

THE IMPORTANT OF SAFETY COMMUNICATION AND SAFETY TRAINING IN PROMOTING POSITIVE WORK BEHAVIOUR

Zuraida Hassan^{1*}, Chandrakantan Subramaniam², Md Lazim Mohamad Zin³, Faridahwati Mohd. Shamsudin⁴, Subramaniam Sri Ramalu⁵

^{1,3} School of Business Management, College of Business Management, Universiti Utara Malaysia, Sintok, Malaysia
² Co-operative and Entrepreneurship Development Institute (CEDI, Universiti Utara Malaysia, Sintok, Malaysia

^{4, 5} Othman Yeob Graduate School, Universiti Utara Malaysia, Sintok, Malaysia

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*Corresponding author: Zuraida Hassan School of Business Management, College of Business Management, Universiti Utara Malaysia, Sintok, Malaysia

Abstract

Most accidents happened at factories shows that the manufacturing industry is one of the hazardous worksite to the workers'. Factors involved include human error, hazardous working conditions, dangerous machinery and equipment being used, and safety fault made by the management. Evidences from past investigation revealed that the workers unsafe working behaviour lead to accident in the workplace. This include failed to follow the standard operation procedures (SOP's), implemented short cut while performing the task and didn't wore PPE when exposed to hazards. This study investigated the relationship between safety communication and safety training on workers work behaviour. The respondents of this study were small enterprises workers in the Northern region of Peninsular Malaysia. A questionnaire-based survey was utilised using a back translated technique before administering it to the workers. The Bahasa Malaysia version was administered to the respondents as it facilitated the communication and understanding since it was assumed that the population were more comfortable in their own lingua franca. Statistical Package for the Social Sciences (SPSS) were used for data analysis purposes. The findings showed the significant link between safety communication and safety training on the workers work behaviour. It's proved that an open communication about safety between management and workers; and comprehensive safety training influenced the formation of positive work behaviour among respondents. As a conclusion, this findings help the small enterprises company to understand the important of safety communication and safety training in the development of good safety environment in their company. Hence, reducing the likelihood of occupational from happen and boost the organizational safety rates.

Keywords: safety communication, safety training, work behaviour, small enterprises company

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1. INTRODUCTION

Nothing unique but only the truth that more than 80 percent of workplace injuries are caused by human unsafe acts, while only 20 percent are caused by unsafe conditions (). Employers deduce that if they do a good job reminding their employees of workplace hazards and make sure all machines are functioning properly, workplace injuries will be eliminated. Unfortunately, this work is not that easy. Employees don't seem to have caught on to the importance of their attitude keeping them safe while work. Between 2012 to 2016, 176,050 industrial accident cases been reported to Department Occupational Safety and Health (DOSH), Ministry of Human Resource Malaysia (Social Security Organisation (SOSCO), 2017). In average, more than 35 thousand cases reported every year with accident rates rise to 2.88 per 1000 workers in 2016 compared to 2.66 in 2015 year (Hamid, 2018). Majority of this cases caused by fault of person (SOCSO, 2017). Based on 2017 SOSCO Report, there is an increasing trend in SOSCO compensation payment in 2017. In 2017, SOCSO paid RM3.27 billion to the insured person due to occupational accidents compared to RM2.9 billion in 2016 and RM2.6 billion in 2015 (Hamid, 2018). This figure show Malaysian government spend a lot of money for something that preventable and manageable if the organization and their workers plays their key roles in preventing the accident from occurred in the workplace. Even though Malaysia gazetted Occupational Safety and Health (OSH) Acts in 1994, this outrageous spending of SOSCO fund showing the urgency for OSH practitioners and researchers to investigate this situation and help the organisation to understand and combat with the problem.

That is crucial to all organisation to understand this important of positive work behaviour among workers by changing their workers attitudes. Attitude is key to understanding employee behaviour and preventing on-the-job injuries. Before any safety program can be deployed, however, employees must understand that a workplace injury is possible and it can happen to them. For this sort of attitudinal change to happen to every employee, the organization must undergo a cultural change that starts at the top and filter its way down to all employees.

Fostering this sort of safety culture doesn't happen overnight. Rather, this transformation happens slowly so that all employees embrace safety, buy into the process, and accept their new safety responsibilities so they feel like they are making a difference in the company. Employee responsibility and ownership for safety throughout an organization is critical to creating a safe environment. Once this mile marker is reached, the company is well on its way to an effective safety program.

To promote positive work behaviour, the management should use variety of measures to boost the positive attitude towards safety among their employees. According to past study, safety training and safety communication are the most powerful approaches to promote safety behaviour. Communication allows people, tasks, processes and systems to interact purposively and co-operatively to achieve organization objectives (positive safety performance). The way we communicate about safety will influence whether or not people will understand and participate in the safety process, and the language we use will often determine whether the process is accepted or rejected. Merely training people to work safely will often not be sufficient. It may be necessary to provide forms of motivation and publicity to encourage them to take responsibility for their own health and safety, and that of others. The methods used will need to create an atmosphere that promotes safe behaviour, and reminds and reinforces the benefits for employees and the organisation of working safely. The aims of this study is to investigate the relationship between safety communication and work behaviour among workers' in SME's manufacturing companies.

2. LITERATURE REVIEW

2.1. Malaysia's SME

SME-based business development has spurred economic development in Malaysia. In 2018, 38% of the country's total GDP was contributed by the SME sector which is largely on the supply of household products, halal products and services. The Malaysian government through SME Corp., expects SME sector growth to grow by 5.2% from 2016 to 2020. In 2016, it was recorded that 98.5% of businesses in Malaysia were SMEs. More than 60,000 Malaysian workers work in the SME sector, and each year employment opportunities in this sector are constantly increasing as a result of increased demand for goods and services among Malaysian and international market. SMEs in Malaysia are divided into three main categories, namely micro SMEs, small SMEs, and medium SMEs. Most

The performance of SMEs GDP outpaced the Malaysia GDP in 2016 with a growth of 5.2 per cent compared to Malaysia GDP which stood at 4.2 per cent (DOSM, 2017). This reflects the importance of SMEs in gearing up the nation's economy. The contribution of SMEs GDP to the Malaysia GDP has increased steadily to 36.6 per cent from 36.3 per cent recorded in preceding year. In 2016, value added of SMEs at constant 2010 prices was RM405.5 billion (2015: RM385.6 billion). In nominal terms, SMEs GDP registered a value of RM463.2 billion,

an increment of RM34.2 billion compared to 2015.

In Manufacturing sector, value added of SMEs recorded a growth of 4.8 per cent (2015: 6.0%) led by Food, Beverages and Tobacco sub-sector which increased 2.8 per cent (2015: 2.6%) (DOSM, 2017). The SME sector of Malaysia is considered as the backbone of economy contributing to the industrial output (35.9%), exports (17.8%), giving employment to about 65% of total employment in Malaysia, creating million jobs every year and producing more than thousand products for the Malaysian and international markets. Many factors are responsible for the growth of Malaysian SME's including funding to SME's, the new technology and various trade directories and trade portals (SME Corporation Malaysia, 2015).

2.2. Safety behaviour

The dilemma of safety is that people often find unsafe behavior is 'rewarding' in some way (e.g. they get the job done quicker, they are more comfortable not wearing PPE, etc), whereas 'Safe behavior' is often punishing (e.g. wearing the supplied PPE is uncomfortable, jobs take longer, etc).

The Antecdent-Behavior-Consequence diagram shows that 'Safety Behavior' is affected by the availability and quality of policies, job plans, materials, equipment and manpower as these trigger people's behavior 'on the job'. For example, if the right equipment was missing at the job site, people will get innovative and either use 'home made' equipment, or take 'short-cuts' just to get the job done. In other words, behave unsafely.

Behaviors are the 'ingredient' that pulls everything together to lead to job completion. If a job goes well despite people behaving unsafely, their 'unsafe' behavior would be rewarded and repeated in the future. If it goes badly, with unwanted injuries, people would find the unsafe behavior punishing. Often, however, people do not get hurt when behaving unsafely, which reinforces the very behaviors most likely to hurt them.

Positive safety behaviour

LIKE everyone, you're probably looking to reduce workplace injuries, and you think a safety program focusing on attitude may be your ticket to injury-free employees. You may very well be right. But you may be surprised to find that the journey toward an injury-free workplace may be just as important as the final outcome.

It wasn't long ago that your journey may have taken you to a behavior-based safety program that was the rage in safety. It doesn't take a rocket scientist to figure out that the keyword in behavior-based safety is behavior. What effects behavior? Recalling the ABC model of behavior-based safety, there is an Antecedent, a Behavior, and a Consequence. But what exactly does this mean? Let's look at a few examples. Employee behavior is arguably one of the greatest determinants in workplace safety, especially as employees interact amid a host of varying safety issues. Their behavior plays a significant role in workplace safety and injury prevention. While this concept is relatively easy to understand, the harder question is figuring out what determines behavior.

Every person's behavior is unique, and even one particular person's behavior can change from day to day. What, then, accounts for the change? Attitude. Employees harbor a host of different workplace attitudes each day. After 15 years on the job and no injuries, Cathy probably thought a workplace injury couldn't happen to her. Robert saw the cord and thought to step over it. Since safety wasn't his job, he was going to leave picking it up to the next guy. Neither one considered any of the consequences.

Attitude to the Rescue

Next on your journey is realizing that employees do have attitudes. The key is to ensure that safety programs emphasize proper attitudes so the behavior is positive and the consequences safe. To aid in this, companies with an already intact safety culture can consider monitoring behavior through peer observations, data analysis, or surveys (or hopefully all three). This approach will help determine where, if any, breakdowns occur.

For example, did the press jamming cause the injury, or was it Cathy deciding to put her arm in the machine? Did the extension cord accidentally fall on the floor, or did an employee make an unwise decision by putting it there? The answers to these questions will help companies determine if mechanical issues are to blame for injuries, or whether the cultural changes they've implemented haven't taken as deep a root as they hoped.

This isn't to say, though, that even with the most firm safety commitment in place at an organization, employees won't make poor safety decisions from time to time. It's at these times that we need to rely on the other effective components of the safety program, especially safety coordinators and committees, training and outside safety professionals.

2.3. The Relationship between Safety Communication and Work Behaviour

The role of communication in employees' performance is critical because behaviors resulting in industrial accidents are not typically new occurrences (McAfee & Winn, 1989). Providing risk identification and safety information to employees through safety communication and replying quickly to safety related problems. In order for organizations to foster a climate where employees are alert to hazards, they must provide and communicate risk and safety information (Johnston & Cartledge, 1994; Hofmann & Stetzer, 1998). Regular feedback on safety performance can be communicated to employees through posted charts and a review of behavioural data at safety meetings (Kaila, 2008). Coyle, Sleeman, and Adams (1996) found that safety communication significantly influences accident attributions. Safety coordinators and safety committees can have a profound impact on keeping employee morale high. They can hold regular meetings to discuss safety issues and give employees yet another voice in ensuring safety. They also can work to continually motivate employees toward safety by posting safety signs, implementing safety suggestion boxes, and being a sounding board for concerns.

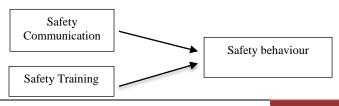
2.4. The link between safety training and positive work behaviour

Training also is critical. Employees, especially long-term employees, often become blase about their jobs or think they simply have nothing more to learn. Training is motivation to continually excel in that position, and serves as a reminder that no amount of time on the job keeps employees immune from an injury.

The role of outside safety professionals can't be overlooked, either. Trained in accomplishing safety goals without sacrificing the product's quality or quantity, safety professionals can be a valuable resource because they can understand a company's unique perspective. These professionals can bring new and fresh ideas unique to an organization, serve as a visible reminder of safety's importance, and continually motivate employees toward safety.

It goes without saying that the goal of any safety program is injuryfree employees who return home safely each night to their families. The road to getting there may be lengthy for some employers, especially if they have to start by re-evaluating their culture to see if it actively promotes workplace safety. But once employees feel like they are an active part in the process and aren't just along for the ride, companies are sure to be on the right road to the right attitude. With a firm top-down safety commitment acting as the map and employees' attitude and behavior as the compass to guide safety efforts, workplace safety will be right around the corner.

The purpose of this study was to investigate the relationship between safety communication and work behaviour among workers in SME's manufacturing companies. The hypothesized model of the study is depicted in Figure 1.



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Figure 1. The relationship between safety communication and safety training on worker safety behaviour

The study intends to determine the relationship between safety communication and work behaviour among workers in SME's companies. To answer the research question, the researchers developed the hypothesis as follow:

H1: There is a significant relationship between safety communication and safety behaviour among workers.

H2: There is a significant relationship between safety training and safety behaviour among workers.

3. Methodology

3.1. Research Design

This research is a cross sectional study that involved one-shot data collection process. This research used a set questionnaire as the instrument to collect the data. The instrument designed for this research was adapted from previous study (). The questionnaire consists of several questions such as demographic questions, safety communication and work behaviour.

3.2. Population and Sample Size

The survey is conducted at a SME's manufacturing industry located at northern state in Peninsular Malaysia. Data collected for this study was based on a questionnaire survey. A questionnaire was sent to 500 production line workers. A total of 382 usable questionnaires were therefore collected, which represented 76.4 % of the target sample.

3.3. Data Analysis Techniques

The data collected were analysed using SPSS software version 20.0 (Statistical Package for Social Science). The data analysis process involved three stages, data filtering, demographic profiling and hypothesis testing. In hypothesis testing, the study used correlation and regression analyses that examined the relationship between dependent and independent variables.

4. result

4.1. Profile of Respondents

The respondents included 137 male and 245 female. Most of the respondents were married (81.5%), and 44.2% of respondents are

between 20 to 30 years old. In terms of salary range, majority respondents (85.9%) report earns below RM1000 a month. Only 25.7% of the respondents indicated that they have to work in shift.

4.2. Reliability test

The questionnaires that have been answered by the respondents were analysed to test the reliability of study's variables, using a Statistical Package for Social Sciences (SPSS) version 20.0. According to Sekaran and Bougie (2010), the closer Cronbach Alpha to 1, the higher would be the consistency of reliability factor. The measurement and the corresponding alphas of the current study were safety communication ($\alpha = 0.715$), and compliance safety behaviour ($\alpha = 0.828$).

4.3. Results of the Data Analysis

Table 1 represents the model summary. The R-value in the model summary is 0.426, showing a strong linear relationship between variables. The R square value in the model summary is 0.182. This value indicates that 18.2 percent of the variation in workbehaviour was explained by the relationship between independent variable.

Table 1. Model Summary

Model	R	R- Square	Adjusted R- Square	Std. Error of the Estimate
1	0.429	0.184	0.180	7.32281

Table 2 displays the regression for significant factor correlated with the workbehaviour by respondents.

Table 2. ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4507.080	2	2253.540	42.025	.000 ^b
	Residual	19947.967	372	53.624		
	Total	24455.047	374			

a. Dependent Variable: Work Behaviour

b. Predictors: (Constant), Safety Communication, Safety Training

Table 2. Coefficients ^a and related statistics								
		Unstandardized Coefficients		Standardized Model Coefficients				
Model		В	Std. Error	Beta	Т	Sig		
1	(Constant)	30.795	3.105		9.917	0.000		
	Safety Training	0.234	0.210	0.62	1.111	0.267		
	Safety Communication	0.676	0.074	0.425	7.074	0.000		
a Demondant Variable, Work Debaviour								

a. Dependent Variable: Work Behaviour

This study indicated that safety communication has significant and positive relationship with work behaviour among the respondents. The finding is consistent with the result from past studies that proved a significant relationship between safety communication and employees' compliance behavior. (Oah, Na & Moon, 2018; Ghahramani, A. & Khalkhali, 2015; Hofmann & Stetzer, 1998; Komaki, Barwick, & Scott, 1978). Communication has consistently been identified as a key element of safety program

effectiveness (Cohen, 1978; Paté-Cornell, 1990), safety behavior change (McAfee & Winn, 1989), safety training effectiveness (Johnston & Cartledge, 1994), and safety culture/climate (Hofmann & Stetzer, 1998).

5. Discussion and conclusion

The positive safety communication network provides a cohesive and supportive framework in which people and systems of work can interact purposively and co-operatively. Clear and constructive safety communication provides the mechanism by which knowledge and understanding can be improved to prevent at-risk behaviours and to enhance safety culture. This was illustrated by a past studies that showed how an organisation responded to a decrease in its injury performance with a variety of safety communication techniques.

Effective communication mechanisms are critical to engage employees in safety activities and to gain cooperation and support to maintain a positive safety culture. These mechanisms need to complement the practical and technical safety strategies. Employees with effective communication skills are better able to provide corrective feedback for risky behaviours (thereby decreasing the probability of an injury) as well as rewarding feedback for safe behaviours (thereby increasing the likelihood of future behaviours being performed safely).

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REFERENCES

- Cabrera, D. D., Isla, R., & Vilela, L. D. (1997). An evaluation of safety climate in ground handling activities. In: Soekkha, H. M., editor. Proceedings of the IASC-97 International Aviation Safety Conference on aviation safety, Netherlands.
- 2. Cohen, A. (1977). Factors in successful occupational safety programs. *Journal Safety Research*, *9*, 168-178.
- Cox, S.J., & Cheyne, A. J. T. (2000). Assessing safety culture in offshore environments. *Safety Science*, 34,111–129.
- 4. Coyle, I., Sleeman, S., & Adams, D. (1995). Safety climate. *Journal of Safety Research* 22,247–254.
- Department of Statistics, Malaysia. (2017). Small and Medium Enterprises Gross Domestic Product (SME's GDP) 2016. The Office of Chief Statistician Malaysia, 21 September 2017 <u>https://www.dosm.gov.my/v1/index.php?r=column/pdfPr</u> ev&id=YzI2NWE2U0tXS1VEdnFsWHpqM1Fudz09
- Fernandez-Muniz, M., Montres-Peon, J. M., & Vazquez-Ordas, C.J. (2007). Safety management system: development and validation of a multidimensional scale. *Journal of Loss Prevention in the Process Industries 20*, 52–68.
- Flin, R., Mearns, K., O'Connor, P., & Bryden, R. (2000). Measuring safety climate: identifying the common features. *Safety Science 34*, 177–193.
- Ghahramani, A. & Khalkhali, H. R. (2015). Development and validation of a safety climate scale for manufacturing *Industry Safety and Health at Work*, 6 (2), 97-103.
- Glendon, A.I., & Litherland, D.K. (2001). Safety climate factors, group differences and safety behavior in road construction. *Safety Science 39*, 157–188.
- Hamid, S. S. A. (2018). Pampasan PERKESO RM3.27b tahun lalu. Retrieved June 16 2019 from https://www.bharian.com.my/berita/nasional/2018/02/38 8320/pampasan-perkeso-rm327b-tahun-lalu

- 11. Hayes, B., Perander, J., Smecko, T., & Trask, J. (1998). Measuring perceptions of workplace safety: development and validation of work safety scale. *Journal of Safety Research*, 29, 145-161.
- 12. Hofmann D. A., & Stetzer, A. The role of safety climate and communication in accident interpretation: implications for learning from negative events. *Academic Management Journal, 41,* 644-657.
- Jiang, L., Yu, G., Li, Y., & Li, F. (2010). Perceived colleagues' safety knowledge/behavior and safety performance: Safety climate as a moderator in a multilevel study. *Accident Analysis & Prevention*, 42(5), 1468-1476.
- Johnston, J. J., Cartledge, G. T. H., & Collins, J. W. (1994). The efficacy of training for occupational injury control. *Occupational Medicine*, 9, 147-158.
- Kaila, H. L. (2008). BBS winning over employees in India. [Internet] Occupational Health & Safety. [cited 2014 May 19]. Available from: <u>http://ohsonline.com/</u> articles/2008/12/bbs-winning-over-employees-inindia.aspx.
- Kaila, H. L. (2010). Behavior-based safety programs improve worker safety in India. Ergonomic Descision, 18:17e22.
- 17. Komaki, J., Barwick, K. D., & Scott, L. R. (1978). A behavioral approach to occupational safety: pinpointing and reinforcing safe performance in a food manufacturing plant. *Journal of Applied Psychology, 63,* 434-445.
- Krejcie, R., & Morgan, D. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- McAfee, R. B., & Winn, A. R. (1989). The use of incentives/feedback to enhance workplace safety: a critique of the literature. *Journal of Safety Research*, 20, 7-19.
- Oah, S., Na, R. & Moon, K. (2018). The influence of safety climate, safety leadership, workload, and accident experiences on risk perception: A study of Korean manufacturing worker, *Safety and Health at Work*, (in press), 1-7.
- 21. Paté-Cornell, M. E. (1990). Organizational aspects of engineering system safety: the case of offshore platforms. *Science*, 250, 1210-1217.
- 22. Pidgeon, N. (1998). Safety culture: key theoretical issues. *Work and Stress 12 (3)*, 202–216.
- 23. Rundmo, T. (1994). Association between safety and contingency measures and occupational accidents on offshore petroleum platforms. *Scandinavian Journal of Work Environment and Health 20*, 128–131.
- 24. SME Cooperation Malaysia. (2015). SME Master Plan 2012-2020. Retrieved Jun 17 2019 from <u>http://www.smecorp.gov.my/index.php/en/resources/201</u> <u>5-12-21-11-07-06/sme-masterplan/book/11-sme-</u> masterplan-english/3-sme-masterplan
- 25. Social Security Organnisation. (2017). Number of Accidents 2012 2016. Retrieved Jun 17 2019 from https://www.perkeso.gov.my/index.php/en/laporan/numb er-of-accidents
- 26. Varonen, U., & Mattila, M. (2000). The safety climate and its relationship to safety practices, safety of work environment and occupational accidents in eight wood

processing companies. Accident Analysis and Prevention 32, 761–769.

- Vinodkumar, M. N., & Bhasi, M. (2010). Safety management and safety behaviour: Assessing the mediating role of safety knowledge and motivation. *Accident Analysis and Prevention*, 42, 2082-2093.
- Vredenburgh, A.G. (2002). Organizational safety which management practices are most effective in reducing employee injury rates? *Journal of Safety Research 33*, 259–276.
- Williamson, A.M., Feyer, A., Cairns, D., & Biancotti, D., (1997). The development of a measure to safety climate: the role of safety perceptions and attitudes. *Safety Science 25*, 15–27.
- Fachinger, J. (2006). Behavior of HTR fuel elements in aquatic phases of repository host rock formations. *Nuclear Engineering & Design*, 236, 54.
- 31. Fachinger, J., den Exter, M., Grambow, B., Holgerson, S., Landesmann, C., Titov, M., et al. (2004). Behavior of spent HTR fuel elements in aquatic phases of repository host rock formations, 2nd International Topical Meeting on High Temperature Reactor Technology. Beijing, China, paper #B08.
- Mettam, G. R., & Adams, L. B. (1999). How to prepare an electronic version of your article. In B. S. Jones & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp. 281–304). New York: E-Publishing Inc.
- 33. Strunk, W., Jr., & White, E. B. (1979). *The elements of style* (3rd ed.). New York: MacMillan.
- Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2000). The art of writing a scientific article. *Journal of Science Communication*, 163, 51–59.