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# EMPLOYEES' PERCEPTIONS TOWARDS THE RELATIONSHIP BETWEEN SAFETY MANAGEMENT PRACTICES AND SAFETY PERFORMANCE OF SMES INDUSTRY IN KELANTAN

## Nik Nor Hidayah Ismail

Business and Entrepreneurship Faculty, Universiti Malaysia Kelantan, Malaysia Email: niknor\_hidayah@yahoo.com

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### Abstract:

Safety management practices have been aggressively put into action to encourage employees' involvement and commitment towards safety-related matters but yet there are still many incidents and accidents reported involving small and medium enterprises industry. However, the study involving employees' perceptions of safety management practices and small and medium-sized safety performance companies, in particular, are also missing. This research, therefore, tests the attitudes of the workers about the partnership between safety management activities, namely adherence to safety management, employee engagement o safety, safety management program, safety culture, and safety training for better safety efficiency. Security reduction strategies enhance working conditions; favourably influence the actions and activities of workers about health, thus reducing occupational injuries. This research makes use of questionnaires as a method. The data were analysed using Structural Equation Modelling (PLS-SEM) for the Partial Least Squares. The identified Small Medium Enterprise in Kelantan received a total of 350 questionnaires, with a response rate of 300 questionnaires (85.71 percent). The analysis showed that safety monitoring activities had a good association with protection efficiency across all dimensions. These findings provide valuable guidance to researchers in identifying the mechanisms by which they may improve safety at work.

### **Keywords:**

Safety Performance, Safety Management Practices, Small and Medium Enterprise

### Introduction

Occupational safety issues become more complicated and dynamic due to the variety of system, operations and diversity of the workforce. Safety is an important employment issue that needs

to be undertaken because of the cost implications it fetches to organizations. As Malaysia aspires to become a developed nation by 2020, reducing workplace accidents is one of the key employments concerns it aims to address. (Subramaniam et al., 2017). Employees fulfilled with their job perform their task better and exhibit more commitment to their job and their organization (Rajeswari and Rajakrishnan 2015). Therefore, organizations should pay attention to winning the hearts of their employees while making an investment in an Occupational Health and Safety management system intended to be used for preventing and mitigating occupational accidents and improving safety performance (Wachter and Yorio, 2014).

In Malaysia, since the introduction of Occupational Safety and Health Act (OSHA) (1994), there have been noticeable declines in industrial accidents in the previous phases. However, the pace of development over the past 14 years has been very modest. According to the Annual Report by the Social Security Organization of Malaysia (SOCSO) (2017), a total of 35,898 industrial cases of accidents reported in 2013 were reduced to 35,294 cases in 2014. Meanwhile, in 2015 total industrial cases of accident were 34,258 and increased to 35,304 cases in 2016. While in 2017, the number has increased to 36,661 cases. In Malaysia, since the introduction of Occupational Safety and Health Act (OSHA) (1994), there have been noticeable declines in industrial accidents in the previous phases. However, the pace of development over the past 14 years has been very modest.

According to the Annual Report by the Social Security Organization of Malaysia (SOCSO) (2017), a total of 35,898 industrial cases of accidents reported in 2013 were reduced to 35,294 cases in 2014. Meanwhile, in 2015 total industrial cases of accident were 34,258 and increased to 35,304 cases in 2016. While in 2017, the number has increased to 36,661 cases, cases were reported. On that year onward, the number for industrial accidents for manufacturing sector has increased rapidly by 2,360 in 2016. 2,178 cases of industrial accidents in manufacturing sector were investigated in 2017 but it has been increased for 2018 which 3,228 cases. For June 2019, total industrial accidents cases which have been investigated by the department were 2,469 cases (DOSH, 2019). There are fluctuation figures of occupational accidents from 2014 to 2019. For 2014, there were 99 cases of occupational accidents. While in 2015, it was 81 cases. The figures had been increased for 2016 which were 91 cases. Meanwhile, the figures were consistent in 2017. The cases were increased for 2018 which were 92 cases. For June 2019, the cases were 58. This study was focusing only on the state of Kelantan because accidents still happened although the number of industrial accidents is a small figure, but it often happens.

According to Zulkafli Zainuddin (2015), a total of 85 per cent or 1,700 of 2,000 SME operators in Kelantan were found to have low OSH compliance, scoring "D" in the overall assessment. The low OSH awareness was due to the notion that it would not benefit them financially. He added that workplace accidents could result in losses in terms of disruption to operations. According to an SOCSO report (2010-2012), 80-90 percent of work-related accidents involved workers from the SME industry (Aziz et al., 2015). Moreover, Subramaniam et al., (2016) comments that, using the baseline of 80 percent of accidents in SMEs, the level of industrial accidents can also be calculated based on the statistics provided by the Department of Occupational Safety and Health. Despite the positive economic growth of SMEs, various challenges still lie ahead, one of which is related to occupational safety (Surienty et al., 2011; Aziz et al., 2015). Currently, small and medium enterprises (SMEs) are of major government

concern in improving occupational health and safety (OHS) due to their low implementation. However, a lack of attention has been paid to the problems of OHS in SMEs.

### **Problem Statement**

Based on the issues that highlighted above, occupational accidents is one of the most pressing employment issues around the world. An accident does not happen by chance but is an interplay of several factors such as employees, devices, working practices and so on (Syed Mohamed and Ideris, 2012; López-Arquillos and Rubio-Romero, 2016). Previous studies by Wang et al., (2018) describe that, SMEs have higher accident and injury rates than large and medium enterprises, not only because SMEs are numerous, but also because safety management is insufficient and no effective. Besides that, most SMEs are unable to execute safety policies and laws because of limited resources and lack of safety awareness. There are less experts to fulfil and improve safety management for SMEs, because owner-managers are always safety manager. Similarly, despite SMEs were the vital contribution towards the national economic development, high cases of workplace accident within the SMEs seemed to throw in a serious problem for Malaysia. There were 80 to 90 per cent of industrial accidents and injuries in Malaysia were contributed by the SMEs (Aziz, Baruji, Abdullah, Nik Him and Yusof, 2015; Surienty,). Previous study by Zulkifly et al., (2018), the non-compliances were caused by the non-existence of knowledgeable safety personnel, limited financial muscles and perceived low workplace risks. Hence this study focuses on to what extent that the employee perception towards the relationship between safety management practices and safety performance of SMEs industry in Kelantan.

### **Literature Review**

### Safety Performance

Safety performance is an all-inclusive set of regulations, laws and activities directed towards improving safety in organizations (Kohli, 2007; Xia, Griffin, Wang, Liu, & Wang, 2018), which is customarily self-reported (Andersen, Nørdam, Joensson, Kines, & Nielsen, 2018) but eventually directed towards promoting the safety and health of workers (Zahoor, Chan, Utama, Gao, & Zafar, 2017). In recent iterations, safety performance refers to the level of safety in an organization as occasioned by actions and inactions of organizational members, systems and structures (FernándezMuñiz et al., 2017; Gunduz & Laitinen, 2018; Jahangiri et al., 2017).

### Safety Management Practices

Safety management practices allow workers to meet with safety requirements in the context of their job training, because the activities provide the best incentives for employees to partake in actions that encourage them to increase their job performance the safety performance. Several previous researches provide empirical proof of the function that management activities can play in enhancing their subordinates' efficiency in safety (Hofmann, Burke, and Zohar, 2017; Neal, Griffin and Hart, 2000; Vinodkumar and Bhasi, 2010). These safety management practices are discussed below:

#### Management Commitment to Safety

Management commitment to safety is a key determining factor of safety performance in worksites (Vinodkumar & Bhasi, 2010). Management commitment to safety is the degree to which top-level management or organizations exhibit commitment to improving workplace

safety that is often times displayed in the safety-related encouragement and support accorded employees (Mooren, Grzebieta, Williamson, Olivier, & Friswell, 2014).

### Employees Involvement to Safety

Based on Watcher et al., (2014) discussed that it should be noted that some of our practices are clearly designed from an interaction perspective which necessarily involves workers (for example, employee involvement, cooperation facilitation, and communication and information perspective); however, these are related to processes being in place to achieve interaction goals, rather than promoting certain workers' perceptions. Employee attitude and behaviour are the driven factors to ensure the desired results are achieved in implementing safety practices at workplace (Agumba and Haupt, 2014).

# Safety Management Systems

The benefit of reducing harm to the employees for the implementation of Safety Management Systems mainly refers to the reduction of potential ill-health conditions and job risk to the employees. Unlike accidents, occupational health hazards could be developed in both the short-term and long-term depending on their exposure levels (Fernández-Muñiz et al., 2009). This supports the proposed theory and critical review by Pillay et al., (2010) and Pillay (2014) respectively.

## Safety Culture

Numerous studies have proven that safety culture has positive effects on improving safety performance (safety compliance and safety participation) (Neal and Griffin, 2006) and reducing accident rates (Guo et al., 2016). Based on previous studies of process safety culture, leadership/ management commitment and active employee participation are recognized as symbols of favourable safety culture (Tweeddale, 2001; Shang et al., 2010; Hunter and Wolf, 2016). Safety culture is developed through the interactions of factors such as safety policies and safety goals, the discipline of the organization, the behaviour and attitude of the company staff, and the competence of workers (Wachter and Yorio, 2014).

### Safety Training

Specifically, safety training is defined as the transfer of knowledge relating to safety and how this knowledge so acquired can make workers work in as safe manners as possible and with no exposures to their well-being (Law, Chan, and Pun, 2006). Safety training has been identified as one of the most important safety management practices that is capable of influencing high safety performance outcomes across industries (Manu, Mahamadu, Ath, Heng, and Kit, 2017; Marín et al., 2017).

### **Research Methodology**

The framework and strategies for the data collection is presented. The main objective of this research is to assess the extent of the employee perceptions towards safety in small and medium enterprise (manufacturing) in Kota Bharu, Kelantan. Examining the extent of sustainable employees' safety of small and medium enterprise is a descriptive research. Examining the relationship between safety management practices and safety performance is a correlational type of study. The unit of analysis is the major entity was analyzed in a study. The employees in the small and medium enterprise (SMEs) in Kelantan were unit of analysis. This consists of manufacturing sector such as food and beverages, plastics good and cosmetics. The population for data collection in this study based on small and medium enterprises (SMEs) industry in

Kelantan. According to SMEs website, total of SME enterprise in Kelantan from manufacturing sector that recorded by SME Corporation are 27 enterprises. According to key statistics on SMEs (2015) population of employees in Kelantan were 1,814. To simplify the process of determining the sample size for a finite population, Krejcie & Morgan (1970), came up with a table using sample size formula for finite population. Based on that table, the sample size was 317 employees and it was selected randomly from the whole population. A total of 350 questionnaires were distributed to the respondents and only 300 sets were returned.

### Data Collection Procedure

This study used a questionnaire survey as data collection tool. Data collection was conducted on employees in small medium manufacturing enterprises located in the Kota Bharu, Kelantan. The main reason for distributing the questionnaire in this manner is to enable the researcher to explain the purpose and the benefits of the study and to encourage the participants to provide honest answers (Sekaran, 2003).

## Data Analysis

Data analysis is an important aspect of any research study. When the data have been collected, a preliminary test should be conducted to determine the rate of response, frequencies of the demographic profile and reliability and validity of the study constructs. Descriptive statistics, mean, standard deviation, frequency and percentage were all used to define the main characteristics of the sample. Further, this study used Smart- PLS 2.0 to test the outer model by running the algorithm technique.

# **Result And Discussion**

### Rate Of Response

A total of 350 questionnaires were distributed to the respondents who are the SME employees in Kota Bharu, Kelantan. Only 300 of the questionnaires were returned with an 85.7% response rate.

PARAMETER	INFORMATION	FREQUENCY	PERCENTAGE	
			(%)	
Gender	Male	182	60.6	
	Female	118	39.4	
Age	20-29 years	95	31.7	
	30-39 years	117	39	
	40-49 years	79	26.3	
	50 years and above	9	3	
<b>Educational Levels</b>	PMR	43	14.3	
	SPM	129	43	
	Diploma	48	16	
	Degree	55	18.3	
	Postgraduate	25	8.4	
<b>Duration of service</b>	Less than 1 year	54	18	
	2-5 years	121	40.3	
	More than 5 years	125	41.7	
Types of job	Technical	222	74	
	Non-Technical	78	26	

All of the subjects from the demographic profiles were shown in Table above. Based on the completed survey, the majority 60.6% of respondents were male. Most respondents, 39% were between 30-39 years old. The highest educational levels were Sijil Pelajaran Malaysia (SPM), which was 43%. The duration of service for the respondents, mostly more than 5 years, 41.7% and most of them were based on the technical jobs which 74%. There were two types of jobs that were technical and non-technical which was based on the SMEs manufacturing sectors such food and beverage, cosmetics and plastics good.

### **Descriptive Analysis Of Variables**

The mean score for all variables is more than 3 and this indicates that the respondents agree with most of the items describing management commitment, employee involvement, safety management systems, safety culture, and safety training. Besides, the standard deviations for all the variables are below 1 where it shows low dispersion as well as high consistency. The highest mean with the lowest standard deviation among the variables is safety culture. The high-level variables (Sekaran & Bougie, 2013) are namely safety policy, culture with the highest mean.

CONSTRUCTS	N	MIN	MAX	MEAN	STD. DEV.
Management	300	1.60	4.80	3.6873	.59020
<b>Commitment (MC)</b>					
<b>Employee Involvement</b>	300	1.00	4.60	3.6240	.69337
<b>(EI</b> )					
Safety Management	300	1.40	5.00	3.6907	.59297
System (SMS)					
Safety Culture (SC)	300	1.60	5.00	3.7347	.54127
Safety Climate (SCT)	300	1.80	5.00	3.6760	.55164
Safety Performance	300	1.52	4.92	3.6715	.52453
(SP)					

# Analysis Of The Direct Test

In order to answer research questions, this section presents the results of direct effect between the independent variables (factors of management commitment, employee involvement, safety management systems, safety culture, and safety training) and dependent variable (safety performance). The results of the standard beta values represent the relationships in this study while the choice of the significance level at P < 0.05 or P<0.01 (one-tailed significance) was used to test the structural model relationship (Hair, Black, Babin and Anderson, 2010). According to Churchill (1979) and Sharma (2000), in a situation where a one-tailed statistical test is conducted, the significance level of t-value of 1% is greater than or equal to 2.326, or 5% is greater or equal to 1.645. Hence, any t-value below than 1.645 is regarded as not significant.

HYPOTHESES	PATH-	BETA	STD.	T-	HYPOTHESIS
	COEFFICIENT		<b>ERROR</b>	<b>VALUE</b>	TESTING
	$MC \rightarrow SP$	0.198**	0.036	5.547	Support
	$EI \rightarrow SP$	0.247**	0.035	7.139	Support
	$SMS \rightarrow SP$	0.292**	0.038	7.470	Support
	$SC \rightarrow SP$	0.148**	0.039	3.861	Support
	$ST \rightarrow SP$	0.286**	0.039	7.360	Support

Note: \* P<0.01, Indicates the item is significant at 0.01\*\* and 0.05\* significant level. All hypotheses were supported based on their t-values.

#### **Discussion**

The findings of this study demonstrate that safety performance have a significant relationship between management commitment. This confirms our argument that, management's commitment to safety stands out among earlier findings as a key factor associated with positive safety culture, positive employee safety behavior, and positive employee safety attitudes (Biggs et al., 2013). Besides that, the findings of this study hypothesized that employee involvement provide the positive correlation with safety performance. This is supported by Subramaniam et al., (2011) found that involving workers in the safety management process was the key to organization's safety performance because such involvement empowered the 23 workers psychologically via their participation in safety committees. One organizational safety influence that has recently been identified as being important for understanding safety performance is perceived safety obligations within organizations which are described as employee perceptions and beliefs about workplace safety responsibilities that may be derived from societal and organizational influences (Said et al., 2012). There is a positive relationship between safety management systems on safety performance. This finding is supported by Wachter and Yorio (2014) suggested that when organizations invested in a safety management system they approached towards improving the performance of accident reduction/prevention and the occupational safety. Such organizations stated that they also cared for winning the hearts and minds of their workers. The results from analysis in this study for relationship of safety performance towards safety culture are significantly related. These factors and their theorized relationships are discussed by Morgan et al., (2014: 3) states that a positive culture is good for business, not only from an ethical standpoint, but also in terms of productivity and efficiency. However, they also stated that an organization's management should be convinced that a positive safety culture leads to improved overall organizational performance. This study was designed to determine the effectiveness of safety training towards safety performance. Therefore, along with the research questions, the results show that safety training elements was significant relationship between safety training on safety performance. This result is in the line with the previous studies by Blakstad et al., (2010), in addition, earlier studies discovered the link between safety training and increased safety performance (Huang et al., 2006).

### Conclusion

Safety performance should be applicable and focus in various work settings and industries because of the differences of its working condition and also their workers. Besides that, in the form of the risk and working environment and about the job itself. As we known that, most of the industries employed immigrant workers whose safety conscious might not be good as the local workers. The research was conducted in order to study on the relationship of safety management practices and safety performance of small and medium enterprise only in Kelantan. Thus, from the studies, it should further target the groups with highest occurrence of accidents within the small and medium enterprise in Malaysia. This will give a better focus and a higher impact to that specific work setting of the safety management practices against the safety performance and its corrective actions.

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