary \contract	86	71.7	71.7	71.7
	Total	100	100	100	
Involved with accident history	Yes	3	0.8	0.8	8
	No	117	99.2	99.2	92
	Total	120	100	100	

Table 4.4 relates with employment status for respondents in Mitisa Holdings Sdn Bhd. In Mitisa Holdings Sdn Bhd, finds temporary or contract workers. The status of temporary worker wills renewal the contract for every 6 months period. The temporary workers are from Indonesia and most of them placed as labour workers. The total respondents in Mitisa Holdings Sdn Bhd made of 28.3 % permanent workers and 71.7 % temporary workers. This respondent was divided into two status due to testing the hypothesis mentioned by previous author on whether an existence of differences perception about safety



in workplace between the permanent and temporary workers, Gil Luria et al (2010),

#### **4.5 Hypothesis testing**

There is a positive relationship between perception of safety management and safety performance among employees.

#### **Result SPSS**

Table 4.5: Correlation Bivariate for safety management and performance.

	Mean	Std. Deviation	N
Mean management	2.1505	.37197	100
Mean performance	2.4910	.31612	100

Correlations

		Mean Performance	Mean management
Meanperformance	Pearson	1	0.658
Correlations			0.000
	Sig (2-tailed)	100	100
	N		
Mean management	Pearson	.658	1
Correlations		.000	
	Sig (2-tailed)	100	100
	N		

As result in table 4.5 , by using the correlation bivariate the result for Pearson correlation coefficient is 0.658 and Spearman's rho value 0.670 and  $r =$  positive, indicating that a positive correlation between safety performance perception and safety management perception among Mitisa Holdings Sdn Bhd employees. The strong safety performance in Mitisa Holdings Sdn Bhd will correlate to strong level in the safety management and vice versa. As suggested by Pallant (2007), strength is determined as below range for statistical significance:

$r = .10$  to  $.29$  Weak

$r = .30$  to  $.49$  Moderate

$r = .50$  to  $1.0$  Strong

There was a significance strong positive correlation between two variables,  $r = 0.658$ ,  $n = 100$ ,  $p < 0.000$ , with strong level perception of safety performance and management among employees. The result of analysis accepted the null hypothesis and concluded that there is a significant relationship between variables.

## **CHAPTER FIVE**

### **DISCUSSION AND CONCLUSION**

#### **5.1 Introduction**

This chapter 1 discuss and conclude the study on the perception of safety performance and management among Mitisa Holdings Sdn Bhd employees. In further, recommendation will follow onwards by suggesting the solutions and more practical approaches to success in implementing safety system in Mitisa Holdings Sdn Bhd.

#### **5.2 Discussion of hypothesis result**

As result shown that a positive correlation between safety performance perception and safety management perception among Mitisa Holdings Sdn Bhd employees. The high level of safety performance in Mitisa Holdings Sdn Bhd will positively correlated to high impact to the safety management and vice versa.. Both of these variables are interrelated with one another. When the level of awareness of the safety performance is high, the level of management to safety will be improved. In Mitisa Holdings safe work culture has always practiced and implemented properly.

Vinodkumar et al (2009) based on qualification, age, experience, and job category of employees. Employees grouped based on qualification shows employees with higher qualifications may be more receptive to safety rules and regulations as they can understand the processes, hazards and their consequences better than others. Employees with lower qualifications not only need to be trained to work safely but also need to be educated about the various processes, associated hazards and their consequences. Showed that the age and the length of experience of the employees in the company are highly correlated.

Gil Luria et al (2010) safety performance affects temporary and permanent employees differently because they focus on different organizational levels as referents or sources of safety perceptions. Permanent worker is more committed and known about safety compare with the temporary workers. Temporary workers also are involved in more accidents than permanent workers. Oi-ling Siu et al (2003). Inter-correlations among tenure and the main variables significantly correlated with accident rates. Older workers showed more positive safety attitudes than younger ones. e. Tenure was found to be positively related to age, safety attitudes, accident rates, and occupational injuries. Older construction workers could be more knowledgeable and experienced, displaying more positive attitudes to safety, and possibly more committed to work than younger workers. The perceptions of employees who received safety training was stronger than the perception of employees not receive the safety training (Tsung et al, 2007). It has been found that low

accident companies with a strong safety culture had developed integrated job and safety training programmed (Cooper, 1995).

Every morning before starting work, the morning briefing session will be reminded about the importance of safety before starting work. 5'S is applied as a cultural; it is consisting of safety element at workplace due to give understanding to employees about the importance of safety objectives achievement. Management commitment can also be measured on the immediate action taken after the accident and to prevent accidents from happening on earlier stage. Engineering action is taken to prevent accidents from re-occurrences. Campaign on safety culture at workplace is always performed by the management. Weekly management meeting was held to inform any issue arise about safety programs progress, update report on any accident incurred case, any problems and actions plan that will be presented by the Safety and Health officer and the Safety and Health Committee. Indirectly, the safety management in the Mitisa Holdings Sdn Bhd involved with all stakeholders from seniors management to the bottom. This is the good relationships at all levels of employees in Mitisa Holdings Sdn Bhd for the benefit of safety achievement for long term. From the aspect of compliance, based on survey found that this company has always complied with the legal requirements in the safety process. This is due to strong awareness among management and employees on the importance of safety at workplace.

### **5.3 Conclusion**

This study found that there was less than 5% accident occurred at Mitisa Holdings Sdn Bhd. The correlation result shows that a strong positive correlation between safety performance and safety management. Thus, it showed that the Mitisa Holdings Sdn Bhd has been applied the proper safety management approach in order to prevent accident at the workplace. It also revealed that there are strong commitment from top management to compliance Occupational Safety and Health Act 1994.

### **5.4 Recommendation**

The results of studies that have been made available that the safety performance of Mitisa Holdings Sdn Bhd is the moderate level, Therefore the responsibility of the management Mitisa Holdings Sdn Bhd and involvement with all employees to ensure success in the implementation of safety toward zero accidents in the workplace. Based on this study is to be hoped that the management can take the following steps: -

Ensuring adequate training given to all employees on safety aspects. Especially in relation to the construction site of the building progress methods, emphasis on the use of PPE when handling dangerous materials, the response to the hazards and risks in the workplace and training appropriate to the nature of their job. Through this emphasis on training will provide encouragement to employees to be more aware of safety and the same time will help to reducing

the accident rate. Employees who attend training should be given merit in the career development of their responsibility to ensure the safety paramount. They are composed in the first line like supervisor, executive, safety and health committee members and workers who are exposed to the risk in the workplace should be given a priority in this training.

As mention by Nor Azimah et al, (2009) effective training on safety will assist employees to have a sense of belonging and they will more accountable with safety at workplace.

To inculcate the practice of safety in the workplace through the implementation of periodic audits of each operation is known as hazard analysis and risk assessment to employees.

Audit process can also be made based on whether the working conditions specific to the hazard audit.

This audit was carried out to ensure the legal requirements and procedures are followed. An example is the audit of the use of chemicals, risk factors at work and so forth. Inform and alert workers that the audit is conducted is not the purpose of finding errors and weaknesses but to find ways to improve safety in the workplace and all employees must give their full cooperation. What is suggested in the audit should be taken immediately even though it has no legislative implications. Safety audit reports provide detailed information about the safety problems and suggestions for improvement in future planning of safety.



The management of Mitisa Holdings Sdn Bhd can systematically apply the tools are positive or negative reinforcements and punishment. Positive reinforcement also can use a reward as management's expression of appreciation to employees for being safe in workplace. Rewards should focus on successes and should be issued immediately to maximize reinforcement of the behavior. Positive reinforcement is one of the most important tools that can use to improve the safety performance. As example of positive reinforcement are opportunities for promotion, give reward the special prizes to teams that have experienced no lost-time injuries for specific periods.

Negative reinforcement can applied the merit demerit system for example, they often do not follow the safety rules and procedures will be take further action either transfer to other units, suspension the work, no promotion for a certain period and so forth. The purpose of punishment is disciplinary action will take for those who fail to follow the regulations and procedure for safety issues in workplace. As suggested by Evelyn Ai Lin Teo et al. (2005) in terms of attitude towards safety, poor attitude might overcome by organizational behavior. To improve the safety, organizations can systematically apply the tools are positive reinforcements, negative reinforcements, extinction and punishment.

All safety programs must have management front and center as the sponsors of the campaign. This is to face that the supervisors and top management commitment as serious about safety and the views of employees that

management cares and shows commitment to the implementation of safety. Employees at various levels and departments in Mitisa Holdings Sdn Bhd involved together in activities and programs designed by management and the safety and health committee. Participation of all employees will make the safety activity to achieve the desired objectives. The role of management and the involvement of all employees as important key players in safety (Robert J. Vance, 2006).

The management can also implement safety management system based on key performance index (KPI) for measurement of the successful implementation of Mitisa Holdings Sdn Bhd system safety. Each department should have its own goals and objectives for achieving success in safety management. Business plan for each department should be included for safety KPI measurement activities for each department. Safety performance results are measured to be tabled to the top management at the monthly meeting. A successful result to be awarded a certificate of achievement for the department. While the result is not achieved shall present an action plan to achieve in the future. Would indirectly indicate that the management of all departments concerned with the level of KPI and to show commitment to achieving them.

## References

- Abd Aziz, F.S. (2008). Safety culture and commitment to safety in the Malaysian Railway System, Unpublished doctorate thesis, University of Nottingham, UK.
- Ahmadon B, Rosli MZ, Mohd Saidin M & Abdul Hakim M (2006) Occupational Safety and health (OSH) management systems : Toward development of safety and health culture. Proceeding of the 6<sup>th</sup> Asia Pacific Structural engineering and construction conference.
- Ali M. Alhemood Ashraf M. Genaidy , Richard Shell, Michael Gunn & Christin Shoaf (2004) . Towards a Model of Safety Climate Measurement. International Journal of Occupational Safety and Ergonomics (JOSE), Vol. 10, No. 4, 303–318.
- Alistair James Thomas Cheyne (2000) A Model of Safety Performance for the Construction Sector. A Doctoral Thesis Submitted in fulfilment of the requirements for the award of Doctor of Philosophy of Loughborough University. DOI : <http://creativecommons.org/licenses/by-nc-nd/2.5/>
- BERNAMA news dated on 28 May 2009 and 29 July 2010.
- CANSO Safety Standing Committee CANSO (2008) Safety Culture Definition & Enhancement Process Model – The Civil Air Navigation Services Organisation Doi : [www.canso.org/cms/streambin.aspx%3Fre](http://www.canso.org/cms/streambin.aspx%3Fre).
- Chin-Shan Lu , Kuo-chung Shang (2005), An empirical investigation of safety climate in container terminal operators. Journal of Safety Research 36 . pg 297 – 308
- Cheng-Chia Yang , Yi-Shun Wang , Sue-Ting Chang, Suh-Er Guo, Mei-Fen Huang (2009) A Study on the Leadership Behavior, Safety Culture, and Safety Performance of the Healthcare Industry. World Academy of Science, Engineering and Technology 53. 2009
- Cooper, Watterson (2008). Safety Climate Assessment Tool: Briefing Sheet for Senior Managers Safety culture and safety climate Creating safer workplaces: assessing the determinants and role of safety climate
- David M. DeJoya,, Bryan S. Schaffer, Mark G. Wilsona, Robert J. Vandenberg, Marcus M. Butts (2004). Creating safer workplaces: assessing the determinants and role of safety climate. Journal of Safety Research 35 (2004) 81– 90

- Dr Mohammed Azman bin Aziz Mohammed, (2010). Trends of industrial and commuting accidents. Report from PERKESO presentation on Seminar Keselamatan dan Kesihatan Pekerjaan di Institusi Pendidikan 2010. at Universiti Malaysia Pahang.  
Doi:[www.dosh.gov.my/doshV2/index.php?...industrial...accidents...Or](http://www.dosh.gov.my/doshV2/index.php?...industrial...accidents...Or)  
[http://www.dosh.gov.my/doshV2/index.php?option=com\\_phocadownload&view=category&id=27&Itemid=156&lang=en](http://www.dosh.gov.my/doshV2/index.php?option=com_phocadownload&view=category&id=27&Itemid=156&lang=en)
- Evelyn A.T, Florence Y.Y & derrick S.Y.O (2005) Fostering safe work behavior in workers at construction sites. Architectural management Vol. 12 No. 4, pp 410-422.
- Fiona Davies & Rachael Spencer (1999), Summary guide to safety climate tools. MaTSUfor the Health and Safety Executive OFFSHORE TECHNOLOGY REPORT 1999/063
- Gil Luria, Dana Yagil (2010). Safety perception referents of permanent and temporary employees: Safety climate boundaries in the industrial workplace. Accident Analysis and Prevention 42 1423–1430.
- Goetsch, D.L (2008) Occupational Safety and Health for technologists, Engineer and Managers, Pearson International Edition, 6<sup>th</sup> edition, Prentice Hall
- Huang, Y.-H., Ho, M., Smith, G.S., Chen, P.Y ( 2006). Safety climate and self-reported injury: assessing the mediating role of employee safety control. Accident Analysis and Prevention 38, 425–433.
- Larry L.H (2000) The architecture of safety excellence Professional safety.  
Doi [http://www.l2hsos.com/publications/architecture\\_of\\_safety.pdf](http://www.l2hsos.com/publications/architecture_of_safety.pdf)  
.18.12.10.
- Mahmood R, Mohd Isa M.F, Mustafa M, Abd Aziz F.S and Salleh A. (2010) . Safety behaviour : The role of safety commitment. College of Business, UUM. DOi : [http://www.internationalconference.com.my/proceeding/icber2010\\_pceeding/PAPER\\_214\\_SafetyBehaviour.pdf](http://www.internationalconference.com.my/proceeding/icber2010_pceeding/PAPER_214_SafetyBehaviour.pdf).
- Marsh, T.W., Davies, R., Phillips, R.A., Duff, A.R., Robertson, I.T., Weyman, A & Cooper, M.D(1998), The Role of Management Commitment in Determining the Success of a Behavioural Safety Intervention, Journal of the Institution of Occupational Safety & Health.2(2)45-56.  
Doi : [http://www.behavioural-safety.com/articles/The\\_role\\_of\\_managerial\\_commitment\\_in\\_Behavior\\_Based\\_Safety.pdf](http://www.behavioural-safety.com/articles/The_role_of_managerial_commitment_in_Behavior_Based_Safety.pdf) ,18.12.10.

- M.N. Vinodkumar a, M. Bhasi b (2009) Safety climate factors and its relationship with accidents and personal attributes in the chemical industry. *Safety Science* 47 659–667
- Neal, A., Griffin, M.A., Hart, P.M., 2000. The impact of organizational climate on safety climate and individual behavior. *Safety. Science.* 34, 99–109.
- Nor Azimah C.A, Jeffery T.S, Krassi B.R, Satvinder S.D & Yang M.G (2009) Managing safety: The role of safety perception approach to improve safety in organizations. *IBEJ Vol. 2 issue No.1 pg 1 -18.*
- Oi -ling Siu , David R. Phillips , Tat-wing Leung ( 2004) Safety climate and safety performance among construction workers in Hong Kong : The role of psychological strains as mediators. *Accident Analysis and Prevention* 36 (2004) 359–366 .
- Oi-ling Siu, David R. Phillips, Tat-wing Leung (2003). Age differences in safety attitudes and safety performance in Hong Kong construction workers. *Journal of Safety Research* 34 pg 199–205
- P.K. Nag, V., G Patel (1998) Work Accident among shift workers in industry. *International Journal of Industrial Ergonomics* 21. 1 pg 275- 281
- Rafiq M. Choudhry , Dongping Fang and Helen Lingard (2009) Measuring Safety Climate of a Construction Company. . *Journal of Construction Engineering and Management*, Vol. 135, No. 9, DOI: 10.1061/\_ASCE\_CO.1943-7862.0000063
- Robert J. Vance, (.2006) Strategic to reduce injuries within the fort worth fire department- executive planning. *SHRM Foundation.*
- Rundmo T , Hestad H, Ulleberg P (1998) Organizational factors, safety attitude and workload among offshore oil personnel. *Safety science* 29,pg 75 -87.
- Susan E. Hahn a, Lawrence R. Murphy b (2008) A short scale for measuring safety climate. *Safety Science* 46 , pg 1047–1066
- Tsung-Chih Wua,, Chi-Wei Liub,c, Mu-Chen Lua (2007) Safety climate in university and college laboratories: Impact of organizational and individual factors. *Journal of Safety Research* 38 pg 91–102 .
- Unto Varonen a, Markku Mattila b,(2000). The safety climate and its relationship to safety practices, safety of the work environment and occupational accidents in eight wood-processing companies. *Accident Analysis and Prevention* 32 pg 761–769.

- Wong Yat Hang (2009) Determinants of safety climate among construction workers in Hong Kong. A Dissertation submitted to the faculty of architecture. Hong Kong. DOI : <http://hub.hku.hk/bitstream/10722/131016/1/ft.pdf>
- Yule, S. (2003) Safety culture and safety climate: A review of the literature. Industrial Psychology Research Centre, University of Aberdeen, UK. Doctoral thesis, University of Aberdeen, Scotland.

## APPENDIX

The survey questionnaire (English version)



COLLEGE OF BUSINESS

UNIVERSITI UTARA MALAYSIA

06010 SINTOK

KEDAH DARUL AMAN

Dear Sir/Madam,

I am Abd. Halim bin Ya of Universiti Utara Malaysia (Student Matric Number: 806526), currently conducting a MHRM research entitled “The Relationship between Safety Management and Safety Performance in The Mitisa Holdings Sdn Bhd . In order to conduct this research data will be collected from Mitisa Holdings Sdn Bhd employees.

Fortunately you have been nominated to take part in this research and may I ask that you kindly complete the questionnaire enclosed. I assure you that it would not take longer than 30 minutes as your cooperation will contribute to improving the standards of safety of your organization.

All data provided will be treated as confidential and will only be used for this academic research.

Thank you for your cooperation

ABD. HALIM BIN YA

UNIVERSITI UTARA MALAYSIA

FACULTY OF HUMAN AND SOCIAL DEVELOPMENT

06010 SINTOK

KEDAH DARUL AMAN

1.0 Personal particulars

1.1 Gender

Male [        ]                      Female [        ]

1.2 Age \_\_\_\_\_ years

1.3. Status

Single                                [        ]

Married                              [        ]

Widow                                [        ]

Widower                              [        ]

1.4 Highest academic achievement

Primary school                      [        ]

SRP/ SPM                             [        ]

STPM                                 [        ]

Diploma or equivalent              [        ]

Degree or equivalent                [        ]

Others (*please specify*) \_\_\_\_\_

1.5 Year completed in primary school \_\_\_\_\_



2.0 Domestic affairs/circumstances

2.1 Department : Management/Administration/ Operation/ Marketing /  
Technical

2.2 Date of employment in this organization  
\_\_\_\_\_months/years

2.3 Job categories

Top management [ ]

Top management/ technical [ ]

Executive/professional / management [ ]

Executive /professional / technical [ ]

Non-executive / management [ ]

Non-executive / technical [ ]

Blue-collar [ ]

2.4 Employment status: Permanent/Contract/ Temporary

2.5 Position \_\_\_\_\_{ *please specify*}

### 3.0 Safety Management

<i>Based to the provided scale, please tick the appropriate box to indicate your level of agreement toward the statement</i>	<i>Strongly agree</i>	<i>Agree</i>	<i>Neither agree nor disagree</i>	<i>Disagree</i>	<i>Strongly disagree</i>
1.Management operates an open door policy on safety issues					
2.Safety is the number one priority in my mind when completing a job					
3.Co-workers often give tips to each other on how to work safely					
4. Safety rules and procedures are given and carefully followed					
5.Management clearly considers the safety of employees of great importance					
6. Management gives the briefing and training for new staff and all construction workers					
7. Safety equipment and all tools are given to the workers to do the job where necessary					
8. Sometime the workers don't like to use the safety tools (safety cap, shoes, gloves , eye glass )					
9. Management acts decisively when a safety concern is raised					
10.There is good communication here about					

safety issues which affect me					
11. I understand the safety rules for my job					
12. It is important to me that there is a continuing emphasis on safety					
13. The management gives a briefing about the function safety policy, safety committee in the company					
14. The management gives the way of process in how to be a good performance in safety					
15. I am strongly encouraged to report unsafe conditions					
16. In my workplace management turns a blind eye to safety issues					
17. Some safety rules and procedures do not need to be followed to get the job done safely					
18. I am rarely worried about being injured on the job					
19. Management acts only after accidents have occurred					
20. I believe that safety issues are not assigned a high priority					
21. Some health and safety rules and procedures are not really practical					

22. Employees are not encouraged to raise safety concerns					
23. Personally I feel that safety issues are not the most important aspect of my job					
24. In my workplace the chances of being involved in an accident are quite large					
25. I do not receive praise for working safely					
26. Corrective action is always taken when management is told about unsafe practices					
27. Operational targets often conflict with safety measures					
28. My line manager/supervisor always inform me of the quality and safety issues					
29. I can influence health and safety performance here					
30. Sometimes conditions here hinder my ability to work safely					
31. Safety information is always brought to my attention by my line manager/supervisor					
32. When people ignore safety procedures here, I feel it is none of my business					
33. In my workplace management acts quickly to correct safety problems					

34. I am clear about what my responsibilities are for health and safety					
35. Sometimes it is necessary to depart from safety requirements for operation's sake					
36. A safe place to work has a lot of personal meaning to me					
37. There are always enough people available to get the job done safely.					
38. In my workplace managers/supervisors show interest in my safety					
39. I am never involved in the ongoing review of safety					
40. Management clearly considers safety to be equally as important as operation					
41. The relationship between Safety management and safety performance are important					
42. The quality of the safety are comes from the good Management and safety performance					
43 I cannot always get the equipments I need to do the job safely					

Do you have any other comments about health and safety in your workplace?

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*Thank you very much for you time and cooperation.*

*I greatly appreciate your organization and you help in assisting me in this research.*