

**A STUDY ON THE EFFECTIVENESS
OF SAFETY AWARENESS
AT SEREMBAN SPECIALIST HOSPITAL**

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**MASTER OF HUMAN RESOURCE
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A STUDY ON THE EFFECTIVENESS OF SAFETY AWARENESS AT SEREMBAN
SPECIALIST HOSPITAL

By

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Thesis is submitted to College of Business in partial
fulfillment of the requirement for the degree of
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ABSTRACT

The main objective of this study is to determine the effectiveness of safety awareness. The data is collected from 100 staffs at Seremban Specialist Hospital. The data is analyzed by using Correlation. Result shows that there is a significant relationship between employee's attitudes, management practices and leadership behavior towards level of awareness. It shows that employee's attitudes, management practices and leadership behavior influences the effectiveness of safety awareness.

ABSTRAK

Objektif utama kajian ini adalah untuk menentukan tahap kesedaran yang efektif terhadap keselamatan pekerja. Data dikumpul daripada 100 orang pekerja di Hospital Pakar Seremban. Data di analisis dengan menggunakan Ujian Korelasi. Keputusan menunjukkan bahawa terdapat hubungan yang signifikan di antara tingkah laku pekerja, gaya pihak pengurusan dan tingkahlaku pemimpin terhadap tahap kesedaran keselamatan di tempat kerja. Ini menunjukkan bahawa tingkahlaku pekerja, gaya pihak pengurusan dan tingkah laku pemimpin memberi kesan terhadap tahap kesedaran keselamatan pekerjaan.

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CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

This chapter gives a brief introduction regarding the study. This chapter also discusses the research problem, research question, research objective, scope and limitation of the study, significant of the study and a brief operation definition of the keywords.

1.1 BACKGROUND OF THE STUDY

Creating safety awareness is a critical but challenging task of senior leaders in organizations involved in potentially harmful activities (“high hazard” industries) (Roberts & Rousseau, 1989). Clarke (2003) defined safety awareness as the core assumptions and beliefs that organizational members hold concerning safety issues. This is expressed through the beliefs, values and behavioral norms of its managers, supervisors and workforce and is evident in company safety policy, rules and procedures. The essence of this definition is the sharing of common beliefs and values that safety is a priority. Effective safety can only be achieved when there is a proper management of the interaction between technological systems and people.

Safety awareness can be discerned from behavioral norms that demonstrate a commitment to safety. In health care, an example of a high hazard industry, strong

awareness has the potential to prevent medical errors from claiming lives (Institute of Medicine, 2000). Despite leadership's crucial role, leading safety researchers in healthcare suggest that few hospital Chief Executive Officers (CEOs) devote sufficient time or resources to patient safety (Leape *et al.*, 2005). Prior research has found that variation exists across hospitals in leaderships' awareness of safety risks and mistakes (Singer *et al.*, 2003). In addition, perceptions differ between senior leadership and front line staff regarding safety and leader awareness of hospital safety risks, with senior leaders having a more optimistic view. This difference is larger in some institutions than in others, suggesting that some leaders do a better job than others in their effort to communicate their commitment to patient safety.

Beliefs and attitudes of the people working within the organization greatly affect the safety in the workplace. Safety awareness is a concept that arose as a result of the Chernobyl nuclear accident in the Soviet Union in 1986.

According to Vredenburg (2002) as a result of the accident, there was a greater focus on the human and organizational elements that contribute to unsafe operation of technological systems.

This study is focused on a positive approach for creating a corporate awareness characterized by high levels of trust and employee involvement. This is in line with a model of behavior modification that focuses not only on worker's safe and unsafe behaviors but also on attitudes, beliefs and values.

1.2 ORGANIZATIONAL BACKGROUND

1.2.1 Seremban Specialist Hospital Background

KPJ Seremban Specialist Hospital (KPJ Seremban) is a member of KPJ Healthcare Berhad Group of hospitals. Strategically located in the city center of Seremban, KPJ Seremban is offering a new era of private healthcare services to the growing affluent of the Seremban community and its vicinity. With its close proximity to the newly developed government center of Putrajaya, KPJ Seremban will complement the total infrastructure and development of this intelligent city.

KPJ Seremban Specialist Hospital (SSH) is located at Kemayan Square, Seremban with 137 operational beds. It is a private one stop medical and therapeutic centre offering a comprehensive range of medical, surgical and 24-hour emergency services.

1.2.2 Seremban Specialist Hospital objectives

- i. To provide a full range of specialist, clinical and support services.
- ii. To emphasize on work ethics and confidentiality.
- iii. To provide a safe, secure and conducive environment.
- iv. To ensure that patients are cared for and serviced by well trained and competent professionals.
- v. To motivate staff by ensuring staff satisfaction, their well being and enhancing, career development through education and training.

1.3 PROBLEM STATEMENT

Transferring knowledge about creating awareness of safety from other industries to healthcare may be difficult. Institutional and organizational factors differ substantially between hospitals and other hazardous industries (Gaba, 2001). For example, enlisting non-employee physicians in safety initiatives is a critical challenge for hospitals (Poon *et al.*, 2003). In addition, little is understood about specific mechanisms that senior healthcare leaders can use to instill awareness in their organizations, and leaders have few metrics to evaluate their own efforts to achieve this goal (Flin *et al.*, 2004).

Most injuries are not caused by faulty equipment, but they are caused by an employee's behavior and much of the employee's behavior is caused by the hidden culture in the company (Dilley, H., 1996). This culture needs to change to reflect the importance of safe behavior. Creating awareness means that the employees are constantly aware of hazards in the workplace, including the ones that they create themselves (Kleiner, B. H, 1996).

Employee accidents are largely related to behavior issues. These issues arise from the culture of the environment and can be prevented. Through Occupational Safety and Health Act (OSHA) it is an employer's responsibility to provide a safe working environment.

According to Dilley (1996), many safety managers find incentive program to be a valuable part of safety programmes. However, critics' challenge that awards based on

reports could cause employees to hide injuries. Programmes can only be effective if they are a part of a comprehensive safety programme.

Does, this study try to answer the question “Is the employees attitudes, management practices and leadership behavior meeting the standard of organizational safety awareness?”

1.4 RESEARCH OBJECTIVES

The primary aim of this study is to measure the significance relationship between employee’s attitudes, leadership behavior and management practices towards safety awareness. The objectives of this study also is to create awareness of safety among employees to make them aware of hazards in the workplace and to examine to what extent management practices in safety are effective in reducing workplace injuries.

1.5 RESEARCH QUESTION

This study is intended to answer these three main questions:

- i. Is there any relationship between safety awareness towards employee’s attitude?
- ii. Is there any relationship between safety awareness towards management practices?

- iii. Does leadership behavior give impact to the effectiveness of safety awareness?

1.6 SCOPE OF THE STUDY

The area of the study is safety in the workplace. The research will be conducted at Seremban Specialist Hospital focusing on safety awareness. 100 people will be selected randomly to answer the questionnaire. Participants include senior leadership as defined by the hospital, middle managers, and front line personnel from one or higher hazard units, including cardiac catheterization laboratories, emergency departments, surgical departments, patient care units, and laboratories. Senior leaders generally included the Chief Executive Officer (CEO), Chief Medical Officer (CMO), Chief Operating Officer (COO), Chief Nursing Officer (CNO), and Chief Quality Officer (CQO).

1.7 LIMITATION OF THE STUDY

Unfortunately, this study focused solely on private hospital, which actually has the strong awareness on safety compared to the government hospital. Besides, hospital district only allows the researcher to collect data during a certain time. The sources, information, and data for this research are limited even though research has already been done by previous researchers, the data is still difficult to find out and confidential.

1.8 SIGNIFICANCE OF THE STUDY

The findings of this study are important to several groups of peoples. The groups of people are:

1.8.1 Employee

This study helps the employees to get a better understanding of Occupational Safety and Health practices in the organization. Besides, it also will increase the employee's awareness about the importance of safety at the workplace. Each employee shall comply with Organizational Safety and Health Act (OSHA) standards and all rules, regulations, and orders issued pursuant to the OSHA which are applicable to his or her own actions and conduct. By practicing of OSHA, employees can reduce the accidents and injuries at the workplace. Therefore, the employees can increase their productivity and performance.

1.8.2 Employers and organization

This study can also help employers to ensure the safety, health and welfare of their employees by providing or maintaining the equipment and systems of work that are safe and without risks to health. It can also help them to have early intervention programs to increase the awareness of safety.

This study can also help organizations to take initiatives to conduct training on safety. Training sessions can help employers implement the safety culture at their

organization by involving employees to actively participate in the training process.

1.8.3 Manufacturers and suppliers of office equipment

This study can be used as a reference by manufacturers and suppliers of office equipment to ensure the products are safe and not a risk to health when properly used. They will ensure to provide customers with clear information about the safe use of their products and make available information about research and testing.

1.9 ORGANIZATION OF THE REPORT

This report consists of five chapters. Chapter 1 will briefly discuss about the overview of the study including the introduction of the study, background of the study, research problem, research question, research objective, scope and limitation of the study and significant of the study. Chapter 2 will discuss about the previous literature on safety awareness design. This chapter also will provide the theoretical framework and the hypotheses of the study. Chapter 3 will discuss thoroughly the methods of this study including the research design, the procedure to collect the data, the population of the respondents, the research instrument and the design of questionnaires, the reliability test and the statistical analysis. Chapter 4 will present the findings of the study and the last one, chapter 5 is about the whole discussion of the study, the limitations and the recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

Chapter 2 will discuss about the literature related to safety awareness, employees' productivity and theories and model related to the safety awareness.

The trend around safety awareness originated after Chernobyl disaster brought attention to the importance of safety awareness and the impact of managerial and human factors on the outcome of safety performance (Flin et al. 2000; IAEA 1986). Beliefs and attitudes of the people working within the organization greatly affect the safety in the workplace. Safety awareness is a concept that arose as a result of the Chernobyl nuclear accident in the then Soviet Union in 1986. According to Vredenburg (2002) as a result of the accident, there was a greater focus on the human and organizational elements that contribute to unsafe operation of technological systems.

The safety awareness was described as a means of explaining how the lack of knowledge and understanding of risk and safety by the employees and organization contributed to the outcome of the disaster. Safety awareness has been widely defined. Clarke (2003) defined safety awareness as the core assumptions and beliefs that organizational members

hold concerning safety issues. This is expressed through the beliefs, values and behavioral norms of its managers, supervisors and workforce and is evident in company safety policy, rules and procedures. The essence of this definition is the sharing of common beliefs and values that safety is a priority. Effective safety can only be achieved when there is a proper management of the interaction between technological systems and people.

Based on the data published in the SOCSO Annual Report, the total number of workplace injuries reported in Malaysia- the total number of work-related accidents recorded in 1995 was 114,134 cases. These reported cases of workplace accidents declined by 6.7 percent in 1996 (106,508 cases); by 18.7 percent in 1997 (86,589 cases); by 1.4 percent in 1998 (85,338 cases). However, the number increased in 1999 by 11.3 percent (92,074 cases). These evidences suggest that work-related accidents in Malaysia are constantly fluctuating.

There is substantial evidence to suggest that safe work behavior is supported by positive safety awareness. Safety awareness is characterized by communications founded on mutual trust, by shared perceptions of the importance of safety and by confidence in the efficacy of preventive measures. However, the temporary nature of contingent work, with little organization tenure and limited opportunity to develop relationships based on trust does not provide the stable workforce and frequent interactions. Therefore, with the continuing growth of the contingent workforce, this raises the issue of the extent to which

a concept such as company safety policy is viable as a means of ensuring workers' safe behavior.

There are many issues raised by the evaluations of safety training programmes; these includes: establishing what constitute safety awareness, safety attitudes, attitudes to and perceptions of risk, whether the training is attempting to change behavior or attitudes or both, the links between attitudes and behavior in a safety context, the training methods, evaluation methods and measures.

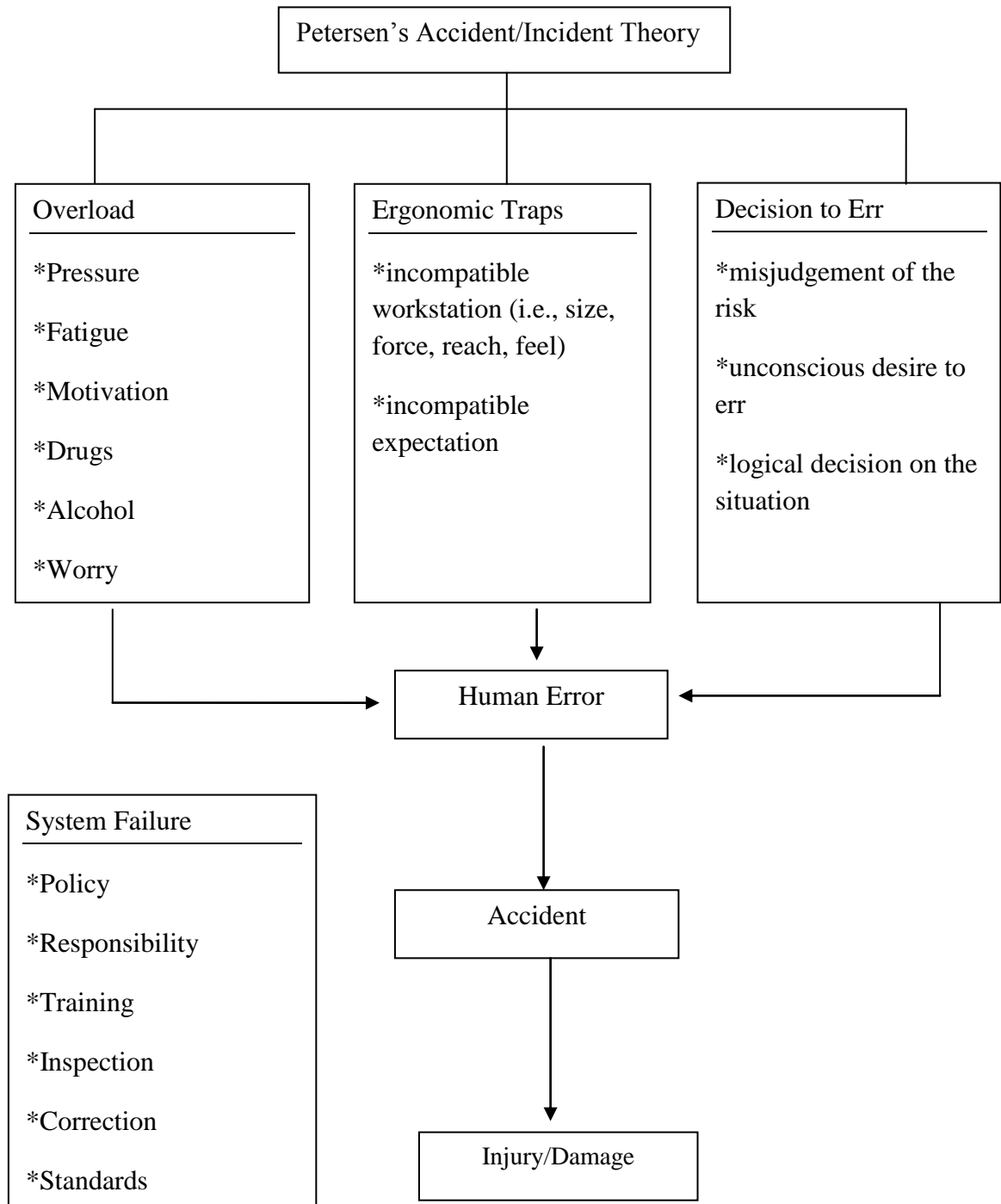
In managing the interaction between system and people the importance is placed on effective safety management. Herbert W. Heinrich, an early pioneer of accident prevention and industrial safety noted that 88 percent of industrial accidents originate from human factors (Goetsch, 2002).

Since human factors play a significant role in the safety performance (Donald and Young, 1996), greater attention is now being directed on examining the behavioral causes to technological failures, which is now widely called "human error". Many researchers now recognize the importance of safety awareness in ensuring both the organization and employee achieve a high standard of safety in the workplace (Beckmerhagen *et al.*, 2003). Thus a proper understanding of the individual who function independently or within groups operating in a technological system is increasingly becoming important in understanding work-related accidents.

2.1 LEVEL OF AWARENESS

Feare, as stated in Tarcan, Varol and Ates (2004) said that awareness is a study on how to improve the knowledge of the people who perform the tasks with the environment of workplace and should not be something that is done to the workers but something that make them participate or in other words, organization must include their suggestion in the decision-making process (Attaran and Wargo, 1999) as the employees are people who are going to interact with the workplace. So, it is important to ensure that the workplace suit them very much. According to Wynn (2008), awareness initiatives consist of three elements which are effective (significantly reduces work-related injuries), efficient (gets the job done with reasonable use of resources) and sustainable (long lasting gaining and not just one-time improvements).

2.2 ACCIDENT/INCIDENT THEORY OF ACCIDENT CAUSATION



Sources: Goetsch, D. L. (2005). Occupational safety and health for technologies, engineers, and managers (5th ed.). New Jersey: Pearson Prentice Hall.

Figure 2.0
Petersen's Accident/Incident Theory

Accident/incident theory of accident causation or sometimes referred as Petersen accident/incident theory is developed by Dan Petersen. This theory basically discuss about factors that lead to human error such as overload, decision to err and added ergonomic traps as a new element in this model.

In the first element which is overload, the employees might face overload pressure from works, peers or maybe from the management that lead them to the error in completing their tasks. Workload and long hours at workplace also can contribute to fatigue that at the end contribute to the error. Other factors that fall under overload are excess motivations; highly worry and misuse of drugs and alcohol also might lead the employee's error. Second element which is decision to err is about the conscious decision based on logic or maybe unconscious decision and the misjudgment of the risk. The last element is ergonomic traps in which the factors that fall in this element are incompatible workstation and incompatible expectations. Example of incompatible workstation is the size of the workstation, the force, the reach and the feel. All these factors might contribute to the accident in the workplace and hence bring damage or injury to the people in the workplace.

This study will discuss about the accident/incident at workplace where it is related to the level of employee's awareness. This is why this study takes place so that management can take precaution action by eliminating the factors that might contribute to the human

error so that the chances to the accident to happen in the organization can be reduced. By understanding workplace ergonomically, the overall workstation will be suited with the psychological and physiological of human being as Grag and Rastogi (2006) said that the involvement of anatomy, physiology, and psychology in designing jobs ergonomically will lead to high performance and reduced levels of stress in employees. This is more or less will prevent the accident to happen in the workplace.

2.3 EMPLOYEE'S ATTITUDES

In the workplace, safety awareness matches an individual's physical characteristics and capabilities with the tasks and safety work environment. MacLeod (1995) in his book said that positive attitude will enhances output with fewer human errors. Many researchers have been done before and most are likely said that employee's attitude has significant effects on productivity of the employee. Grag and Rastogi (2006) said that to sustain the employees, it is very important to ensure a hazard-free and safe environment, and it has been embraced by managers that a safe working environment can result in higher efficiency and productivity and help to reduce the health problems among the employees (Tarcan, Varol and Ates, 2004).

In addition, Grag and Rastogi (2006) said that by understand safety hazards also will help in building safe working conditions and avoiding musculoskeletal injuries and unwanted body postures. They added understanding safety will lead to high performance and reduced levels of stress in employees.

2.4 MANAGEMENT PRACTICES

Management practices are determined when management performed their task well. Rolloos (as stated in Amina Hameed & Shehla Amjad, 2009) defined management practices as something that which people can produce with the least effort. Sutermeister (as stated in Amina Hameed & Shehla Amjad, 2009) added that management practices also can be defined as output per employer hour, quality considered. A management practice is a ratio to measure how well an organization (or individual, industry, country) converts input resources (labor, materials, machines etc.) into goods and services (Amina Hameed & Shehla Amjad, 2009). Factors that affected management practices as suggested by Ailabouni, Gidado and Painting (2007) are general work environment, organizational work policies, group dynamics and interpersonal relationships and employees' personal competence.

2.5 LEADERSHIP BEHAVIOR

Article title *leadership* stated that leadership behavior is an individual characteristics and is reflected in the measure of output of a person in relation to their wages and the investment there has been in their recruitment and training etc. Pranee, in his article found that the most evident result of productivity improvement regarding the quality of leadership behavior for sustainable development is in the industrial sector, where various improvements in applying technology and natural resources, as well as improvements in

human resources, have taken place. A higher level of leadership behavior decreases the level of stress and improves safety awareness. By taking leadership into consideration will decrease the problems of safety and health at workplace (Tarcan, Varol and Ates, 2004). In addition, it is an advantage for the employer and employee if they are promote a leadership behavior because it will support productivity and reduce the risk of injury while on the job (Viscusi, 2007).

2.6 RELATIONSHIP BETWEEN EMPLOYEE'S ATTITUDES, MANAGEMENT PRACTICES AND LEADERSHIP BEHAVIOR TOWARDS THE EFFECTIVENESS OF SAFETY AWARENESS

Lee (2006) defined safety environment as the difference between the needs of users and their current diagnosis of their environment. Article title *The Importance of Workplace Environment* said that an employee's workplace environment is a key determinant of their level of awareness and improved in work environment can enhance employee's productivity (Taiwo, 2010). Satisfaction with the physical environment is positively related to job satisfaction (Lee, 2006) and for the employee to be efficient and productive, they have to be equipped with right gear (Stringer, 2007).

Bernadi and Kowaltowski, as stated in Langston, Song and Purdey (2008) mention that occupant satisfaction with physical working environments is related to management practices towards safety, thermal comfort, lighting and acoustic conditions and with commitment of management to improved workplaces and working conditions, their

reward will come in terms of improved health of their workers, higher morale, less absence and higher productivity (Rabiul Ahasan, 2003). T-test results in the study by Taiwo (2010) shows that improvement in safety awareness can lead to higher productivity of employees and bad working conditions contribute to low productivity of employees.

Attaran and Wargo (1999) in their study found the company that practices an open air environment promotes human interaction. Conditions which cause discomfort can have negative influences on employees' performance, cause health problems and increase short-term sick leave. Tarcan, Varol and Ates (2004) said that in a workplace, there are three main causes of stress which are physical environment, work organisation and phsyco-social factors. Walker, Dalbokova and Krzyzanowski as in Tarcan, Varol and Ates (2004) added, physical stress factors include poor seating, awkward movements, repetitive motion and other ergonomics problems. However, study has been conducted in several working area and found that different working area perceived different in level of awareness. Langston, Song and Purdey (2008) in their study found that employees in health sectors showed the highest awareness with most variables in the workspace design and management category whereas government hospital showed a lower level of awareness with their physical work environment and workspace design and management.

2.7 THEORY

2.7.1 Maslow's Hierarchy of Need

Abraham Maslow (1908-1970), receive his doctorate in psychology, was the first psychologist to develop a theory of motivation based upon a consideration of human needs and these needs can be classified according to a hierarchical structure of importance from the lowest to highest. To reach successive levels of the hierarchy required the satisfaction of the lower level needs:

1. Physiological needs. Maslow groups all physical needs necessary for maintaining basic human well being into this category. These needs become acute and predominant if any or all of these needs are unsatisfied. However, consistent with Maslow's theory of motivation, once a need is satisfied, such as thirst, it no longer is a motivator.
2. Safety needs. These needs include the need for basic security, stability, protection, and freedom from fear. A normal state exists for an individual to have all of these needs generally satisfied. Otherwise, they become primary motivators.
3. The belongingness and love needs. Once the physical and safety are satisfied and no longer are motivators, than the belongingness and love needs emerge as primary motivators. The individual will strive to establish meaningful relationships with significant others. Deprivation of the belongingness and love needs will result in significant personality maladjustment.

4. The esteem needs. An individual must develop self confidence. In order to do this it is essential to the individual to have adequacy from achieving mastery and competence leading to the achievement of status, reputation, fame and glory. This achieves satisfaction of the self-esteem needs.
5. The need for self-actualization. Assuming all of the previous needs in the hierarchy are satisfied, a "new discontent and restlessness will soon develop... A musician must make music, an artist must paint, a poet must write ... What a man can be, and he must be."

Maslow's hierarchy of needs theory helps the manager to visualize employee motivation. It helps in understanding the motivations and needs employees have and the requirement to satisfy basic needs in order to achieve higher level motivation and hence increase employees' awareness towards safety.

2.7.2 Two-Factor Theory (Motivator-Hygiene Theory)

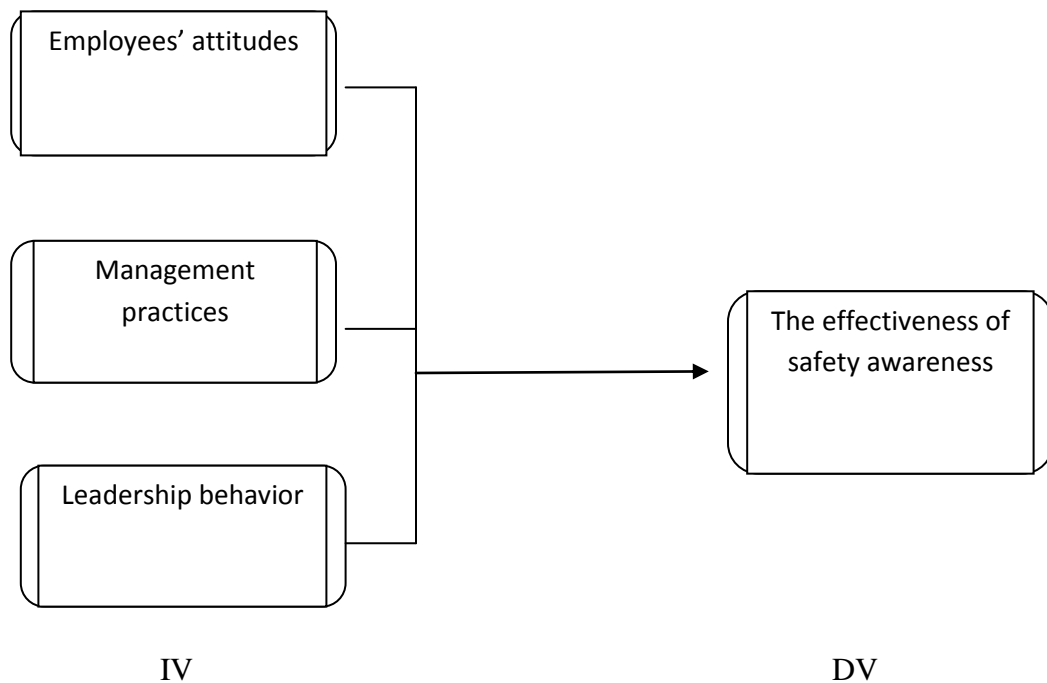
Frederick Herzberg's Two Factor Theory (also known as Motivator Hygiene Theory) attempts to explain satisfaction and motivation in the workplace. This theory states that satisfaction and dissatisfaction are driven by different factors – motivation and hygiene factors, respectively. An employee's motivation to work is continually related to job satisfaction of a subordinate. The model states that employee motivation is achieved with challenging enjoyable work where achievement, growth, responsibility and advancement are encouraged and recognized. These motivating factors are considered to be intrinsic to the job, or

the work carried out. Hygiene factors include aspects of the working environment such as pay, company policies, supervisory practices, and other working conditions such as poor lighting, ventilation, poor working conditions, low salaries, and poor supervisory relations, serve as dissatisfies. The difference between motivators and hygiene factors is that motivators cause an employee to develop his/her own internal motivations, whereas hygiene factors can make an employee unhappy and dissatisfied, but cannot motivate him/her.

2.8 CONCEPTUAL FRAMEWORK

Figure 2.1

Theoretical framework



Sources: Clarke (2003) & Sherif Mohamed (2011)

The relationship between safety awareness design and the effectiveness of safety awareness can be conceptualized as in figure 2.1. This conceptual framework is adapted from Clarke (2003) & Sherif Mohamed (2011). This framework consist of three independent variables (IV) which are employee's attitude, management practices and leadership behavior while safety awareness as dependent variable (DV).

These three IV are seemed to be the factors that might affect the effectiveness of safety awareness.

2.8.1 Employee's attitudes and safety awareness

In the UK, the Government regulatory body, the Health and Safety Commission (HSC) has suggested that companies can prevent accidents and maintain a good safety record through the development of positive safety awareness. An organization's safety awareness relates to the core assumptions and beliefs that organizational members hold concerning safety issues; it is expressed through the beliefs, values and behavioral norms of its managers, supervisors and workforce, and is evident in company safety policy, rules and procedures (Clarke, 2003). Safety awareness is reflected in the positive safety attitudes and the perceptions of the workforce (Pidgeon, 1991). Cox (1991) argue that workers' safety attitudes are the most important aspect of a good safety awareness and measurement tools commonly focus on gauging this attitudes (Measn *et al.*, 1998). Summaries of the empirical studies measuring workers' safety attitudes suggest these relate to the following main areas: perceptions of management attitudes and actions regarding

safety; perceptions of the safety system; work environment and individual responsibility or competence (Clarke, 2003).

2.8.2 Management practices and safety awareness

Research has been suggested that safety management practices reflect the safety awareness of senior management. Shannon (1996) identify a number of safety management practices, including encouragement of long-term career commitment and provision of long and short-term disability plans that are associated with low rates of lost-time injuries. Aspects of management style and awareness are related to low injury rates, empowerment of the workforce, encouragement of long-term commitment of the workforce and good relations between managers and workers (Shannon *et al.*, 1997).

2.8.3 Leadership behavior and safety awareness

Experience of the UK's National Patient Safety Agency suggests that building strong safety awareness requires nurse managers to exhibit strong leadership including listening; explaining the relevance, importance, and benefits of patient safety; and promoting an ethos of respect and ability to speak up (Chamberlain-Webber, 2004).

In addition, two recent studies suggest the importance of senior leaders' role in achieving clinical improvements. In the first, engaged senior managers was a key

feature for improving complex clinical processes to meet guidelines for treating acute myocardial infarction (Bradley *et al.*, 2005).

The second study found that successful implementation of clinical innovations required leader support and problem recognition, but also concrete organizational support and implementation tools (Van Deusen *et al.*, 2005). Leader support included prioritizing and talking about the innovation and reviewing progress toward its accomplishment.

Accidents in the workplace do happen when the “people” elements tend to engage in safe and unsafe behavior according to their interpretation. The prime motivation of safety awareness is the recognition that attitudes and behaviors of employees are crucial to safe behavior at work. Cooper and Phillips (1995) suggest that to enhance safety performance and promoting safety awareness, there must be a reciprocal relationship between safety management and safety behavior. This reciprocal relationship must reflect the interrelationship between individuals, jobs and organization to ascertain the attainment of a strong and positive awareness. Thus strong awareness is essential in ensuring both organization and employees maintain high standards of safety in the workplace (Beckmerhagen *et al.*, 2003).

The examination of the literature in the fields of organizational awareness and leadership reveals that these two concepts have been independently linked to

knowledge management. Researchers have examined the links between leadership styles and knowledge management (Sarin and Mcdermott, 2003) and also between organizational awareness and knowledge management (De Long and Fahey, 2000). The literature also alludes to the role of leaders in “creating” and “maintaining” particular types of organizational awareness. Equally, the literature on leadership suggests that the ability to understand and work within certain awareness is a prerequisite to leadership effectiveness.

2.9 HYPOTHESIS

This section develops a series of hypothesis examining the effectiveness of safety awareness design which is employee attitude, management practices and leadership behavior.

H1: Effect of employee’s attitude on safety awareness

Ho: There is no significant relationship between employee’s attitude and safety awareness

H₁: There is a significant relationship between employee’s attitude and safety awareness

H2: Effect of management practices on safety awareness

Ho: There is no significant relationship between management practice and safety awareness

H₁: There is a significant relationship between employee's attitude and safety awareness

H3: Effect of leadership behavior on safety awareness

Ho: There is no significant relationship between leadership behavior and safety awareness

H₁: There is a significant relationship between leadership behavior and safety awareness

CHAPTER 3

RESEARCH METHODOLOGY

3.0 INTRODUCTION

The main focus of this chapter is the research design for this study. It describes the methods used and how the data was collected to address the aims and questions of the research. It begins by presenting the population of the research. The second section describes the sampling procedures used in the study. The third section presents the instrumentation in doing the research of the study. The fourth section provides more detail about data collection, initial modifications of items, administration of the survey questionnaires, analysis of the data, and use of data from other sources and details of the research schedule. The final section serves as a summary.

In the process of conducting the study, the researcher used and organized the best methodology available in order to ensure that the information gathered would meet the objectives of the study. Therefore, the researcher came out with appropriate variables for the study, whereby a group of independent variables (employee's attitudes, management practices and leadership behaviors) were used to test whether they influence the dependent variable (the effectiveness of safety awareness).

3.1 RESEARCH DESIGN

There are many research methods available for a study of safety awareness. In any social science research, there is no single method that should be regarded as the most suitable or applicable without first scrutinizing the various approaches available. As Punch (1998, p241) asserts “each approach has its strengths and weaknesses”. A researcher’s task, according to Punch (1998), is to understand the strengths and weaknesses analyze any particular research situation in the light of those strengths and weaknesses and select the approach, or combination of approaches, on the basis of that analysis. This notion further justifies the method selected for this study. A predominantly quantitative approach is appropriate for this kind of study, therefore it is the sole approach conducted for the study.

This study used quantitative methods involving survey questionnaires to collect the quantitative data. Such methods have been widely used by past researchers in the area of safety awareness on the grounds that data collection can be more far reaching than is possible with a predominantly qualitative approach. Vroom (1964, p. 100) asserted that attitudes, behavior and management practices are typically measured by means of questionnaires in which workers are asked to state the degree to which they like or dislike various aspects of their work roles.

3.2 DATA COLLECTION METHOD

3.2.1 Sources of Data

Data collection remains an integral part of research design. There exists many ways in collecting data such as primary and secondary data. For the purpose of this study, primary and secondary data were chosen.

3.2.1a Primary Data

Primary data refers to the information obtained firsthand by the researcher on the variables of interest for the specific purpose of the study (Sekaran, 2003). Primary data can also be defined as data originated by the researcher for addressing the research problem. For the purpose of this study, questionnaires will be used as the research instrument. Questionnaires are a set of questions developed to gain necessary data to answer the problem of the study. The advantage of using questionnaires is the fact that the researcher can collect all the completed responses within a short period of time. In addition to that, administering the questionnaires to a large number of respondents is time efficient as well as less expensive.

3.2.1b Secondary Data

Secondary data is the data that has been previously collected for some project other than the one at hand (Zikmund, 2003). The secondary data was obtained from secondary sources such as monthly publications, magazines, books,

textbooks, articles, reports, as well as the Internet. In this study the data were mainly taken from various publications related to education, textbooks, and journal articles as well as from websites. The advantage of using this type of data is the fact that the data is accurate and ready to be used. It is also not time-consuming and less or no cost at all in acquiring them.

3.2.2 Sample and sampling technique

Sampling is defined as the process of selecting a sufficient number of elements from the population so that the study of the sample and understanding of its properties would make it possible to generalize such characteristics to the population elements. Sampling involves both design choice and sample size decisions (Sekaran, 2003).

3.2.2a Sample size

The present number of all staff working at Seremban Specialist Hospital consists of 324 staffs. The sample therefore, was selected randomly from a total of 100 respondents, whereby the number of respondents would be able to facilitate the need of achieving the objectives of the study. In determining the sample size for this study, the sample size selected was based on the criteria set according to Roscoe's rule of thumb (cited in Sekaran, 2003) i.e. a sample that is larger than 30 and less than 500 is appropriate for most research. The respondent consist of senior leadership as defined by the hospital, middle managers, and front line personnel from one or more high hazard units, including cardiac catheterization

laboratories, emergency departments, surgical departments, patient care units, and laboratories. Senior leaders generally included the Chief Executive Officer (CEO), Chief Medical Officer (CMO), Chief Operating Officer (COO), Chief Nursing Officer (CNO), and Chief Quality Officer (CQO). A total 100 of questionnaires were distributed to all respondents. The questionnaires were distributed by the representative in each department.

3.2.2b Sampling Technique

There are two types of sampling designs; probability and the non-probability sampling (Sekaran, 2003). Probability sampling is the type of sampling whereby the elements in the population have some known chance or probability of being selected as sample subjects. Meanwhile, the non-probability sampling is where the elements do not have a known or predetermined chance of being selected as subjects. As for this study, the researcher has decided to use the non-probability sampling design, where the elements do not have any probabilities attached to their being chosen as sample subjects (Sekaran, 2003). In addition to that, convenience sampling was used. Convenience sampling refers to the collection of information from members of the population who are conveniently able to provide it (Sekaran, 2003). It is chosen due to convenience sampling being the best way of getting information quickly and efficiently.

3.3 RESEARCH INSTRUMENT

A questionnaire was prepared in which asking about the employee preference towards the safety awareness. A set of questionnaire which is the combination from set of question of Hedge (2008) and Antikainen and Lonnqvist (2005) which was printed of A4 paper with a brief information about the research and my personal information.

3.4 QUESTIONNAIRE DESIGN

The questionnaire consists of 20 questions which are divided into 2 sections:

- 1) Section A: Background Information
- 2) Section B: Safety Awareness at Workplace
 - Part 1: Level of awareness in safety
 - Part 2: Employee's attitudes towards safety
 - Part 3: Management Practices
 - Part 4: Leadership behavior

Table 3.0

Items Distribution

| Variables | Items Number |
|----------------------|----------------|
| Level of Awareness | 1,2,3,4,5 |
| Employee's attitudes | 6,7,8,9,10 |
| Management practices | 11,12,13,14,15 |
| Leadership behavior | 16,17,18,19,20 |

3.5 SCALE OF MEASUREMENT

The respondents were asked to complete the questionnaire by circle one (1) answers in the given boxes. For section B the Likert's scale was used where the respondents are given five choices of answer which are 5 = Strongly Disagree, 4 = Disagree, 3 = Neutral, 2 = agree and 1 = strongly agree.

3.6 PILOT TEST

Pilot test is undertaken to 30 respondents to get early information about the nature of study before the real questionnaire is distributed. The purpose of the pilot test is done is to determine if there any problems with the questionnaire. The pilot test also conducted

to ensure the questionnaire is understood, reliable, and usable to collect the data. After the pilot test is done, the questionnaires is been assessed re-designed to ensure the consistency.

3.7 RELIABILITY TEST

Reliability is the degree of consistency in assignment of similar words, phrases or other kinds of data to the same pattern or theme by different researchers (Hair, Money, Samouel and Page, 2007).

Reliability test is done to identify the internal consistency of the items in every section of the questionnaires. They also said that the questionnaire is considered to be reliable when it is repeated application results in consistent scores and the stronger the relation between items, the higher the reliability of the scale will be. Below is the reliability test for the variables.

Table 3.1

Reliability Test (Pilot Test)

Table 3.1: Reliability Test

| Variables | Number of Items | Cronbach's Alpha |
|----------------------|-----------------|------------------|
| Level of awareness | 4 | 0.797 |
| Employee's attitudes | 4 | 0.727 |
| Management practices | 3 | 0.496 |
| Leadership behavior | 3 | 0.680 |

3.8 DATA STATISTICAL ANALYSIS

Standard statistical techniques were used in this study for purpose of data analysis. The results of the questionnaires were analyzed using the computer programming for “Statistical Package Social Science (SPSS) version 16”. Since the questions have been categorized and coded, the raw data were manually entered into the computer for analysis.

3.8.1 Frequency Distribution

The frequencies analysis was undertaken to identify the number of male and female respondents as well as to know the age range of the respondents, salary range, and education level and also position level in the organization.

3.8.2 Pearson Correlation

This study analyzes using correlation to see the relationship between independent variables and dependent variables. From correlation analysis, it will determine whether the relationship existed is negative or positive. From this analysis too, it will determine the significant of the variables. If the value of the $p < 0.05$, there is a relationship between independent variables and dependent variable and thus, the H_0 is failed to be accepted. If the value of $p > 0.05$ or $p = 0.05$, there is no relationship between independent variables and dependent variable. Hence, the H_0 is failed to be rejected.

3.9 CONCLUSION

This chapter discussed the methodology used to for this study. This chapter also talked about the design of the research as well as the test and analysis undertaken.

CHAPTER 4

FINDINGS

4.0 INTRODUCTION

This chapter reports the result of the study. In the first part of this chapter discussed about the responses from the respondent and followed by the discussion of the respondents' profile and the reliability measurement. Lastly is about the relationship between the independent variables and dependent variables were determined using Pearson Correlation.

4.1 SURVEY RESPONSES

For this study, all of the respondents are from Seremban Specialist Hospital. The respondent consist of senior leadership, middle management, and front line personnel from one or more high hazards units, including cardiac catherization laboratories, emergency departments, surgical departments, patients care units, and laboratories. 100 sets of questionnaires were distributed and all questionnaires (100%) were returned. All the questionnaires were analyzed using Statistical Package for Social Science (SPSS) version 16 software. Table 4.0 shows the percentage of surveys responses.

Table 4.0

Percentage of Survey Responses

| | Total | Percentage (%) |
|----------------------------|--------------|-----------------------|
| Distributed Questionnaires | 100 | 100 |
| Collected Questionnaires | 100 | 100 |
| Uncompleted Responses | 0 | 0 |
| Completed Responses | 100 | 100 |
| Uncollected Questionnaires | 0 | 0 |

4.2 RESPONDENT'S BACKGROUND

The analysis of respondent's background determined the distribution of respondent's gender, age, salary range, education level and position level. Table 4.1 shows the frequency and the percentage of the respondent's background.

Table 4.1

Demographic Variables

| Variables | Frequency | Percent |
|----------------------------|------------------|----------------|
| Gender | | |
| Male | 49 | 49.0 |
| Female | 51 | 51.0 |
| Age | | |
| Below than 20 years old | 6 | 6.0 |
| Between 20 to 30 years old | 85 | 85.0 |
| Between 31 to 40 years old | 5 | 5.0 |
| Between 41 to 50 years old | 4 | 4.0 |
| Above than 50 years old | 2 | 4.9 |
| Salary Range | | |
| Less than RM3000 | 81 | 81.0 |
| Between RM3000 – RM5000 | 7 | 7.0 |
| More than RM5000 | 12 | 12.0 |
| Education Level | | |
| SPM | 17 | 17.0 |
| Diploma | 24 | 24.0 |

| | | |
|-----------------------|----|------|
| Degree | 59 | 59.0 |
| Master | 0 | 0 |
| PHD | 0 | 0 |
| Position Level | | |
| Non-Executive | 62 | 62.0 |
| Executive | 29 | 29.0 |
| Manager | 9 | 9.0 |

Table 4.1 shows the total number of the respondent is 100 in which the male respondent are 49 (49.0%) whereas the female respondent are 51 (51.0%). From the total number of respondents, only 6 (6.0%) respondents aged below 20 years old, 85 (85.0%) respondents aged between 20 to 30 years old, 5 (5.0%) respondents aged between 31 to 40 years old and 4 (4.0%) respondents aged between 41 to 50 years old. The result shows that 81 (81.0%) respondents earn salary less than RM3000, 7 (7.0%) respondents earn salary between RM3000 to RM5000 and only 12 (12.0%) respondents earn salary more than RM5000. For education level, only 17(17.0%) respondents are SPM holder, 24 (24.0%) are Diploma holder and 59 (59.0%) are Degree holder. There is 0 respondent taking Master and PHD. Most of the respondents are Non-Executive (62.0%), 29 (29.0%) are Executive and only 9 (9.0%) respondents are Manager.

4.3 RELIABILITY MEASUREMENT

Purpose of doing reliability analysis is to indicate the stability and consistency with the instruments measures the concept and helps to assess to “goodness” of a measure (Cavana, Delahaye and Sekaran, 2001). Coefficient alpha or also referred as Cronbach’s alpha is ranged from 0 to 1. If the alpha value is 0.7 (as minimum), it is accepted and considered that the items can be used to measure the variables.

Table 4.2

Cronbach’s Alpha Coefficient Size

| Alpha Coefficient Range | Strength of Association |
|--------------------------------|--------------------------------|
| <0.6 | Poor |
| 0.6 to <0.7 | Moderate |
| 0.7 to <0.8 | Good |
| 0.8 to <0.9 | Very good |
| ≥ 0.9 | Excellent |

*if alpha >0.95 items should be inspected to ensure they measure different aspects of the concept.

Sources: Hair, F. J., Money, A. H., Samouel, P., & Page, M. (2007). Research methods for business. England: John Wiley & Sons Ltd.

Table 4.3

Reliability Measurement

| Variables | Number of Items | Cronbach's Alpha |
|----------------------|-----------------|------------------|
| Level of Awareness | 4 | 0.797 |
| Employee's Attitudes | 4 | 0.727 |
| Management Practices | 3 | 0.496 |
| Leadership Behavior | 3 | 0.680 |

The alpha value for the level of awareness in safety is 0.797 which is “good” after deleted one item (b4) that increased the alpha value from 0.680 to 0.797. Thus it can be concluded that the four items can be combined together to be measured the level of awareness. The cronbanch's alpha for the employee's attitudes is 0.727 which is “good” after deleted one item (b8) that increased the alpha value from 0.678 to 0.727. Thus, only four items from the variable can be used to measure the employee's attitudes. For the third variable which is management practices, the alpha value is 0.496 which is “poor”. The value increased from 0.285 to 0.448 to 0.496 after two items have been deleted which are item b11 and item b14. So, only three items left that can be used to measure the management practices. The alpha value for leadership behavior is 0.680 which is “moderate”. This value had increased from 0.650 to 0.669 after deleted item b19 and b17. Therefore, it can be concluded that the three items can be combined to measure the leadership behavior. Thus, it can be concluded that all the 20 items can be combined together to measure the effectiveness of safety awareness.

4.4 HYPOTHESIS TESTING

4.4.1 Correlation Coefficient Size

The correlation coefficient size is used to describe the strength of the association between two or more variables quantitatively and the rules of thumb have been proposed to indicate the strength of the association between these variables (Hair, Money, Samouel and Page, 2007). Below are the rules of thumb about correlation coefficient size.

Table 4.4

Correlation Coefficient Size

| Coefficient range | Strength of Association |
|--------------------------|---------------------------------|
| 0.91 - 1.00 | Very Strong |
| 0.71 - 0.90 | High |
| 0.41 – 0.70 | Moderate |
| 0.21 – 0.40 | Small But Definite Relationship |
| 0.00 – 0.20 | Slight, Almost Negligible |

Sources: Hair, F. J., Money, A. H., Samouel, P., & Page, M. (2007). Research methods for business. England: John Wiley & Sons Ltd.

4.4.1a Employee's attitudes and level of awareness

Descriptive Statistics

| | Mean | Std. Deviation | N |
|-----------|---------|----------------|-----|
| Awareness | 18.4500 | 2.88281 | 100 |
| Attitudes | 18.5800 | 3.05234 | 100 |

Correlations

| | | Awareness | attitudes |
|-----------|---------------------|-----------|-----------|
| Awareness | Pearson Correlation | 1 | .473** |
| | Sig. (2-tailed) | | .000 |
| | N | 100 | 100 |
| Attitudes | Pearson Correlation | .473** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 100 | 100 |

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

Ho: There is no significant relationship between employee's attitudes and the level of awareness.

Result shows that there is a significant relationship between employee's attitudes and level of safety awareness. The correlation that exists between employee's attitudes and level of awareness is positive and moderate. Using the statistical formula $r(100) = 0.473$, $p < 0.01$. The significant value is 0.000 where it is smaller than stated significant level 0.01. So, hypothesis null is failed to be accepted. Thus, it can be concluded that employee's attitudes give impact to the effectiveness of safety awareness. The

relationship that exists between employee's attitudes and level of awareness is positive relationship but only moderate.

4.4.1b Management practices and level of awareness

| | Mean | Std. Deviation | N |
|------------|---------|----------------|-----|
| awareness | 18.4500 | 2.88281 | 100 |
| management | 17.5500 | 4.08094 | 100 |

| | | awareness | management |
|------------|---------------------|-----------|------------|
| awareness | Pearson Correlation | 1 | .307** |
| | Sig. (2-tailed) | | .002 |
| | N | 100 | 100 |
| management | Pearson Correlation | .307** | 1 |
| | Sig. (2-tailed) | .002 | |
| | N | 100 | 100 |

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

Ho: There is no significant relationship between management practices and level of awareness.

Result shows that there is no significant relationship between management practices and level of awareness. The correlation that exists between the management practices and level of awareness is small but definite relationship. Using the statistical formula

$r(100) = 0.307$, $p < 0.01$. The significant value is 0.002 which is smaller than stated significant level 0.01. So, hypothesis null is failed to be accepted. Hence, it can be said that the management practices give impact to the effectiveness of safety awareness.

4.4.1c Leadership behavior and level of awareness

| | Mean | Std. Deviation | N |
|------------|---------|----------------|-----|
| awareness | 18.4500 | 2.88281 | 100 |
| leadership | 17.2100 | 2.81157 | 100 |

| | | awareness | leadership |
|------------|---------------------|-----------|------------|
| awareness | Pearson Correlation | 1 | .326** |
| | Sig. (2-tailed) | | .001 |
| | N | 100 | 100 |
| leadership | Pearson Correlation | .326** | 1 |
| | Sig. (2-tailed) | .001 | |
| | N | 100 | 100 |

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

Ho: There is no significant relationship between leadership behavior and the level of awareness.

Result shows that there is no significant relationship between leadership behavior and level of awareness. The correlation that exists between the leadership behavior and safety awareness is small but definite relationship. Using the statistical formula $r(100) =$

0.326, $p < 0.01$. The significant value is 0.001 where it is smaller than stated significant level which is 0.01. So, hypothesis null is failed to be accepted. Hence, it can be said that the leadership behavior give impact to the effectiveness of safety awareness.

4.5 SUMMARY OF THE RESULT

Table 4.5

Summary of the Result

| HYPOTHESIS | RESULT |
|--|---------------|
| H1: Effect of employee's attitudes on level of awareness | |
| Ho: There is no significant relationship between employee's attitudes and level of awareness | Rejected |
| H ₁ : There is a relationship between employee's attitudes and level of awareness | Accepted |
| H2: Effect of management practices on level of awareness | |
| Ho: There is no significant relationship between management practices and level of awareness | Rejected |
| H ₁ : There is a relationship between management practices and level of awareness | Accepted |

H3: Effect of leadership behavior on level of awareness

Ho: There is no significant relationship between leadership behavior and level of awareness Rejected

H₁: There is a relationship between leadership behavior and level of awareness Accepted

Table above shows the summary of the correlate on the result. The result indicated that there is a significant relationship between employee's attitudes, management practices and leadership behavior towards level of awareness. Thus, it can be concluded that employee's attitudes, management practices and leadership behavior does give effect to the effectiveness of safety awareness.

4.6 CONCLUSION

As for the conclusion, this chapter discuss about the finding of this study. The hypothesis were tested using correlation to see the relationship between independent variables and dependent variable and the result shows that there is a significant relationship between employee's attitudes, management practices and leadership behavior towards the effectiveness of safety awareness.

CHAPTER 5

DISCUSSION, RECOMMENDATION AND CONCLUSION

5.0 INTRODUCTION

This chapter is the final chapter of the study. This chapter will discuss about the findings of the study, the limitations and some recommendations for future research.

5.1 DISCUSSION OF FINDINGS

The objectives for this study are to assess how far safety awareness is implemented in Seremban Specialist Hospital, to assess how far the need for the safety awareness in Seremban Specialist Hospital, to analyze the impact of safety awareness on employee's productivity and the last one is to identify the occupational safety and health practices that influences level of awareness. From the chapter 4, all of the H_1 hypotheses are accepted. Meaning that, the three factors of the safety awareness which is employee's attitudes, management practices and leadership behavior have significant relationship with the effectiveness of safety awareness. So, these three research questions are significant to be answered by this study which is:

i) Is there any relationship between employee's attitudes towards level of safety awareness?

Langston, Song and Purdey (2008) in their study found that employees in private hospital seem to be more aware with their safety. From the findings, it is indicated that employee's attitude reflect the effectiveness of safety awareness whereas they have responsibility for the safety of their colleagues and they have to followed safety procedures at the workplace. It can be said that, different employees with different attitudes will perceive different awareness with their safety at the workplace. Hence, the more employees aware about safety, the more positive attitude they will show. So, for Seremban Specialist Hospital, most of the staff satisfies with their attitudes as they are aware about safety at the workplace.

ii) Is there any relationship between management practices towards level of safety awareness?

As a whole, management practices do give impact on the effectiveness of safety awareness. Study by O'Reilly (2007) showed that 76% of staff satisfaction is linked to salary, technology, management and work-life balance. This finding also supported by the study made by Taiwo (2010) which is 29.51% of the respondents need conducive and better management practices to improve their productivity and 70.49% of the respondents said that high pay, conducive and better work environment are the factors that can lead to improvement in workers'

productivity. However, for the hospital staff, the impact of management practices design is not much. As stated earlier, the nature of the management practices itself give the employees good condition to work and aware about occupational safety in their workplace. From the findings, most of the respondent agreed that management respond positively when employee raise safety issue. Management also have distributed safety leaflets to the staffs and displayed safety poster at workplace to make employees aware about the important of safety and health.

iii) Does a leadership behavior give impact to the effectiveness of safety awareness?

Result indicated that leadership behavior has significant relationship with the effectiveness of safety awareness. It can be concluded that the leadership behavior is important to influences safety awareness. Rabiul Ahasan (2003) in her study said that manager commitment to improved workplaces and working conditions will improve health of the workers, higher morale, less absence and higher productivity. Reported findings that line managers are always talk about safety and they are good at dealing with unsafe behaviors. Seremban Specialist Hospital's staffs agreed that their line manager does enough to ensure a safe working environmental at the workplace.

5.2 LIMITATION

This study has come to several limitations as it is conducted in a very limited time. The limitations are faced before the questionnaires were distributed, during the questionnaires were distributed and after the questionnaires were distributed.

Before the questionnaires were distributed, the limitation faced is to find the suitable set of questionnaire that can determine the variables. The number of items for questionnaires for dependent variable is higher than independent variable affected the findings. Other than that, the nature of the workplace also might affect the finding of this research as the finding will differ if the study is conducted in other nature of the organizations.

Besides that, the data were collected using simple method of structured questionnaires. The other method such as interview can be used in other to enhance the responses from the respondent.

The numbers of the items in the questionnaires also affected the responses as they complain that the items are too many. The numbers of the items is one of the major problems faced because when the items is too many, the respondent feel bored to answer or they might not carefully read the items before giving the responses. This kind of attitude affected the whole findings of the study.

The other limitation is the questionnaire is designed in English where it is limited the understanding of the questionnaire itself. This is due to the various backgrounds of the respondents and not all of them are literate in English. This factor also limited the responses because when the respondents know that the questionnaire is in English, they refuse to participate in this study. This is more or less affected the end result of this study.

Furthermore, because of the study is conducted in the private's hospital, there are poor commitment from the staff. As the time is allocate is limited, the respondents have to responses in the given time so this will affect the way they response to the answers because to feel bored and do not have much time to read and understand the nature of the study.

5.3 RECOMMENDATION ON THE METHODS OF STUDY

Here are some of the recommendation to this study that can be considered based on the findings and the limitations.

First, for future research, researcher should be able to find suitable set of questionnaire that really measured the variables as well as the items should be balance between the dependent variable and independent variables. Furthermore, the researcher might try to study the needs for safety awareness in different nature of organization such as in construction sector. This is because specific safety can be suitable for one organization

and unsuitable for others (Hansen et al. as stated in Langston, Song and Purdey, 2008). So the findings might be different as the nature of work is different as well as the perspective of the respondents will be different too.

In order to get more values on safety awareness, researcher might want to look at the incident/accident reports rather than asking them based on the structured questionnaires. This is because the effectiveness of safety awareness of one employee cannot be measured by asking them to rate themselves. There should be a specific measurement tools to measure productivity.

Last but not least, the numbers of items used to measure the variables should be limited to certain number because excess numbers of items will lead to wrong result because respondents failed to give full attention. Furthermore, the questionnaires should be in both English and Bahasa as not all respondents understand English very well. This method also will increase the understanding of the respondents regarding the questions asked in the questionnaires.

5.4 RECOMMENDATION FOR HEALTHCARE INDUSTRY

This report offers Seremban Specialist Hospital the opportunity to assess the current status of safety in their workplace, review policies and institutional arrangements and capacity, and take appropriate actions. All the following recommendations should be addressed across a wide range of sectors and disciplines if they are to achieve success. However, the recommendations should be treated as flexible guidelines. They leave much room for adaptation to local conditions and capacities.

This study further identified the need for individual and management and responsibilities of workplace parties paralleling their level of awareness on safety. To carry out its roles, it is critical that each party have access to information about working conditions. The Occupational Health and Safety Act define the roles and responsibilities of various workplace parties in establishing and maintaining a safe and healthy workplace. If the workplace parties are not aware of, or do not understand these roles and responsibilities, the safety and health ability to function is compromised. In certain small workplaces that are without the most basic knowledge, workplace parties are limited in their ability to identify and discuss hazards and remedies.

One of the ways in which employers meet legal obligations to impart health and safety information to protect workers is through training. A recent systematic review by the Institute for Work & Health (IWH) concluded workplace training and education have a positive impact on the health and safety practices of workers (Robson et al, IWH, 2010).

There was, however, insufficient evidence that training on its own reduced injury rates. These findings support the multi-faceted approach set out in the recommendations of the Panel: filling gaps in training requirements, promoting key elements of OHS performance such as management commitment, encouraging worker participation, influencing societal norms, and creating processes to identify and remove hazards. To make significant improvements to workplace health and safety, all of these elements are necessary.

The public consultations revealed that there is a lack of foundational, basic information among workers about the existence of “the green book” that Ontario has an Occupational Health and Safety Act; and that owner, employers, supervisors and workers all have rights and responsibilities. In the view of the Panel, everyone needs to be aware of these rights and responsibilities, regardless of their role within the workplace.

Throughout the public consultations, the Panel heard how pivotal the supervisory role is in setting the tone of health and safety in a workplace or on a job site. Supervisors are instrumental in reinforcing safe work procedures and in establishing a culture of safety. However, the Panel also heard that, due to an absence of information and training, many supervisors are not prepared for this responsibility. It is imperative that supervisors have, at a minimum, a basic understanding of workplace health and safety and of their responsibilities under the legislation. The Panel also heard that supervisors cannot always fulfill their health and safety role if the employers and owners they report to are not sufficiently committed to occupational health and safety. The Panel has emphasized the

importance of leadership throughout the report, and later in the report makes a recommendation to raise health and safety awareness among new business owners.

Research points to the elevated risk of occupational injury among workers who are new to their jobs and in firms that are newly established (Breslin, Smith, 2006). This is compounded if they do not have foundational health and safety knowledge or an awareness of job hazards, if they lack the ability to learn safe-work procedures, or if they do not know about other prevention measures before starting work.

A standard should be developed to establish a health and safety awareness program for all workers. It should be a requirement that workers receive this information at the entry level, prior to being exposed to workplace hazards. The content for such a standard exists within many of the programs that health and safety associations have developed and within the programs of many employers. Labour and employer stakeholders should be consulted in the development of this standard and regarding the content of a specific program.

Development should take into consideration the needs of small business and the literacy and language challenges present in the diverse workforce of Ontario. The program should be available in multiple formats (web-based, CD/DVD, hard copy, classroom, smart phones, etc.) to allow for various delivery options inside and outside the workplace. To have the broadest reach into the community, the program should be accessible to all employers and workers, through non-traditional venues (settlement offices, Employment

Ontario, community programs). The awareness program should be developed and maintained by the prevention system and be free to workers and employers.

This program should include:

- the rights and responsibilities of workers and supervisors;
- the roles of workplace parties, including nurses, doctors and management level;
- the role of the Safety and Health Department;
- the definition of a hazard;
- the right to be informed of hazards in the workplace;
- the Workplace Hazardous Materials Information System as a cornerstone of understanding chemical hazards; and
- the introduction of occupational disease and the concept of latency and illnesses.

Equivalency should be available to employers who already have an entry-level program that covers the content set out in the standard. The training standard would allow employers to compare it to their own programs to determine equivalency. The employer would be responsible for record-keeping and there would be no refresher requirement.

The management should consult with employees to determine the time required to develop the standard and a model program, as well as the time workplaces would require for providing it to workers who have not previously received such information.

The OHSA requires employers to appoint competent persons as supervisors. A supervisor is deemed competent if they are qualified by knowledge, training and experience in the work they oversee; are familiar with the OHSA and regulations that apply to their

workplace; and have knowledge of actual or potential workplace hazards and advise workers about these hazards. This training will contribute to ensuring that individuals appointed as supervisors are competent.

A standard should be developed to establish a health and safety awareness program for all supervisors who are responsible for emergency units. While the definition of supervisor under the OHS Act is broad, the Panel feels that this training requirement should initially be directed at those who supervise frontline workers who are generally exposed to the greatest health and safety hazards. Supervisors should have to receive this information upon being appointed to a position. The content for such a standard exists within many of the programs that health and safety associations have developed as well as those of many others. Labour and employer stakeholders should be consulted in the development of this standard and in the content of a specific program for supervisors.

5.5 CONCLUSION

This study is designed to investigate the effectiveness of safety awareness in organization. Findings show that organization needs the safety awareness in order to enhance the safety and health of the employee. However the needs might be different based on the nature of work. This study managed to provide some valuable findings that can be used by the management of the organization when there are designing the workplace. As for the conclusion, different people perceive safety awareness differently.

This report also attempts to contribute to the body of knowledge on safety awareness. It is hoped that it will inspire and facilitate increased cooperation, innovation and commitment to preventing accident or injury at workplace. Accident or injuries are predictable and therefore preventable. In order to combat the problem, though, there needs to be close coordination and collaboration, using a holistic and integrated approach, across many sectors and many disciplines. While there are many interventions that can save lives and limbs, political will and commitment are essential and without them little can be achieved. The time to act is now. Employees everywhere deserve better and safer working environment.

REFERENCES

- Ailabouni, N., Gidado, K., & Painting, N. (2007). Factors affecting employee productivity in the UEA construction industry. Retrieved on April 10, 2010 from <http://www.irbnet.de/daten/iconda/CIB10699.pdf>
- Amina Hameed, & Shehla Amjad. (2009). Impact of office design on employees' productivity: a case study of banking organizations of Abbottabad. *Pakistan, Journal of Public Affairs, Administration And Management*, 3(1). Retrieved on April 10, 2010 from <http://www.scientificjournals.org/journals2009/articles/1460.pdf>
- Antikainen, R., & Lonnqvist, A. (2005). Knowledge work productivity assessment.
- Attaran, M. & Wargo, B.D. (1999). Succeeding with ergonomics in computerized offices. *Work Study*, 48(3), 92-99.
- Azman Francis Nordin (2003). *The effects of workplace ergonomic on occupational safety and health in public universities*. Master Project Paper.
- Baron, L., Spek, J.V., & Young, W. (2006). The Economics of Ergonomics. *Journal of Accountancy*, 202(6), pg. 34.
- Beckmerhagen, L.A., Berg, H.P., Karapetrovic, S.V. & Willborn, W.O. (2003). Integration of management systems: focus on safety in nuclear industry. *International Journal of Quality & Reliability Management*, Vol. 20, p.210-28.
- Cavana, R.Y., Delahaye, B.L., & Sekaran, U. (2001). *Applied business research: qualitative and quantitative methods*. Singapore: John Wiley & Sons Inc.
- Clarke, S. (2003). The contemporary workforce: implication for organizational safety culture. Vol.32, p.40-57.
- Clarke, T. & Rollo, C. (2001). Corporate initiatives in knowledge management. *Education and training*, Vol. 43, p.289-99.
- Cooper, M.D. & Phillips, R.A. (1995). Killing two birds with one stone: achieving quality via total safety management. *Leadership & Organizational Development Journal*, Vol. 16, p.3-9.
- Cox, S. and Cox, T. (1991). The structure of employee attitudes to safety: a European example. Vol. 5, p.93-106.

- De Long, D. W. & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *Academy of Management Executive*, Vol. 14, p. 113-27.
- Dilley, H. & Kleiner, B. H. (1996). Creating a culture of safety. *Journal of Safety Culture*, 45(3), p.5-8.
- Donald, L. & Young, S. (1996). Managing safety: an attitudinal-based approach to improving safety in organization. *Leadership & Organizational Development Journal*, Vol. 17, p.13-20.
- Flin, R., Mearns, K., O'Connor, P. & Bryden, R. (2000). Measuring safety climate: identifying the common features. *Safety science*, Vol. 34, p.177-92.
- Garg, A., Moore, J.S., Kapellusch, J., & Hengmann, K.T. (2007). Separating fact from fiction in workplace ergonomics. Posture of evidence. *Industrial Engineer*, 39(6), pg. 30.
- Garg, P. & Rastogi, R. (2006). New model of job design: motivating employees' performance. *Journal of Management Development*, 25(6), 572-587.
- Goetsch, D.L. (2005). *Occupational safety and health for technologies, engineers, and managers (5th ed.)*. New Jersey: Pearson Prentice Hall.
- Goetsch, D.L. (2002). *Occupational Safety and Health for Technologist, Engineers and Managers*, 4th ed., Prentice-Hall, Upper Saddle River: NJ.
- Hair, F.J., Money, A.H., Samouel, P., & Page, M. (2007). *Research methods for business*. England: John Wiley & Sons Ltd.
- Hedge, A. (2008). USGBC ergonomics requirements for innovation and design point: example of a user survey for ergonomics issues. Retrieved on December 12, 2010 from http://ergo.human.cornell.edu/USGBC/USGBC_Ergonomic_Survey.pdf
- Hendrick, H.W. (2007). Macroergonomics for better work systems. *Industrial Management*, 49(1), pg. 20.
- Hopfl, H. (1994). Safety culture, corporate culture: Organizational Transformation and the Commitment to Safety. Vol. 3(3), p.49-58.
- Langston, C., Song, C. & Purdey, B. (2008). Perceived conditions of workers in different organizational settings. *Facilities*, 26(1/2), 54-67
- Lee, S.Y. (2006). Expectations of employees toward the workplace and environmental

- satisfaction. *Facilities*, 24(9/10), 343-353.
- McKeown, C. (2008). *Office ergonomics: practical applications*. Boca Raton: CRC Press.
- MacLeod, D. (1995). *The ergonomics edge: Improving safety, quality and productivity*. USA: Van Nostrand Reinhold
- McClean-Conner, P. (2008) Strategies for the workplace environment. A comprehensive ergonomic program provides benefits for employees and utility. *Electric Light and Power*, 86(3), 10.
- Mearns, K., Flin, R., Fleming, M. & Gordon, R. (1998). Safety culture in the UK offshore oil industry. Vol. 12, p.238-54.
- Neumann, W.P., Winkel, J., Medbo, L., Magneberg, R., & Mathiassen, S.E. (2006). Production system design elements influencing productivity and ergonomics: A case study of parallel and serial flow strategies. *International Journal of Operations & Production Management*, 26(8).
- O'Reilly, S. (2007). Better work by design. *Personnel Today*, pg. 28.
- Pranee, C. Productivity quality of work life for sustainable development. *The International Journal of Organizational Innovation*.
- Rabiul Ahasan. (2003). Work-related research, education and training in developing countries. *Work Study*, 52(6), 290-296.
- Rowh, M. (2006). Everything you wanted to know about ergonomics but were in too much pain to ask. Office Solutions. *Mt. Airy*, 23(6), pg. 26.
- Sarin, S. & Mcdermott, C. (2003). The effect of team leader characteristics on learning, knowledge application, and performance of cross-functional new product development teams. Vol. 34, p. 707-39.
- Shannon, H., Robson, L. & Sale, J.M. (2001). Creating safer and healthier workplaces: role of organizational factors and job characteristics. *American Journal of Industrial Medicine*, 40(3), p.319-34.
- Sidek Mohd Noah. (2002). *Reka bentuk penyelidikan: falsafah, teori dan praktis*. Penerbit Universiti Putra Malaysia: Malaysia.
- Stringer, J. (2007). 5 factors that affect your employee's productivity. Retrieved on December

12, 2010 from <http://www.nbrii.com/blog/5FactorsThatAffectYourEmployeesProductivity.aspx>

- Taiwo, A.S. (2010). The influence of work environment on workers productivity: A case of selected oil and gas industry in Lagos, Nigeria. *African Journal of Business Management* Vol. 4 (3), pp. 299-307
- Tarcan, E., Varol, E.S., & Ates, M. (2004). A qualitative study of facilities and their environmental performance. *Management of Environmental Quality: An International Journal*, 15(2), 154-173.
- The Importance of Workplace Environment. Retrieved on December 12, 2010 from http://www.businessperform.com/workplace-training/workplace_environment.html
- Timm, D. (2007). Ergonomic workplace strategies don't have to break the bank. *Healthcare Purchasing News*, pg. 86.
- Viscusi, S. (2007). Workplace Ergonomics And The Telephone. *Norwalk*, 25(10), 16.
- Voerman, G. E., Sandsjö, L., Vollenbroek-Hutten, M.M.R., Larsman, P., Kadefors, R., Hermens, H.J. (2007). Changes in cognitive-behavioral factors and muscle activation patterns after interventions for work-related neck-shoulder complaints: relations with discomfort and disability. *J Occup Rehabil*, 17, pg. 593–609.
- Vredenburg, A.G. (2002). Organizational safety: which management practices are most effective in reducing employee injury rates? *Journal of Safety Research*, Vol. 33, p.259-76.



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SAFETY AWARENESS

SECTION A :
BACKGROUND
INFORMATION

Gender : F / M

Age: _____ Salary Range <RM3000 RM3000 – RM5000 >RM5000

Education Level : SPM Diploma Ijazah Master PHD /

Position Level : Non-Executive Executive Manager

SECTION B:
SAFETY AWARENESS AT WORKPLACE

For each of the following question, circle one (1) answer for each statement using the scale at the top of the pages.

| | | | | |
|-------------------|----------|---------|-------|----------------|
| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 | 5 |

Part I : Level of awareness in safety

| No | Question | Rating | | | | |
|----|--|--------|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 1 | I am aware of the safe system of work before I start a job | 1 | 2 | 3 | 4 | 5 |
| 2 | I am aware of the health and safety requirement | 1 | 2 | 3 | 4 | 5 |
| 3 | I am aware of the do's and don'ts in case of emergency | 1 | 2 | 3 | 4 | 5 |
| 4 | Sometimes I am uncertain how to do/practices a job safely | 1 | 2 | 3 | 4 | 5 |
| 5 | Safety is more important to me than "getting the job done" | 1 | 2 | 3 | 4 | 5 |

Part II : Employees attitudes towards safety

| No | Question | Rating | | | | |
|----|--|--------|---|---|---|---|
| 6 | I have to wear Personal Protective Equipment when I supposed to do so | 1 | 2 | 3 | 4 | 5 |
| 7 | I have responsibility for the safety of my colleagues | 1 | 2 | 3 | 4 | 5 |
| 8 | I work more than 48 hours per week | 1 | 2 | 3 | 4 | 5 |
| 9 | I followed safety procedures at my workplace | 1 | 2 | 3 | 4 | 5 |
| 10 | Sometimes I heard about others skip the safety procedures when doing a job | 1 | 2 | 3 | 4 | 5 |

Part III : Management practices

| No | Question | Rating | | | | |
|----|---|--------|---|---|---|---|
| 11 | Management respond positively when I raise safety issues | 1 | 2 | 3 | 4 | 5 |
| 12 | Management sometimes turn a blind eye when safety procedures are broken | 1 | 2 | 3 | 4 | 5 |
| 13 | Supervisor distributed safety leaflets to the staffs | 1 | 2 | 3 | 4 | 5 |
| 14 | "Getting the job done quickly" is management highest priority | 1 | 2 | 3 | 4 | 5 |
| 15 | Safety poster displayed at the premises | 1 | 2 | 3 | 4 | 5 |

Part IV : Leadership behavior

| No | Question | Rating | | | | |
|----|---|--------|---|---|---|---|
| 16 | Line managers talk to me about safety | 1 | 2 | 3 | 4 | 5 |
| 17 | I can report unsafe behavior without fear of any negative comeback | 1 | 2 | 3 | 4 | 5 |
| 18 | My line managers is good at dealing with unsafe behaviors | 1 | 2 | 3 | 4 | 5 |
| 19 | I don't think my line managers does enough to ensure a safe working environmental | 1 | 2 | 3 | 4 | 5 |
| 20 | My line managers seldom checks that people are working safely | 1 | 2 | 3 | 4 | 5 |

APPENDIX

Frequencies

Statistics

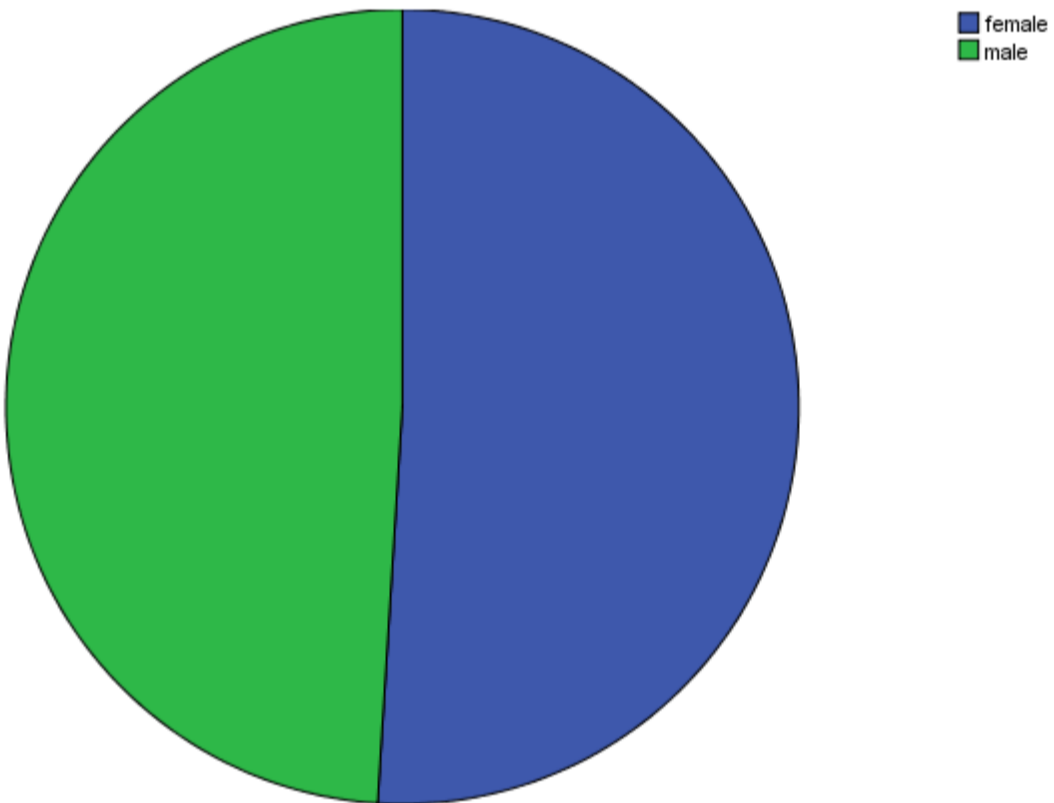
a1

| | | |
|------|---------|------|
| N | Valid | 100 |
| | Missing | 0 |
| Mode | | 1.00 |

a1

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|-----------|---------|---------------|--------------------|
| Valid female | 51 | 51.0 | 51.0 | 51.0 |
| male | 49 | 49.0 | 49.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |

a1



Frequencies

Statistics

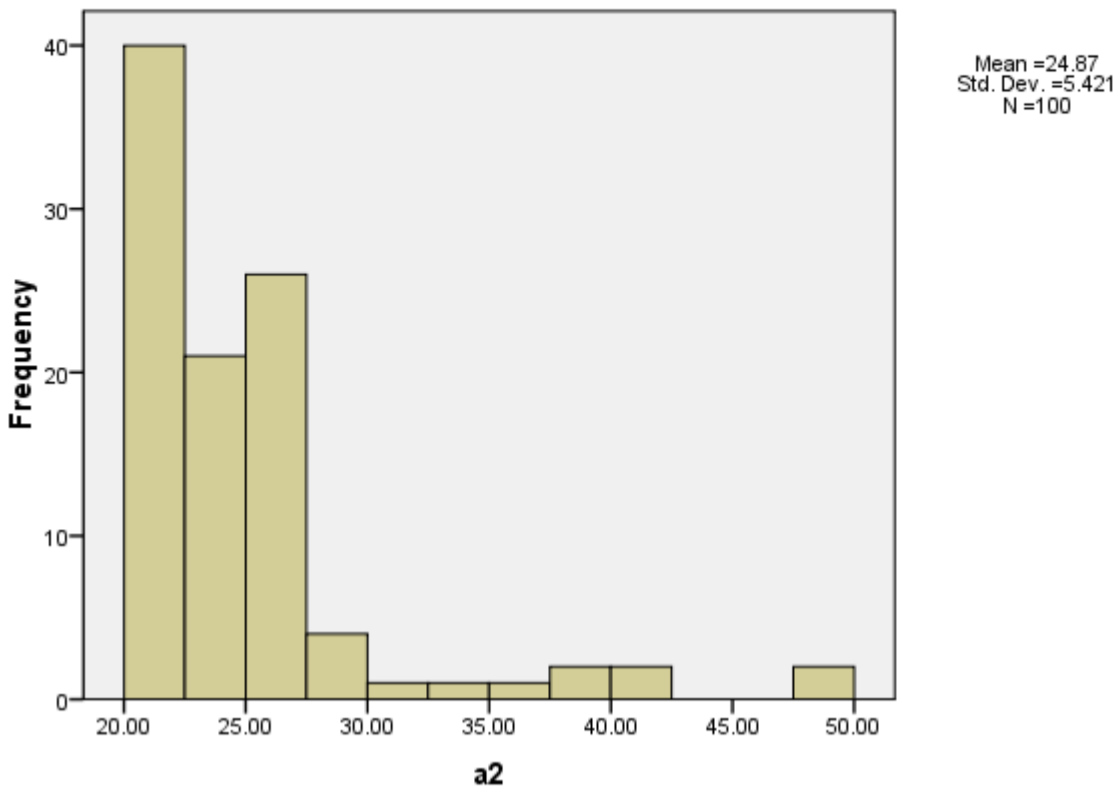
a2

| | | |
|------|---------|-------|
| N | Valid | 100 |
| | Missing | 0 |
| Mode | | 22.00 |

a2

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----|-----------|---------|---------------|--------------------|
| Valid | 20 | 6 | 6.0 | 6.0 | 6.0 |
| | 21 | 10 | 10.0 | 10.0 | 16.0 |
| | 22 | 24 | 24.0 | 24.0 | 40.0 |
| | 23 | 12 | 12.0 | 12.0 | 52.0 |
| | 24 | 9 | 9.0 | 9.0 | 61.0 |
| | 25 | 15 | 15.0 | 15.0 | 76.0 |
| | 26 | 6 | 6.0 | 6.0 | 82.0 |
| | 27 | 5 | 5.0 | 5.0 | 87.0 |
| | 28 | 2 | 2.0 | 2.0 | 89.0 |
| | 29 | 2 | 2.0 | 2.0 | 91.0 |
| | 31 | 1 | 1.0 | 1.0 | 92.0 |
| | 33 | 1 | 1.0 | 1.0 | 93.0 |
| | 36 | 1 | 1.0 | 1.0 | 94.0 |
| | 38 | 1 | 1.0 | 1.0 | 95.0 |
| | 39 | 1 | 1.0 | 1.0 | 96.0 |
| | 40 | 1 | 1.0 | 1.0 | 97.0 |
| | 42 | 1 | 1.0 | 1.0 | 98.0 |
| | 49 | 2 | 2.0 | 2.0 | 100.0 |
| Total | | 100 | 100.0 | 100.0 | |

Histogram



Frequencies

Statistics

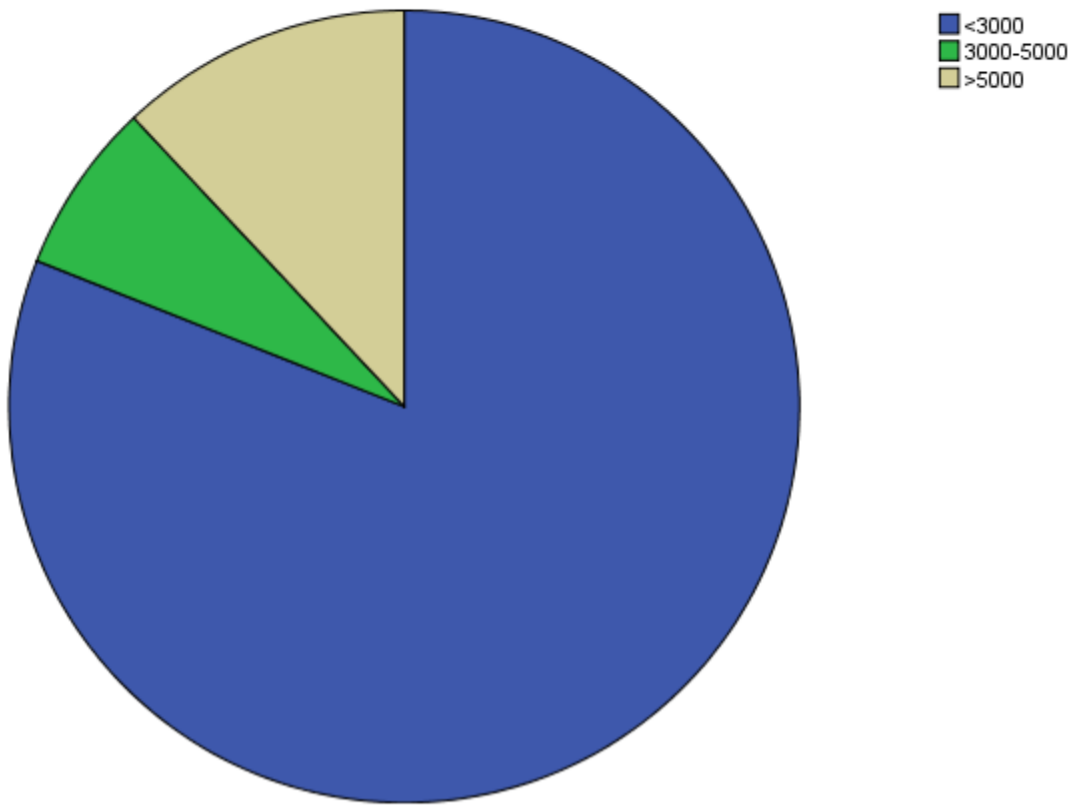
a3

| | | |
|------|---------|------|
| N | Valid | 100 |
| | Missing | 0 |
| Mode | | 1.00 |

a3

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid <3000 | 81 | 81.0 | 81.0 | 81.0 |
| 3000-5000 | 7 | 7.0 | 7.0 | 88.0 |
| >5000 | 12 | 12.0 | 12.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |

a3



Frequencies

Statistics

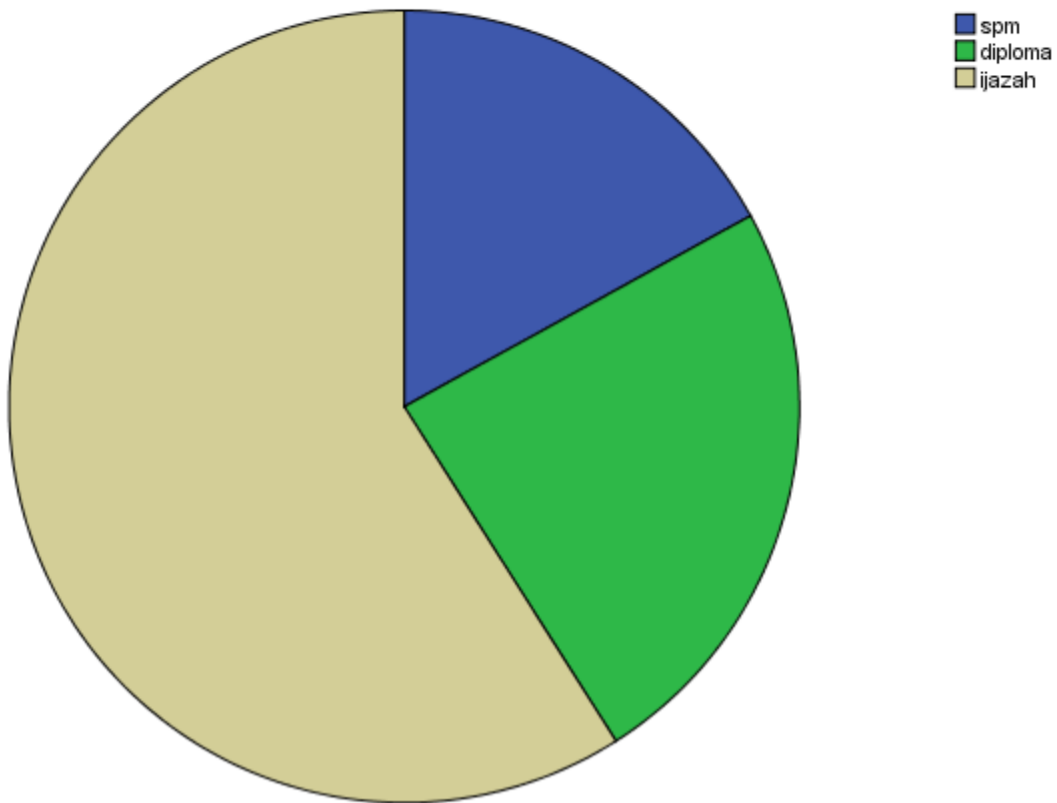
a4

| | | |
|------|---------|------|
| N | Valid | 100 |
| | Missing | 0 |
| Mode | | 3.00 |

a4

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------|-----------|---------|---------------|--------------------|
| Valid spm | 17 | 17.0 | 17.0 | 17.0 |
| diploma | 24 | 24.0 | 24.0 | 41.0 |
| ijazah | 59 | 59.0 | 59.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |

a4



Frequencies

Statistics

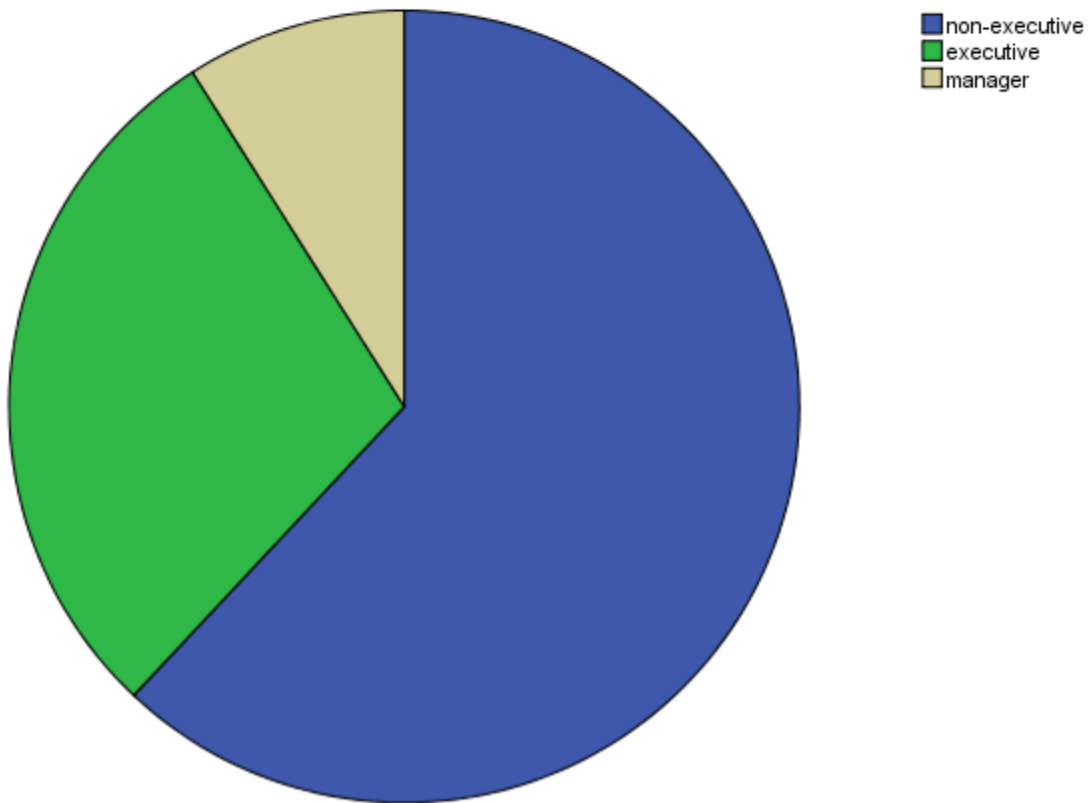
a5

| | | |
|------|---------|------|
| N | Valid | 100 |
| | Missing | 0 |
| Mode | | 1.00 |

a5

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------------|-----------|---------|---------------|--------------------|
| Valid non-executive | 62 | 62.0 | 62.0 | 62.0 |
| executive | 29 | 29.0 | 29.0 | 91.0 |
| manager | 9 | 9.0 | 9.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |

a5



Reliability

Scale: ALL VARIABLES

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .680 | 5 |

Item Statistics

| | Mean | Std. Deviation | N |
|----|--------|----------------|-----|
| b1 | 3.8200 | .93614 | 100 |
| b2 | 3.9400 | .78907 | 100 |
| b3 | 3.8600 | .88785 | 100 |
| b4 | 3.0400 | .96316 | 100 |

Item Statistics

| | Mean | Std. Deviation | N |
|----|--------|----------------|-----|
| b1 | 3.8200 | .93614 | 100 |
| b2 | 3.9400 | .78907 | 100 |
| b3 | 3.8600 | .88785 | 100 |
| b4 | 3.0400 | .96316 | 100 |
| b5 | 3.7900 | .75605 | 100 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b1 | 14.6300 | 4.963 | .593 | .551 |
| b2 | 14.5100 | 5.303 | .656 | .538 |
| b3 | 14.5900 | 5.315 | .539 | .581 |
| b4 | 15.4100 | 7.113 | .053 | .797 |
| b5 | 14.6600 | 6.025 | .462 | .622 |

Reliability

Scale: ALL VARIABLES

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .797 | 4 |

Item Statistics

| | Mean | Std. Deviation | N |
|----|--------|----------------|-----|
| b1 | 3.8200 | .93614 | 100 |
| b2 | 3.9400 | .78907 | 100 |
| b3 | 3.8600 | .88785 | 100 |
| b5 | 3.7900 | .75605 | 100 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b1 | 11.5900 | 3.820 | .660 | .722 |
| b2 | 11.4700 | 4.009 | .785 | .663 |
| b3 | 11.5500 | 3.987 | .659 | .721 |
| b5 | 11.6200 | 5.268 | .367 | .849 |

Reliability

Scale: ALL VARIABLES

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .678 | 5 |

Item Statistics

| | Mean | Std. Deviation | N |
|-----|--------|----------------|-----|
| b6 | 3.9300 | .85582 | 100 |
| b7 | 3.9500 | .82112 | 100 |
| b8 | 3.3400 | 1.21622 | 100 |
| b9 | 3.7600 | .78005 | 100 |
| b10 | 3.6000 | .87617 | 100 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b6 | 14.6500 | 6.028 | .608 | .553 |
| b7 | 14.6300 | 6.599 | .484 | .608 |
| b8 | 15.2400 | 6.124 | .285 | .727 |
| b9 | 14.8200 | 6.573 | .534 | .592 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b6 | 14.6500 | 6.028 | .608 | .553 |
| b7 | 14.6300 | 6.599 | .484 | .608 |
| b8 | 15.2400 | 6.124 | .285 | .727 |
| b9 | 14.8200 | 6.573 | .534 | .592 |
| b10 | 14.9800 | 6.888 | .361 | .657 |

Reliability

Scale: ALL VARIABLES

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .727 | 4 |

Item Statistics

| | Mean | Std. Deviation | N |
|-----|--------|----------------|-----|
| b6 | 3.9300 | .85582 | 100 |
| b7 | 3.9500 | .82112 | 100 |
| b9 | 3.7600 | .78005 | 100 |
| b10 | 3.6000 | .87617 | 100 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b6 | 11.3100 | 3.347 | .653 | .581 |
| b7 | 11.2900 | 3.804 | .514 | .669 |
| b9 | 11.4800 | 3.747 | .585 | .630 |
| b10 | 11.6400 | 4.132 | .344 | .768 |

Reliability

Scale: ALL VARIABLES

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .285 | 5 |

Item Statistics

| | Mean | Std. Deviation | N |
|-----|--------|----------------|-----|
| b11 | 3.7600 | 2.98860 | 100 |
| b12 | 3.4300 | .99752 | 100 |
| b13 | 3.3300 | .89955 | 100 |
| b14 | 3.4600 | 1.03884 | 100 |
| b15 | 3.5700 | 1.01757 | 100 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b11 | 13.7900 | 5.905 | .125 | .448 |
| b12 | 14.1200 | 15.501 | .020 | .314 |
| b13 | 14.2200 | 14.072 | .263 | .192 |
| b14 | 14.0900 | 14.204 | .175 | .228 |
| b15 | 13.9800 | 13.131 | .337 | .134 |

Reliability

Scale: ALL VARIABLES

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .448 | 4 |

Item Statistics

| | Mean | Std. Deviation | N |
|-----|--------|----------------|-----|
| b12 | 3.4300 | .99752 | 100 |
| b13 | 3.3300 | .89955 | 100 |
| b14 | 3.4600 | 1.03884 | 100 |
| b15 | 3.5700 | 1.01757 | 100 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b12 | 10.3600 | 4.354 | .134 | .493 |
| b13 | 10.4600 | 3.907 | .334 | .306 |
| b14 | 10.3300 | 4.244 | .136 | .496 |
| b15 | 10.2200 | 3.224 | .450 | .158 |

Reliability

Scale: ALL VARIABLES

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .496 | 3 |

Item Statistics

| | Mean | Std. Deviation | N |
|-----|--------|----------------|-----|
| b12 | 3.4300 | .99752 | 100 |
| b13 | 3.3300 | .89955 | 100 |
| b15 | 3.5700 | 1.01757 | 100 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b12 | 6.9000 | 3.081 | .048 | .802 |
| b13 | 7.0000 | 2.323 | .405 | .252 |
| b15 | 6.7600 | 1.679 | .580 | -.149 ^a |

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Reliability

Scale: ALL VARIABLES

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .650 | 5 |

Item Statistics

| | Mean | Std. Deviation | N |
|-----|--------|----------------|-----|
| b16 | 3.5600 | .80804 | 100 |
| b17 | 3.6000 | .75210 | 100 |
| b18 | 3.5000 | .83485 | 100 |
| b19 | 3.2800 | .84184 | 100 |
| b20 | 3.2700 | 1.08110 | 100 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b16 | 13.6500 | 5.402 | .493 | .558 |
| b17 | 13.6100 | 5.957 | .376 | .611 |
| b18 | 13.7100 | 5.541 | .424 | .588 |
| b19 | 13.9300 | 6.187 | .241 | .669 |
| b20 | 13.9400 | 4.421 | .509 | .542 |

Reliability

Scale: ALL VARIABLES

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .669 | 4 |

Item Statistics

| | Mean | Std. Deviation | N |
|-----|--------|----------------|-----|
| b16 | 3.5600 | .80804 | 100 |
| b17 | 3.6000 | .75210 | 100 |
| b18 | 3.5000 | .83485 | 100 |
| b20 | 3.2700 | 1.08110 | 100 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b16 | 10.3700 | 3.872 | .523 | .558 |
| b17 | 10.3300 | 4.607 | .314 | .680 |
| b18 | 10.4300 | 3.722 | .549 | .538 |
| b20 | 10.6600 | 3.257 | .451 | .618 |

Reliability

Scale: ALL VARIABLES

Case Processing Summary

| | | N | % |
|-------|-----------------------|-----|-------|
| Cases | Valid | 100 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 100 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .680 | 3 |

Item Statistics

| | Mean | Std. Deviation | N |
|-----|--------|----------------|-----|
| b16 | 3.5600 | .80804 | 100 |
| b18 | 3.5000 | .83485 | 100 |
| b20 | 3.2700 | 1.08110 | 100 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| b16 | 6.7700 | 2.644 | .499 | .588 |
| b18 | 6.8300 | 2.486 | .541 | .534 |
| b20 | 7.0600 | 1.996 | .472 | .648 |

Correlations

Descriptive Statistics

| | Mean | Std. Deviation | N |
|-----------|---------|----------------|-----|
| awareness | 18.4500 | 2.88281 | 100 |
| attitudes | 18.5800 | 3.05234 | 100 |

Correlations

| | | awareness | attitudes |
|-----------|---------------------|-----------|-----------|
| awareness | Pearson Correlation | 1 | .473** |
| | Sig. (2-tailed) | | .000 |
| | N | 100 | 100 |
| attitudes | Pearson Correlation | .473** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 100 | 100 |

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

Correlations

Descriptive Statistics

| | Mean | Std. Deviation | N |
|------------|---------|----------------|-----|
| awareness | 18.4500 | 2.88281 | 100 |
| management | 17.5500 | 4.08094 | 100 |

Correlations

| | | awareness | management |
|------------|---------------------|-----------|------------|
| awareness | Pearson Correlation | 1 | .307** |
| | Sig. (2-tailed) | | .002 |
| | N | 100 | 100 |
| management | Pearson Correlation | .307** | 1 |
| | Sig. (2-tailed) | .002 | |
| | N | 100 | 100 |

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

Correlations

Descriptive Statistics

| | Mean | Std. Deviation | N |
|------------|---------|----------------|-----|
| awareness | 18.4500 | 2.88281 | 100 |
| leadership | 17.2100 | 2.81157 | 100 |

Correlations

| | | awareness | leadership |
|------------|---------------------|-----------|------------|
| awareness | Pearson Correlation | 1 | .326** |
| | Sig. (2-tailed) | | .001 |
| | N | 100 | 100 |
| leadership | Pearson Correlation | .326** | 1 |
| | Sig. (2-tailed) | .001 | |
| | N | 100 | 100 |

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