

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**THE RELATIONSHIP BETWEEN SAFETY MANAGEMENT
PRACTICES WITH WORKER SAFETY COMPLIANCE
BEHAVIOUR IN MANUFACTURING SECTOR**



**MASTER OF SCIENCE
(OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT)
UNIVERSITI UTARA MALAYSIA
2020**

**THE RELATIONSHIP BETWEEN SAFETY MANAGEMENT PRACTICES
WITH WORKER SAFETY COMPLIANCE BEHAVIOUR IN
MANUFACTURING SECTOR**

By

SIVANANTHA A/L MADEWAN

824124



Dissertation submitted to

School of Business Management,

Universiti Utara Malaysia,

in Partial Fullfillment of the requirement for the

Master of Science (Occupational Safety and Health Management)



**Pusat Pengajian Pengurusan
Perniagaan**

SCHOOL OF BUSINESS MANAGEMENT

Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PENYELIDIKAN
(*Certification of Research Paper*)

Saya, mengaku bertandatangan, memperakukan bahawa
(*I, the undersigned, certified that*)
SIVANANTHA A/L MADEWAN (824124)

Calon untuk Ijazah Sarjana
(*Candidate for the degree of*)
MASTER OF SCIENCE (OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT)

telah mengemukakan kertas penyelidikan yang bertajuk
(*has presented his/her research paper of the following title*)

**THE RELATIONSHIP BETWEEN SAFETY MANAGEMENT PRACTICES WITH WORKER
SAFETY COMPLIANCE BEHAVIOUR IN MANUFACTURING SECTOR**

Seperti yang tercatat di muka surat tajuk dan kulit kertas penyelidikan
(*as it appears on the title page and front cover of the research paper*)

Bahawa kertas penyelidikan tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.
(*that the research paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the research paper*).

Nama Penyelia : **DR. ZURAIDA BT. HASSAN**
(*Name of Supervisor*)

Tandatangan :
(*Signature*)

Tarikh : **28 JUN 2020**
(*Date*)

PERMISSION TO USE

In presenting this dissertation in partial fulfillment of the requirements for a master degree from Universiti Utara Malaysia, I agree that the University Library make a freely available for inspection. I further agree that permission for copying of this dissertation in any manner, in whole or in part, for scholarly purpose may be granted by my supervisor(s) or, in their absence by the Dean of Othman Yeop Abdullah Graduate School of Business. It is understood that any copying or publication or use of this dissertation or parts thereof for financial gain shall not be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my dissertation. Request for permission to copy or make other use of materials in this dissertation, in whole or in part should be addressed to:



UUM

Universiti Utara Malaysia

Dean of Othman Yeop Abdullah Graduate School of Business

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman

DISCLAIMER

The author is responsible for the accuracy of all opinions, technical comments, factual reports, data, figures, illustrations, and photographs in this dissertation. The author bears full responsibility for the checking whether the material submitted is subject to copyright or ownership right. Universiti Utara Malaysia (UUM) does not accept liability for the accuracy of such comments, reports, and other technical and factual information and the copyright or ownership right claims. The author declares that the dissertation is original and his own except those literatures, quotations explanations, and summarizations which are duly identified and recognized. The author hereby granted the copyright of this dissertation to the College of Business, Universiti Utara Malaysia (UUM) for publishing if necessary.



ABSTRACT

Safety management practices are essential to reduce hazardous incidents at the workplace by improving safety conditions at the workplace, as well as encouraging employers and employees to shift their attitudes and behaviors in order to place an importance on safety and health. The purpose of this study is to review the level of safety compliance among the workers in manufacturing company and to review the relationship between safety compliance as dependent variable with the independent variables which are safety management practices which look at management commitment, safety training, and the involvement of the workers, safety communication, promotion of safety and safety rules & procedures. The research method is quantitative analysis and adopting a cross-sectional approach in data gathering. Primary data generated from the questionnaire chose as a data collection. Random sampling method was used in collecting the data and the population is from the Fabricated Metal and Hardware manufacturing company in Nibong Tebal, Pulau Pinang. Quantitative analysis using SPSS version 25.0 was used and the result is showed that the six factors of safety management practices affect the safety behaviors (safety compliance). The findings from this study will provide useful insight for future researchers and practitioners in the field to identify issues and solutions that contribute to safety and health at the workplace.

Keywords: management commitment, safety training, workers involvement, safety communication and feedback, safety rules and procedures, safety promotion policies and safety compliance.

ABSTRAK

Amalan pengurusan keselamatan adalah penting dalam mengurangkan kejadian berbahaya di tempat kerja dengan meningkatkan persekitaran yang selamat di tempat kerja, serta menggalakkan majikan dan pekerja untuk mengubah sikap dan tingkah laku mereka untuk mengutamakan keselamatan dan kesihatan. Tujuan kajian ini adalah untuk menguji tahap kepatuhan terhadap keselamatan di kalangan pekerja keselamatan di syarikat perkilangan dan mengkaji hubungan antara kepatuhan keselamatan sebagai pemboleh ubah bersandar dengan pemboleh ubah bebas yang merupakan amalan pengurusan keselamatan yang melihat komitmen pengurusan, latihan keselamatan, penglibatan pekerja, komunikasi keselamatan, promosi keselamatan dan peraturan & prosedur keselamatan. Kaedah kajian adalah analisis kuantitatif dan menggunakan pendekatan keratan rentas dalam pengumpulan data. Data primer yang dikumpul melalui borang soal selidik yang dipilih sebagai pengumpulan data. Kaedah persampelan rawak digunakan dalam mengumpulkan data dan populasi adalah dari Syarikat pembuatan logam dan fabrikasi perkakasan, Nibong Tebal, Pulau Pinang. Analisis kuantitatif menggunakan SPSS versi 25.0 digunakan dan hasilnya menunjukkan bahawa kesahan dan kebolehppercayaan enam faktor amalan pengurusan keselamatan yang telah mempengaruhi tingkah laku keselamatan (kepatuhan keselamatan). Penemuan dalam kajian ini akan memberikan gambaran berguna untuk penyelidik dan pengamal masa depan dalam bidang ini bagi mengenal pasti isu dan penyelesaian yang menyumbang kepada Keselamatan dan kesihatan di tempat kerja.

Kata kunci: komitmen pengurusan, latihan keselamatan, penyertaan pekerja, komunikasi keselamatan dan maklum balas, peraturan dan prosedur keselamatan, dasar promosi keselamatan, kontrak keselamatan psikologi, pematuhan keselamatan dan penyertaan keselamatan.

ACKNOWLEDGEMENT

This paper would not have possibly been completed without those who have encouraged me throughout this pursuit to keep up with my determination towards achieving this goal. By God's grace and blessings and the support of all those around me who were involved directly or indirectly, I have successfully completed this study.

I would like to take this opportunity to express my deepest gratitude to my supervisor Prof. Madya Dr Zuraida Bt Hassan for her support, advice and guidance in throughout the project. Her wisdom, knowledge and commitment to the highest standards inspired, motivated and encouraged me to accomplish this study.

I am greatly indebted and appreciate very much to my beloved wife, Priyatharshini Sambath Rao for her encouragement, support and sacrifices throughout the study. To my both son, Rudhraakshan Nair and Vhedhaanth Nair, for they have inspired me in their own ways to finish my thesis. To all my dearest brothers and sisters, a big thank you for their support and encouragement and for putting colors in my life, may God bless you.

TABLE OF CONTENTS

CERTIFICATE (BLANK PAGE)	iii
PERMISSION TO USE	iv
DISCLAIMER	v
ABSTRACT	vi
ABSTRAK	vii
ACKNOWLEDGEMENT	viii
LIST OF TABLES	xii
LIST OF FIGURES	xiii
LIST OF ABBREVIATIONS	xiv
CHAPTER ONE: INTRODUCTION	1
1.1 Intorduction	1
1.2 Background of the Study	1
1.3 Problem Statement	6
1.4 Research Questions	9
1.5 Research Objectives	9
1.6 Significance of the study	10
1.7 Scope and Limitation of Study	11
1.8 Definition of Key Terms	12
1.9 Organization of The Study	13
1.10 Summary	14
CHAPTER TWO: LITERATURE REVIEW	15
2.1 Introduction	15
2.2 Conceptual Background of The Safety Compliance Behaviour	15
2.3 Empirical Study on Safety Compliance Behaviour	16
2.4 Safety Management Practices	18
2.4.1 Management Commitment	19

2.4.2 Safety Communication and Feedback	19
2.4.3 Workers Involvement	20
2.4.4 Safety Training	20
2.4.5 Safety Promotions and Policies	21
2.4.6 Safety Rules and Procedures	21
2.5 Hypotheses Development	22
2.5.1 Relationship between Management Commitment with Safety Behavior	22
2.5.2 Relationship between the Safety Communication with Safety Behavior	23
2.5.3 Relationship between the Workers Involvement with Safety Behavior	24
2.5.4 Relationship between the Safety Training with Safety Behavior	25
2.5.5 Relationship between Safety Promotions and Policies with safety behavior	26
2.5.6 Relationship between the Safety rules and procedure with Safety Behavior	27
2.6 Underpinning Theory	27
2.7 Research Framework	28
2.8 Summary	29
CHAPTER 3: METHODOLOGY	30
3.1 Introduction	30
3.2 Research Design	30
3.3 Population, Sample Size, Sampling Technique and Unit of Analysis	30
3.4 Research Instrument	31
3.5 Data Collection Procedures	34
3.6 Pilot Study	35
3.7 Data Analysis Techniques	36
3.8 Summary	37
CHAPTER 4: FINDINGS OF THE STUDY	38
4.1 Introduction	38
4.2 Response Rate	38
4.3 Respondent's Demographic Background	39

4.4 Reliability Analysis	43
4.5 Descriptive Statistics for Variables	44
4.6 Correlation Analysis	45
4.7 Multiple Linear Regression Analysis	47
4.7.1 Hypothesis Testing	47
4.7.2 Summary of Regression Analysis	51
4.8 Summary	52
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS	53
5.1 Introduction	53
5.2 Overview Of The Study	53
5.3 Discussion	54
5.3.1 Relationship between Management Commitment and Safety Compliance	59
5.3.2 Relationship between Safety Communication and Safety Compliance	60
5.3.3 Relationship between Workers Involvement and Safety Compliance	61
5.3.4 Relationship between Safety Training and Safety Compliance	62
5.3.5 Relationship between Safety Promotion Policies and Safety Compliance	63
5.3.6 Relationship between Safety Rules & Procedure and Safety Compliance	64
5.4 Implications Of Findings	65
5.4.1 Theoretical Implication	65
5.4.2 Practical Implications	66
5.5 Limitations of The Study	67
5.6 Suggestion For Future Research	69
5.7 Conclusion	70
REFERENCES	71
APPENDIX A: QUESTIONNAIRE	79
APPENDIX B: TURNITIN RESULT	87
APPENDIX C: RELIABILITY RESULT	88
APPENDIX D: REGRESSION RESULT	89
APPENDIX E: CORRELATION RESULT	90

LIST OF TABLES

Table 1.1 Sector-by-sector industrial incident figures 2014 to 2019 (DOSH)	2
Table 1.2 Number of industrial accident Social Security Organization (SOCSO)	5
Table 3.1 Independent Variable Sources	32
Table 3.2 Dependent Variable Source	34
Table 3.3 Reliability Coefficient for Each Variable	36
Table 4.1 Response Rate	39
Table 4.2 Demographic Profile	39
Table 4.3 Accident in Organization	41
Table 4.4 Attend Occupational Safety Training	42
Table 4.5 How Often Do You Have to Attend Safety Training	42
Table 4.6 Reliability Test	43
Table 4.7 Descriptive Statistics for Main Variables	44
Table 4.8 Pearson Correlation	46
Table 4.9 Multiple Regression Analysis Model Summary	47
Table 4.10 ANOVA Table	48
Table 4.11 Regression Analysis	49
Table 4.12 Hypothesis Results	51

LIST OF FIGURES

Figure 2.1 Research Framework

29



LIST OF ABBREVIATIONS

OSH	Occupational Safety and Health
ILO	International Labour Organization OSHA
1994	Occupational Safety and Health Act 1994
SOCSSO	Social Security Organization
S.O.P	Safe Operating Procedure
FMA 1967	Factories and Machinery Act 1967
PPE	Personal Protective Equipment
SPSS	Statistical Package for The Social Science
JSA	Job Safety Analysis



UUM
Universiti Utara Malaysia

CHAPTER 1

INTRODUCTION

1.1. Introduction

Safety management practices are important aspect in occupational safety that need to be taken into consideration. Practice of safety management is an important factor for enhancing the efficient management of the safety organization. Safety management practices, as mentioned in Vinodkumar and Bhasi (2010), consist of management commitment, safety training, worker's involvement, safety communication and feedback, safety rules and procedure, safety promotion and policy.

1.2 Background of the Study

Malaysia's manufacturing sector began to grow quickly as the nation underwent a shift from an agricultural to an industrial business in the early 1980s. After enforcing a strategy to diversify with higher value-added economic activities, Malaysia has achieved remarkable progress in manufacturing sector. Now, manufacturing sector has become one of Malaysia's key contributors to the economy (Essays, UK. 2018). The rapid growth of manufacturing industries in the context of economic development is also related to extensive recruitment of new workers and new advanced technology, machinery and equipment. While using new technologies would open up more opportunities for workers, hiring new employees could pose higher risks of injuries such as the risk of working atmosphere hazards. As shown in figure 1.2, the total number of industrial accidents registered by DOSH has increased significantly in the Malaysian authorities, OSHA 1994

REFERENCES

- Ajzen, Icek. (1991). The Theory of Planned Behavior. "*Organizational Behavior and Human Decision Processes*". 50. 179-211. 10.1016/0749-5978(91)90020-T.
- Ali, D., Yusof, Y., & Adam, A. (2017). "*Safety Culture and Issue in the Malaysian Manufacturing Sector*". MATEC Web of Conferences, 135, 00031.
- Alsamadani, R., Hallowell, M. and Javernick-Will, A.N. (2012) "*Measuring and modelling safety communication in small work crews in the US using social network analysis. Construction Management and Economics*".
- Andi, A. (2008). "*Construction workers perceptions toward safety culture*". Civil Engineering Dimension, 10(1), 1–6.
- Nor Azimah, C.A., Jeffery, T.S., Krassi, B.R., Satvinder, S.D.,& Yang, M.G. (2009). Managing safety: "*The role of safety perception approach to improve safety in organizations*". IBEJ, 2(1), 1–18.
- Cabrera, D., Fernaud, H.E. and D'iaz, R. (2007), "*An evaluation of a new instrument to measure organizational safety culture values and practices*", Accident Analysis and Prevention, Vol. 39 No. 5, pp. 1102-1211.
- Chua, Yan Piaw. (2013). Mastering Research Statistics.

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, 78(1), 98–104. <https://doi.org/10.1037/0021-9010.78.1.98>.

Cox, S.J., Cheyne, A.J.T., 2000. “Assessing safety culture in offshore environments”. *Saf. Sci.* 34 (1–3), 111–129.

Cox, Sue & Flin, Rhona. (1998). Safety culture: Philosopher's stone or man of straw?. *Work and Stress - WORK STRESS*. 12. 189-201. *Decision Processes*, 50, 1–33.

Sidney Dekker, Ashgate, Farnham, 2011, 220, ISBN 978-1-4094-2222-8, “*Drift into failure: from hunting broken components to understanding complex systems*”, *Educational and psychological measurement*, 30(3), 607–610.

Eiff, G. (1999). “*Organizational safety culture*”. In *International Symposium on Aviation Psychology*, 10th Columbus, OH, 778–783.

Essays, UK. (November 2018). “*The Manufacturing Sector in Malaysia*”. Retrieved from <https://www.ukessays.com/essays/economics/the-manufacturing-sector-in-malaysia.php?vref=1>.

- Faridah, I., Hashim, A.E., Salimin, R.M., & Mahmood, M.A. (2010). Behaviour based safety approach: A mechanism for workplace safety improvement. *Proceedings of International Conference of Construction Project Management (ICCPM)*, Chengdu, China 16–18 Nov.
- Fernández-Muñiz, B., Montes-Peón, J. M., & Vázquez-Ordás, C. J. (2017). “*The role of safety leadership and working conditions in safety performance in process industries. Journal of Loss Prevention in the Process Industries*”, 50, 403–415.
- Geller, E. S., & Wiegand, D. M. (2005). “*People-based safety: Exploring the role of personality in injury prevention. Professional Safety*”, 4, 28- 36.
- Gillen, M., Baltz, D., Gassel, M., Kirsch, L., Vaccaro, D., 2002. “*Perceived safety climate, job demands, and coworker support among union and nonunion injured construction workers*”. *J. Safety Res.* 33, 33–51.
- Goetsch, D.L. (2011), “*Occupational Safety and Health for Technologists, Engineers, and Managers*”, 7th ed., Pearson, UpperSaddle River, NJ.
- Guo, B.; Yiu, T.; González, V. “*Predicting safety behaviour in the construction industry: Development and test of an integrative model*”. *Saf. Sci.* 2016, 84, 1–11.
- Hagan, P. E., Montgomery, J. F., & O'Reilly, J. T. (2001). “*Accident prevention manual for business and industry (12th ed.)*”. Itasca, IL: National Safety Council.

Hale, A. R., & Swuste, P. (1998). “*Safety rules: Procedural freedom or action constraint? Safety Science*”, 29(3), 163–177.

Heinrich, H. W. (Herbert William), 1886-1962. (1931). “*Industrial accident prevention; a scientific approach. New York*” ; London :McGraw-Hill book company, inc.

Helen Lingard. (2001) “*The effect of first aid training on Australian construction workers' occupational health and safety knowledge and motivation to avoid work-related injury or illness*”. *Construction Management and Economics* 20:3, pages 263-273.

Hilyer, Barbara & Leviton, Laura & Overman, Lynn & Mukherjee, Snigdha. (2000). “*A Union-Initiated Safety Training Program Leads to Improved Workplace Safety*”. *Labor Studies Journal*. 24. 53-66. 10.1177/0160449X0002400403.

Hoffmann, D.A., Stetzer, A., 1998. “*The role of safety climate and communication in accident interpretation: implications for learning from negative events*”. *Acad. Manage. J.* 41, 644–657.

Hofmann, D. A., Jacobs, R. R., & Landy, F. (1995). “*High reliability process industries: Individual, micro, and macro organizational influences on safety influences on safety performance*”. “*Journal of Safety Research*”, 26(3), 131-149.

- Hong, Chee & Ramayah, T. & Subramaniam, Chandrakantan. (2018). "*The relationship between critical success factors, internal control and safety performance in the Malaysian manufacturing sector*". Safety Science. 104. 179-188. 10.1016/j.ssci.2018.01.002.
- Krejcie, R.V.,& Morgan, D.W. (1970). "*Determining sample size for research activities*".
- Kvalheim, Sverre & Dahl, Øyvind. (2016). "*Safety compliance and safety climate: A repeated cross-sectional study in the oil and gas industry*". "*Journal of Safety Research*". 59.
- Larson, M. G. (2006). "*Descriptive statistics and graphical displays. Circulation*", 114(1), 76-81.
- Lu, Chin-Shan & Kuo, Szu-Yu. (2016). "*The effect of job stress on self-reported safety behaviour in container terminal operations: The moderating role of emotional intelligence. Transportation Research Part F: Traffic Psychology and Behaviour*". 37. 10-26.
- Marin, Luz & Lipscomb, Hester & Cifuentes, Manuel & Punnett, Laura. (2017). "*Associations between safety climate and safety management practices in the construction industry. American journal of industrial medicine*". 60. 10.1002/ajim.22723.
- Mearns, K., Whitaker, S.M. and Flin, R. (2003), "*Safety climate, safety management practice and safety performance in offshore environments*", Safety Science, Vol. 41 No. 8, pp. 641-680.
- Minter, S.G. "*The power of positive safety. Occupational Hazards*". 65(3):39. 2003.

Neal, M. A. Griffin, and P. M. Hart, “*The impact of organizational climate on safety climate and individual behaviour*,” *Safety Science*, vol. 34, pp. 99-109, 2000.

Podsakoff, P.M., Mackenzie, S.B., Paine, J.B., et al. (2000) “*Organizational Citizenship Behaviours: A Critical Review of the Theoretical and Empirical Literature and Suggestions for Future Research*”. *Journal of Management*, 26, 513-563.

Reader, T.; Noort, M.; Shorrock, S.; Kirwan, B. “*Safety sans frontières: An international safety culture model*.” *Risk Anal*”. 2015, 35, 770–789.

Rivilis, Irina & Cole, Donald & Frazer, Mardon & Kerr, Michael & Wells, Richard & Ibrahim, Selahudin. (2006). “*Evaluation of a participatory ergonomic intervention aimed at improving musculoskeletal health*.” *American journal of industrial medicine*”. 49. 801-10. 10.1002/ajim.20382.

Muhammad Safizal Abdullaha , Yusuf Hj Othmana , Abdullah Osmanb , Shahrul Nizam Salahudin, (2016). “*Safety Culture Behaviour in Electronics Manufacturing Sector (EMS) in Malaysia: The Case of Flextronics*”.

Salminen, S., & Tallberg, T. (1996). “*Human errors in fatal and serious occupational accidents in Finland*.” *Ergonomics*”, 39, 980–988.

Sekaran, U. (2005). *Research method for business: "A skill building approach"*. United Kingdom: John Wiley & sons, Inc.

Sekaran, U., & Bougie, R. (2010). *Research methods for business: "A skill building approaches (5th ed.)"*. UK: John Wiley & Sons.

Sembe, Florence. (2017). "*Effect of Selected Occupational Health and Safety Management Practices on Job Satisfaction of Employees in University Campuses in Nakuru Town, Kenya*". *Journal of Human Resource Management*. 5. 70.

Shang, kuo-chung & Yang, Chung-Shan & Lu, Chin-Shan. (2011). "*The effect of safety management on perceived safety performance in container stevedoring operations*". *Int. J. of Shipping and Transport Logistics*. 3. ng and Transport Logistics. 10.1504/IJSTL.2011.040801.

Siu, O.-L., Phillips, D.R., Leung, T.-W., 2004. "*Safety climate and safety performance among construction workers in Hong Kong*". *Accid. Anal. Prev.* 36, 359–366.

Surienty, Lilis, Hong, Khoo Teng and Hung, Daisy Kee Mui, (2011), "*Occupational safety and health (osh) in smes in malaysia: a preliminary investigation, journal of global entrepreneurship*", 1, issue 1, p. 65-75.

Vinodkumar (2012). “*Safety management practices and safety behaviour: Assessing the mediating role of safety knowledge and motivation. Accident Analysis & Prevention*”, 42(6), 2082-2093.

Welander, G., Svanstrom, L. and Ekman, R. (2004), “*Safety Promotion – An Introduction, 2nd ed*”, Kristianstads Boktryckeri AB, Stockholm, SE.

Zohar, D. (1980). “*Safety climate in industrial organizations: theoretical and applied implications. Journal of Applied Psychology*”, 65, 96–102.



**APENDIX A
RESEARCH QUESTIONNAIRE**



Dear Participant,

Thank you for agreeing to participate in this research titled:

**The relationship between safety management practices and worker safety
compliance behaviour in manufacturing sector**

I am a Master of Science in Occupational safety and Health Management student (By Research) and I would appreciate it if you could answer the questions carefully as the information you provide will influence the accuracy and the success of this research. It will take no longer than 30 minutes to complete the questionnaire. All answers will be treated with strict confidence and will be used for the purpose of the study only. If you have any questions regarding this research, you may address them to me at the contact details below.

Thank you for your cooperation and the time taken in answering this questionnaire.

Yours Sincerely,

Sivanantha Madewan
Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
Malaysia
Email: sivanantha12@gmail.com

SECTION A

Instruction:

This part contains few demographic information pertaining to yourself. **Please tick (√)** in the box or write your response in the space provided.

1. **Job title/ Jawatan :** _____

2. **Gender/ Jantina**

- Male
 Female

3. **Age/ Umur:** Please specify/ Nyatakan: _____ years/ Tahun.

4. **Current monthly salary:**

- Below RM 2000
 RM 2001 – RM 3000
 RM 3001 – RM 4000
 Above RM 4000

5. **Years in service:**

- Less than a year
 1 – 3 years
 4 – 7 years
 More than 7 years

6. **Highest Educational level/ Tahap pendidikan tertinggi :**

- Secondary School/ Sekolah Menengah
 Certificate/ Sijil
 Master above/ Master ke atas
 Others/ Lain-lain:
- Diploma/ Diploma
 Degree/ Ijazah

7. **Marital Status:**

- Single/ Bujang
 Married/ Berkahwin
 Divorced/Separated/Widowed

8. **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

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

9. **Have you attended any occupational safety training? / Pernahkah anda pernah menghadiri latihan keselamatan?**

Yes/ Ya

No/ Tidak

10. **How often do you have to attend safety training? Berapa kekerapan latihan keselamatan yang anda perlu hadiri?**

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

SECTION B

GUIDELINES: 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 = Strongly Disagree SD	2 = Disagree D	3 = Neutral N	4 = Agree A	5 = Strongly Agree SA			
					SD	D	N	A	SA
B1.	Safety is given high priority by the management/ <i>Keselamatan diberikan keutamaan oleh pihak pengurusan</i>				1	2	3	4	5
B2.	Safety rules and procedures are strictly followed by the management/ <i>Peraturan dan prosedur keselamatan dipatuhi oleh pihak pengurusan</i>				1	2	3	4	5
B3.	Corrective action is always taken when the				1	2	3	4	5

management is told about unsafe practices/ *Pihak pengurusan membuat pembetulan segera atas amalan tidak selamat apabila dimaklumkan*

B4.	In my workplace manager or supervisors do not show interest in the safety of workers/ <i>Pengurus atau penyelia di tempat kerja tidak menunjukkan minat terhadap keselamatan pekerja</i>	1	2	3	4	5
B5.	Management considers safety to be equally important as production/ <i>Pihak pengurusan mementingkan keselamatan sama seperti penghasilan produk</i>	1	2	3	4	5
B6.	Members of the management do not attend safety meetings/ <i>Wakil pihak pengurusan tidak menghadiri mesyuarat keselamatan.</i>	1	2	3	4	5
B7.	I feel that management is willing to compromise on safety for increasing production/ <i>Saya merasakan pihak pengurusan sanggup bertolak ansur terhadap hal keselamatan demi meningkatkan pengeluaran</i>	1	2	3	4	5
B8.	When near-miss accidents are reported, my management acts quickly to solve the problems/ <i>Pihak pengurusan bertidak pantas untuk menyelesaikan masalah berpunca dari kejadian hampir kemalangan yang telah dilaporkan</i>	1	2	3	4	5
B9.	My company provides sufficient personal protective equipment for the workers/ <i>Pihak pengurusan menyediakan peralatan perlindungan keselamatan secukupnya untuk pekerja-pekerja</i>	1	2	3	4	5
B10.	Employees do not sincerely participate in identifying safety problems/ <i>Penglibatan pekerja adalah tidak ikhlas dalam pengenalpastian masalah keselamatan</i>	1	2	3	4	5
B11.	My company doesn't have a hazard reporting system where employees can communicate hazard information before incidents occur/ <i>Syarikat tidak mempunyai sistem laporan bahaya untuk membolehkan pekerja menyampaikan maklumat punca kemalangan sebelum ia berlaku</i>	1	2	3	4	5

B12.	Management operates an open door policy on safety issues/ <i>Pengurusan mengamalkan dasar keterbukaan mengenai isu-isu keselamatan</i>	1	2	3	4	5
B13.	There is sufficient opportunity to discuss and deal with safety issues in meetings/ <i>Terdapat peluang yang secukupnya bagi membincangkan dan menangani isu-isu keselamatan di dalam mesyuarat</i>	1	2	3	4	5
B14.	The target and goals for safety performance in my organization are not clear to the workers/ <i>Sasaran dan matlamat prestasi keselamatan kepada para pekerja di organisasi ini tidak jelas</i>	1	2	3	4	5
B15.	Safety training given to me is adequate to enable to me to assess hazards in workplace/ <i>Latihan keselamatan yang diberikan kepada saya adalah mencukupi untuk membolehkan saya menilai bahaya/hazad di tempat kerja</i>	1	2	3	4	5
B16.	Management always welcomes opinion from employees before making final decisions on safety related matters/ <i>Pihak pengurusan sentiasa mengalu-alukan pendapat pekerja sebelum membuat keputusan akhir mengenai hal-hal berkaitan keselamatan</i>	1	2	3	4	5
B17.	My company has safety committees consisting of representatives of management and employees/ <i>Jawatankuasa keselamatan di syarikat saya terdiri daripada wakil pihak pengurusan dan wakil pihak pekerja</i>	1	2	3	4	5
B18.	Management promotes employees involvement in safety related matters/ <i>Pihak pengurusan menggalakkan penglibatan pekerja dalam hal-hal keselamatan</i>	1	2	3	4	5
B19.	Management consults with employees regularly about workplace health and safety issues/ <i>Pihak pengurusan sering berunding dengan pihak pekerja mengenai isu kesihatan dan keselamatan di tempat kerja</i>	1	2	3	4	5

B20.	My company gives comprehensive training to the employees in workplace health and safety issues/ <i>Pihak pengurusan memberi latihan kesihatan dan keselamatan yang komprehensif untuk pekerja di tempat kerja</i>	1	2	3	4	5
B21.	Newly recruits are trained adequately to learn safety rules and procedures/ <i>Pekerja baru diberikan latihan secukupnya mengenai peraturan dan prosedur keselamatan.</i>	1	2	3	4	5
B22.	Safety issues are given high priority in training programmes/ <i>Isu keselamatan diberikan keutamaan dalam program-program latihan</i>	1	2	3	4	5
B23.	I am not adequately trained to respond to emergency situations in my workplace/ <i>Saya tidak diberikan latihan secukupnya untuk bertindak balas terhadap situasi kecemasan di tempat kerja</i>	1	2	3	4	5
B24.	Management encourages the workers to attend safety training programmes/ <i>Pihak pengurusan menggalakkan pekerja untuk menyertai latihan-latihan keselamatan</i>	1	2	3	4	5
B25.	The safety procedures and practices in this organization are useful and effective/ <i>Prosedur dan amalan keselamatan dalam organisasi ini adalah berguna dan berkesan.</i>	1	2	3	4	5
B26.	In my company safe conduct is considered as a positive factor for job promotions/ <i>Dalam syarikat ini amalan keselamatan adalah faktor positif yang boleh membantu kenaikan pangkat</i>	1	2	3	4	5
B27.	In my company employees are rewarded for reporting safety hazards (thanked, cash or other rewards, recognition in newsletter, etc.)/ <i>Dalam syarikat ini pekerja diberikan ganjaran kerana melaporkan bahaya/hazad keselamatan (ucapan terima kasih, imbuhan wang atau penghargaan di dalam bulletin, dll)</i>	1	2	3	4	5
B28.	In my company safety week celebration and other safety promotional activities arranged by the management are very effective in creating safety	1	2	3	4	5

awareness among the workers/ *Dalam syarikat ini minggu keselamatan dan lain-lain aktiviti promosi keselamatan yang dianjurkan oleh pihak pengurusan adalah berkesan untuk mewujudkan kesedaran keselamatan di tempat kerja.*

B29.	There exists very healthy competition among the employees to find out and report unsafe condition and acts/ <i>Wujud persaingan yang sihat di kalangan pekerja untuk melaporkan keadaan dan tingkahlaku yang tidak selamat</i>	1	2	3	4	5
B30.	Our supervisor becomes very unhappy and angry when employees find out and report unsafe conditions and acts in our department/ <i>Penyelia kami tidak berpuas hati dan marah jika pekerja mengetahui dan melaporkan keadaan dan tingkahlaku yang tidak selamat yang berlaku di bahagian kami</i>	1	2	3	4	5
B31.	There is open communications about safety issues in this workplace/ <i>Terdapat komunikasi terbuka mengenai isu keselamatan di tempat kerja</i>	1	2	3	4	5
B32.	The safety rules and procedures followed in my company are sufficient to prevent incidents occurring/ <i>Peraturan dan prosedur keselamatan di organisasi ini adalah cukup untuk mencegah berlakunya kemalangan</i>	1	2	3	4	5
B33.	The facilities in the safety department are not adequate to meet the needs of my organization/ <i>Fasiliti di jabatan keselamatan tidak mencukupi untuk memenuhi keperluan organisasi</i>	1	2	3	4	5
B34.	My supervisors and managers always try to enforce safe working procedures/ <i>Penyelia dan pengurus saya sentiasa cuba untuk menguatkuasakan prosedur kerja yang selamat</i>	1	2	3	4	5
B35.	Safety inspections are carried out regularly/ <i>Pemeriksaan keselamatan kerap dijalankan</i>	1	2	3	4	5

SECTION C

GUIDELINES: 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 = Strongly Disagree SD	2 = Disagree D	3 = Neutral N	4 = Agree A	5 = Strongly Agree SA					
				SD	D	N	A	SA		
C1.	I carry out work in a safe manner. <i>Saya melaksanakan kerja saya dengan cara yang selamat.</i>					1	2	3	4	5
C2.	I use all necessary safety equipment to do my job. <i>Saya menggunakan semua peralatan keselamatan yang sesuai untuk melakukan kerja saya.</i>					1	2	3	4	5
C3.	I use the correct safety procedures for carrying out my job/ <i>Saya menggunakan prosedur keselamatan yang betul ketika menjalankan kerja saya.</i>					1	2	3	4	5
C4.	I ensure highest level of safety when I carry out my job/ <i>Saya memastikan tahap keselamatan paling tinggi apabila saya melaksanakan tugas saya.</i>					1	2	3	4	5

Please indicate any comments you have in order to improve this questionnaire:

.....

.....

.....

.....

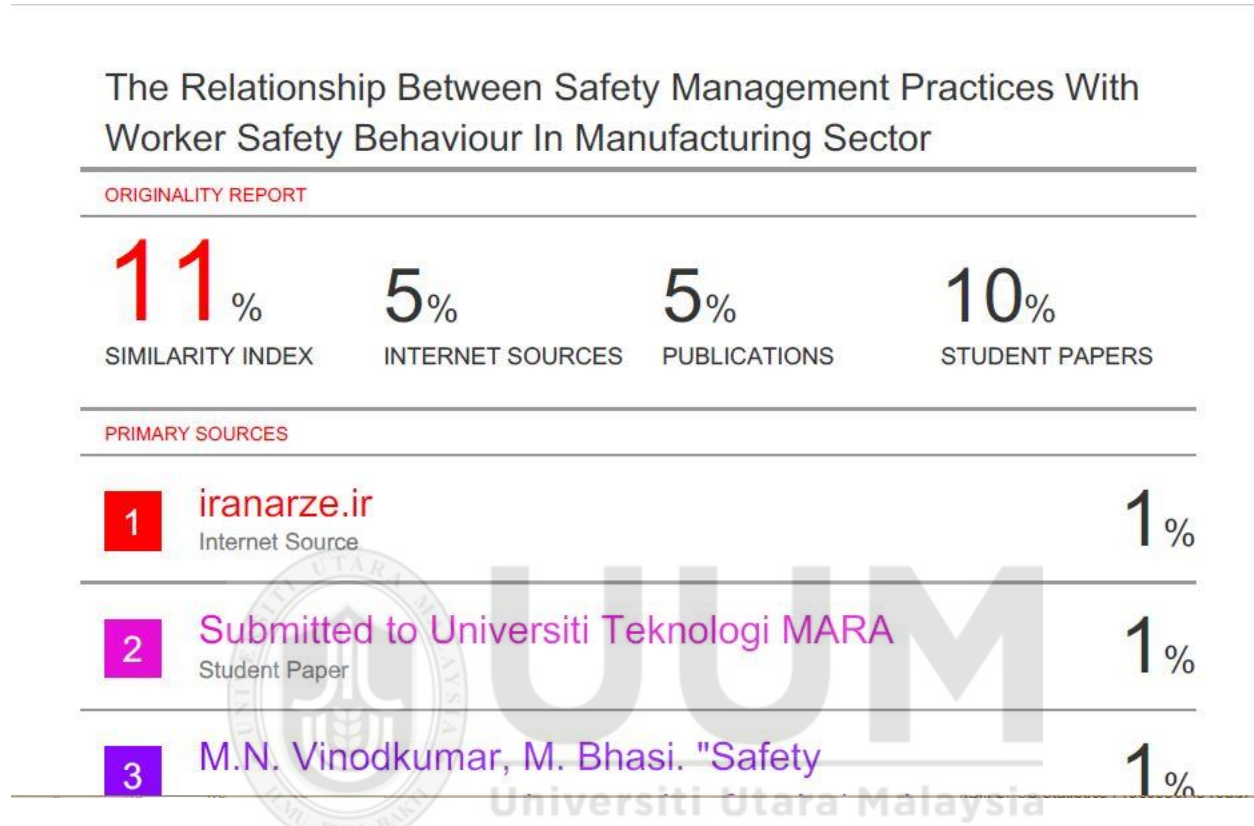
.....

.....

Please, feel free to contact me on any issue(s) regarding to this questionnaire.
Thank you for your participation in answering this questionnaire.

Sivanantha Madewan.
Tel No: +60163797727
E-mail: sivanantha12@gmail.com

APPENDIX B: Turnitin Result



APPENDIX C: Reliability Result

Reliability Test

Component	Number of Initial Items (Pilot Test)	Cronbach's alpha (Pilot Test)	Number of Items	Cronbach's alpha
Management Commitment	9	0.724	9	0.853
Safety Communication	5	0.707	5	0.885
Workers Involvement	5	0.718	5	0.883
Safety Training	5	0.705	5	0.865
Safety Promotion Policies	6	0.714	6	0.854
Safety Rules & Procedure	5	0.816	5	0.911
Safety Compliance	4	0.734	4	0.822
Total	39		39	

APPENDIX D: Regression Result

Model	Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.806	.469		1.720	.089		
ManagementCommitment	-.108	.115	-.112	-.937	.351	.374	2.677
SafetyCommunication	.048	.089	.065	.538	.592	.362	2.764
WorkersInvolvement	.097	.061	.126	1.591	.115	.853	1.172
SafetyTraining	.507	.075	.549	6.723	.000	.802	1.247
SafetyPromotionPolicies	.157	.075	.176	2.106	.038	.764	1.309
SafetyRulesProcedure	.078	.086	.079	.907	.367	.709	1.410

a. Dependent Variable: DSafetyCompliance



APPENDIX E: Correlation Result

		SAFETY COMPLIANCE	MANAGEMENT COMMITMENT	SAFETY COMMUNICATION	WORKERS INVOLVEMENT	SAFETY TRAINING	SAFETY PROMOTION POLICIES	SAFETY RULES PROCEDURE
SAFETY COMPLIANCE	PEARSON CORRELATION	1	.107	.165	.251**	.631**	.326**	.338**
	SIG. (2-TAILED)		.270	.087	.009	.000	.001	.000
	N	108						
MANAGEMENT COMMITMENT	PEARSON CORRELATION	.107	1					
	SIG. (2-TAILED)	.270						
	N	108	108					
SAFETY COMMUNICATION	PEARSON CORRELATION	.165	.782	1				
	SIG. (2-TAILED)	.087	.000					
	N	108	108	108				
WORKERS INVOLVEMENT	PEARSON CORRELATION	.251	.332	.300	1			
	SIG. (2-TAILED)	.009	.000	.002				
	N	108	108	108	108			
SAFETY TRAINING	PEARSON CORRELATION	.631	.221	.240	.246	1		
	SIG. (2-TAILED)	.000	.022	.012	.010			
	N	108	108	108	108	108		
SAFETY PROMOTION POLICIES	PEARSON CORRELATION	.326	.048	.136	.019	.200	1	
	SIG. (2-TAILED)	.001	.625	.161	.844	.038		
	N	108	108	108	108	108	108	
SAFETY RULES PROCEDURE	PEARSON CORRELATION	.338	-.043	-.077	.055	.320	.439	1
	SIG. (2-TAILED)	.000	.660	.427	.573	.001	.000	
	N	108	108	108	108	108	108	108