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SAFETY CITIZENSHIP BEHAVIOURS AMONG THE EMPLOYEES IN MANUFACTURING COMPANY

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Universiti Utara Malaysia

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ABSTRACT

The purpose of this study to analysis influence of safety citizenship behaviour among the employees in the manufacturing organization. This study examined the perception of local and foreign employee in the manufacturing company located in Subang Jaya, Selangor on four safety performance variables safety knowledge, safety motivation, safety consciousness and safety-specific transformational leadership. A total of 110 questionnaire were distributed to the employees in the manufacturing company and only 100 set returned and usable. The findings of this study revealed that safety knowledge and safety consciousness have significant correlation with safety citizenship behaviour; while safety motivation and safety transformational leadership was not significant influence with safety citizenship behaviour. The findings in this study provide valuable guidance for researchers and practitioners for identifying solutions that can improve safety and health at manufacturing workplace.

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Keywords: Safety Citizenship Behaviour, Safety Knowledge, Safety Motivation, Safety Consciousness, and Safety-Specific Transformational Leadership

ABSTRAK

Tujuan kajian ini untuk menganalisis pengaruh tingkah laku kewarganegaraan keselamatan di kalangan pekerja di organisasi pembuatan. Meneliti persepsi pekerja tempatan dan asing di syarikat perkilangan yang terletak di Subang Jaya, Selangor pada empat pemboleh ubah prestasi keselamatan iaitu pengetahuan keselamatan, motivasi keselamatan, kesedaran keselamatan dan kepimpinan transformasi khusus keselamatan. Sebanyak 110 soal selidik diedarkan kepada pekerja di syarikat perkilangan dan hanya 100 set yang dikembalikan dan boleh digunakan. Penemuan kajian ini mendedahkan bahawa pengetahuan keselamatan dan kesedaran keselamatan mempunyai hubungan yang signifikan dengan tingkah laku keselamatan negara; Manakala motivasi keselamatan dan kepimpinan transformasi keselamatan tidak berpengaruh signifikan dengan tingkah laku warganegara keselamatan. Penemuan dalam kajian ini memberi panduan berharga bagi penyelidik dan pengamal untuk mengenal pasti penyelesaian yang dapat meningkatkan keselamatan dan kesihatan di tempat kerja pembuatan.

Katakunci: Tingkah laku Kewarganegaraan Keselamatan, Pengetahuan Keselamatan, Motivasi Keselamatan, Kesedaran Keselamatan dan Kepimpinan Transformasi Khusus Keselamatan

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LIST OF ABBREVIATIONS

OSH	Occupational Safety and Health
ILO	International Labour Organization
OSHA 1994	Occupational Safety and Health Act 1994
FMA 1967	Factories and machinery Act 1967
SOSCO	Social Security Organization
DOSH	Department of Occupational Safety and Health
NIOSH	National Institute of Occupational Safety and Health
WHO	World Health Organization
SPSS	Statistical Package for the Social Science
SCB	Safety Citizenship Behaviour
SK	Safety Knowledge
SM	Safety Motivation
SC	Safety Consciousness
SSTL	Safety-Specific Transformational Leadership
JSA	Job Safety Analysis

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BBS	Behaviour Based Safety

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CHAPTER 1
INTRODUCTION

1.1 Background Of Study

After independence Malaysia economic has been booming massively and this growth has led to positive impact to the country in terms of development, income and also life quality of the community. Malaysia has set a vision of becoming an industrialized economy by the year 2020 and the journey started since 1960's. Tsen (2006), stated that one of the important sources of economic growth to the Malaysian economy is the manufacturing industry. Industrialization has been an integral part in the Malaysian development strategies and manufacturing sector has shown to be one of the important backbones and a major contributor to the Malaysia economy. The share of manufacturing sector to Gross Domestic Product (GDP) increased significantly from 12.2 percent in 1970 to 22.9 percent in 2016 (Saad Mohd Said, 2012, Ministry of Finance Malaysia, 2017)

Expansion of manufacturing industries in Malaysia has associated with large employment of new workers and new technologies, machineries and equipment's. With the application of new technologies and substances would expose new hazards and health issue to the workers, while hiring new workers also might pose higher risk of accident as they are not accustomed to the hazard of workplace environment, Saad Mohd Said (2012). According to Soehod & Laxman (2007), Malaysia is the first Asian country to have enacted safety and health legislation covering all occupations. The main goal of Occupational Safety and Health Act 1994 (OSHA) as a self-regulation for employer, employee and self-employed personnel to be

responsible to design and own their safety and health performance in the workplace. It promotes for workplace free from any hazards such as exposure to toxic chemicals, excessive noise levels, machine guarding, mechanical dangers, heat or cold stress or unsanitary conditions.

According to the International Labor Organization (ILO), it is estimated about 2 million workers are killed due to work-related accidents and diseases, 270 million occupational accidents and 160 million work-related are occurring annually (Noor Aina Amirah, Wan Izatul Asma, Shaladdin Muda, Aziz Amin, 2013). According to Saad Mohd Said (2012), workplace injuries have been the subject of growing number of academic research since the last decades, however large body of research focusing on the cause of injuries is dominated by empirical studies in industrialized countries, such as European countries and U.S. In Malaysia, existing studies on workplace injuries were mainly focused on the issues of the establishment and enforcement of the Occupational Safety and Health Act (OSHA) and the evoluation of safety related regulations (Jamaluddin, 1994; Rahmah and Sum, 2000; Mansur et.al.,2003; Ariffin et al., 2006; Saad Mohd Said, 2012). Empirical study on workplace injuries in Malaysia, however are still lacking and mostly concentrated on the construction sector (Saad Mohd Said, 2012)

In Malaysia, the number of occupational accidents reported to Social Security Organization (SOSCO) is 59,897 cases for 2011. The industrial accident recorded 24,809 cases while the remaining cases falls under the category of commuting accident (Social Security Organization, 2011). While in 2012, the number has increased to 61,552 cases, with 35,296 of industrial cases has been declared (Social

Security Organization, 2012). For subsequent year, the number of workplace accident cases reported to SOSCO increased by 3.25% compared to 2012 (Social Security Organization, 2013). In 2014, the workplace accident cases reduce 0.36% that is 63,331 cases with 35,294 industrial accident cases (Social Security Organization, 2014). The figure continue to have small number of reduction to 62,837 cases in 2015 and industrial cases recorded 34,258 (Social Security Organization, 2015). Hence, total number of accident cases contributed by the manufacturing industry from 2011 till 2015 shown Table 1.1. Therefore the statistics leads to the question of " Whether the manufacturing organization is paying enough attention and concern on safety and health of employee to optimizing productivity" and from the statistics, can be deduced that the manufacturing organization yet to incorporated safety citizenship behaviour culture in their daily safety and health operation.

Table 1.1

Accidents Contributed by Manufacturing in Malaysia

Year	Number of accidents by manufacturing industry (cases)
2011	17,106
2012	16,684
2013	16,145
2014	15,323
2015	15,153

In a nutshell, safety behaviour and level of understanding safety in manufacturing sector are poor, where many workplace accident happening one point loss of life. Therefore in this study researcher will be concentrating study on safety citizenship behaviour in manufacturing organization

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1.2 Problem Statement

As Malaysia setting a part to be an industrialized nation in the world, workplace accident has become a major issue. Most of the accidents happened cause by human factors (Gyekye, 2010; Taylor, 2010). For instance, Gyekye (2010), describe that safety behaviour of the workers (unsafe act) is the main fundamentals which cause occupational accident besides working environment (unsafe condition).

Similarly, human errors that could potentially cause an accident are called unsafe acts may be defined to be a human action that departs from hazard control or job procedures to which the person has been trained or otherwise informed, which causes unnecessary exposure of a person to hazards (Joel, 1997). On the other researcher Zaliha Hj Hussin (2008), studied the types and factors of accidents that happened in food-manufacturing in small and medium sized industries, it also discuss on corrective and preventive action taken by employers. The result of the research showed that only little accident happened and most of the accident are only slight injuries. Workplace accident because of human error such as partners negligence and small cut identified as the most common type of accident that happened.

Apart from human factor, other common factors of accident workplace stress (Noorul, 2012), means that when workers are stress and fatigue, irregularities of scheduling, and work overloaded will have an effect on their concentration in conducting their works. Therefore, they are exposed to the probability of involving in the accidents. Stress and fatigue in the norm of working life are synonym with workers. Machinery and tools, it means that old machineries and tools, improper or irregular inspections done by the workers, insufficient training among the workers

and failure to immediately report any breakdown are among the factors that may contribute to a workplace accidents. Machineries or tools are very much associated with day-to-day operation. Design of workplace is one of the crucial parts in avoiding accident in the workplace. This means that irregular workplace layout, the absence of safety features, improper communication among the staffs involved, and inability of the supervisors to provide clear explanation of the layout, may cause problems to the workers in handling their machinery or transport smoothly. Effective design and layout of workplace can eliminate some workplace hazards and help get a job done safely and properly. Poor design and layout can frequently contribute to accidents by hiding hazards that cause injuries (Gyekye, 2010).

To control workplace accident safety culture can be viewed as a component of the organizational culture that refers to the individuals, jobs and organizational characteristics that affect employees health and safety (Fernandez-Muniz, 2007). Past two decades there been increasing interest among researches and practitioners towards the concept of safety culture because of its impact on safety outcomes such as injuries, fatalities and other incidents (Choudry, 2007) purpose of safety culture is to avoid taking any unsafe actions (Fernandez-Muniz, 2007). Besides that, Andi (2008), believed safety culture been progressing in manufacturing industry and defined safety culture as a part of corporate culture that imply to individual, job and organizational feature that affect and influence health and safety.

According to Sivaprakash (2011), good attitude, behaviour and safety education may reduce number of accidents in manufacturing industry. Education on safe work culture may educate workers on how to prevent accidents in manufacturing industry and to instil awareness of practicing safe work culture (Sivaprakash, 2011). In other

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hand , Cooper (2000) identifies the characteristics of safety culture model which psychological, behavioural and situational factors.

A good safety management owing to the fact of improved safety behaviour among workers of the manufacturing company would result positive safety behaviour and improve workers safety participation at their workplace by Zohar (2010). One of the appropriate programs to measure employees' behaviour is called Behaviour-based safety (BBS). BBS is characterized as an analytic objective and data-driven approach focusing on safety-related behaviours performed by first-line personnel (Tharaldsen & Haukelid 2009). BBS program can also be developed for different levels of management. HSE (2002) supports such program by saying that the output of BBS program will ultimately lead to improve safety culture.

Studies been conducted on the safety citizenship behaviour as key aspect in promoting safety culture. Zohar (2002), for instance, has emphasized the role of leadership to improve safety while Barling, Laughlin & Kelloway (2002) examined the role of transformational leadership in promoting safety. Parboteeah and Kapp (2008) examined positive relationship between safety motivation and safety enhancing behaviours in their study. Ajzen and Fishbein (2005) has identified that motivation as an important precursor to actual behaviour. Safety motivations, safety knowledge, safety conciousness, safety specific transformational were also considered by Partoteeah and Kapp (2008) simply because employees who are motivated will actively follow safety compliance

The research gap in this study on employees safety citizenship behaviour to reduce workplace accident. This study carried out to investigate the influence of safety

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citizenship behaviour in manufacturing industry through safety knowledge, safety motivation, safety consciousness and safety-specific transformational leadership.

1.3 Research Objective

The study is carried out to determine the four independent variables safety citizenship behaviour. Specifically the study intends:

1.3.1 To determine the level of safety citizenship behaviour among workers in the manufacturing company.

1.3.2 To examine the relationship between safety knowledge, safety motivation, safety consciousness, safety-specific transformational leadership, and safety citizenship behaviour among workers in the manufacturing company.

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1.4 Research Question

The research questions of the present study are as follows:

1.4.1 What is the level of safety behaviour among workers on the manufacturing company?

1.4.2 How safety knowledge, safety motivation, safety consciousness, safety-specific transformational leadership, influence safety citizenship behaviour among workers in the manufacturing company?

1.4.3 What is the most contributing factors to reinforce safety citizenship behaviour among the manufacturing workers?

1.5 Significance of the study

The study is expected to provide evidence of significant factors and variable associated with safety citizenship behaviour to improve safety performance among workers and eliminate accident among the manufacturing company. Although there were numerous studies on BBS in Malaysia but the numbers is still limited specifically on the foreign workers in the manufacturing industry. Therefore, this study will be carried out among Malaysian and foreign workers in the manufacturing company in Malaysia, so that significant improvement in safety citizenship behaviour can be achieved by focusing on safety knowledge, safety motivation, and safety consciousness and safety specific transformational leadership variables.

Another significant point, this study will be useful for the industrial safety and health practitioners to understand all the factors that influence safety citizenship behaviour among the Malaysian and foreign employees in the manufacturing industries. Through this studies it will give idea and strategic to the practitioners to plan and convince their management to practice and implement safety citizenship behaviour.

The outcome of this study can be a useful guideline for the management and industrial owner to further improve safety related issues in manufacturing industries. This study will be useful to develop new policy, specific training, awareness workshop, safety campaign and additional safety procedure and work instruction, HIRARC. This study guideline can be used conducting specific task associated with manufacturing industries and reward those who shows enthusiasm and compliance with safety related matters.

Finally, findings from this study will be useful for Malaysia government especially Department of Occupational Safety and Health (DOSH) to frame up next OSH Map, Strategic Plan for SMI (Small Medium Industry Sector) and upcoming Conference of Safety and Health (COSH) to emphases safety citizenship behaviour.

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CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

This chapter discuss on the overview of relevant literature review for empirical study on safety behaviour. Perhaps this literature review also covered on the safety citizenship behaviour relationship between the four independent variables of the field of studies safety knowledge, safety motivation, safety consciousness and safety-specific transformational leadership.

2.2 Empirical study on the Safety Citizenship Behaviour

Bennetts, Casey and Steven (2014), had publish a whitepaper on safety citizenship behavior success for organization. In this whitepaper safety citizenship behaviour explained as complete workforce commitment to safety and the behaviour that go above and beyond formal job descriptions, safety citizenship contributes to safety performance over and above compliance. Safety citizenship is important because it reduces injuries and near-misses, enhances safety performances. The study summaries safety citizenship behaviour contributes to performance both directly (avoiding injuries) and indirectly (increasing knowledge and collective safety motivation among workers).

Hofmann, Morgeson and Gerras (2003) found that dimensions in safety citizenship behaviour of an organization namely focused improving safety performance, safety communication and increased subordinate safety commitment. This statement is supported by Xuesheng and Xintao (2011), who found that four dimensions that

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construct high-order safety citizenship behaviour namely safety climate scale that been used are safety involvement, safety commitment, safety training and safety awareness changes for improving safety. Another study from Xuesheng and Xintao (2011), safety citizenship behaviour is a higher order construct consisting of various behaviors such as helping co-workers, promoting safety program, demonstrating initiative, suggest changes for improving safety. Another concrete study by Clarke (2013), safety citizenship behaviour (SCB) dimensions are making safety suggestions, safety-related worker involvement, ensuring co-worker safety and measures of safety participation.

2.2.1 Safety Citizenship Behaviour study in Risk Management in Oil and Gas industries

Didla, Mearns & Rhona Flin (2009), conduct a study on safety citizenship behaviour is a proactive approach to risk management. As per explain there is two type of risk management that is technical mechanisms and human behaviours. The research explain modern organizations are now focusing in a building a human risk management system, which means limiting risky behaviours and enhancing safety behaviours. Compliance with safety rules and regulations is influential in lowering the risk of accidents. However, the researcher realized to achieve high level safety, mere compliance is not sufficient need to practice safety citizenship behaviour. The study based on 24 semi-structured interviews with supervisory-level employees in an oil and gas organization. Researcher updated in the previous research on compliance behaviour found that there is consequences on employee role overload, stress and work-family conflict, but the in safety citizenship behaviour did not show any

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negative effects. To have good risk management, safety citizenship behaviour among the employee need to be emphases.

Reader et.al. (2017) studied on employee safety citizenship behaviour ar crucial to risk management in safety-critical industries. This study examines whether safety citizenship behaviour are product of social exchanges between employees and organizations. Study conducted using questionnaires, collected data from employees and medics on 22 offshore installations. The summaries safety citizenship behaviours are a product of social exchange and provides insight on how organizations can influence employee engagement.

On another hand Salmien, Gyekye and Ojajarvi (2013) studied on Individual and organizational factors on Safe Behaviour among Ghanaian Industrial Workers. The main purposes of this study carried out to compare individual and organizational factors as preictors of accident frequency. 320 Ghanaian industrial workers from nine organization from different industries such as textile factories, timber, breweries, food processing plant, and underground mines. Participants that involved were accident victims, co-workers, and supervisor. A total of 345 subjects were interviewed unfortunately 25 responses were discarded because of multiple choices to the one question. Following the studies four hypotheses were tested in this study, (H1) Both individual and organizational factors contribute to safe behaviour and subsequently accident frequency, (H2) Individual factors have more impact than organizational factors, (H3) Both Organizational citizenship behaviour and Perceived organizational support are positively associated with safety behaviour, which in turn related to accidents, (H4) Among the four organizational factors, perceived organizational support will make most impact. Results on first factor

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individual factors related to accident frequency, male workers more often involved in occupational injuries than their female counterparts, employee age 18 to 29 registered a relatively higher accident frequency than their older colleagues, single workers has relatively higher injury rate than their married counterpart. Another interesting result on second factor that is individual factors to organizational citizenship behaviour shows that, female workers more actively participated in citizenship behaviours than male employees, older workers and the married participated in safety citizenship behaviour more actively than their younger and single counterparts. Result on third factor individual factors related to job satisfaction, show that older and married workers expressed more job satisfaction than their younger and single counterparts, higher-educated workers expressed more job satisfaction than their lower-educated counterparts. Result on fourth factor individual factors related to work safety scale, female workers gave a more constructive assessment of the safety level in their workplace than their male counterparts, perceived safety of the organization increased linearly with age, married workers rated safety levels in the workplace more highly than their single counterparts. Finally result of fifth factor individual factors related to perceived organizational support, females express greater supportive perceptions than their male counterparts, older employees perceived more support from their organization than their younger counterparts and married employees perceived more support from their management than their single counterparts. As a conclusions the studies showed that both individual and organizational factors contributed to occurrence of occupational accidents among Ghanaian industrial workers. Safety citizenship behaviour and safety compliance had also significant contribution on occupational accidents and many-sided work to prevent occupational injuries.

2.3 Relationship between safety knowledge and safety citizenship behaviour

Knowledge is vital in all aspects of an organization to ensure that decision and tasks are undertaken correctly and with an understanding of consequences. Knowledge can be generally defined as a familiarity or general awareness of one's actions. Safety knowledge has a very strong positive relationship with safety behaviours. Knowing to work safely (e.g. operating drilling machine, grinder, handling hazardous chemical, handling hazardous schedule waste, operating overhead crane, electrical safety and radiation safety) will enact safe behaviour and proper safety knowledge will produce good safety behaviour. Specific safety knowledge relating to safety develops a person's perceived behavioural control by helping them to understand what they can and should be doing (Biggs, Sheahan & Dingsdag, 2006).

A study conducted by Neal, Griffin and Hart (2000), on influence of organizational and individual behaviour through safety knowledge. The study summarize that safety climate have independent effects on knowledge and the factors are important determinants of safety behaviours.

In a study conducted by Beseler and Stallones (2010), on Safety Knowledge, Safety behaviours, depression and injuries in Colorado farm residents. The study background is about changing safety behaviour has been the target of injury prevention in the farming community for years but significant reducations in the number of farming injuries have not always followed. The study describes the relationships between safety knowledge, safety behaviour, depression and injuries using 3 years of self-reported data from a cohort of farm residents in Colorado. Around 652 people consist of farm operator and their spouses involve in the study.

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As as results from the study safety knowledge was significantly associated with wearing protective equipment. None of the safety behaviours were significantly associated with injuries. In the presence of depression, low safety knowledge increased the probability of injury in models adjusted for age, sex, hours worked per week and financial problems. Conclusions on the study future work on injuries in the farming community should include measures of mood disorders and interactions with safety perceptions and knowledge.

As a summary safety knowledge is a important factor to cultivate a safety citizenship behaviour. To deliver an effective safety knowledge, the organization need proper planning, time management and specific safety knowledge that related to the organization. The organization need to develop specific safety training material for the organizational not pick-up different organization example.

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2.4 Relationship between safety motivation and safety citizenship behaviour

Fey (2005), as defined motivation as "the set of psychological process that cause the initiation, direction, intensity and persistence of behaviour. Vuori and Okkonen (2012), stated that motivation helps to share knowledge through an intra-organizational social media platform which can help the organizational to reach its goals and objectives. As per explain by Kuo (2013) a successful organization must combine the strengths and motivation to internal employees and respond to external changes and demands promptly to show the organization's value. The term safety motivation refers o an individual's willingness to exert effort to enact safety behaviours and the valence associated with those behaviours. Individuals should be motivated to comply with safe working practices and to participate in safety

activities if they perceive that there is a positive safety climate in the workplace (Neal &Griffin, 2006). A detail literature review of safety motivation reveals a number of theories concentrate on the differences between intrinsic and extrinsic motivation. When individuals are intrinsically motivated, they engage in an activity because they are interested in and enjoy the activity. When extrinsically motivated, individuals engage in activities for instrumental or other reasons, such as receiving a reward. The theory presented by Eccles and Wigfield (2002). According to Geller (2010), the workers safety motivation is a key variable having a direct impact on both safety climate and individual behaviour. A desired safe behaviour in workplace is usually uncomfortable and inconvenient. Without safety climate and individual motivation, shortcuts may unavoidably be taken.

Neal and Griffin (2006) had conducted a study of the lagged relationship among safety climate, safety motivation, safety behaviour and accidents at the individual and group levels. The authors measured perceptions of safety climate, motivation and behavior at 2 times points and linked them to prior and subsequent levels of accidents over a 5-year period. The authors belief the results contribute to an understanding of the factors influencing workplace safety and the levels and lags at whih these effects operate. The study was carried out in an Australian hospital employing over 700 staff. There was range of safety issues that were of concern to these staff, including manual handling injuries, needle-stick injuries, exposure to infections or poisonous agents and bullying or harassment. All employees ware surveyed in 1996 (Year 1), 1997 (Year 2) and 1999 (Year 4). In 1997 and 1999, participants responded to items concerning safety climate, motivation and behaviour.

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A study conducted by Al-Haadir, Panuwatwanich and Stewart (2013), on Empirical analysis of the Impacts of Safety Motivation and Safety Climate on Safety Behaviour. According to the research the study conducted because rate of total workforce injuries from construction activities can be high as at least 50% and the researcher analyzed the relationship of safety motivation on individual safety behaviour. The study conducted at Saudi Construction Industry (SCI) during Feb and May 2012, the study sample targeted only individuals in the construction workplaces such as supervisors, engineers from main contractors and subcontractors also. Total 430 survey questionnaires sent out via email, only 295 questionnaires returned with 68.6%. The study has demonstrates that general safety motivation can influence perceptions of safety climate and that these perceptions of safety climate in turn influence safety behaviour. The results suggest that interventions specifically aimed at improving safety behaviour using range of safety motivation techniques (both intrinsic and extrinsic) will be more effective when they are carried out within the context of a positive safety climate. The results provide new insights in to the role of motivation in workplace safety and dimensionality of safey behaviour, thus organizations should attempt to improve safety should focus on changing the work environment to motivate people to actively participant in safety activities, rather than simply blaming and punishing individuals who fail to comply with standard work procedures.

Safety motivation is a hyperactive energy boost to employees for working safely in the workforce. Motivating the employee to be safe might be difficult but employers need to promote safety motivation by doing innovating, trying new things and taking risks. By sucessfully doing safety motivation surely it will elicit a degree of enthusiasm from workers.

2.5 Relationship between safety consciousness and safety citizenship behaviour

Safety consciousness defined as awareness of hazards and alertness to danger. Under the umbrella of safety consciousness comes a wide range of subjects, such as disaster preparedness, emergency response, evacuation, and first aid, freedom from workplace violence, and access to ergonomically safe equipment and sexual harassment policies. Safety consciousness has a strong influence on the actions of an individual because of his or her desire to remain alive and uninjured. If an employee takes chances indulges in unsafe practices uses an improper tool or leaves an open hole unguarded the employees is labelled as not safety-conscious. (IADC, 2015).

According to Julian, Catherine and Kevin (2002), safety consciousness focuses on individuals own awareness of safety issues. Individual safety consciousness exists at both the cognitive and the behavioral levels. At the cognitive level safety consciousness consists of general awareness of safety issues as well as a more specific knowledge of the behaviours required to ensure safety. However, the concept of safety consciousness goes one step further than mere knowledge of the required behaviours to their enactment, and the proposed model predicts that a transformational leadership style will be associated with individual safety consciousness.

A study conducted by Koster, Stam and Balk (2011) investigate the influence of safety consciousness on warehouse accidents. The researchers had collected and anlysed data from a survey among 78 warehouse managers and 1033 warehouse employees in order to test the hypotheses that safety consciousness of employee of a warehouse is positively related to safety performance of the warehouse. The

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researchers findings suggest that safety consciousness indeed is a predictor of safety behaviour. In the study, the researcher used the definition that safety consciousness covers the employees perceptions of occupational safety that related to themselves. Kim (2015), had conducted study on Safety Awareness and Safety Practice Behaviour of College Students. The main purpose of this study is to examine the relationship between the safety awareness and safety practice behaviour of the college students. The study carried out from 1st to 20th November 2014 involving 294 college students. The study found that safety awareness point was an average of 177.5 points which was higher levels. Area showing the highest safety awareness was safety from fire. Safety practice behaviour was an intermediate level of an average 63.3 points. Also, there was a positive correlation between safety awareness and safety practice behaviour (r=.595. P<.01). The results of this study implies that we need the safety training program for the safety awareness of college students.

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2.6 Relationship between safety-specific transformational leadership and safety citizenship behaviour

According to Bass (1990), transactional leadership style refers to employing rewards and punishment for motivating followers while transformational leadership style refers to using influencing power and enthusiasm to motivate followers to work or the benefit of an organizational. Safety-specific transformational leadership is known to encourage employee safety voice behaviours, less is known about what make this style of leadership effective (Conchie, 2012). In addition, 'safety-specific transformational leadership" refer to transformational leadership that specifically promote and develop a safe work environment (Barling, 2002). Safety-specific

transformational leadership directly shapes employee perceptions of safety in the workplace, which turns affects employee behavior (Clarke, 2016).

Smith (2012), explained the importance of transformational leadership has been touted in the business and organization literature as transformational leadership affects employee attitudes, work-related outcomes, trust in management, organizational commitment, work performance and satisfaction with leadership. More importantly for the safety and health professional, the application of safety-specific transformational leadership tactics and strategis provides an opportunity to enhance safety climate, occupational safety and health performance and occupational injury outcomes.

Conchie and Donald (2009) study whether safety-specific trust mediates the relationship between safety-specific transformational leadership and subordinates safety citizenship behaviour by collecting data from 139 subordinate supervisor dyads from United Kingdom construction industry. The results showed that safety-safety-specific transformational leaders does influence on safety citizenship behaviour.

A study conducted by Shen, Ju, Koh, Rowlinson and Bridge (2017). The impact of transformational Leadership on Safety Climate and Individual Safety Behaviour on Construction Sites. Previously research conceptualized safety behaviour as an interaction between proximal individual differences (safety knowledge and safety motivation) and distal contextual factors (leadership and safety climate). However, relatively little empirial research has examined this conceptualization in the construction sector. Given the cultural background of the sample, this study makes a

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slight modification to the conceptualization and views transformational leadership and as an antecedent of safety climate. This study establishes a multiple mediator model showing the mechanisms through which transformational leadership translates into safety behaviour. The target population was construction site personnel based in Hong Kong, who were grouped into eight sub-categories in three main categories. The authors does random sample of 2996 prospective respondents from the sampling frame and send them hard-copy questionnaire. The result suggest that future safety should be more effective if supervisors exhibit transformational leadership, encourage individual safety behaviour of construction personnel to voice safety concerns without fear of retaliation and repeatedly remind them about safety on the job.

2.7 Summary

Based on above mentioned literatures, it indicate variables of the safety performances namely safety knowledge, safety motivation, safety consciousness and safety-specific transformational leadership were significantly related and influence safety behaviour among the employees. Therefore, this study will examine the influence of between the four variables safety knowledge, safety motivation, safety consciousness and safety-specific transformational leadership towards safety citizenship behaviour among the manufacturing employees.

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CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains on the methodology aimed to collect primary data for this study. Particularly, this chapter covers aspects concerning to research design, sampling, data collection, and measurement explanation on theoretical framework, data collection, research instruments, population, ample and data analysis method.

3.2 Theoretical Framework

According to Sekaran and Bougie (2016), the theoretical framework is a logically developed, described and elaborated network of associations among concepts or variables deemed relevant to the problem situation, which have been identified through preliminary information gathering and the literature search. The main purpose of this study will be conducted to investigate the relationship whether safety knowledge, safety motivation, safety behaviour, safety consciousness, safety-specific transformational leadership can effect safety citizenship behaviour among workers in the manufacturing. The framework of this study consists of four independent variables safety knowledge, safety motivation, safety consciousness and safety-specific transformational leadership which later tested their relationship on the dependent variable safety citizenship behaviour as illustrated in Figure 3.1.

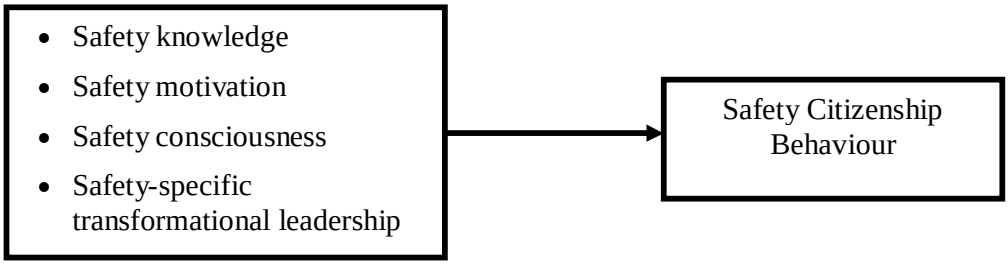

Figure 3.1: Theoretical Framework

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3.3 Operational Definitions

Operational definitions of each facet of safety citizenship behaviour are as follows:

Safety knowledge - Safety knowledge defined as a information on the hazards, risks and notions of prevention related to a specific task or occupation. Safety knowledge directly contribute to safety behaviour that need to control probability of injury (Beseler & Stallones, 2010). The basic safety knowledge is educate employee to wear personal protective equipment (PPE), it will help to improve safety citizenship behaviour among the employee although there is no supervision when the employe are performing the task.

Safety motivation - a successful organization must combine the strength and safety motivational to internal employees and respond to external changes and demands promptly to show the organization's value (Kuo, 2013). The term safety motivation refers to an individual's willingness to exert effort to enact safety behaviours and the velence associated with those behaviours. The workers safety motivation is a key variable having direct impact on both safety climate and individual behaviour (Geller, 2010).

Safety Consciousness - Safety consciousness focuses on individuals own awareness of safety issues. Individual safety consciousness exists at both the cognitive and the behavioral levels. At the cognitive level safety consciousness consists of general awareness of safety issues as well as a more specific knowledge of the behaviors required to ensure safety (Julian, Catherine & Kevin, 2002)

Safety- Specific Transactional Leadership - Transactional leadership style refers to employing rewards and punishment for motivating followers while transformational

leadership style refers to using influencing power and enthusiasm to motivate followers to work or the benefit of an organizational (Bass, BM, 1990). Safety-specific transformational leadership directly shapes employee perceptions of safety in the workplace, which turns affects employee behaviour (Clarke, 2016)

3.4 Measurement of Variables

The contents and substance of the seven variables that are safety knowledge, safety motivation, safety consciousness, safety specific transformational leadership, safety compliance, safety participation, safety citizenship behaviour of this research will be taken from previous questionnaires of Vinodkumar and Bhasi (2010), Koster,Stam and Balk (2011), Gerras (2003) and Zohar (1980).

All the variables were measured through interval scale. Interval scale are numerical scales in which intervals have the same interpretation throughout. The interval scale is used when response to various items that measures a variables can be tapped on a five point (or seven-point or any other number of points) scale, which can therefore be averaged across the items. (Sekaran & Bougie, 2016).

Questionnaire will be prepared in dual language (e.g. English and Bahasa Malaysia) contain 54 question to measure the variables. Questionnaire was prepared based on the review of related literature and theory and it contained questions covering safety knowledge (6 question), safety motivation (6 question), safety consciousness (7 question), safety specific transformational leadership (8 question), safety and safety-citizenship behaviour (27 question).

Every question was measured on a Likert scale. A Likert Scale is designed to examine how strongly subjects agree or disagree with statements on a five-point and

is the most widely used scale in questionnaire survey based research (Geller et al., 1996: Grote and Kunzler, 2000). In this response respondents will asked to give their preference on a 5-point Likert scale (strongly disagree, disagree, neither disagree nor agree, agree and strongly agree) in order to analysis and evaluate the respondents level of agreement with each item.

3.5 Hypotheses Statement

Hypotheses have been developed in the study to express the relationship between safety knowledge and safety behaviour, safety motivation and safety behaviour, safety consciousness and safety behaviour and also safety-specific transformational leadership and safety behaviour in the Manufacturing Company. Below are the hypotheses of the present study

H1: There is a significant relationship between safety knowledge and safety citizenship behaviour among workers in the manufacturing company.

H2: There is a significant relationship between safety motivation and safety citizenship behaviour among workers in the manufacturing company.

H3: There is a significant relationship between safety consciousness and safety citizenship behaviour among workers in the manufacturing company.

H4: There is a significant relationship between safety-specific transformational leadership and safety citizenship behaviour among workers in the manufacturing company.

3.6 Research Design

This research is a descriptive study using quantitative and will adopt a cross-sectional approaches in data gathering appropriately designed to meet the objectives of the research and assist towards the findings. The main purpose of this study is to determine whether safety knowledge, safety motivation, safety behaviour, safety consciousness, safety-specific transformational leadership can effect safety citizenship behaviour among workers in the manufacturing company. According to Sekaran and Bougie (2016), the independent variable influences the dependent variable in either positive or negative way. When the independent variables presents dependent variables also present and if there is an increase in independent variables, there will be increase or decrease in the dependent variable also. The goal of the research is to understand and describe the dependent variable. Through the analysis of the dependent variables, probability to find solutions or answers to the problem. To achieve the goal, we need to quantify and measure the dependent variables, as well as other variables that influence this variable.

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3.7 Sampling and Sampling Procedure

Sampling is the process of selecting a sufficient number of elements from the population so that by studying the sample and understanding the properties or characteristics of the sample subjects, it would be possible to generalise the properties or characteristics to the population elements (Sekaran & Bougie, 2016). In fact, a research study is carried out on a sample from a population. As per mention by Sekaran and Bougie (2016), sampling design, size and procedure are very

important. An appropriate and suitable sampling size will help the researcher to write conclusion that would be commonly population interest.

In this study sampling method specifically named simple random sampling was used. Reason for using this sampling method are population will have equal chance being selected as sample and easy to use and accurate representation of the larger population.

The respondents in this study are employee of manufacturing company which includes management staffs and non-management staff. Management staffs refer to those who are in the position of managers, executive and clerks. The non-management staff are supervisor, line leader and operator. Krejcie and Morgan (1970) has simplified size decision for responder by providing a table to ensure a good decision. Suggested sample size for this study with population of 150 is approximately 108 respondents. However 110 samples randomly selected from the whole population. Once sample size has been determined 110 questionnaire will be distributed by giving sufficient time to collect the questionnaire, non-management responder will be invited to meeting room to fill up the questionnaire and immediately collected. For management staff, questionnaire are given to them and immediately collected. The survey will take about a month for complete, because of non-management staff who is working under 3 shift with 4 crew members.

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3.8 Measurement of Variables / Instrumental

For this study, data collection method used will be structured survey that contains close-ended questions pre-selected by the researcher (Appendix A). Responder will be given 15 till 20 minutes to fill all section in the questionnaire and it is a

confidential exercise. The questionnaire is divided into three sections: (A) Demographic Information (B) Main Study.

Questions in section A was set to obtain employees demographic. Twelve question has been set in this section that include age, gender, race, marital status, highest educational level, position, working experience, and present organization working years, any accidents experience, attended on occupational safety training and how often attend to safety training.

Section B the questions are covered on main study, covering safety knowledge question 1 to question 6, safety motivation question 7 to question 12, safety consciousness question 13 to question 19, safety specific transformational leadership question 20 to question 17, and safety-citizenship behaviour question 40 to question 66. The options provided as responses were on five-point scale ranging Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree. There were negative questions in the survey which were used by researcher.

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3.9 Data Collection

This study will be conducted in four steps. First, the researcher will brief the management of manufacturing company on the main purpose of the study to obtain approval to conduct the research besides to earn their full cooperation. Second, the dates for the administration will be fixed. Third, responder will be do briefing session at the meeting room to all the head of departments regarding completing the questionnaires. Fourth, researcher will disturb the questionnaires to responder from managerial and non-managerial staff to respond and collect immediately upon

completion. This session will take one month of administration. 110 question will be distributed.

3.10 Data Analysis

The Statistical Package for the Social Science (SPSS) computer program version 22.0 was utilized to perform the statistical analysis. The use of SPSS version 22 in analysing the data helps the researcher to organize and interpret the data, SPSS also helps to determine appropriate statistical technique used to test the hypothesis. Five types of analysis were conducted through SPSS namely reliability analysis, descriptive sample analysis, descriptive main variable analysis, correlation analysis and regression analysis. Purpose of reliability analysis is to check the dependability of the data. According to Sekaran and Bougie (2016), all data entries have to be checked to ensure that subsequent analysis and findings were credible, this was to establish the reliability of the data. Cronbach's Alpha cofficient is used in this study to measure the core reliability, in reliability analysis figure measured using Cronbach's Alpha. Nunnally (1994), stated that Cronbach's Alpha of 0.7 or greater is acceptable in social sciences research. Reliability of a measure is established by using both consistency and stability test. The closed Cronbach's Alpha to 1.0, the higher the internal consistency reliability is Cronbach's Alpha measures are as Table 3.2 below. Data will be analysed by using descriptive analysis to describe the characteristic of the sample, which include demographic sample.

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Table 3.1 Cronbach's Alpha Measures

Cronbach's Alpha	Percentage (%)
0.8 and above	good
0.7	acceptable
0.6 and below	poor

3.11 Pilot Study

A Pilot study is a mini study of data collection before the final data collection commences. A pilot study is useful to determine the limitations reflected in the questionnaire by adapting a probability sample as a guideline for the final study. A pilot study is used to identify the questionnaire's reliability and validity, determine whether the questionnaire items were properly designed and in the right sequence, determine time and length to complete questionnaire and to make sure whether the language used was appropriate and acceptable by the respondents.

For this purpose, the instruments was pre-tested with 30 non-management workers of a steel manufacturing company in Shah Alam, Selangor on 15th June 2016. The respond check with the Cronbach's alpha tests to deal with relevancy of the dependent and independent variables... The results of pilot study is shown in table 3.2 below.

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Table 3.2
Reliability Analysis Result for Pilot Testing

Items	Pilot Study	
	No. Of Questions	Cronbach Analysis
Safety Knowledge	9	0.6
Safety Motivation	9	0.8
Safety Consciousness	10	0.6
Safety – Specific Transformational Leadership	10	0.7
Safety Citizenship Behaviour	30	0.7
TOTAL	**68**	

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3.12 Summary

The process of data collection and analysis of data is important to determine whether a hypotheses in a research is supported or rejected. Based on the statistical analysis as well, the relationship between independent variables and dependent variables of current research will be revealed. Furthermore, the data analysis result should express whether the conducted research has met it objectives or otherwise.

CHAPTER 4
RESULTS

4.1 Introduction

This chapter report the results from the data collected through the survey performed and analyses process based on the statistical methods applied to get research objectives. All the data were analysed using Statistical Package for the Social Sciences (SPSS) version 22. The data were examined in terms of reliability, descriptive analysis, correlation and regression. Frequency analysis has been computed to analyse the respondents' demographic details. Pearson Correlation was used to determine the existence of any relationship between the independent variable and dependent variable. Finally, multiple regression analysis was conducted to identify which independent variables are the most significant to compliance with safety citizenship behaviour among the employee in manufacturing company.

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4.2 Response Rate

A total of 110 questionnaires were distributed to the respondents who are working at a multinational manufacturing company based in Subang Jaya, Selangor. Before the survey questionnaires were given to respondents, brief explanations were given to respondents regarding the purpose of the study and confidentiality assurance of their responses. The respondents were given sufficient time period to complete the questionnaires, some of them submit the questionnaire after 1 week and some questionnaire were collected immediately from the respondents. Response rate

percentage was 91%, 100 questionnaire received. Table 4.1 summarized the response rate of the survey.

Table 4.1
Response Rate

Items	Total	Percentage (%)
Distributed Questionnaires	110	100
Collected Questionnaires	100	91
Unreturned Questionnaires	10	9
Completed Questionnaires	100	91

4.3 Respondents Profile

Respondents' demographic profiles are described in Table 4.2 below. Table 4.2 shows that the largest group of respondents is non-executive (57%) which include administrative and technical staff, executive (37%) and managers (6%). In this manufacturing organization middle and higher management level represented by a small percentage of total employee. This conclude that the results of the study are maximum obtained from the operators, technicians, supervisors and clerks opinion that are actually engaged with the operational work rather than executives and managers who are involved in the management work.

The data analysis of this study exposed that the male respondents were the majority. There were 85 male and 15 female respondents out of the 100 respondents. It revealed that, the result of the study are mostly obtained from the male respondents' opinion.

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In terms of age, the respondents who had their age in the interval between 25-35 years old, constituted to 50% of the respondents. This is followed by the respondents between the ages of 36-45 (26%), 15-25 (20%), 46-55 (3%) and 56 and above (1%). Employees with the age of above 56 are those whose services are extended after their retirement age of 60 on a contract basis due to their expertise in certain work area.

In terms of working experience, the largest group respondents by the employee who have been working for less than five years, which consisted of 45% of the respondents. This is followed by those worked six to ten years (25%), eleven to fifteen years (19%) and lastly sixteen years and above services (11%). Employee between the ages of 25-35 years old consists of majority the workforce (50%), indicate the generation Y who are like to work in organizations that are innovative, creative, energetic and environmentally friendly (Aksay, 2015).

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The largest group respondents is the employee who have been working in the current organization for one to five years, which consisted of 66 respondents or 66%. This is followed by those who worked for six to ten years 24 respondents or 24% and lastly above ten years of service 11 respondents or 11%. The respondents working for one to five years consists majority of the respondents.

On the education part the study revealed that the largest group of respondents is with secondary qualification, which consisted to 33 (39%) of the respondents. Then followed by degree (25%), diploma (24%), certificate (15%) and masters' degree (3%). This means that majority of the respondents were those with secondary level education, as for this study higher respondents from non-executive (57%) group.

The study on marital status, 65 respondents (65%) are married, 34 respondents (34%) are single and divorced 1 respondents (1%). The results shows that most the respondents provided feedback this study were married employees in the manufacturing company.

In terms of occupational accident, majority of the respondents 92 (92%) responded that they have not met an accident since working with current organization. Only 8 respondents (8%) responded that they have met with an accident and the 8 respondents (100%) indicted that they had involved in the accident one to three times since working with the manufacturing company.

Finally, the table shows 100 respondents (100%) have attended the safety training in manufacturing organization. Majority of the respondents 52 respondents (52%) mention they have attended the safety training once a year, 23 respondents (23%) once in sex month, 14 respondents (14%) once in three month and 11 respondents (11%) on every month.

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Table 4.2
Demographic Characteristic of the Respondents

Demographics	Frequency	Percentage (%)
Job Title		
Manager	6	6.0
Executive	37	37.0
Non-Executive (Technical)	40	40.0
Non-Executive (Administrative)	17	17.0
Gender		
Male	85	85.0
Female	15	15.0
Age		

15-25 years old	20	20.0
26-35 years old	50	50.0
36-45 years old	26	26.0
46-55 years old	3	3.0
56 year old and above	1	1.0
Race		
Malay	43	43.0
Chinese	33	33.0
Indian	14	14.0
Others	10	10.0
Marital Status		
Married	65	65.0
Single	34	34.0
Divorced	1	1.0
Education		
Secondary	33	33.0
Certificate	15	15.0
Diploma	24	24.0
Degree	25	25.0
Master	3	3.0
Working experience		
0-5 years	45	45.0
6-10 years	25	25.0
11-15 years	19	19.0
16 years and above	11	11.0
Working experience with current organization		
1-5 years	66	66.0
6-10 years	24	24.0
Above 10 years	10	10.0
Occupational accident		
Yes	8	8.0
No	92	92.0
Frequency of accident (if yes)		

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1-3 times	8	100
4-8 times	-	-
9-15 times	-	-
Over 15 times	-	-
Safety Training		
Yes	100	100.0
No	-	-
Frequency of safety training (if yes)		
Every Month	11	11.0
Once in three month	14	14.0
Once in six month	23	23.0
Once a year	52	52.0

4.4 Reliability Analysis

In order to make sure questionnaire were reliable and admissible, reliability test was conducted. This study had produced satisfactory reliability and all the independent and dependent variables met the above requirement range within 0.7 to 0.9

As per shown in below table 4.3, the Cronbach's Alpha coefficient for safety knowledge, safety motivation, safety consciousness, safety-specific transformational leadership and safety citizenship behaviour is above 0.8. Nevertheless, the alpha value for safety compliance above 0.7. The total of initial items were sixty eight with realiability range from 0.40 to 0.80. After fourteen items were deleted (safety knowledge 3 items, safety motivation 3 items, safety consciousness 3 items, safety-specific transformational leadership 2 items, safety citizenship behaviour 3 items, the realiability ranged 0.60 to 0.80

Table 4.3
Reliability Analysis Before and After Items Deleted

Variables	No. Of Pilot Testing Items	Cronbach Analysis	No. Of Final Items	Cronbach Analysis
Safety Knowledge	9	0.6	6	0.870
Safety Motivation	9	0.8	6	0.902
Safety Consciousness	10	0.6	7	0.897
Safety – Specific Transformational Leadership	10	0.7	8	0.901
Safety Citizenship Behaviour	30	0.7	27	0.943
TOTAL	68		54	

In details, Cronbach's alpha on safety knowledge is 0.870, safety motivation is 0.902, safety consciousness is 0.897 and safety-specific transformational leadership is 0.901. It could be concluded that the items measuring the dependent variables asked in Part B of the questionnaire on the safety knowledge and safety consciousness were reliable. Items were deleted to improve reliability in the analysis.

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In summary, the reliability test indicated that all items measuring dimensions of independent variable as well as all the dependent variables are strongly reliable.

4.5 Descriptive Analysis

Descriptive analysis includes the mean and standard deviation values for independent and dependent variables were computed and documented in table 4.4. The mean value is a measure of central tendency that offers a general picture of the data without unnecessarily inundating one with each of the observations in data set (Sekaran & Bougie, 2016). Mean value is the average of all values in a given data

set. The mean is a descriptive statistic that measures the centre of balance of the data. The mean is often quoted along with the standard deviation. The mean describes the central location of the data whereas the standard deviation describes the spread. All the variables were evaluated based on a five-point rating scale ranging from 1 *(strongly disagree)* to 5 *(strongly agree)*

Table 4.4
Descriptive Statistics for Main Variables

Variables	Mean	Std. Deviation	N
Safety Knowledge	3.94	0.897	100
Safety Motivation	4.45	0.584	100
Safety Consciousness	4.16	0.762	100
Safety – Specific Transformational Leadership	4.20	0.804	100
Safety Citizenship Behaviour	3.28	1.429	100

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4.6 Pearson Correlation Analysis

The correlation is derived by assessing the variations in one variable as another variable also varies, correlation used as a descriptive tool in non-experimental research (Sekaran & Bougie, 2016). A pearson correlation matrix will provide information that will indicate the direction, strength and significance of the bivariate relationships of all the interval or ratio variables in this study, furthermore Pearson coefficient always denoted by letter r (Sekaran & Bougie, 2016). Table 4.5 display the result of correlation analysis of safety citizenship behaviour.

Table 4.5
Pearson Correlation Analysis

		Safety Knowledge	Safety Motivation	Safety Consciousness	Safety-Specific Transformational Leadership	Safety Compliance	Safety Citizenship Behaviour
Safety Knowledge	Pearson Correlation	1	.585**	.687**	.436**	.273**	.557**
	Sig. (2-tailed)		.000	.000	.000	.006	.000
	N	100	100	100	100	100	100
Safety Motivation	Pearson Correlation	.585**	1	.600**	.593**	.293**	.491**
	Sig. (2-tailed)	.000		.000	.000	.003	.000
	N	100	100	100	100	100	100
Safety Consciousness	Pearson Correlation	.687**	.600**	1	.662*	.133	.562**
	Sig. (2-tailed)	.000	.000		.000	.188	.000
	N	100	100	100	100	100	100
Safety – Specific Transformational Leadership	Pearson Correlation	.436**	.593**	.662**	1	.133	.435**
	Sig. (2-tailed)	.000	.000	.000		.187	.000
	N	100	100	100	100	100	100
Safety Citizenship Behaviour	Pearson Correlation	.557**	.491**	.562**	.435**	.493**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	100	100	100	100	100	100

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

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Table 4.5 shows the correlation between the five variables of safety citizenship behaviour. The results indicated that out of five variables only four variables (safety knowledge, safety motivation, safety consciousness and safety-specific transformational leadership) have positive significant correlation with safety citizenship behaviour. The safety consciousness and safety knowledge score are 0.557 and shows strongest relationship with safety citizenship behaviour, followed by safety motivation 0.491 and safety-specific transformational leadership 0.43.

4.7 Hypotheses testing

In this study, four main hypotheses were generated. Multiple regression analysis was used to analyse the hypotheses. The results obtained and its interpretation is discussed precisely at below table 4.6. Table 4.6 describes the relationship between safety knowledge, safety motivation, safety consciousness and safety-specific transformational leadership with safety citizenship behaviour in the manufacturing company.

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Table 4.6
Multiple Regression Results on Safety Citizenship Behavior

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.162	.497		.326	.745
Safety Knowledge	.296	.124	.278	2.384	.019
Safety Motivation	.175	.135	.144	1.288	.201
Safety Consciousness	.282	.158	.237	1.779	.078
Safety – Specific Transformational	0.83	.135	.070	.615	.540

Leadership

Note:
F value: 15.181 at $p < 0.05$
R: 0.624a
Adjusted R square: 0.364

Independent/constant variables: Safety knowledge, safety motivation, safety consciousness and safety-specific transformational leadership

Dependent variable: Safety Citizenship Behaviour

The multiple regression results shows the relationship between safety knowledge and safety citizenship behaviour was significant ($\beta=0.30$ at $p<0.05$). Hence hypotheses 1 (there is a significant relationship between safety knowledge and safety citizenship behaviour among workers in the manufacturing company) was supported.

The hypotheses 2 relationship between safety motivation and safety citizenship behaviour were not significant with coefficient of 0.18 at $p<0.05$. These indicated that the safety motivation was not significantly related to safety citizenship behaviour.

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The hypotheses 3 results shows the relationship between safety consciousness and safety citizenship behaviour was significant ($\beta=0.28$ at $p<0.05$). For hypotheses 3 there is significant relationship between safety consciousness and safety citizenship behaviour among workers in the manufacturing company. Hypotheses 3 supported.

Finally, the relationship between safety-specific transformational leadership and safety citizenship behaviour was not significant ($\beta=0.083$ at $p<0.05$). Thus, the hypotheses 4 (there is a significant relationship between safety-specific transformational leadership and safety citizenship behaviour among workers in the

manufacturing company) was not supported. Table 4.7 presents summary of hypotheses results.

Table 4.7
Hypotheses Results

Hypotheses	Result
Hypotheses 1: There is a significant relationship between safety knowledge and safety citizenship behaviour	Supported
Hypotheses 2: There is a significant relationship between safety motivation and safety citizenship behaviour	Not Supported
Hypotheses 3: There is a significant relationship between safety consciousness and safety citizenship behaviour	Supported
Hypotheses 4: There is a significant relationship between safety-specific transformational leadership and safety citizenship behaviour	Not Supported

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4.8 Summary

This chapter had presented the findings of the data analysis. In the first part, respondents' demographic characteristics were described. Then followed by reliability analysis, descriptive analysis, Pearson correlation analysis and reliability analysis. Two out of four hypotheses were supported. Detail focuses on the discussion of finding, theoretical and practical contribution and implications the limitation of present study and suggestion for future research will be discussed in the next chapter.

CHAPTER 5
DISCUSSION, RECOMMENDATION AND CONCLUSION

5.1 Introduction

This chapter will discuss the key findings and conclude the present study. On the second part would include the implication of the current study followed by suggesting the practical and realistic approach to build safety citizenship behaviour among manufacturing company employee. At the end of this chapter, the limitation that encounter and faced during this study will also be discussed.

5.2 Recapitulation of findings

On a broader scope, the current study aimed to investigate safety citizenship behaviour among the employees in manufacturing company. At first the study examined the relationship and influence of safety knowledge on safety citizenship behaviour among the employees. Secondly the study also examined the relationship and influence of safety motivation on safety citizenship behaviour. Thirdly the study examined the relationship and influence of safety consciousness on safety citizenship behaviour among the employee. Finally the study examined the relationship and influence of safety-specific transformational leadership on safety citizenship behaviour among the employees.

Concerning the direct relationship of the independent variables, the study didn't found any support for two (2) hypothesized relationship. Firstly there is a negative relationship between safety motivation and safety citizenship behaviour. Secondly

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negative relationship between safety-specific transformational leadership: and safety citizenship behaviour.

Finally this study showed safety knowledge and safety consciousness had a positive relationship with safety citizenship behaviour among the employees of manufacturing company.

5.3 Discussion

This study mainly focuses on investigating the influence of safety citizenship behaviour among the employee in manufacturing company. The following part will discuss the result of the hypotheses of this study based on theories and previous evidence. At the end the discussion would be answering the objectives developed in chapter one.

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5.3.1 Safety Knowledge and Safety Citizenship Behaviour

In this study it was hypothesized that there will be significant relationship between safety knowledge and safety citizenship behaviour.

There is several possible reasons that could explain the significant relationship, firstly the manufacturing company have yearly safety training to foster good safety knowledge. Safety training designed to impart good knowledge about the various processes, associated hazards and safety measures to be taken by the employees in case of emergencies (Stellman, 1998). Series of safety training the manufacturing company have plan such like overhead crane training, forklift training, electrical training, machinery training, chemical handling training, project management safety

training, first aid and aed training, fire fighting training, yearly contractor induction session and defensive driving. According to Burke (2006), effectiveness of safety training increases the knowledge and reducing unwanted incident among employees. The safety training is conducted in English and Malay language which employee understood easily.

Secondly, the manufacturing company foster safety knowledge by giving yearly target to each employee to report minimum five hazard report consist of unsafe act and unsafe condition. While the process of promoting hazard reporting the manufacturing company have indirectly injected safety knowledge through hazard recognition process. According Zhang (2015), safety hazards recognition is an important actualization of tacit safety knowledge. Hazard reporting also is a proactive behaviour of employee taking initiative to reduce workplace accident. In the modern world the organizational need individuals who are also proactive in participating and initiating improvements in safety, the proactive behaviours are termed as safety citizenship behaviour (SCB) (Shama, 2009).

Third, safety knowledge in the manufacturing also promoted through daily toolbox meeting before staring daily routine task. Supervisor will conduct daily toolbox meeting for all the production employee. The toolbox meeting will be conducted based on the work scope of the particular workers. The company had provided topics that needs for discuss and open discussion for the employee to share on any safety and health issues. The examples of the topics are personal protective equipment (PPE), health issues, fire prevention, machinery safety, electrical safety, safety facilities and review any hazard report. In construction sector, workforce usually

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learns safety knowledge from toolbox talks and the major ways in sharing safety knowledge by means of face to face interactions (Choudhry & Fang, 2008)

Finally, safety knowledge transfer though safety newsletter, bulletin boards and internet posting. The information sharing platform is dedicated of communicating vital safety-related information not limited to best practices, new guidelines, safety alerts, accidents trends and safety story. Benefit of this kind of information sharing the new employees can read the material during their free time and their own convenience.

5.3.2 Safety Motivation and Safety Citizenship Behaviour

In the present study, it revealed that safety motivation is not significantly influences the safety citizenship behaviour. In this study employees of the manufacturing company believe that safety is their core value in their daily life and should be implemented regards of where there are located might be at workplace or at home. Safety motivation is not a main push factor to enable safety practices in the employee daily life. Other reason safety as been core value in the manufacturing company because of the organization vision and values which started with “Safety and Integrity”, followed by “Customer focus and quality”, “Innovation and speed”, “Ownership and performance” and “Collaboration and Trust”. Motivation alone does not produce the change unless there is an appropriate safety climate to maintain safe manner and no reversion to unsafe behaviour (Al-Haadir et al. 2013).

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5.3.3 Safety Consciousness and Safety Citizenship Behaviour

In the present study, it revealed that safety consciousness is significantly influences safety citizenship behaviour. Helping workers keep safety on the brain requires constant reinforcement and recognition of basic human psychology. Firstly, safety consciousness achieved in the manufacturing company by planning and executing mock drill quarterly basic. The main reason doing mock drill to evaluate response readiness or the capacity of an organization to respond effectively within the targeted time frame. The manufacturing company have identify few type of disaster in the organization such as fire, earthquake, unstable person, environmental pollution, flood and riot. The emergency response team consist of fire fighter, first aider, evacuation marshall and role-call marshall yearly basic they will conduct night drill to evaluate the effectiveness of the manufacturing facility during night time. Other than that the manufacturing company also collaborate with fire department during the drill to establish good respond. Educating individuals about what to expect and do before, during and after an emergency event helps reduce fears and can increase their ability to respond and recover from what can be potentially stressful situation (Ronan et al., 2008)

Secondly, safety consciousness achieved by reminding the employee frequently on safety practices through safety and health week. The manufacturing company organize safety and health week two times in one year. During the safety week the organization will engage the employee activity in role-playing, watching videos, video record, doing colourful charts and diagrams and drawing. By doing this the employee feel they are contributing to safety and also they will be remember the

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points are written by team in future rather than listening to safety and health officer presentation would dull and boring.

Third, safety consciousness achieved by creating a safety management system safety. This manufacturing company is OHSAS 18001 certified company and the safety system set up by the company safety and health corporate team. By implementing safety management system the organization can encompasses all the proper and continuous steps and checks and cultivate culture of continuous improvement. A management system may be described as a structure and set of processes, procedures, policies and actions that an organization implements to achieve a defined objective or perform a common function in an efficient, structured way (Haight, Yorio, Rost and Willmer, 2014)

Finally, by doing and revise the Job safety analysis (JSA). In Job safety analysis each basic step of the job is to identify potential hazards and to recommend the safest way to do job. Job safety analysis will be reviewed yearly once and also whenever there is a changes in the process and new equipment in the manufacturing company. By reviewing the job safety analysis the employee will be consistently awake in safety consciousness.

5.3.4 Safety-Specific Transformational Leadership and Safety Citizenship Behaviour

In the present study, it revealed that safety-specific transformational leadership is not significantly influences the safety citizenship behaviour. Results from the analysis revealed there is no significant relationship between safety-specific transformational leadership with safety citizenship behaviour among the employees in the

manufacturing company. The first reason, the manufacturing company had adopted and implemented DuPont Bradley Curve as shown in Table 5.1. The bradley curve make it simple for everyone to understand the shifts in mind-set and actions that need to occur over time to develop a mature safety behaviour and culture in the organization. There is four stage in this bradley curve, start with reactive stage, then dependent stage, independent stage and interdependent stage. At the present stage the manufacturing company had achieved interdependent stage where the employee work as team by helping others to conform, networking contributor, care for others and also organizational pride. The manufacturing company has planned this dupont bradley curve six years back to achieve interdependent stage, where everyone is leader in safety and safety had been core value in their daily personnel life. In fact to be precise, the blue collar employee in the manufacturing company can train and coach new employee who joined the company on safety system, practices and behviour. The blue collar employee don't wait for safety manager to perform the safety training. That's reason why safety-specific transformational leadership not significant support safety citizenship behaviour in the manufacturing company.

Table 5.1
DuPont Bradley Curves

Stage	Description
Reactive Stage (Natural Instincts)	People do not take responsibility. They believe that safety is more a matter of luck than management, and that "accidents will happen." And over time, they do.
Dependent Stage (Supervision)	People see safety as a matter of following rules that someone else makes. Accident rates decrease and management believes that safety could be managed "if only people would follow the rules."

Independent Stage (Self)	Individuals take responsibility for themselves. People believe that safety is personal, and that they can make a difference with their own actions. This reduces accidents further.
Interdependent Stage (Teams)	Teams of employees feel ownership for safety and take responsibility for themselves and others. People do not accept low standards and risk-taking. They actively converse with others to understand their point of view. They believe true improvement can only be achieved as a group and that zero injuries is an attainable goal.

5.4 Implications

In this section, the implications resulting from the outcome on both theoretical and practical will be focused.

5.4.1 Theoretical Implications

This research study was conducted in order to find out safety citizenship behaviour in the manufacturing company. There were many similar studies was conducted by other researchers in various industries such as in oil and gas industry, construction industries and utility industries (Didla, Mearns & Rhona Flin, 2009). There have been lots of similar study were conducted to prove safety citizenship behaviour influence in the organization. Therefore this study was extended to manufacturing company to measure the reliability safety knowledge, safety motivation, safety consciousness, safety-specific transformational leadership which influence on the study academically. Other than that, the study was conducted among foreign workers in the manufacturing company where it creates new opportunity for researches to prove influence in the safety citizenship behaviour. Thus, this study will benchmark

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and contributes value to the academic world due to lack of studies were conducted among manufacturing company in Malaysia.

5.4.2 Practical Implications

The research on the safety citizenship behaviour in manufacturing company will provide very good reference for the employer of the manufacturing company to emphases on safety knowledge, safety motivation, safety consciousness and safety-specific transformational leadership in the manufacturing organizations. With safety citizenship behaviour implementation in the company not only improving safety accident rate, it also benefit in term of cost reducation, productivity increase, low quality issues and good company reputation.

The findings from the present studies showed variables safety knowledge and safety consciousness predicts safety citizenship behaviour. A lesson for the managers to focus on the plan and strategic activity to sustain the good safety knowledge and safety consciousness among the employees. The management also should allocate a decent value of budget for safety knowledge and safety consciosness so that continuous knowledge and consciousness injected to the employees.

Finally, findings from this study on the variables of safety knowledge and safety consciousness predicts safety citizenship behaviour will be useful for Malaysia government especially Department of Occupational Safety and Health (DOSH) to frame up next OSH Map, Strategic Plan for SMI (Small Medium Industry Sector) and upcoming Conference of Safety and Health (COSH) to emphases safety citizenship behaviour.

5.5 Limitations and Suggestions for Future Research

There were few limitations the researcher faced during the data collection process. The primary limitation is the use of a cross-sectional design, which makes it impossible to draw causal inferences from the findings. During the data collection process, some respondents responded that the questionnaires were lengthy and it take time to respond. This is definitely because of the work nature of the respondents' job, where time is a very important factors in their working life. Thus, to overcome and improve this limitation in future, research could consider longitudinal research (Sekaran & Bougie, 2016).

The second limitation is concerned with language barrier. Although the questionnaires in the present study developed in dual languages (e.g. English and Malay), some respondents were unable to read and understand the questions especially foreign employee. Therefore, the researcher have to do separate session one to one and explain in detail until the foreign workers able to answer the questionnaires. Thus, to reduce this limitations in future the research, to consider other languages based on the respondents origin when preparing the questionnaires.

The third limitation by its reliance on self-reported instruments. The possibility this exists that the findings might be intentional distorted by participants desire to respond in a consistent manner and misinformation. However, meta-analytic research by Crampton and Wagner (1994) indicates that while this problem continues to be cited regularly, the magnitude of distortions may be overestimated. To counter this threat responder ere promised anonymity and confidentiality. Self-reported measures have previously been effectively used in workplace accident

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analyses and safety survey (Gyekye & Salminen, 2007). However structural equation modeling (SEM) is a most widely applied data analytic techniques in organizational research and path parameters to be measured simultaneously (Landis, Beal & Tesluk, 2000). By doing this, it enabled us to test a series of hypotheses that were consistent with a causal model.

Finally, this study focus on manufacturing company in Subang Jaya, Selangor. Suggested that this study will be replicated by using the sample from other manufacturing preferably local manufacturing company to better and solid results. The relationship of between the four variables (safety knowledge, safety motivation, safety consciosness, safety-specific transformational leadership) and safety citizenship behaviour among workers from other sectors such as construction, mining, services, transport, utility or agriculture sector could be explored because it may produce different results or findings.

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5.6 Conclusions

Manufacturing companies had been back bone on contribute towards Malaysia GDP and also contribution towards industrial accidents in Malaysia is also huge. The result of this study demonstrated the validity and reliability of four facets of safety citizenship behaviour among local and foreign workers in the manufacturing company. This result of this study highlighted the safety knowledge and safety consciosness were important factors to local and foreign workers to eliminate the accident in the industry but safety motivation and safety specific transformational leadership is not contributing factor to eliminate accidents in the workplace.n It is believed that this study would be beneficial to all relevant parties and should apply

this findings for their managerial or academia purposes in benefiting occupational safety and health practices.

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APPENDIX A – Questionnaire

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Date:

Dear Respondent,

I am a Postgraduate student from Universiti Utara Malaysia and carrying out a survey regarding Safety Citizenship Behaviours (SCBs), in order to fulfil the Master Degree requirements. The research objective is to determine the relationship between safety knowledge, safety motivation, safety compliances, safety participation, safety consciousness, safety-specific transformational leadership (SSTL) and safety citizenship behaviour.

Attached with this letter is a questionnaire that addresses the SCB among employee in an organisation. I realize that your time is priceless and very precious; however, your involvement in this survey, will contribute to the success of this study.

There is no right or wrong answer to the statements listed in the questionnaire. Your sincerity and honesty is highly required in answering these statements. Please be rest assured that all your responses will be kept confidential and will be strictly used for the academic research purposes only.

With this, I highly appreciate your cooperation and participation in this study and wish to convey my thanks in advance.

If you are interested in this study and its outcome, please do not hesitate to contact me via email at michael_idass@yahoo.com.my or call me at 012-6679601.

Thank you for your time and attention

Yours sincerely,

Tuan/Puan,

Saya merupakan pelajar Sarjana dari Universiti Utara Malaysia yang sedang menjalankan satu kajian mengenai "Safety Citizenship Behavior" bagi memenuhi pra-syarat Sarjana dari Universiti Utara Malaysia. Objektif kajian ini adalah untuk menentukan hubungan antara pengetahuan keselamatan, motivasi keselamatan, pematuhan keselamatan, penglibatan keselamatan, kesedaran keselamatan, transformasi kepimpinan dalam keselamatan-spesifik (SSTL) dan tingkah laku kerakyatan dalam keselamatan.

Bersama-sama ini disertakan soal selidik yang berkaitan SCBs dikalangan pekerja di dalam organisasi ini. Saya sedar bahawa masa anda sangat berharga dan bermakna, namun begitu penglibatan anda dalam tinjauan ini, akan menyumbang kepada kejayaan kajian ini.

Tidak ada jawapan yang betul atau salah dalam soal selidik ini. Hanya keikhlasan dan kejujuran anda diperlukan dalam menjawab soalan. Untuk makluman, semua maklumbalas anda akan dirahsiakan dan hanya digunakan bagi tujuan penyelidikan akademik sahaja.

Dengan ini, saya sangat menghargai kerjasama dan penglibatan anda dalam kajian ini dan saya dahului dengan ucapan terima kasih.

Jika anda berminat dengan kajian ini dan dapatannya, sila hubungi saya melalui e-mel michael_idass@yahoo.com.my atau menghubungi saya di talian 012-6679601.

Terima kasih atas kerjasama dan perhatian anda.

Yang Benar;

MICHAEL INNASI DASS (818718)
Universiti Utara Malaysia, Kuala Lumpur.

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PART A: DEMOGRAPHIC INFORMATION
BAHAGIAN A: MAKLUMAT DEMOGRAFI

Please fill in blank and tick (√) in the appropriate boxes that corresponds to your answer to each of the following questions below.
Sila isikan tempat kosong dan tandakan (√) untuk mewakili jawapan anda pada semua soalan di bawah.

1. Age/ *Umur* :
   - ☐ 15-25 years/ tahun
   - ☐ 26-35 years/ tahun
   - ☐ 36-45 years/ tahun
   - ☐ 56-55 years/tahun
   - ☐ 56 years and above/ tahun dan ke atas

2. Gender/ *Jantina* : ☐ Male/ *Lelaki* ☐ Female/ *Perempuan*

3. Race :
   - ☐ Malay/ Melayu
   - ☐ Chinese/ Cina
   - ☐ Indian/ India
   - ☐ Others/ Lain-lain

4. Marital status/ *Status perkahwinan* :
   ☐ Married/ *Berkahwin* ☐ Single/ *Bujang* ☐ Divorced/ Bercerai

5. Highest Educational level/ *Tahap pendidikan tertinggi* :
   - ☐ Secondary school/ *Sekolah Menengah*
   - ☐ Diploma/ *Diploma*
   - ☐ Certificate/ *Sijil*
   - ☐ Degree/ *Ijazah*
   - ☐ Master andabove/ *Master ke atas*
   - ☐ Others/ *Lain-lain*.....

6. Position / *Jawatan* :
   - ☐ Manager/ Pengurus
   - ☐ Executive, Eksekutif
   - ☐ Non-Executive (technical) / Bukan Eksekutif (teknikal)
   - ☐ Non-Executive (Administrative) / Bukan Eksekutif (Pentadbiran)

7. How long have you been working?/*Berapa lama anda telah bekerja?* :
   - ☐ 0-5 years/ tahun
   - ☐ 6-10 years/ tahun
   - ☐ 11-15 years/ tahun
   - ☐ 16 years and above/ tahun dan ke atas

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8. How long have you been working with the present organisation?
Berapa lama anda sudah bekerja dengan organisasi sekarang? : _____ *years/ tahun*

9. Have you ever had any occupational accident ever since you started working in this organisation/
Adakah anda pernah mengalami kemalangan di tempat kerja sepanjang bekerja di organisasi ini?

☐ Yes/ Ya ☐ No/ Tidak

10. If yes, how many accidents have you had while working in this organisation?
Jika ya, berapakah bilangan kemalangan yang pernah dialami sepanjang bekerja di organisasi ini?

☐ 1 - 3 ☐ 4 – 8
☐ 9 - 15 ☐ Over 15 / *Melebihi 15*

11. Have you attended any occupational safety training?
Pernahkah anda pernah menghadiri latihan keselamatan?

☐ Yes/ *Ya* ☐ No/ *Tidak*

12. How often do you have to attend safety training?
Berapa kerap anda perlu hadiri latihan keselamatan?

☐ Every month/ *Setiap bulan*
☐ Once in three month/ *Sekali dalam tempoh tiga bulan*
☐ Once in six month/*Sekali dalam tempoh enam bulan*
☐ Once a year/ Sekali setahun
☐ Not at all/ *Tiada langsung*

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PART B : **MAIN STUDY**
BAHAGIAN B : ***KAJIAN UTAMA***

Considering only your perception, please circle the most appropriate answer to you based on the scale below:
Dengan hanya mengambil kira pandangan anda, bulatkan jawapan yang paling tepat kepada anda berpandukan pada skala jawapan di bawah:

1	2	3	4	5
Strongly Disagree *Sangat Tidak Setuju*	Disagree *Tidak Setuju*	Neutral *Neutral*	Agree *Setuju*	Strongly Agree *Sangat Setuju*

No.	Statements/Pernyataan					
1	I know how to perform my job in a safe manner. *Saya tahu bagaimana untuk melakukan pekerjaan saya dengan cara yang selamat.*	**1**	**2**	**3**	**4**	**5**
2	I know how to use safety equipment's and standard work procedures. *Saya tahu bagaimana untuk menggunakan peralatan keselamatan dan prosedur kerja standard.*	**1**	**2**	**3**	**4**	**5**
3	I know how to maintain or improve workplace health and safety. *Saya tahu bagaimana untuk mengekalkan atau meningkatkan kesihatan dan keselamatan tempat kerja.*	**1**	**2**	**3**	**4**	**5**
4	I know how to reduce the risk of accidents and incidents in the workplace. *Saya tahu bagaimana untuk mengurangkan risiko kemalangan dan insiden di tempat kerja.*	**1**	**2**	**3**	**4**	**5**
5	I know what are the hazards associated with my jobs and the necessary precautions to be taken while doing my job. *Saya tahu apakah bahaya/hazad dikaitkan dengan pekerjaan saya dan langkah berjaga-jaga yang perlu diambil semasa melakukan pekerjaan saya.*	**1**	**2**	**3**	**4**	**5**
6	I don't know what to do and whom to report if a potential hazard is noticed in my workplace. *Saya tidak tahu apa yang perlu dilakukan dan kepada siapa perlu dilaporkan jika suatu potensi bahaya/hazad diperhatikan dalam tempat kerja saya.*	**1**	**2**	**3**	**4**	**5**
7	I feel that it is important to maintain safety at all times. *Saya rasa adalah penting untuk mengekalkan keselamatan pada sepanjang masa.*	**1**	**2**	**3**	**4**	**5**
8	I believe that safety at workplace is a very important issue. *Saya percaya bahawa keselamatan di tempat kerja merupakan isu yang sangat penting.*	**1**	**2**	**3**	**4**	**5**
9	I feel that it is necessary to put efforts to reduce accidents and incidents at workplace. *Saya rasa adalah perlu untuk meletakkan usaha dalam mengurangkan kemalangan dan insiden di tempat kerja.*	**1**	**2**	**3**	**4**	**5**
10	I believe that safety that can be compromised for increasing production. *Saya percaya bahawa keselamatan itu boleh dikompromikan/ditolak-ansurkan untuk meningkatkan pengeluaran.*	**1**	**2**	**3**	**4**	**5**
11	I feel that it is important to encourage others to use safe practices. *Saya rasa adalah penting untuk menggalakkan orang lain untuk mangamalkan amalan-amalan selamat.*	**1**	**2**	**3**	**4**	**5**
12	I feel that it is important to promote safety programmes. *Saya rasa adalah penting untuk mempromosikan program-program keselamatan.*	**1**	**2**	**3**	**4**	**5**

No.	Statements/Pernyataan					
13	I know what protective equipment and/or clothing is required for my job. *Saya tahu apakah peralatan perlindungan dan/ atau pakaian yang diperlukan untuk pekerjaan saya.*	1	2	3	4	5
14	I am well aware of the safety risks involved in my job. *Saya sangat menyedari risiko keselamatan terlibat dalam pekerjaan saya.*	1	2	3	4	5
15	I know where the fire extinguishers are located in my workplace. *Saya tahu di mana pemadam api diletakkan di tempat kerja saya.*	1	2	3	4	5
16	I know what equipment is safe to use for my particular job(s). *Saya tahu apakah peralatan yang selamat untuk digunakan untuk kerja khusus saya.*	1	2	3	4	5
17	I know how to inform management about any potential hazards I notice on the job. *Saya tahu bagaimana untuk memaklumkan kepada pengurusan tentang mana-mana kemungkinan hazad/bahaya yang saya perhatikan semasa bekerja.*	1	2	3	4	5
18	I know what procedures to follow if injured on my shift. *Saya tahu apakah prosedur-prosedur yang perlu diikuti sekiranya cedera semasa shift saya.*	1	2	3	4	5
19	I would know what to do if an emergency occurred on my shift (e.g. fire). *Saya akan tahu apa yang perlu dilakukan sekiranya kecemasan berlaku semasa syif saya (Contoh : kebakaran)*	1	2	3	4	5
20	My manager shows determination to maintain a safe work environment. *Pengurus saya menunjukkan kesungguhan untuk mengekalkan persekitaran kerja yang selamat.*	1	2	3	4	5
21	My manager behaves in a way that displays commitment to a safe workplace. *Pengurus saya bertindak dengan cara menunjukkan komitmen terhadap tempat kerja selamat.*	1	2	3	4	5
22	My manager talks about his/her values and beliefs of the importance of Safety. *Pengurus saya bercakap tentang nilai-nilai dan kepercayaannya bagi kepentingan keselamatan.*	1	2	3	4	5
23	My manager provides continuous encouragement to do our jobs safely. *Pengurus saya menyediakan galakan yang berterusan untuk melaksanakan kerja-kerja dengan selamat.*	1	2	3	4	5
24	My manager suggests new ways of doing our jobs more safely. *Pengurus saya mencadangkan kaedah baru bagi melaksanakan kerja dengan selamat.*	1	2	3	4	5
25	My manager encourages me to express my ideas and opinions about safety at work. *Pengurus saya mendorong saya untuk menyatakan idea dan pendapat saya tentang keselamatan di tempat kerja.*	1	2	3	4	5
26	My manager spends time showing me the safest way to do things at work. *Pengurus saya meluangkan masa menunjukkan saya cara paling selamat melakukan perkara-perkara di tempat kerja.*	1	2	3	4	5
27	My manager listens to my concerns about safety on the job. *Pengurus saya mendengar pendapat keprihatinan saya tentang keselamatan semasa kerja.*	1	2	3	4	5
28	I use all necessary safety equipment's to do my job. *Saya menggunakan semua peralatan keselamatan yang perlu bagi melakukan pekerjaan saya.*	1	2	3	4	5

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No.	Statements/Pernyataan					
29	I carry out my work in a safe manner. *Saya melaksanakan kerja saya dengan cara yang selamat.*	1	2	3	4	5
30	I follow correct safety rules and procedures while carrying out my job. *Saya mengikut peraturan-peraturan dan prosedur-prosedur keselamatan yang betul semasa melaksanakan kerja saya.*	1	2	3	4	5
31	I ensure the highest levels of safety when I carry out my job. *Saya memastikan tahap keselamatan paling tinggi apabila saya melaksanakan kerja saya.*	1	2	3	4	5
32	Occasionally due to lack of time, I deviate from correct and safe work procedures. *Disebabkan kekurangan masa, kadang-kadang saya menyimpang daripada prosedur-prosedur kerja yang betul dan selamat.*	1	2	3	4	5
33	Occasionally due to over familiarity with the job, I deviate from correct and safe work procedures. *Disebabkan kebiasaan / kelaziman dengan kerja, kadang-kadang saya menyimpangdaripada prosedur-prosedur kerja yang betul dan selamat.*	1	2	3	4	5
34	It is not always practical to follow all safety rules and procedures while doing a job. *Ia tidak selalunya praktikal untuk mengikut semua peraturan den prosedur keselamatan ketika melakukan sesuatu kerja.*	1	2	3	4	5
35	I help my co-workers when they are working under risky or hazardous conditions. *Saya membantu rakan sekerja apabila mereka bekerja di bawah keadaan-keadaan berbahaya atau berisiko.*	1	2	3	4	5
36	I always point out to the management if any safety related matters are noticed in my company. *Saya selalu menunjukkan kepada pengurusan jika terperasan sebarang hal-hal berkaitan keselamatan dalam syarikat saya.*	1	2	3	4	5
37	I put extra effort to improve the safety of the workplace. *Saya meletakkan usaha lebih bagi meningkatkan keselamatan tempat kerja.*	1	2	3	4	5
38	I voluntarily carryout tasks or activities that help to improve workplace safety. *Saya sukarela melaksanakan tugas atau aktiviti yang membantu untuk meningkatkan keselamatan tempat kerja.*	1	2	3	4	5
39	I encourage my co-workers to work safely. *Saya menggalakkan rakan sekerja saya bekerja dengan selamat.*	1	2	3	4	5
40	I volunteer for safety committees. *Saya secara sukarela menyertai jawatankuasa keselamatan.*	1	2	3	4	5
41	I help teach safety procedures to new crew members. *Saya membantu dalam mengajar prosedur keselamatan kepada petugas-petugas baru.*	1	2	3	4	5
42	I assist others to make sure they perform their work safely. *Saya membantu orang lain bagi pastikan mereka melaksanakan kerja dengan selamat.*	1	2	3	4	5
43	I get involved in safety activities to help my working colleagues work more safely. *Saya* melibatkan diri *dalam aktiviti-aktiviti keselamatan bagi membantu rakan sekerja saya bekerja dengan lebih selamat.*	1	2	3	4	5

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No.	Statements/Pernyataan					
44	I help other working colleagues learn about safe work practices. *Saya membantu rakan sekerja lain belajar tentang amalan kerja selamat.*	1	2	3	4	5
45	I help others with safety related responsibilities. *Saya membantu orang lain dengan tanggungjawab berkaitan keselamatan.*	1	2	3	4	5
46	I make safety-related recommendations about work activities. *Saya membuat cadangan berkaitan keselamatan tentang aktiviti-aktiviti kerja.*	1	2	3	4	5
47	I speak up and encouraging others to get involved in safety issues. *Saya menyuarakan dan menggalakkan orang lain terlibat dalam isu-isu keselamatan.*	1	2	3	4	5
48	I express opinions on safety matters even if others disagree. *Saya menyuarakan pendapat dalam hal-hal keselamatan sekalipun orang lain tidak bersetuju.*	1	2	3	4	5
49	I raise safety concerns during planning sessions. *Saya membangkitkan isu-isu keselamatan semasa sesi perancangan.*	1	2	3	4	5
50	I will be champion to protect fellow working colleagues from safety hazards. *Saya akan menjadi ketua dalam melindungi rakan sekerja daripada bahaya-bahaya keselamatan.*	1	2	3	4	5
51	I will be champion to look out for the safety of other working colleagues. *Saya akan menjadi ketua untuk keselamatan bagi rakan sekerja yang lain.*	1	2	3	4	5
52	I will be a champion to protect other working colleagues from risky situations. *Saya akan menjadi ketua untuk melindungi rakan skerja lain daripada situasi-situasi berbahaya.*	1	2	3	4	5
53	I will be champion to prevent other working colleagues from being injured on the job. *Saya akan menjadi ketua bagi menghalang rakan sekerja lain daripada dicederakan semasa bekerja.*	1	2	3	4	5
54	I prefer to take action to stop safety violations in order to protect the well-being of other working colleagues. *Saya memilih untuk mengambil tindakan menghentikan pelanggaran keselamatan dalam melindungi kesejahteraan rakan sekerja lain.*	1	2	3	4	5
55	I prefer to explain to other working colleagues that I will report safety violations. *Saya lebih rela untuk menjelaskan kepada rakan sekerja lain yang saya akan melaporkan ketidakpatuhan keselamatan di tempat kerja.*	1	2	3	4	5
56	I will be champion to inform other working colleagues, to follow safe working procedures. *Saya akan menjadi ketua bagi memberitahu rakan sekerja lain untuk mengikut prosedur-prosedur kerja selamat.*	1	2	3	4	5
57	I will be champion to monitor new working colleagues to ensure they are performing safely. *Saya akan menjadi ketua bagi memantau rakan sekerja baharu untuk memastikan mereka melaksanakan kerja dengan selamat.*	1	2	3	4	5
58	I will be champion to report working colleagues who violate safety procedures. *Saya akan menjadi ketua bagi melaporkan rakan sekerja yang melanggar prosedur-prosedur keselamatan.*	1	2	3	4	5
59	I will be champion to inform new working colleagues that violations on safety procedures is cannot be tolerated. *Saya akan menjadi ketua bagi memberitahu rakan sekerja baharu bahawa perlanggaran prosedur keselamatan tidak akan dipertimbangkan.*	1	2	3	4	5
60	I will be champion to attend safety meetings. *Saya akan menjadi ketua bagi menghadiri mesyuarat-mesyuarat keselamatan.*	1	2	3	4	5

No.	Statements/Pernyataan					
61	I will be champion to attend non-mandatory safety-oriented meetings *Saya akan menjadi ketua dalam menghadiri mesyuarat-mesyuarat bukan wajib yang berorientasikan keselamatan.*	1	2	3	4	5
62	I will be champion to inform of the changes in safety policies and procedures. *Saya akan menjadi ketua bagi memaklumkan tentang perubahan-perubahan dalam dasar dan prosedur keselamatan.*	1	2	3	4	5
63	I try to improve safety procedures. *Saya cuba memperbaiki prosedur keselamatan.*	1	2	3	4	5
64	I prefer to change the way the job is done to make it safer. *Saya lebih suka untuk mengubah cara kerja yang dilakukan bagi menjadikannya lebih selamat.*	1	2	3	4	5
65	I prefer to change policies and procedures to make them safer. *Saya lebih suka untuk mengubah polisi dan prosedur-prosedur bagi menjadikan ia lebih selamat.*	1	2	3	4	5
66	I prefer to make suggestions to improve the safety of a mission. *Saya lebih suka untuk memberi cadangan-cadangan bagi meningkatkan misi keselamatan.*	1	2	3	4	5

-THANK YOU/ *TERIMA KASIH* -

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APPENDIX B – SPSS DATA OUTPUT

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```
RELIABILITY
  /VARIABLES=SK1 SK2 SK3 SK4 SK5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL.
```

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
.870	5

Item Statistics

	Mean	Std. Deviation	N
Safety Knowledge1	4.41	.668	100
Safety Knowledge2	4.28	.683	100
Safety Knowledge3	4.21	.782	100
Safety Knowledge4	3.94	.897	100
Safety Knowledge5	4.36	.659	100

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Safety Knowledge1	16.79	6.289	.703	.842
Safety Knowledge2	16.92	5.994	.787	.822
Safety Knowledge3	16.99	5.667	.755	.827
Safety Knowledge4	17.26	5.669	.613	.872
Safety Knowledge5	16.84	6.419	.670	.850

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Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Safety Motivation1	18.35	4.513	.785	.874
Safety Motivation2	18.29	4.693	.785	.875
Safety Motivation3	18.52	4.353	.789	.873
Safety Motivation5	18.37	4.700	.748	.882
Safety Motivation6	18.35	4.755	.676	.897

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.97	7.019	2.649	5

```
RELIABILITY
  /VARIABLES=SC13 SC14 SC15 SC16 SC17 SC18 SC19
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL.
```

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
.897	7

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Reliability Statistics

Cronbach's Alpha	N of Items
.901	8

Item Statistics

	Mean	Std. Deviation	N
Safety Specific Transformational Leadership1	4.43	.624	100
Safety Specific Transformational Leadership2	4.42	.654	100
Safety Specific Transformational Leadership3	4.40	.682	100
Safety Specific Transformational Leadership4	4.43	.671	100
Safety Specific Transformational Leadership5	4.32	.723	100
Safety Specific Transformational Leadership6	4.29	.686	100
Safety Specific Transformational Leadership7	4.20	.804	100
Safety Specific Transformational Leadership8	4.32	.790	100

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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
.707	6

Item Statistics

	Mean	Std. Deviation	N
Safety Compliance1	4.39	.695	100
Safety Compliance3	4.48	.674	100
Safety Compliance4	4.43	.671	100
Safety Compliance5	2.42	1.512	100
Safety Compliance6	2.37	1.482	100
Safety Compliance7	2.30	1.439	100

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Safety Compliance1	16.00	18.040	.137	.733
Safety Compliance3	15.91	18.164	.124	.735
Safety Compliance4	15.96	18.322	.098	.739
Safety Compliance5	17.97	10.231	.704	.559
Safety Compliance6	18.02	10.161	.738	.543
Safety Compliance7	18.09	10.345	.747	.541

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.39	19.331	4.397	6

```
RELIABILITY
  /VARIABLES=SCB40 SCB41 SCB42 SCB43 SCB44 SCB45 SCB46 SCB47 SCB48 SCB49 SC
B50 SCB51 SCB52 SCB53
    SCB54 SCB55 SCB56 SCB57 SCB58 SCB59 SCB60 SCB61 SCB62 SCB63 SCB64 SCB65
 SCB66
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
```

Item Statistics

	Mean	Std. Deviation	N
Safety Citizenship Behaviour- Stewardship3	3.30	1.389	100
Safety Citizenship Behaviour- Stewardship4	3.28	1.429	100
Safety Citizenship Behaviour- Stewardship5	3.82	1.201	100
Safety Citizenship Behaviour- Whistle blowing1	3.97	.937	100
Safety Citizenship Behaviour- Whistle blowing2	4.02	.943	100
Safety Citizenship Behaviour- Whistle blowing3	3.97	.810	100
Safety Citizenship Behaviour- Whistle blowing4	3.92	.884	100
Safety Citizenship Behaviour- Whistle blowing5	3.98	.910	100
Safety Citizenship Behaviour-Civic Virtue (keeping Informed)1	3.83	.985	100
Safety Citizenship Behaviour-Civic Virtue (keeping Informed)2	3.19	1.051	100
Safety Citizenship Behaviour-Civic Virtue (keeping Informed)3	3.08	1.308	100
Safety Citizenship Behaviour-Initiating Safety-related change1	3.54	1.029	100
Safety Citizenship Behaviour-Initiating Safety-related change2	3.49	1.374	100
Safety Citizenship Behaviour-Initiating Safety-related change3	3.19	1.376	100
Safety Citizenship Behaviour-Initiating Safety-related change4	4.11	.803	100

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Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Safety Citizenship Behaviour-Civic Virtue (keeping Informed)1	98.41	279.194	.563	.941
Safety Citizenship Behaviour-Civic Virtue (keeping Informed)2	99.05	277.987	.559	.941
Safety Citizenship Behaviour-Civic Virtue (keeping Informed)3	99.16	272.621	.564	.942
Safety Citizenship Behaviour-Initiating Safety-related change1	98.70	277.626	.583	.941
Safety Citizenship Behaviour-Initiating Safety-related change2	98.75	269.785	.598	.941
Safety Citizenship Behaviour-Initiating Safety-related change3	99.05	270.068	.591	.942
Safety Citizenship Behaviour-Initiating Safety-related change4	98.13	284.862	.487	.942

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
102.24	298.689	17.283	27

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```
COMPUTE SafetyKnowledge=MEAN(SK1,SK2,SK3,SK4,SK5).
EXECUTE.
COMPUTE SafetyMotivation=MEAN(SM7,SM8,SM9,SM11,SM12).
EXECUTE.
COMPUTE SafetyConcious=MEAN(SC13,SC14,SC15,SC16,SC17,SC18,SC19).
EXECUTE.
RELIABILITY
  /VARIABLES=SSTL20 SSTL21 SSTL22 SSTL23 SSTL24 SSTL25 SSTL26 SSTL27
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL.

COMPUTE SSTL=MEAN(SSTL20,SSTL21,SSTL22,SSTL23,SSTL24,SSTL25,SSTL26,SSTL27).
EXECUTE.
COMPUTE SafetyCompliance=MEAN(SCMP28,SCMP30,SCMP32,SCMP33,SCMP34).
EXECUTE.
COMPUTE SCB=MEAN(SCB40,SCB41,SCB42,SCB43,SCB44,SCB45,SCB46,SCB47,SCB48,SCB4
9,SCB50,SCB51,SCB52,
```

Respondent Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	65	65.0	65.0	65.0
	Single	34	34.0	34.0	99.0
	Divorced	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

Respondent Hightest Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary School	33	33.0	33.0	33.0
	Certificate	15	15.0	15.0	48.0
	Diploma	24	24.0	24.0	72.0
	Degree	25	25.0	25.0	97.0
	Master	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

Respondent Working Level (Position)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Manager	6	6.0	6.0	6.0
	Executive	37	37.0	37.0	43.0
	Non-Executive (Technical)	40	40.0	40.0	83.0
	Non-Executive (Administrative)	17	17.0	17.0	100.0
	Total	100	100.0	100.0	

Respondent Working Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5 Years	45	45.0	45.0	45.0
	6-10 Years	25	25.0	25.0	70.0
	11-15 Years	19	19.0	19.0	89.0
	16 Years and above	11	11.0	11.0	100.0
	Total	100	100.0	100.0	

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Respondent Frequent attend safety training

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Every Month	11	11.0	11.0	11.0
	Once in three month	14	14.0	14.0	25.0
	Once in six month	23	23.0	23.0	48.0
	Once a year	52	52.0	52.0	100.0
	Total	100	100.0	100.0	

```
FREQUENCIES VARIABLES=SafetyKnowledge SafetyMotivation SafetyConcious SSTL
SafetyCompliance SCB
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN
  /ORDER=ANALYSIS.
```

Frequencies

Statistics

		SafetyKnowledge	SafetyMotivation	SafetyConcious	SSTL	SafetyCompliance	SCB
N	Valid	100	100	100	100	100	100
	Missing	0	0	0	0	0	0
Mean		4.2400	4.5940	4.2943	4.3513	3.1920	3.7867
Std. Deviation		.60302	.52988	.53944	.54347	.85608	.64010
Minimum		1.00	1.00	1.00	1.00	1.00	1.00
Maximum		5.00	5.00	5.00	5.00	5.00	5.00

Frequency Table

SafetyKnowledge

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.0	1.0	1.0
	3.00	1	1.0	1.0	2.0
	3.20	2	2.0	2.0	4.0
	3.40	2	2.0	2.0	6.0
	3.60	9	9.0	9.0	15.0
	3.80	8	8.0	8.0	23.0
	4.00	20	20.0	20.0	43.0
	4.20	11	11.0	11.0	54.0
	4.40	11	11.0	11.0	65.0
	4.60	11	11.0	11.0	76.0
	4.80	6	6.0	6.0	82.0
	5.00	18	18.0	18.0	100.0
	Total	100	100.0	100.0	

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SSTL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.0	1.0	1.0
	3.38	2	2.0	2.0	3.0
	3.50	2	2.0	2.0	5.0
	3.63	1	1.0	1.0	6.0
	3.75	3	3.0	3.0	9.0
	3.88	7	7.0	7.0	16.0
	4.00	14	14.0	14.0	30.0
	4.13	4	4.0	4.0	34.0
	4.25	3	3.0	3.0	37.0
	4.38	16	16.0	16.0	53.0
	4.50	13	13.0	13.0	66.0
	4.63	12	12.0	12.0	78.0
	4.75	2	2.0	2.0	80.0
	4.88	3	3.0	3.0	83.0
	5.00	17	17.0	17.0	100.0
	Total	100	100.0	100.0	

SafetyCompliance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.0	1.0	1.0
	2.20	7	7.0	7.0	8.0
	2.40	13	13.0	13.0	21.0
	2.60	17	17.0	17.0	38.0
	2.80	14	14.0	14.0	52.0
	3.00	11	11.0	11.0	63.0
	3.40	1	1.0	1.0	64.0
	3.60	6	6.0	6.0	70.0
	3.80	2	2.0	2.0	72.0
	4.00	7	7.0	7.0	79.0
	4.20	6	6.0	6.0	85.0
	4.40	6	6.0	6.0	91.0
	4.60	5	5.0	5.0	96.0
	5.00	4	4.0	4.0	100.0
	Total	100	100.0	100.0	

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SCB

	Frequency	Percent	Valid Percent	Cumulative Percent
4.63	2	2.0	2.0	92.0
4.81	3	3.0	3.0	95.0
4.85	1	1.0	1.0	96.0
4.89	1	1.0	1.0	97.0
5.00	3	3.0	3.0	100.0
Total	100	100.0	100.0	

```
CORRELATIONS
  /VARIABLES=SafetyKnowledge SafetyMotivation SafetyConcious SSTL SafetyCom
pliance SCB
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

Correlations

Correlations

		SafetyKnowledge	SafetyMotivation	SafetyConcious	SSTL	SafetyCompliance	SCB
SafetyKnowledge	Pearson Correlation	1	.585**	.687**	.436**	.273**	.557**
	Sig. (2-tailed)		.000	.000	.000	.006	.000
	N	100	100	100	100	100	100
SafetyMotivation	Pearson Correlation	.585**	1	.600**	.593**	.293**	.491**
	Sig. (2-tailed)	.000		.000	.000	.003	.000
	N	100	100	100	100	100	100
SafetyConcious	Pearson Correlation	.687**	.600**	1	.662**	.133	.562**
	Sig. (2-tailed)	.000	.000		.000	.188	.000
	N	100	100	100	100	100	100
SSTL	Pearson Correlation	.436**	.593**	.662**	1	.133	.435**
	Sig. (2-tailed)	.000	.000	.000		.187	.000
	N	100	100	100	100	100	100
SafetyCompliance	Pearson Correlation	.273**	.293**	.133	.133	1	.493**
	Sig. (2-tailed)	.006	.003	.188	.187		.000
	N	100	100	100	100	100	100
SCB	Pearson Correlation	.557**	.491**	.562**	.435**	.493**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	100	100	100	100	100	100

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

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT SafetyCompliance
  /METHOD=ENTER SafetyKnowledge SafetyMotivation SafetyConcious SSTL.
```

Regression

```
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT SCB
/METHOD=ENTER SafetyKnowledge SafetyMotivation SafetyConcious SSTL.
```

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	SSTL, SafetyKnowledge, SafetyMotivation, SafetyConcious[b]	.	Enter

a. Dependent Variable: SCB

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624[a]	.390	.364	.51037

a. Predictors: (Constant), SSTL, SafetyKnowledge, SafetyMotivation, SafetyConcious

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ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.817	4	3.954	15.181	.000[b]
	Residual	24.746	95	.260		
	Total	40.563	99			

a. Dependent Variable: SCB

b. Predictors: (Constant), SSTL, SafetyKnowledge, SafetyMotivation, SafetyConcious