

**SAFETY COMMUNICATION, SAFETY CULTURE, AND SAFETY
LEADERSHIP ON SAFETY PARTICIPATION AMONG
MANUFACTURING EMPLOYEES**

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SAFETY COMMUNICATION, SAFETY CULTURE, AND SAFETY
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EMPLOYEES

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A thesis submitted in fulfilment of the
requirements for the award of the degree of
Doctor of Philosophy (Management)

Faculty of Management
Universiti Teknologi Malaysia

JULY 2018

Dedicated to:

My beloved parents Yeong Kim Won and Wong Chui Yau

My late grandfathers Yeong Sang and Wong Ah Kow

My grandmothers Lim Chew Ngo and Chin Siew Chin

My one and only sister Yeong Sook Lie

My parents-in-law Teo Ah Lek and Lim Choon Moi

My dear husband Teo Jiunnjye

My lovely and precious daughter Teo Jia Yinn

ACKNOWLEDGEMENT

“There is no royal road to learning.”

Despite all the difficulties which thwarted me, I am thankful for everything that I have gained throughout my doctoral journey. I wish to acknowledge those who have supported me in this beautiful journey. First and foremost, I would like to offer my sincerest gratitude to my supervisor, Dr. Shah Rollah Abdul Wahab, whose thoughtful guidance, professional advice, and patient support have been instrumental in my completion of this thesis. I am heartily grateful to the Ministry of Higher Education Malaysia (MOHE) for the financial support of my study. My appreciation also goes to several manufacturing companies, the management and all the respondents for their willingness to help in the data collection. As for all my family members especially my mother, my younger sister and my husband, I am grateful for their moral, physical and emotional support along the way. I feel thankful to my daughter, the joy of mine, whom I am so glad to have in my life. Special thanks go to my brother-in-law, Mr. Teo Wen Yao, for his helping hand during the data collection. I would also like to extend my gratitude to Dr. Grace Thoo Ai Chin for her generosity in sharing her experiences and advice. Last but not least, a note of appreciation is dedicated to my intimate friends and comrades, Ms. Ng Xin Le and Mr. Chua Jing Lun, to whom I am indebted for their companion, laughter and knowledge-sharing throughout this quest for knowledge.

ABSTRACT

In Malaysia, industrialization alongside with the proliferation of the population has resulted in an increase in occupational injuries at workplace. According to the latest statistics, the reported accidents stated that out of 10,000 employees, 99 employees have been involved in workplace accidents. An accident does not happen by chance as it is an interplay between several factors in an organization. Thus, employees' safety participation is important to raise employees' awareness for a safer workplace. This research aimed at examining the moderated mediation effect of safety leadership on the relationship between safety communication and safety participation through the safety culture among employees of Malaysian manufacturing companies. A total of 442 operators from electrical and electronic factories in Negeri Sembilan were chosen as respondents of the study. The variables were examined using the Safety Participation Scale, Safety Communication Scale, Safety Culture Scale, and Safety Leadership Scale. Data were analyzed using simple linear regression, multi-group confirmatory factor analysis (CFA), and path analysis using AMOS Structural Equation Modeling (SEM), while analytic approach to examine moderated mediation was conducted using Statistical Package of Social Science (SPSS) 18.0 software. The findings revealed that safety culture plays significant roles as mediator as well as safety leadership in the relationship between safety communication and safety participation. It was found that moderated mediation exists when safety leadership strengthened the relationship of safety communication and safety participation through safety culture. Several limitations of this study were noteworthy. Firstly, the feedbacks may be biased in self-reported questionnaire, which solely depends on respondents' perceptions rather than direct observation to the phenomenon of interest. Secondly, the findings were not able to represent the different population as the results they only valid and reflect the characteristics of the targeted population which is Malaysian manufacturing employees. According to the findings, it is recommended that proactive safety communication, good safety leadership, and positive safety culture should be practiced in organizations. These increase employees' willingness to participate in safety activities for ensuring safer workplace.

ABSTRAK

Di Malaysia, pembangunan perindustrian berserta pertambahan penduduk telah mengakibatkan peningkatan bilangan kecederaan di tempat kerja. Menurut statistik terkini, daripada 10,000 pekerja yang terlibat dalam kemalangan, 99 pekerja telah mengalami kemalangan di tempat kerja. Sesuatu kemalangan tidak berlaku secara kebetulan kerana ia disebabkan beberapa faktor dalam sebuah organisasi. Oleh itu, penglibatan pekerja dalam aspek keselamatan adalah penting untuk meningkatkan kesedaran keselamatan di tempat kerja. Penyelidikan ini bertujuan mengkaji kesan pengantara sederhana kepimpinan keselamatan ke atas komunikasi keselamatan dan penglibatan keselamatan melalui budaya keselamatan dalam kalangan pekerja syarikat pembuatan di Malaysia. Seramai 442 operator dari kilang elektrik dan elektronik di Negeri Sembilan dipilih sebagai responden kajian. Pembolehubah-pembolehubah tersebut telah dikaji dengan menggunakan Skala Penglibatan Keselamatan, Skala Komunikasi Keselamatan, Skala Budaya Keselamatan dan Skala Kepimpinan Keselamatan. Data tersebut dianalisis dengan menggunakan regresi linear mudah, analisis faktor pengesahan pelbagai kumpulan (CFA), dan analisis laluan dengan menggunakan Pemodelan Persamaan Berstruktur (SEM) AMOS, manakala pendekatan analitik untuk memeriksa pengantara yang disederhanakan dengan menggunakan perisian Pakej Statistik Sains Sosial (SPSS) 18.0. Dapatan kajian menunjukkan bahawa budaya keselamatan memainkan peranan penting sebagai pengantara serta kepimpinan keselamatan dalam hubungan antara komunikasi keselamatan dan penglibatan keselamatan. Dapatan menunjukkan pengantara sederhana wujud apabila kepimpinan keselamatan mengukuhkan hubungan antara komunikasi keselamatan dan penglibatan keselamatan melalui budaya keselamatan. Beberapa batasan kajian perlu diberi perhatian. Pertama, maklum balas mungkin berat sebelah dalam soal selidik yang semata-mata bergantung kepada persepsi responden dan bukan pemerhatian langsung terhadap fenomena yang dikaji. Kedua, hasil kajian tersebut tidak dapat mewakili populasi yang berbeza kerana ia hanya sah untuk populasi sasaran iaitu pekerja sektor pembuatan Malaysia dan menggambarkan ciri-ciri mereka sahaja. Berdasarkan penemuan itu, disarankan agar komunikasi keselamatan yang proaktif, kepimpinan keselamatan yang baik, dan budaya keselamatan yang positif harus diamalkan dalam organisasi. Ini akan meningkatkan kesediaan para pekerja untuk terlibat dalam aktiviti keselamatan untuk memastikan keselamatan di tempat kerja.

TABLE OF CONTENT

CHAPTER	TITLE	PAGE
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENT	vii
	LIST OF TABLES	xi
	LIST OF FIGURES	xiii
	LIST OF ABBRIVIATIONS	xv
	LIST OF SYMBOLS	xvi
	LIST OF APPENDICES	xvii
1	INTRODUCTION	1
	1.1 Introduction	1
	1.2 Background of Research	1
	1.3 Problem Statement	5
	1.4 Research Question	9
	1.5 Research Objectives	9
	1.6 Hypotheses of Research	10
	1.7 Scope of Study	10
	1.8 Significance of Study	11
	1.9 Conceptual and Operational Definition	13
	1.9.1 Workplace Safety	13
	1.9.2 Safety Participation	13
	1.9.3 Safety Communication	14

	1.9.4	Safety Culture	14
	1.9.5	Safety Leadership	14
2		LITERATURE REVIEW	16
	2.1	Introduction	16
	2.2	Overview of Workplace Safety	16
	2.3	Accident Causation Theory	18
	2.4	Overview of Worker Participation	20
	2.4.1	Overview of Safety Participation	22
	2.4.2	Dimensions of Safety Participation	24
	2.5	Overview of Communication	26
	2.5.1	Workplace Communication	27
	2.5.2	Safety Communication	28
	2.5.3	Dimensions of Safety Communication	30
	2.6	Overview of Workplace Culture	32
	2.6.1	Safety Culture	34
	2.6.2	Cooper's Reciprocal Safety Culture Model	36
	2.6.3	Dimensions of Safety Culture	39
	2.7	Overview of Leadership	42
	2.7.1	Safety Leadership	46
	2.7.2	Multilevel Safety Leadership Model	48
	2.7.3	Dimension of Safety Leadership	50
	2.8	The Role of Safety Culture and Safety Leadership	53
	2.9	Research Framework	55
	2.10	Hypotheses Development	56
	2.10.1	Hypothesis 1	56
	2.10.2	Hypothesis 2	57
	2.10.3	Hypothesis 3	58
	2.10.4	Hypothesis 4	59
	2.10.5	Hypothesis 5	60
	2.10.6	Hypothesis 6	61
	2.11	Underpinning Theory	62
	2.12	Summary of Literature Review	64

3	RESEARCH METHODOLOGY	67
3.1	Introduction	67
3.2	Research Paradigm	67
3.3	Research Design	69
3.4	Population and Sampling Design	71
3.5	Research Instrument	75
	3.5.1 Measurement Scale	76
	3.5.2 Demographic Information	76
	3.5.3 Measurement of Safety Participation	77
	3.5.4 Measurement of Safety Communication	77
	3.5.5 Measurement of Safety Culture	78
	3.5.6 Measurement of Safety Leadership	78
3.6	Pilot Study	79
	3.6.1 Reliability	79
	3.6.2 Validity	82
3.7	Data Analysis of Research	84
	3.7.1 Simple Linear Regression	85
	3.7.2 Structural Equation Modeling (SEM)	86
	3.7.3 Confirmatory Factor Analysis (CFA)	87
	3.7.4 Path Analysis	87
	3.7.5 Multi-Group CFA	88
	3.7.6 Analytical Model	88
3.8	Summary of Research Methodology	90
4	ANALYSES AND FINDINGS OF THE STUDY	92
4.1	Introduction	92
4.2	Return and Usable Rate of Questionnaire	92
4.3	Respondents' Demographic	93
4.4	Validity Test	94
	4.4.1 Discriminant Validity	100
	4.4.2 Construct Validity	103
	4.4.3 Convergent Validity	104
4.5	Multicollinearity Test	108
4.6	Test of Common Method Bias (CMB)	108

4.7	Multivariate Normality Assumption	109
4.8	Descriptive Analysis	114
4.8.1	Safety Participation	114
4.8.2	Safety Communication	116
4.8.3	Safety Culture	117
4.8.4	Safety Leadership	119
4.9	Hypotheses Testing	122
4.9.1	Research Question 1	122
4.9.2	Research Question 2	124
4.9.3	Research Question 3	126
4.9.4	Research Question 4	128
4.9.5	Research Question 5	130
4.9.6	Research Question 6	135
4.9.7	Summary of Hypotheses Testing	138
4.10	Summary of Data Analysis and Findings	139
5	DISCUSSION AND CONCLUSION	142
5.1	Introduction	142
5.2	Discussion of the Research	142
5.3	Research Contributions	154
5.4	Limitations and Recommendations for Future Research	161
5.5	Conclusion	163
	REFERENCES	165
	Appendices A – D	212 - 228

LIST OF TABLES

TABLE NO.	TITLE	PAGE
3.1	Research Philosophical Assumptions	68
3.2	Targeted Companies and Total Employees	73
3.3	The Rule of Thumb of Internal Consistency Reliability	80
3.4	Reliability of Measurements	81
3.5	Summary of Reliability of Measurements	82
3.6	Cut-off Values of Construct Validity	84
3.7	Research Objectives and Method of Data Analysis	91
4.1	Return and Usable Rate of Questionnaire	93
4.2	Demographic Characteristics of Sample	94
4.3	Items Deleted from Safety Participation Scale due to Low Factor Loading	95
4.4	Items Deleted from Safety Communication Scale due to Low Factor Loading	97
4.5	Items Deleted from Safety Leadership Scale due to Low Factor Loading	99
4.6	Modification Indices (MI) of Safety Participation Scale	101
4.7	Modification Indices (MI) of Safety Culture Scale	102
4.8	Modification Indices (MI) of Safety Leadership Scale	102
4.9	Redundant Items Deleted from Safety Leadership Scale	103
4.10	Model Fitness of Measurement Model	104

4.11	CFA Summary for all Construct	105
4.12	Discriminant Validity Index Summary	107
4.13	Multicollinearity of the Variables	108
4.14	Total Variance Explained	109
4.15	Normality Assessment of Safety Participation	110
4.16	Normality Assessment of Safety Communication	110
4.17	Normality Assessment of Safety Culture	111
4.18	Normality Assessment of Safety Leadership	111
4.19	Fitness Index of Structural Model	113
4.20	Level of Mean Score	114
4.21	Descriptive Analysis on Safety Participation and Dimensions	114
4.22	Descriptive Analysis on Safety Communication and Items	116
4.23	Descriptive Analysis on Safety Culture and Dimensions	108
4.24	Descriptive Analysis on Safety Leadership and Dimensions	120
4.25	Descriptive Analysis of Variables	121
4.26	Direct Effect of Safety Communication and Safety Participation	123
4.27	Direct Effect of Safety Communication and Safety Culture	125
4.28	Direct Effect of Safety Culture and Safety Participation	127
4.29	Regression Weight of Mediation	129
4.30	Moderation Test for High Safety Leadership Group	132
4.31	Moderation Test for Low Safety Leadership Group	134
4.32	Comparison between High and Low Safety Leadership Group	134
4.33	The Effect of Moderated Mediation on the Relationship of Safety Communication and Safety Participation	136
4.34	Result of Hypotheses Testing	139
4.35	Summary of Findings	141

LIST OF FIGURES

FIGURE NO.	TITLE	PAGE
2.1	General Communication System	26
2.2	Bandura's Model of Reciprocal Determinism	37
2.3	Cooper's Reciprocal Safety Culture Model	38
2.4	Multilevel Safety Leadership Model	50
2.5	Research Framework	55
3.1	Research and Design Process	71
4.1	Initial Measurement Model of Safety Participation	95
4.2	Improved Measurement Model of Safety Participation	96
4.3	Initial Measurement Model of Safety Communication	96
4.4	Improved Measurement Model of Safety Communication	97
4.5	Measurement Model of Safety Culture	98
4.6	Initial Measurement Model of Safety Leadership	99
4.7	Improved Measurement Model of Safety Leadership	100
4.8	Structural Model	113
4.9	Regression Weight of the Effect of Safety Communication and Safety Participation	123
4.10	Regression Weight of the Effect of Safety Communication and Safety Culture	125
4.11	Regression Weight of the Effect of Safety Culture and Safety Participation	127

4.12	Regression Weight of the Effect of Mediation Model	129
4.13	Schematic Model of Moderator in Relationship of Safety Communication and Safety Participation	130
4.14	High Safety Leadership Group: Constrained Model	131
4.15	High Safety Leadership Group: Unconstrained Model	132
4.16	Low Safety Leadership Group: Constrained Model	133
4.17	Low Safety Leadership Group: Unconstrained Model	133
4.18	The Moderated Mediation on the Relationship of Safety Communication and Safety Participation	137
5.1	Vinodkumar and Bhasi (2016)'s Safety Participation Model	157
5.2	Contribution on Vinodkumar and Bhasi (2016)'s Safety Participation Model	158

LIST OF ABBREVIATIONS

AMOS	-	Analysis of Moment Structures
CEO	-	Chief Executive Officer
CFA	-	Confirmatory Factor Analysis
DOSM	-	Department of Statistic Malaysia
FMM	-	Federation Malaysian Manufacturer
GDP	-	Gross Domestic Product
LMX	-	Leader-Member Exchange Theory
MES	-	Multilinear Event Sequencing Model
OSHA	-	Occupational Safety and Health Act
OSH-MP	-	Occupational Safety and Health Master Plan
PPE	-	Personal Protective Equipment
RAND	-	Random
SCS	-	Safety Culture Scale
SCM	-	Swiss Cheese Model
SCT	-	Social Cognitive Theory
SLS	-	Safety Leadership Scale
SEM	-	Structural Equation Modeling
SOCSSO	-	Social Security Organization
SPSS	-	Statistical Package for Social Science
TPB	-	Theory Planned Behavior

LIST OF SYMBOLS

%	-	Percentage
α	-	Coefficient Alpha
R_2	-	Coefficient of Determination
χ^2	-	Chi-square
χ^2 / df	-	Normed Chi-square

LIST OF APPENDICES

APPENDIX	TITLE	PAGE
A	Krejcie and Morgan Sample Size Table	212
B	Itemized Analysis of the Questionnaire	213
C	Final Measurement Model	219
D	Questionnaire	223

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter discusses the background of the research regarding safety communication, safety culture and safety leadership on safety participation at the workplace. In addition, this chapter explains not only the problem statement, research questions and research objectives but also the purpose, scope and significance of the study. Thus, this research aims to further explore the effects of safety communication, safety culture and safety leadership on safety participation towards the employee of Malaysian manufacturing companies. The underlying assumption of the researcher is that the relationship between safety communication and safety participation could be mediated by safety culture which depends on safety leadership.

1.2 Background of Research

In Malaysia, industrialization along with growing populations has resulted in an increase in prevalence of occupational injuries (Arokiasamy and Krishnan, 1994; Rampal and Mohd Nizam, 2006). In Malaysia, however, the expectations of reducing the number of accidents has not been met after implementing multiple safety policies and prevention actions by the government (Nur Azlina *et al.*, 2014). Social Security Organization of Malaysia (SOCSO) had announced the latest number of reported industrial accidents to be as many as 34,258 in 2015, observing only a slight decrease by 1,036 cases or 2.94 percent in comparison to 35,294 in 2014. Surprisingly, it has

been found that, in every 10,000 workers, 99 workers were involved in industrial accidents. The total benefit payment in 2015 has risen by RM197.09 million or 7.99 percent to RM2, 665.16 million as compared to RM2, 468.07 million in 2014.

Among these, the manufacturing industries in Malaysia have been reported to be the highest accident contributors in Malaysia with 15,153 cases in 2015 (Social Security Organization, 2015). Nonetheless, the Malaysian government has channelled tremendous efforts into reducing job-related accidents at the workplace. Chief among these is the enforcement of the Occupational Safety and Health Act (1994), also known as OSHA (1994), which has since become the standard for the employers and employees to comply and uphold. With the introduction of this law, more and more concern has been voiced by the employers, who are in the role of ensuring effective safety management and of boosting workforces' safety awareness in the organization.

In this regard, the Malaysian government has demonstrated an aggressive attitude in minimizing fewer workplace accidents, as may be attested to by implementation of the Occupational Safety and Health Master Plan (OSH-MP 15). The plan has been proposed to strengthen workers' safety attitude and to develop a safer working environment in Malaysia. Divided into three stages spanning 15 years from 2005 to 2020, it comprises the following: in the first five years, the government would emphasize on promoting safety and health ownership at the workplace; from 2010 to 2015, self-regulation was believed to have been achieved; while in the last five years, preventive culture would have been implanted in the workplace (Farouk *et al.*, 2011). In brief, through the OSH-MP 15, the government has endeavoured to nurture and maintain a positive safety culture and to reduce accident rates in working environments (Masilamani, 2010). Although many efforts have been put either by the government or the organization, without active safety participation of the employees, all the hard works are not easy to success.

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). With various method to prevent accident, safety participation is widely recognized as one of the effective ways to prevent threatening activities at work. For many years, literature has pays attention on

employee safety participation which is believed to have close association with workplace safety (Neal, 2000; Vinodkumar and Bhasi, 2010; Shuang *et al.*, 2015; Jiang and Probst, 2016). Safety participation in general refers to employee's voluntary participate in safety-related activities within the organization. This behavior is believed to foster safer working environment, and therefore, many scholars are trying to investigate the factors to enhance safety participation of the workers, for instance by increasing safety obligations (Mullen *et al.*, 2017), employee's safety motivation and instil safety knowledge (Jiang and Probst, 2016). However, it is not an easy job to make sure the employee voluntarily participates in safety. In other words, to see the possible improvement of employee participation in safety-related activities, some efforts need to be performed by the management. One of the factors which is believed to enhance safety participation is effective safety communication at work.

Communication is the way which people convey thoughts, express feelings and deliver information and knowledge (Cigularov *et al.*, 2010). However, with the term "safety", communication becomes a tool which could help employers manage safety issues in ensuring that members in an organization stay away from potential hazards and accidents (Alsamadani *et al.*, 2012; Siew, 2015). To date, research has been conducted to investigate safety communication and its effects towards workplace safety (Kim *et al.*, 2008; Lijie *et al.*, 2012; Kaskutas *et al.*, 2013; Siew, 2015). Safety communication is not merely a process of giving and receiving safety information at the workplace, it helps to influence employees' behaviours and attitudes towards safety. Safety-relevant communication provides information and understandings associated with business's operation to the members of the organization, which in turn helps them to know how to work safely (Vecchio-Sadus, 2007). Geller (2005)'s study claimed that, an organization's safety status is determined by how safety is discussed and disseminated. The information of safety need to be understandable by everybody in the organization. It is evident that effective safety communication has been shown to affect specific employees' behaviours, for example safety performance (Michael *et al.*, 2006). However, miscommunication among the workers, especially between employee and the upper-level management, frequently occurs (Mullen *et al.*, 2011), potentially due to the neglect of constructive safety communications at the workplace, implying the lack a good safety culture atmosphere in the organization (Conchie *et al.*, 2013).

Likewise, safety culture has become prominent in the organizational systems of many high-risk industries such as aviation, nuclear plant operations, medicine, railway systems, and manufacturing industries (Reiman and Rollenhagen, 2014; Schöbel *et al.*, 2017). Nowadays, the profound influences of safety culture (and the lack thereof) have been recognized as a major contributor to the workplace safety (Amirah *et al.*, 2013; Machfudiyanto *et al.*, 2017). An organization with positive safety culture is believed to be more responsive and sensitive to the danger signs and hence, those at the managerial level are more likely to cultivate positive safety culture in their organizations to minimize hazards which could inflict human casualties and property loss. Safety culture has been described as employee involvement, perceived risk and emergency response (Wu *et al.*, 2010) and as a common set of values, behaviours and norms that affect safety performance (Adams, 2012). It is evident that the management has a core influence on safety culture which hinges upon the demonstration of a commitment to safety within the organization (Ek *et al.*, 2007).

Another factor believed to contribute to workplace safety is the leaders or the management level. It is commonly believed that, the leader who can develop and demonstrate good safety leadership style helps to foster trust and good relationship between themselves and their followers regarding safety (Luria and Morag, 2012). Du and Sun (2012) have recognized that safety leadership is essential to the formation of workplace safety values that effectively reduces accidents at the workplace. Conversely, passive leadership will lead to potential negative outcomes associated with safety-related matters (Mullen *et al.*, 2011). Effective safety leadership of safety leaders allowed them to establish safety guidelines and regulations, provide constructive response on safety issues, and possess a strong sense of responsibility towards their followers' safety in the organization. Wu *et al.* (2010) highlighted that only effective safety leadership helps to encourage employees to participate in safety decision-making and become actively involved in safety activities in the organization. Among the aforementioned factors, this study focused on safety communication, safety culture, and safety leadership on safety participation among the employees in Malaysian manufacturing industries.

1.3 Problem Statement

The manufacturing sector is one of the main contributors to the Malaysian economy (Saad *et al.*, 2012). According to the latest annual report of Bank Negara Malaysia, the share of manufacturing to the gross domestic product (GDP) was found to be 23% out of the total GDP of Malaysia in 2015. Due to the advancement and flourishing of the manufacturing industry in Malaysia, a large amount of labour is required in order to cope with the high demand of business and hence, the number of accidents has appeared to be on rise. According to the latest statistical report, reported accidents in the manufacturing industry accounted for 24.11 percent of the total number of accidents (Social Security Organization, 2015). A large body of existing empirical studies on workplace accident concentrated on the Malaysian manufacturing sector due to its hazardous job nature such as controlling heavy machinery, contact with chemicals and so on (Saad *et al.*, 2012; Nur Azlina *et al.* 2014; Choon Hee, 2014; Hui Nee, 2014). In Malaysia, laws and regulations such as the Occupational Safety and Health Act 1994 (OSHA) have been enacted by the government to protect the rights and benefits of the workers in the manufacturing industry. The OSHA 1994 has replaced Factory and Machinery Act 1967 (FMA) which served to ensure that both manufacturers and employers take the initiative in reducing industry hazards (Choon Hee, 2014).

To create safer and healthier workplace, Malaysian government has putting effort to increase worker's safety awareness and therefore, various of safety-related campaign and programs such as safety awareness-rising campaign has been held (Zakaria *et al.*, 2012). However, the government's efforts do not appear to have reaped the benefit (Nur Azlina *et al.*, 2014). Elevated numbers of occupational accidents have been found in statistical reports especially in the manufacturing industry. The number of industrial accident cases in manufacturing industries has demonstrated an increasing trend from 2011 to 2013; and slightly decrease from 2014 to 2015. Accordingly, the safety standards in the manufacturing industry may still be questionable (Choon Hee, 2014). In the pursuit among the industries to remain vibrant and competitive, the safety of workers has often overlooked by employers, and sometimes even by the employees themselves. Although Malaysian government has proposed good safety policies and enact safety law to the manufacturing industries, the lack of enforcement and

implementation of the authorities and the workers has weakened the commitment and awareness of safety at the workplace (Amall Raihan *et al.*, 2017). Thence, little desire of employees to participate in safety activities could then promote the chance for them to involve in the injuries and accident at the workplace.

In addition, the denial of workers participation in safety activities such as safety decision making process is held to be one of the major causes of the safety-related problems, which are manifested daily in the work of the employees nowadays (Dubey, 2015). To create a safer workplace, strong employee safety participation is required (Neal, 2000; Griffin and Neal, 2000; Christian *et al.*, 2009). However, employees without encouragement and motivation from the management is not likely to participate actively in safety-related activities. Safety activities such as safety meeting, safety decision making, and safety training are required high level of employee's engagement and participation to maximize the efficiency. Low level of safety participation will bring several disadvantages to the employees themselves, and even to the entire organization (Subramaniam *et al.*, 2016). For instance, the employees tend to not provide feedbacks of safety to the management level as they are not feel committed in safety issues. Besides, the employees do not understand the safety regulations and safety policies implementing at work as they are not involved in the safety meetings and decision-making process (Nielsen and Randall, 2012). In fact, low level of safety participation will affect business productivity and performance as the employees not feeling safe during their work (Khairiah, 2008). To overcome these problems, this study believed that the fluctuation of safety communication, safety culture, and safety leadership could affect employee's safety participation in the organization.

Besides questioning the rising concern of safety participation in Malaysia manufacturing industries, another question elicited is the impact of safety communication on such accidents. Safety communications between all parties within an organization is essential for optimal safety performances. Therefore, safety communication breakdowns reduce the possibility of workers to take appropriate actions at critical moments and thereby compromise safety performance (Michael *et al.*, 2006; Kines *et al.*, 2010; Maxfield *et al.*, 2011). According to Maxfield *et al.* (2011), communication breakdown can be categorized as honest mistakes and not

discussable. Honest mistakes include poor handwriting, confusing labels, difficult accents, and language barriers which put people in dangers will continues to lead to the occurrence of unsafe acts at the workplace (Alsamadani *et al.*, 2012). Although evidence shows that communication breakdown directly affects the safety of the human beings (Lesch, 2005; Buckley, 2010; Donahue *et al.*, 2012), still when employees feel that they are about to give negative safety feedbacks to the management, they tend to withdraw. Hence, there are persist a lack of safety communication at the workplace (Laughry, 2006; Kines *et al.*, 2010). Besides, the impact of safety communication has been widely discussed in numerous studies (Parker *et al.*, 2001; Hosseinian and Torghabeh, 2012; Fernández-Muñiz *et al.*, 2012). Thus far, discussion on the impact of safety communication towards safety participation appears lacking. Thus, it is the researcher's intention to empirically investigate the effect of safety communication on safety participation in Malaysian manufacturing industries.

Meanwhile, another concern about safety culture has driven to the question of what effects of it there are on workplace safety especially regarding safety participation in Malaysian manufacturing industries. One of the limitations of safety culture is that its very concept is difficult to explain (Guldenmund, 2000; Wiegmann *et al.*, 2004; Wu *et al.*, 2010; Wang and Liu, 2012). Workers appear to have limited knowledge towards safety culture because "culture" cannot be explicitly explained. Thus, workers do not know the proper ways to foster safety culture at the workplace (Edwards *et al.*, 2013). In addition, non-compliance to the Occupational Safety and Health Act (OSHA)'s requirements by the management has highlighted the lack of safety culture such as less commitment of management in safety, lack of identification of hazards, lack of safety program in the workplace (Ghahramani, 2017), which then culminates in high occupational accidents at the workplace (Hui Nee, 2014). Therefore, the lack of safety culture has become one of the contributors to high accident rates in Malaysian manufacturing industries (Amirah *et al.*, 2013). Besides, the role and impacts of safety culture at the workplace are well-researched (Filho *et al.*, 2010; Chen *et al.*, 2012; Biggs *et al.*, 2013; Boughaba *et al.*, 2014), for instance the effects of safety culture on safety management (Ek *et al.*, 2014) and safety performance (Clarke, 2006; Feng *et al.*, 2013). By enhancing the level of safety culture, employer and employee are more likely to demonstrate positive attitudes in safety. This evidence showing that,

the role of safety culture is distinct to manipulate safety condition at the workplace. It is believed that, high level of safety culture could affect the relationship of safety communication and safety participation. When the level of safety communication increase, the workers are more likely to create positive safety culture at work, which then influence the worker's willingness to participate in safety activities in the organization. Therefore, this research assigns safety culture as the mediator and will further discuss its effects on safety communication and safety participation especially towards the employee of Malaysian manufacturing industries.

Leaders of organizations nowadays have realized the importance of leadership to safety. However, they failed to take into consideration the better way of practicing safety leadership. According to Kelloway *et al.* (2005), abusive and passive leadership is the example of poor leadership manner. These leaders usually fail not only to provide safety messages but also to direct their followers to perform safely (Kelloway *et al.*, 2005). The active involvement of leaders is indubitably essential to the safety-related problems (Anderson, 2006), as attested to by the emphasis in the literature on the crucial role of leaders and the importance of leadership characteristics on safety (Mullen *et al.*, 2001; Conchie *et al.*, 2013; Conchie *et al.*, 2011; Wu *et al.*, 2008a; Wu *et al.*, 2008b; Wu *et al.*, 2008c). The lack of safety leadership will lead to low commitment of top-level management in safety issues (Wu, 2005). Undeniably, adequate leadership style demonstrated by leaders has declined. It has been found that most leaders fail to persuade and influence the followers regarding workplace safety (Wu *et al.*, 2010). Workers are commonly expected by their leaders to be highly productive rather than to be proactively aware of potential hazards at the workplace (Skeepers and Mbohwa, 2015). Besides, leaders appear to place their emphasis on profits, given the considerable investment and commitment in the business (Antonsen, 2009). However, they do not realize that occupational safety is a prerequisite as a part of productivity and profitability (Flin and Yule, 2004). In view of this, researches had strongly recommended that safety leadership needs to be discussed further in future studies (Langerman, 2011; Luria and Morag, 2012; Martínez-Córcoles, 2013). It is believed that, when safety leadership vary significantly, the degree of safety communication influence safety culture could be altered. When workers perceive a high level of safety leadership, they are more likely to create positive safety culture in the organization. As safety leadership is believed to strengthen the relationship

between safety communication and safety culture, it will be allocated as moderator whose impacts on safety culture towards safety communications are to be elucidated.

1.4 Research Question

1. Does safety communication affect safety participation among Malaysian manufacturing employee?
2. Does safety communication affect safety culture among Malaysian manufacturing employee?
3. Does safety culture affect safety participation among Malaysian manufacturing employee?
4. Does the effect of safety culture mediate the relationship between safety communication and safety participation among Malaysian manufacturing employee?
5. Does the effect of safety leadership moderate the relationship between safety communication and safety culture among Malaysian manufacturing employee?
6. Does the effect of safety culture that depends on safety leadership mediate the relationship between safety communication and safety participation among Malaysian manufacturing employee?

1.5 Research Objectives

1. To identify the effect of safety communication on safety participation among Malaysian manufacturing employee.
2. To identify the effect of safety communication on safety culture among Malaysian manufacturing employee.
3. To identify the effect of safety culture on safety participation among Malaysian manufacturing employee.

4. To identify the effect of safety culture to mediate the relationship between safety communication and safety participation among Malaysian manufacturing employee.
5. To identify the effect of safety leadership to moderate the relationship between safety communication and safety culture among Malaysian manufacturing employee.
6. To identify the effect of safety culture that depends on safety leadership to mediate the relationship between safety communication and safety participation among Malaysian manufacturing employee.

1.6 Hypotheses of Research

- H1. There is an effect of safety communication on safety participation.
- H2. There is an effect of safety communication on safety culture.
- H3. There is an effect of safety culture on safety participation.
- H4. Safety culture mediates the relationship between safety communication and safety participation.
- H5. Safety leadership moderates the relationship between safety communication and safety culture.
- H6. Safety culture that depends on safety leadership mediates the relationship of safety communication and safety participation.

1.7 Scope of Study

This research focuses on manufacturing industries in Negeri Sembilan, Malaysia; which the number of accident of that state has marked as the highest among other industries in released statistical report. Manufacturing companies, or to be more specific, electrical and electronic companies which had registered with Federation of Malaysian Manufacturers (FMM) constitute the targeted population this research. Front-line operators from the targeted companies are chosen randomly as respondents,

to whom is distributed an established questionnaire which is used as the measurement tool for four variables i.e. safety communication, safety culture, safety leadership and safety participation. A six-item safety communication scale originally developed by Hofmann and Stetzer (1998) is used to measure safety communication. Measurement of safety participation is adapted from Arfena Deah *et al.*, (2014)'s safety participation scale, which consists of twelve items. Safety culture is measured by using the Safety Culture Scale (Wu *et al.*, 2010) consisting of three dimensions i.e. employee involvement, perceived risk and emergency response. Meanwhile, safety leadership is gauged using the Safety Leadership Scale developed by Wu *et al.* (2008b) which assesses three dimensions: safety coaching, safety caring, and safety controlling. Each item in this questionnaire is measured by using a self-administered five-point Likert scale ranging from 1 (very small extent) to 5 (very great extent).

1.8 Significance of Study

The significance of this study can be explained from three aspects: the theoretical contribution to the body knowledge of safety, the methodology used herein and the impact of the findings towards the employees of Malaysian manufacturing industry. Based on Christian *et al.* (2009)'s meta-analysis of workplace safety, most of the previous studies has focused on the relationship between safety knowledge and safety motivation on safety participation. Present study aims to expand the previous research by investigating the effect of safety communication, safety culture, as well as safety leadership on safety participation. In addition to emphasize the relationship between safety communication and safety participation, present study intent to makes theoretical and empirical contribution to the safety literature by exploring moderated mediation effect of safety leadership in the relation of safety communication and safety participation, through safety culture. The findings of this study are believed to bring significant impacts to manufacturing employees in Malaysia which highlighting several significant factors in enhancing safety participation at the workplace. The researcher is intent to examine and explain such complex relationship, aims to contribute to the body knowledge of safety with the empirical findings at the end of this research.

In terms of analysis method, moderated mediation analysis will be performed in this study. The moderated mediation effect or so-called conditional indirect effect has rarely been addressed in most of the existing studies (Preacher *et al.*, 2007). However, this method has been acknowledged as a useful technique in many study areas and settings (Afthanorhan *et al.*, 2014b) to further investigate the complicated relationship among the variables. Preacher *et al.* (2007) have claimed that moderated mediation occurs when the strength of the mediating effect depends on the intensity of other variables. In consistent to present study, the researcher aims to examine the complex relationship between safety communication, safety culture, safety leadership, and safety participation. By further explore to the role of safety culture and safety leadership, which will be allocated as mediator and moderator based on literature review in later chapter, moderated mediation relationship will be analyzed in present study. Hence by the end of this research, it is likely to enhance and encourage the using of moderated mediation analysis in safety-related discipline, especially in the context of Malaysian manufacturing industries for future studies.

The findings of this study will redound to the benefit of Malaysian manufacturing industries considering that safety participation plays an important role in workplace safety which probably involved monetary and life loss. Thus, manufacturing companies which emphasize safety participation of employee will more likely to having a safer working environment. As far as we know, most of the business are profit-oriented, safety interventions that helps to create safer workplace which might increase the cost are usually not welcoming by the management. Therefore, participation of employees in safety-related activities seems to become a fairly low-cost method to achieve such objective. Lastly, this research endeavours to promote safety communication at work especially for the preponderance of Malaysian manufacturing employees. This study will also be beneficial to workers and the management to promote safety communications to increase safety participation at the workplace. By understanding the importance of safety communication, positive safety culture, and adequate safety leadership at the managerial level, employees are assured of a safer working environment which then enhance the performance and productivity.

1.9 Conceptual and Operational Definition

1.9.1 Workplace Safety

Workplace safety is referred to as the combined results of several factors namely human behavior, organizational factors (such as supervision, work conditions and processes, planning and organizational learning), and latent conditions such as the absence or dysfunctional nature of physical and functional barriers to prevent accidents, lack of resources to mitigate or neutralize threats or precarious system conditions that make which highly sensitive and unstable (Hollnagel, 1999; Hollnagel, 2004). According to Ibrahim *et al.* (2012), a safer workplace should not only include safe premises and safety regulation enforcement but also provide appropriate safety training. In this study, workplace safety is referred to as a working environment in which all the workforces channel their efforts into mitigating perceived risk and hazardous activities.

1.9.2 Safety Participation

Safety participation refers to employee's intended participation in safety-related activities which contribute to the development of a safer working environment Griffin and Neal (2000). Besides, safety participation has been described as a behavior for create safety-supportive working environment by Griffin and Hu (2013). In this study, safety participation refers to employee participation in safety-related activities in the organization. Measurement of safety participation will be adapted from Arfena Deah *et al.* (2014)'s safety participation scale.

1.9.3 Safety Communication

Safety communication refers to how well safety issues are communicated in the working environment (Brondino *et al.*, 2012). Communications has been defined by Guo and Sanchez (2009) as the conveyance of information for it to be understood by everyone. In this study, safety communication refers to the vertical communication (downward and upward) about safety-related issues in the workplace, as will be measured by using the Safety Communication Questionnaire by Hofmann and Stetzer (1998), which elucidates the employees' perceptions of the communication on safety-related issues in their organization.

1.9.4 Safety Culture

Relihan *et al.* (2009:433) defined safety culture as “the product of individual and groups values, attitudes, perceptions, competencies and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management”. According to Wu *et al.* (2010), safety culture refers to employees' vision of safety conditions which affect safety outcomes. As in consistent with Wu *et al.* (2010)'s view, in this study, safety culture refers to the employees' perception of safety condition at the workplace; which then affecting organizational safety effectiveness. In this study, safety culture refers to employee involvement, perceive risk, and emergency response which will be measured using Safety Culture Scale by Wu *et al.* (2010).

1.9.5 Safety Leadership

Safety leadership has been defined as the channel through which leaders influence their followers to achieve safety goals based on organizational and individual factors by Wu (2005). According to Hoffmeister *et al.* (2014), such leadership refers to the way in which supervisor's influence and promotes safety to their followers at

the workplace. Meanwhile, safety leader refers to leaders who engage in safety-related matter with enthusiasm and inspiration and fully concentrate on supervising their followers (Conchie *et al.*, 2013). In this study, safety leadership can be defined as the interaction between leaders and followers in which the former influence the latter to achieve safety goals in organization. Safety leadership will be measured using the Safety Leadership Scale (SLS) developed by Wu *et al.* (2008b) which include dimensions such as safety coaching, safety caring, and safety controlling.

REFERENCES

- Abdul Rahim, A. H., Singh, B., Aminah, M. Y. and Nur Ashikin, M. A (2011). The Employment of Foreign Workers at Construction Site. *2nd International Conference on Construction and Project Management. IPEDR vol.15 (2011). IACSIT Press, Singapore.* 126-129.
- Abdul Rahman, Z. (2006). Safety Culture at the Workplace: A Study on Malaysian Manufacturers. *Goding Business and Management Journal, 10(1), 17-26.*
- Abu-Khader, M. M. (2004). Impact of Human Behaviour on Process Safety Management in Developing Countries. *Process Safety and Environmental Protection, 82(6), 431-437.*
- Adams, J. Q. (2012). *Recognizing Catastrophic Incident Warning Signs in the Process Industries:* John Wiley & Sons Inc.
- Addison, J. T., Standley Siebert, W., Wagner, J. and Xiangdong, W. (2000). Worker Participation and Firm Performance: Evidence from Germany and Britain. *British Journal of Industrial Relations, 38(1), 7-48.*
- Adie, W., Cairns, J., Macdiarmid, J., Ross, J., Watt, S., Taylor, C. L., and Osman, L. M. (2005). Safety Culture and Accident Risk Control: Perceptions of Professional Divers and Offshore Workers. *Safety Science, 43(2), 131-145.*
- Adler, N. J. (2003). Communicating Across Cultural Barriers. *Bolten, J.*
- Afthanorhan, A., Ahmad, S. and Mamat, I. (2014a). Pooled Confirmatory Factor Analysis (PCFA) using Structural Equation Modeling on Volunteerism Program: A Step by Step Approach. *International Journal of Asian Social Science, 4(5), 642-653.*
- Afthanorhan, A., Ahmad, S. and Safee, S. (2014b). Moderated Mediation Using Covariance-Based Structural Equation Modeling With AMOS Graphic: Volunteerism Program. *Advances in Natural and Applied Sciences, 8(8), 108-115.*

- Agarwal, N. K. (2011). Verifying Survey Items for Construct Validity: A Two-stage Sorting Procedure for Questionnaire Design in Information Behavior Research. *Proceedings of the American Society for Information Science and Technology*, 48(1), 1-8.
- Agnew, C., and Rhona, F. (2014). Senior Charge Nurses' Leadership Behaviours in Relation to Hospital Ward Safety: A Mixed Method Study. *International Journal of Nursing Studies*, 51(2014), 768-780.
- Ahmad, U. N. U., Amin, S. M., and Ismail, W. K. W. (2014). Moderating Effect of Technostress Inhibitors on the Relationship between Technostress Creators and Organisational Commitment. *Jurnal Teknologi*, 67(1).
- Ajzen, I. (1985). *From Intentions to Actions: A Theory of Planned Behavior*: Springer.
- Akhtar, M. J., and Utne, I. B. (2014). Human Fatigue's Effect on the Risk of Maritime Groundings – A Bayesian Network Modeling Approach. *Safety Science*, 62, 427-440.
- Alexander, E. L. (2004). *Safety Culture in the Nuclear Power Industry: Attributes for Regulatory Assessment*. Massachusetts Institute of Technology.
- Al-Fedaghi, S. (2012). Codeless Communication and the Shannon-Weaver Model. *International Proceedings of Computer Science & Information Technology*, 41.
- Aliakbar, E., Yusoff, R., and Mahmood, N. H. N. (2012). *Determinants of Knowledge Sharing Behavior*. Paper presented at the A paper presented at the International Conference on Economics, Business and Marketing Management held in Singapore.
- Alicia, C. C. (2009). *An Examination of the Human Factors Attitudes and Knowledge of Surface Warfare Officers*. Master of Science in Human System Integration Naval Postgraduate School, Monterey, California.
- 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*, 1-12.
- Amaghlobeli, G. and Celepli, M. (2012). Understanding Taoism Leadership from the Western Perspective. *Journal of Business*. 2, 47-52.
- Amall Raihan, A. R., Hazruwani, A. H. and Ahdul Rahim, A. H. (2017). Construction Industry Prosecution Cases Under Malaysian Occupational Safety and Health Legislation. *The Colloquium*, 10, 21-27.

- Amirah, M. A., Asma, W. I., Muda, M. S., and Wan Mohd Amin, W. M. A. (2013). Safety Culture in Combating Occupational Safety and Health Problems in the Malaysian Manufacturing Sectors. *Asian Social Science*, 9(3), 182-191.
- Ampofo, A., Mujtaba, B., Cavico, F., and Tindall, L. (2004). Organizational Ethical Culture: A Significant Determinant of Ethical Behavior.
- Anderson, D. J. (2006). Creating a Culture of Safety: Leadership, Teams and Tools. *Nurse Leader*. 4(5), 38-41.
- Antonsen, S. (2009). Safety Culture and the Issue of Power. *Safety Science*. 47(2), 183-191.
- Antunes, P., Bandeira, R., Carriço, L., Zurita, G., Baloian, N. and Vogt, R. (2008). Risk Assessment in Healthcare Collaborative Settings: A Case Study using SHELL Groupware: Design, Implementation, and Use (pp. 65-73): Springer.
- Anuwichanont, J. (2011). The Impact of Price Perception on Customer Loyalty In The Airline Context. *Journal of Business & Economics Research*, 9(9), 37-50.
- Arain, M., Campbell, M. J., Cooper, C. L., and Lancaster, G. A. (2010). What is a Pilot or Feasibility Study? A review of Current Practice and Editorial Policy. *BMC medical research methodology*, 10(1), 67.
- Arfena Deah, L. (2013). *Contribution of Human Factors to Shipping Safety*. (Master Degree), Universiti Teknologi Malaysia, Skudai, Johor.
- Arfena Deah, L., Jaswar, K. and Kader, A. S. A. (2014). Contribution of Human Factor to Shipping Safety. *Jurnal Teknologi*, 66(2), 113-119.
- Arokiasamy, J. T., and Krishnan, R. (1994). Some Epidemiological Aspects and Economic Costs of Injuries in Malaysia. *Asia Pacific Journal of Public Health*. 7(1), 16-20.
- Arsovski, S. and Nikezić, S. (2012). *Leadership Communications and Quality*. Paper presented at the 5th International Conference Science and Higher Education in Function and Sustainable Development, Uzice, Serbia.
- Atchley, P., Shi, J., and Yamamoto, T. (2014). Cultural Foundations of Safety Culture: A Comparison of Traffic Safety Culture in China, Japan and the United States. *Transportation Research Part F: Traffic Psychology and Behaviour*.
- Avolio, B. J., and Gardner, W. L. (2005). Authentic Leadership Development: Getting to the Root of Positive Forms of Leadership. *The Leadership Quarterly*, 16(3), 315-338.

- Awang, Z. (2012). *Structural Equation Modeling Using Amos Graphic*. Malaysia: Penerbit Press Universiti Teknologi Mara.
- Awang, Z. (2014). *SEM Made Simple: A Gentle Approach to Learning Structural Equation Modeling*. Malaysia: MPWS Rich Publication.
- Badenhorst, F., and Van Tonder, J. (2004). Determining the Factors Causing Human Error Deficiencies at a Public Utility Company. *SA Journal of Human Resource Management*, 2(3), 62-69.
- Bacon, L. D., and Bacon, L. (1997). *Using Amos for Structural Equation Modeling in Market Research*: Lynd Bacon & Associates Limited and SPSS Incorporated.
- Bader, B. M. (2008). *Leader-member Exchange and Work Outcomes: A Multiple Leadership Perspective*. Lethbridge, Alta.: University of Lethbridge, Faculty of Management.
- Bae, B.R., (2008). *LISREL Structural Equation Model Understanding, Utilizing and Programming* (2nd Ed.), Chungram.
- Bal, V. and Quinn, L. (2001). The Missing Link: Organizational Culture and Leadership Development. *Leadership in Action*, 21(4), 14-17.
- Bandura, A. (1986). *Social Foundations of Thought and Actions: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The Exercise of Control*. New York: W. H. Freeman and Company.
- Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology*, 52(1), 1-26.
- Barlett II, J. E., Kotrlik, J. W., and Higgins, C. C. (2001). Organizational Research: Determining Appropriate Sample Size in Survey Research. *Information Technology, Learning, and Performance Journal*, 19(1), 43-50.
- Barling, J., Loughlin, C., and Kelloway, E. K., (2002). Development and Test of a Model Linking Safety-specific Transformational Leadership and Occupational Safety. *Journal of Applied Psychology*, 87, 488-496.
- Barreiro, P. L., and Albandoz, J. P. (2001). Population and Sample. Sampling Techniques. *Management Mathematics for European Schools*.
- Barrett, B., Carroll, J., Cutcher-Gershenfeld, J., Dulac, N. and Zipkin, D. (2005). Modeling, Analyzing, and Engineering NASA's Safety Culture.

- Baron, R. M., and Kenny, D. A. (1986). The Moderator–mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173.
- Bartels, J. (2006). *Organizational Identification and Communication: Employees' Evaluations of Internal Communication and its Effect on Identification at Different Organizational Levels*. (Ph.D.), University of Twente.
- Barua, A. (2013). Methods for Decision-making in Survey Questionnaires Based on Likert Scale. *Journal of Asian Scientific Research*, 3(1), 35-38.
- Basen-Engquist, K., Carmack, C. L., Perkins, H., Hughes, D., Serice, S., Scruggs, S., Waters, A. (2011). Design of the Steps to Health Study of Physical Activity in Survivors of Endometrial Cancer: Testing a Social Cognitive Theory Model. *Psychology of Sport and Exercise*, 12(1), 27-35.
- Bass, B. M. (1985). *Leadership and Performance Beyond Expectations*. New York: The Free Press.
- Bass, B. (1998). *Transformational Leadership: Industry, Military, and Educational Impact*. Mahwah, NJ: Lawrence Erlbaum.
- Bayrón, C. E. (2013). Social Cognitive Theory, Entrepreneurial Self-Efficacy and Entrepreneurial Intentions: Tools to Maximize the Effectiveness of Formal Entrepreneurship Education and Address the Decline in Entrepreneurial Activity. *Revista Griot*, 6(1).
- Bentley, T. and Tappin, D. (2010). Incorporating Organisational Safety Culture within Ergonomics Practice. *Ergonomics*. 53(10), 1167-1174.
- Bethlehem, J. (2009). The Rise of Survey Sampling.
- Bhatti, K. K. and Qureshi, T. M. (2007). Impact of Employee Participation on Job Satisfaction, Employee Commitment and Employee Productivity. *International Review of Business Research Papers*, 3(2), 54-68.
- Biggs, H. C., Dinsdag, D., Kirk, P. J. and Cipolla, D. (2010). Safety Culture Research, Lead Indicators, and the Development of Safety Effectiveness Indicators in the Construction Sector. *International Journal of Technology, Knowledge and Society*, 6(3), 133-140.
- Biggs, S. E., Banks, T. D., Davey, J. D. and Freeman, J. E. (2013). Safety Leaders' Perceptions of Safety Culture in a Large Australasian Construction Organisation. *Safety Science*. 52, 3-12.

- Biggs, D., Rahim, N. A., Ng, H. K., and Boots, K. (2014). Perception of Safety, Physical Working Conditions and Stress between Malaysia and United Kingdom. *International Journal of Business and Society*, 15(2), 321-338.
- Bird, F. E. (1986). *Practical Loss Control Leadership* (1st ed.). Loganville, Ga.: International Loss Control Institute.
- Blau, P. M. (1964). *Exchange and Power in Social Life*. New Brunswick, NJ: Transaction.
- Boedker, C., Vidgen, R., Meagher, K., Cogin, J., Mouritsen, J., and Runnalls, M. (2011). *Leadership, Culture and Management Practices of High Performing Workplaces in Australia: The High Performing Workplaces Index*: University of New South Wales, Australian School of Business.
- Bolboaca, S.-D., and Jäntschi, L. (2006). Pearson Versus Spearman, Kendall's Tau Correlation Analysis on Structure-activity Relationships of Biologic Active Compounds. *Leonardo Journal of Sciences*, 9, 179-200.
- Bollen, K. A. (1989). *Structural Equation Models with Latent Variables*. New York: John Wiley & Sons.
- Boughaba, A., Chabane, H., and Ouddai, R. (2014). Safety Culture Assessment in Petrochemical Industry: A Comparative Study of Two Algerian Plants. *Safety and Health at Work*.
- Braun, S., Peus, C., Weisweiler, S. and Frey, D. (2013). Transformational Leadership, Job Satisfaction, and Team Performance: A Multilevel Mediation Model of Trust. *The Leadership Quarterly*, 24(1), 270-283.
- Brislin, R. W. (1970). Back-Translation for Cross-Cultural Research. *Journal of Cross-Cultural Psychology*, 1(3), 185-216.
- Brondino, M., Silva, S. A., and Pasini, M. (2012). Multilevel Approach to Organizational and Group Safety Climate and Safety Performance: Co-workers as the Missing Link. *Safety Science*, 50(9), 1847-1856.
- Brown, I. D. (1995). Accident Reporting and Analysis. *Evaluation of Human Work*. London: Taylor and Francis.
- Buckley, R. (2010). Communications in Adventure Tour Products: Health and Safety in Rafting and Kayaking. *Annals of Tourism Research*. 37(2), 315-332.
- Budd, J. W., Gollan, P. J. and Wilkinson, A. (2010). New Approaches to Employee Voice and Participation in Organizations. *Human Relations*, 63(3), 303-310.

- Burke, R. J., Clarke, S., and Cooper, C. L. (2011). *Occupational Health and Safety*: Gower Publishing, Ltd.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Burns, C., Mearns, K. and McGeorge, P. (2006). Explicit and Implicit Trust Within Safety Culture. *Risk Analysis*, 26(5), 1139-1150.
- Busck, O., Knudsen, H. and Lind, J. (2010). The Transformation of Employee Participation: Consequences for the Work Environment. *Economic and Industrial Democracy*, 31(3), 285-305.
- Byrne, B. M. (2013). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming* (2nd ed.): Routledge.
- Cabrera, E. F., Ortega, J. and Cabrera, A. (2003). An Exploration of the Factors that Influence Employee Participation in Europe. *Journal of World Business*, 38, 43-54.
- Cai, W. (2005). *The Impact of Safety Culture on Safety Performance: A Case Study of a Construction Company*. Ph.D.
- Calitz, M. G. (2009). *A Cultural Sensitive Therapeutic Approach to Enhance Emotional Intelligence in Primary School Children*.
- Carder, B. and Ragan, P. W. (2003). A Survey-Based System for Safety Measurement and Improvement. *Journal of Safety Research*, 34(2003), 157-165.
- Carr, R., and Salzman, S. (2005). *Using Excel to Generate Empirical Sampling Distributions*. Paper presented at the ISI-55: 2005 Session of the International Statistical Institute.
- Carroll, J. S. (1998). Safety Culture as an Ongoing Process: Culture Surveys as Opportunities for Enquiry and Change. *Work & Stress*. 12(3), 272-284.
- Castillo-Rosa, J., Suárez-Cebador, M., Rubio-Romero, J. C. and Aguado, J. A. (2017). Personal Factors and Consequences of Electrical Occupational Accidents in the Primary, Secondary and Tertiary Sectors. *Safety Science*, 91, 286-297.
- Castro, M. (2013). *From the Mouths of Men: A Model of Men's Perception of Social Identity Threat Toward Women in the Workplace and Endorsement of Identity Safety Behaviors*. (PhD), Columbia University Academic Commons.
- Celik, M., and Cebi, S. (2009). Analytical Hfacs for Investigating Human Errors in Shipping Accidents. *Accident Analysis & Prevention*. 41(1), 66-75.
- Chan, Y. (2003). Biostatistics 104: Correlational Analysis. *Singapore Med J*, 44(12), 614-619.

- Chauvin, C., Lardjane, S., Morel, G., Clostermann, J.-P., and Langard, B. (2013). Human and organisational factors in maritime accidents: Analysis of collisions at sea using the HFACS. *Accident Analysis & Prevention*, 59, 26-37.
- Cheesebro, T., O'Connor, L., and Rios, F. (2010). *Communicating in the Workplace*: Prentice Hall.
- Chen, C. F., and Chen, S. C. (2013). *Upward Safety Communication and Safety Behavior of Cabin Crew*. Paper presented at the Proceedings of the Eastern Asia Society for Transportation Studies.
- Chen, C. F., and Chen, S. C. (2014). Measuring the Effects of Safety Management System Practices, Morality Leadership and Self-efficacy and Pilots' Safety Behaviors: Safety Motivation as a Mediator. *Safety Science*, 62(2014), 376-385.
- Chen, G., Kirkman, B. L., Kanfer, R., Allen, D., and Rosen, B. (2007). A Multilevel Study of Leadership, Empowerment, and Performance in Teams. *Journal of Applied Psychology*, 92(2), 331.
- Chen, I. C., Ng, H. F., and Li, H. H. (2012). A Multilevel Model of Patient Safety Culture: Cross-level Relationship between Organizational Culture and Patient Safety Behavior in Taiwan's Hospitals. *The International Journal of Health Planning and Management*, 27(1), 65-82.
- Chimi, C. J., and Russell, D. L. (2009). *The Likert scale: A proposal for Improvement using Quasi-continuous Variables*. Paper presented at the Proc ISECON.
- Chinda, T., Techapreechawong, S. and Teeraprasert, S. (2012). *An Investigation of Relationships between Employees' Safety and Productivity*. Paper presented at the Proceedings of the 3rd International Conference on Engineering, Project and Production Management (EPPM2012).
- Chomeya, R. (2010). Quality of Psychology Test between Likert Scale 5 and 6 Points. *Journal of Social Sciences*, 6(3), 399-403.
- Chong, H. Y. and Low, T. S. (2014). Accidents in Malaysian Construction Industry: Statistical Data and Court Cases. *International Journal of Occupational Safety and Ergonomics*, 20(3), 503-513.
- Choon Hee, O. (2014). Factors Contribute to Safety Culture in the Manufacturing Industry in Malaysia. *International Journal of Academic Research in Business and Social Science*, 4(4), 63-69.

- Choudhry, R. W. M., Fang, D. P., and Mohamed, S. (2007). The Nature of Safety Culture: A Survey of the State-Of-The-Art. *Safety Science*, 45, 993–1012.
- Christian, M. S., Wallace, J. C., Bradley, J. C. and Burke, M. J. (2009). Workplace Safety: A Meta-Analysis of the Roles of Person and Situation Factors. *Journal of Applied Psychology*, 94(5), 1103-1127.
- Cigularov, K. P., Chen, P. Y., and Stallones, L. (2009). Error Communication in Young Farm Workers: Its Relationship to Safety Climate and Safety Locus of Control. *Work & Stress*, 23(4), 297-312.
- Cigularov, K. P., Chen, P. Y. and Rosecrance, J. (2010). The Effects of Error Management Climate and Safety Communication on Safety: A Multi-Level Study. *Accident Analysis & Prevention*, 42(5), 1498-1506.
- Cipolla, D., Biggs, H. C., Dingsdag, D. P., Sheahan, V. L. and Artuso, W. (2005). Safety Leadership and the Project Manager: Competencies Required to Positively Affect Site Safety Culture, 1-9.
- Čisar, P. and Čisar, S. M. (2010). Skewness and Kurtosis in Function of Selection of Network Traffic Distribution. *Acta Polytechnica Hungarica*, 7(2), 95-106.
- Clarke, S. (1998). Safety Culture on the UK Railway Network. *Work & Stress: An International Journal of Work, Health & Organisations*, 12(3), 285-292.
- Clarke, S. (1999). Perceptions of Organizational Safety: Implications for the Development of Safety Culture. *Journal of Organizational Behaviour*, 20, 185–198.
- Clarke, S. (2006). Safety Climate in an Automobile Manufacturing Plant: The Effects of Work Environment, Job Communication and Safety Attitudes on Accidents and Unsafe Behaviour. *Personal Review*, 35(4), 413-430.
- Clarke, S. and Ward, K. (2006). The Role of Leader Influence Tactics and Safety Climate in Engaging Employees' Safety Participation. *Risk Analysis*, 26(5), 1175-1185.
- Clarke, S. (2013). Safety leadership: A Meta-analytic Review of Transformational and Transactional Leadership Styles as Antecedents of Safety Behaviours. *Journal of Occupational and Organizational Psychology*, 86(1), 22-49.
- Cole, K. S., Stevens-Adams, S. M. and Wenner, C. A. (2013). A Literature Review of Safety Culture. United States: Sandia National Laboratories.
- Collins, R. L. (2011). Heinrich's Fourth Dimension. *Open Journal of Safety Science and Technology*, 1(1), 19-29.

- Conchie, S. and Moon, S. (2010). Promoting Active Safety Leadership: Identifying the Individual and Organisational Antecedents of Active Safety Leadership in Construction Supervisors. United Kingdom: IOSH.
- Conchie, S. M., Taylor, P. J. and Charlton, A. (2011). Trust and Distrust in Safety Leadership: Mirror Reflections? *Safety Science*, 49(8–9), 1208-1214.
- Conchie, S. M., Moon, S., and Duncan, M. (2013). Supervisors' Engagement in Safety Leadership: Factors That Help and Hinder. *Safety Science*. 51(1), 109-117.
- Cooper, C. (1995). *Measurement of Safety Climate: A Component Analysis*. Paper presented at the Institute of Occupational Safety and Health (IOSH) Meeting, Pearson Park Hotel.
- Cooper, M. D., and Phillips, R. A. (1997). "Killing Two Birds with One Stone: Achieving Quality via Total Safety Management". 15(1/2).
- Cooper, D. (2000). Towards a Model of Safety Culture. *Safety Science*. 36, 111-136.
- Cooper, D. (2002). Safety Culture: A Model of Understanding and Quantifying a Difficult Concept. *Professional Safety*. 47(6), 30-36.
- Costa, D., Aaronson, N., Fayers, P., Pallant, J., Velikova, G., and King, M. (2014). Testing the Measurement Invariance of the EORTC QLQ-C30 Across Primary Cancer Sites using Multi-group Confirmatory Factor Analysis. *Quality of Life Research*, 1-9.
- Cox, S., and Cox, T. (1991). The Structure of Employee Attitudes to Safety: A European Example. *Work and Stress*. 5(2), 93-106.
- Cox, S., and Flin, R. (1998). Safety Culture. *Work & Stress*. 12(3), 187-188.
- Cox, S., and Cheyne, A. (2000). Assessing Safety Culture in Offshore Environments. *Safety Science*, 34(1), 111-129.
- Creswell, J. W. (2013). *Research design: Qualitative, Quantitative, and Mixed Methods Approaches*: Sage.
- Creswell, J. W. (2012). *Research Design: Qualitative & Quantitative Approaches*, Thousand.
- Crippen, C. (2010). Serve, Teach, and Lead: It's All about Relationships. *In Sight: A Journal of Scholarly Teaching*, 5, 27-36.
- Cropanzano, R. and Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management*, 31(6), 874-900.

- Cronbach, L. J., and Meehl, P. E. (1955). Construct Validity in Psychological Tests. *Psychological Bulletin*, 52, 281-302.
- Crutchfield, N. and Roughton, J. (2014). Leadership and the Effective Safety Culture. In N. C. Roughton (Ed.), *Safety Culture* (pp. 131-156). Oxford: Butterworth-Heinemann.
- Dal Corso, L. (2008). Mediation Effects of Safety Climate and Safety Motivation on the Relation between Organizational Climate and Safety Performance in the Workplace. *Testing, Psychometrics, Methodology in Applied Psychology*, 15(2), 77-90.
- Darbra, R. M., Crawford, J. F. E., Haley, C. W., and Morrison, R. J. (2007). Safety Culture and Hazard Risk Perception of Australian and New Zealand Maritime Pilots. *Marine Policy*, 31(6), 736-745.
- David, Y. K. T., Devinga, R., Tong, X. F., and Lai, K. P. (2015). Leadership Empowerment Behaviour on Safety Officer and Safety Teamwork in Manufacturing Industry. *Safety Science*, 72(2015), 190-198.
- Devadason, E. S., and Meng, C. W. (2009). Globalization of the Malaysian Manufacturing Sector: An Agenda for Social Protection Enhancement. *International Journal of Economics and Finance*, 1(1), 86-97.
- Davies, P. G., Spencer, S. J. and Steele, C. M. (2005). Clearing the Air: Identity Safety Moderates the Effects of Stereotype Threat on Women's Leadership Aspirations. *Journal of Personality and Social Psychology*, 88(2), 276.
- Dawes, J. (2008). Do Data Characteristics Change According to the Number of Scale Points Used? An Experiment Using 5-Point, 7-Point, and 10-Point Scales. *International Journal of Market Research*, 50(1), 61-77.
- DeChurch, L. A., Hiller, N. J., Murase, T., Doty, D., and Salas, E. (2010). Leadership across levels: Levels of leaders and their levels of impact. *The Leadership Quarterly*, 21(6), 1069-1085.
- DeJoy, D. M., Schaffer, B. S., Wilson, M. G., Vandenberg, R. J., and Butts, M.M. (2004). Creating Safer Workplaces: Assessing the Determinants and Role of Safety Climate. *Journal of Safety Research* 35, 81-90.
- DeJoy, D. M. (2005). Behavior Change Versus Culture Change: Divergent Approaches to Managing Workplace Safety. *Safety Science*, 43(2), 105-129.

- DeJoy, D. M., Della, L. J., Vandenberg, R. J. and Wilson, M. G. (2010). Making Work Safer: Testing a Model of Social Exchange and Safety Management. *Journal of Safety Research*, 41(2010), 163-171.
- de Koster, R. B. M., Stam, D., and Balk, B. M. (2011). Accidents Happen: The Influence of Safety-specific Transformational Leadership, Safety Consciousness, and Hazard Reducing Systems on Warehouse Accidents. *Journal of Operations Management*, 29(7–8), 753-765.
- de Winter, J. C., and Dodou, D. (2010). Five-point Likert items: T test Versus Mann-Whitney-Wilcoxon. *Practical Assessment, Research & Evaluation*, 15(11), 1-12.
- DiStefano, C., Zhu, M., and Mindrila, D. (2009). Understanding and Using Factor Scores: Considerations for the Applied Researcher. *Practical Assessment, Research & Evaluation*, 14(20), 1-11.
- Dokas, I. M. (2009). Safety Approaches in Water Utilities and Systems Safety Engineering: A Comparison. Ireland: Technical Report, Cork Constraint Computation Centre, UCC.
- Donahue, M., Miller, M., Dykes, P. and Fitzpatrick, J. J. (2011). A Leadership Initiative to Improve Communication and Enhance Safety. *American Journal of Medical Quality*. 26(3), 206-211.
- Donahue, M., Smith, L. and Fitzpatrick, J. J. (2012). A Leadership Initiative to Improve Communication and Enhance Safety. *American Journal of Medical Quality*. 26(2), 206-211.
- dos Santos Grecco, C. H., Vidal, M. C. R., Cosenza, C. A. N., dos Santos, I. J. A. L. and de Carvalho, P. V. R. (2014). Safety Culture Assessment: A Fuzzy Model for Improving Safety Performance in a Radioactive Installation. *Progress in Nuclear Energy*, 70, 71-83.
- Dubey, A. D. (2015). Worker Participation in Management Decision Making Within Selected Establishments in Uttar Pradesh, India. *Annual Research Journal of Symbiosis Centre for Management Studies*, 3, 239-255.
- du Prel, J. B., Röhrig, B., Hommel, G., and Blettner, M. (2010). Choosing Statistical Test: Part 12 of a Series on Evaluation of Scientific Publications. *Deutsches Ärzteblatt International*, 107(19), 343.
- Dretske, F. (2008). Epistemology and Information. *Philosophy of information*. Elsevier, Amsterdam, 29-48.

- Drost, E. A. (2011). Validity and Reliability in Social Science Research. *Education, Research and Perspectives*, 38(1), 105.
- Drupsteen, L. and Boustras, G. (2016). Exploring Effectiveness of Safety Information for Workplace Visitors. *Safety Science*, 88, 224-231.
- Du, X., and Sun, W. (2012). Research on the Relationship Between Safety Leadership and Safety Climate in Coalmines. *Procedia Engineering*, 45, 214-219.
- Dubey, A. D. (2015). Worker Participation in Management Decision Making Within Selected Establishments in Uttar Pradesh, India *Annual Research Journal of Symbiosis Centre for Management Studies, Pune*, 3, 239-255.
- Dunham, R. B., and Pierce, J. (1989). *Management*. Scott, Foresman: Glenview IL.
- Dura, C., Drigă, I., and Niță, D. (2010). Statistical Landmarks and Practical Issues Regarding the Use of Simple Random Sampling in Market Researches. *Annals of the University of Petroșani, Economics*, 10(2), 111-124.
- Edwards, J. R. D., Davey, J., and Armstrong, K. (2013). Returning to the Roots of Culture: A Review and Re-Conceptualisation of Safety Culture. *Safety Science*. 55, 70-80.
- Edwards, J. R., and Lambert, L. S. (2007). Methods for Integrating Moderation and Mediation: A General Analytical Framework using Moderated Path Analysis. *Psychological methods*, 12(1), 1.
- Ek, Å., Arvidsson, M., Akselsson, R., Johansson, C. R. and Josefsson, B. (2005). *Organizational Issues and Safety Culture in ATM Part 1–Stability Analysis*. Paper presented at the Proceedings of the 6th USA/Europe Seminar on Air Traffic Management Research and Development.
- Ek, Å., Akselsson, R., Arvidsson, M., and Johansson, C. R. (2007). Safety Culture in Swedish Air Traffic Control. *Safety Science*. 45(7), 791-811.
- Ek, Å., Runefors, M. and Borell, J. (2014). Relationships between Safety Culture Aspects – A work Process to Enable Interpretation. *Marine Policy*, 44, 179-186.
- Elvik, R. (2006). Laws of Accident Causation. *Accident Analysis & Prevention*. 38(4), 742-747.
- Eppard, R. G. (2004). *Transformational and Transactional Leadership Styles as they Predict Constructive Culture and Defensive Culture*. Virginia Polytechnic Institute and State University.

- Ergen, E. (2010). Workplace Communication: A Case Study on Informal Communication Network Within an Organization.
- Erven, B. L. (2002). Overcoming Barriers to Communication. *Ohio State University*, 7.
- Evia, C., and Patriarca, A. (2012). Beyond Compliance: Participatory Translation of Safety Communication for Latino Construction Workers. *Journal of Business and Technical Communication*. 26(3), 340-367.
- Fairchild, A. J., and McQuillin, S. D. (2010). Evaluating Mediation and Moderation Effects in School Psychology: A Presentation of Methods and Review of Current Practice. *Journal of School Psychology*. 48(1), 53-84.
- Fam, I. M., Kianfar, A., and Mahmoudi, S. (2010). Evaluation of Relationship between Job Stress and Unsafe Acts with Occupational Accident Rates in a Vehicle Manufacturing in Iran. *International Journal of Occupational Hygiene*, 2(2), 85-90.
- Faraway, J. J. (2002). Practical Regression and ANOVA using R: University of Bath.
- Farouk, U. K., Richardson, S., and Santhapparaj, A. J. S. (2011). Occupational Safety and Health Committees: How Fares the Pulse of the Self-Regulatory System in Malaysian Manufacturing Firms? *International Journal of Trade, Economics and Finance*, 2(5), 412-418.
- Farrell, A. M. and Rudd, J. M. (2009). *Factor Analysis and Discriminant Validity: A Brief Review of Some Practical Issues*. Paper presented at the Australia & New Zealand Marketing Academy Conference, Melbourne, Australia.
- Farrell, A. M. (2010). Insufficient discriminant validity: A Comment on Bove, Pervan, Beatty, and Shiu (2009). *Journal of Business Research*, 63(3), 324-327.
- Feng, Y., Teo, E. A. L., Ling, F. Y. Y. and Low, S. P. (2013). Exploring the Interactive Effects of Safety Investments, Safety Culture and Project Hazard on Safety Performance: An Empirical Analysis. *International Journal of Project Management*.
- Fernandez-Muniz, B., Montes-Peon, J. M. and Vazquez-Ordas, C. J. (2007). Safety Culture: Analysis of the Causal Relationships between Its Key Dimensions. *Journal of Safety Research*. 38, 627-641.
- Fernández-Muñiz, B., Montes-Peón, J. M., and Vázquez-Ordás, C. J. (2012). Safety Climate in OHSAS 18001-certified Organisations: Antecedents and

- Consequences of Safety Behaviour. *Accident Analysis & Prevention*, 45, 745-758.
- Ferrell, R. (1977). Proceedings of the Art Conference in Safety Management Concepts. *The National Safety Management Society Washington*.
- Figueiredo Filho, D. B., Paranhos, R., Rocha, E. C. d., Batista, M., Silva Jr, J. A. d., Santos, M. L. W. D. and Marino, J. G. (2013). When is Statistical Significance Not Significant? *Brazilian Political Science Review*, 7(1), 31-55.
- Filho, A. P. G., Andrade, J. C. S., and Marinho, M. M. d. O. (2010). A Safety Culture Maturity Model for Petrochemical Companies in Brazil. *Safety Science*, 48(5), 615-624.
- Fitzpatrick, A. R. (1983). The Meaning of Content Validity. *Applied Psychological Measurement*. 7(1), 3-13.
- Flensburg, P. (2009). An Enhanced Communication Model. *The International Journal of Digital Accounting Research*, 9, 31-43.
- Flin, R., Mearns, K., O'Connor, P., and Bryden, R. (2000). Measuring Safety Climate: Identifying the Common Features. *Safety Science*. 34(1-3), 177-192.
- Flin, R., and Yule, S. (2004). Leadership for Safety: Industrial Experience. *Quality and Safety in Health Care*, 13(suppl 2), ii45-ii51.
- Flora, D. B., and Curran, P. J. (2004). An Empirical Evaluation of Alternative Methods of Estimation for Confirmatory Factor Analysis with Ordinal Data. *Psychological Methods*, 9(4), 466.
- Fogarty, G. J., and Shaw, A. (2003). *Safety Climate and the Theory of Planned Behaviour: Towards the Prediction of Unsafe Behaviour*. Paper presented at the Proceedings of the 5th Australian Industrial and Organizational Psychology Conference 2003.
- Fogarty, G. J., and Shaw, A. (2010). Safety Climate and the Theory of Planned Behavior: Towards the Prediction of Unsafe Behavior. *Accident Analysis & Prevention*, 42(5), 1455-1459.
- France, S. H. (2008). *Leadership Theories: Towards a Relational Model*. (Ph.D), University Laval, Québec.
- French, M. L., Fan, Y. and Stading, G. L. (2015). An Exploratory Study of Factors Influencing Emergency Response Performance. *Management Research Review*, 38(5), 559-576.

- French, A. R., and Geller, I. E. S. (2008). *Creating a Culture Where Employees Own Safety*. Paper presented at the ASSE Professional Development Conference and Exhibition.
- Frazier, C. B., Ludwig, T. D., Whitaker, B., and Roberts, D. S. (2013). A Hierarchical Factor Analysis of a Safety Culture Survey. *Journal of Safety Research*, 45, 15-28.
- Fruhen, L. S., Mearns, K. J., Flin, R. H., and Kirwan, B. (2013). From the Surface to the Underlying Meaning-an Analysis of Senior Managers' Safety Culture Perceptions. *Safety Science*, 57, 326-334.
- Ganguly, S. (2011). Human Error Vs. Work Place Management in Modern Organizations. *International Journal of Research in Management and Technology*, 1(13-17).
- Garcia-Carbonell, A., and Rising, B. (2005). *Culture and Communication*. Paper presented at the II International Congress of the Iberian Association of Studies on Translating and Interpreting, Madrid, Spain.
- García-Herrero, S., Mariscal, M. A., Gutiérrez, J. M., and Toca-Otero, A. (2013). Bayesian Network Analysis of Safety Culture and Organizational Culture in a Nuclear Power Plant. *Safety Science*, 53, 82-95.
- Garson, G. D. (2012). *Testing Statistical Assumptions* (2012 ed.). United State of America: Statistical Associates Publishing.
- Gautam, A. (2013). Effective Communication at Workplace. *IRC'S International Journal of Multidisciplinary Research in Socail & Management Sciences*, 1(2), 80-83.
- Geller, E. S., Perdue, S. R. and French, A. (2004). Behavior-Based Safety Coaching. *Professional Safety*, 40(7), 16-22.
- Geller, E. S. (2005). *People-Based Safety: The Source*. Virginia Beach, VA: Coastal Training Technologies Corporation.
- George, D., and Mallery, P. (2003). *SPSS for Windows Step by Step: A Simple Guide and Reference*. (4th ed.). Boston: Allyn & Bacon.
- Ghahramani, A. (2017). Diagnosis of Poor Safety Culture as a Major Shortcoming in OHSAS 18001-Certified Companies. *Industrial Health*, 55(2), 138-148.
- Ghyoot, V. G. (2000). Multiple Cultures in the Workplace. *Acta Academica*, 32(1), 125-143.

- Ginsburg, L. R., Chuang, Y. T., Blair Berta, W., Norton, P. G., Ng, P., Tregunno, D. and Richardson, J. (2010). The Relationship between Organizational Leadership for Safety and Learning from Patient Safety Events. *Health Services Research*, 45(3), 607-632.
- Givens, R. J. (2008). Transformational leadership: The Impact on Organizational and Personal Outcomes. *Emerging Leadership Journeys*, 1(1), 4-24.
- Glendon, A. I., and Stanton, N. A. (2000). Perspectives on Safety Culture. *Safety Science*, 34(1), 193-214.
- Gliem, J. A., and Gliem, R. R. (2003). Cronbach's Alpha Reliability Coefficient for Likert-Type Scales. *Midwest Research to Practice Conference in Adult Continuing and Community Education Calculating, Interpreting and Reporting*. 8-10 October, University of Ohio, Columbus, 82-88.
- Goetsch, D. L. (2010). *The Basics of Occupational Safety*. Upper Saddle River, New Jersey: Prentice Hall.
- Goetsch, D. L. (2011). *Occupational Safety and Healthy for Technologists, Engineers, and Managers*. (7th ed.) New Jersey: Prentice Hall.
- Goodwin, L. D., and Leech, N. L. (2006). Understanding Correlation: Factors that Affect the Size of r. *The Journal of Experimental Education*, 74(3), 249-266.
- Grau, R., Martinez, I. M., Agut, S. and Salanova, M. (2002). Safety Attitudes and their Relationship to Safety Training and Generalised Self-efficacy. *International Journal of Occupational Safety and Ergonomics (JOSE)*, 8(1), 23-35.
- Gray, D. E. (2013). Theoretical Perspectives and Research Methodologies. In 3rd (Ed.), *Doing Research in the Real World* (pp. 16-38): Sage.
- Greenleaf, R. K. (1970). *The servant as leader*. Westfield, IN: Greenleaf Center for Servant Leadership.
- Greenleaf, R. K. (1977). *Servant Leadership: A Journey into the Nature of Legitimate Power and Greatness*: Paulist Press.
- Greenleaf, R. (2007). The servant as leader *Corporate Ethics and Corporate Governance* (pp. 79-85): Springer.
- Groenewald, T. (2004). *A Phenomenological Research Design Illustrated*.
- Griffin, M. A. and Hu, X. (2013). How Leaders Differentially Motivate Safety Compliance and Safety Participation: The Role of Monitoring, Inspiring, and Learning. *Safety Science*, 60, 196-202.

- Griffin, M. A. and Neal, A. (2000). Perceptions of Safety at Work: A Framework for Linking Safety Climate to Safety Performance, Knowledge, and Motivation. *Journal of Occupational Health Psychology*, 5, 347-358.
- Grytnes, R., Shibuya, H., Dyreborg, J., Grøn, S. and Cleal, B. (2016). Too Individualistic for Safety Culture? Non-traffic Related Work Safety among Heavy Goods Vehicle Drivers. *Transportation Research Part F: Traffic Psychology and Behaviour*, 40, 145-155.
- Guba, E.G. and Lincoln, Y.S. (1994), Competing Paradigms in Qualitative Research, Denzin, N.K. and Lincoln, Y.S. (Eds), *Handbook of Qualitative Research*, Sage, Thousand Oaks, CA.
- Guion, R. M. (1977). Content Validity - The Source of My Discontent. *Applied Psychological Measurement*. 1(1), 1-10.
- Guldenmund, F. W. (2000). The Nature of Safety Culture: A Review of Theory and Research. *Safety Science*. 34(1-3), 215-257.
- Guldenmund, F. W. (2007). The Use of Questionnaires in Safety Culture Research – an Evaluation. *Safety Science*. 45(6), 723-743.
- Guo, K. and Sanchez, Y. (2009). Workplace communication *Organizational Behavior, Theory and Design* (pp. 71-101). Sudbury, MA: Jones and Bartlett Publishers.
- Haber, S. and Allentuck, J. (1996). Human Performance: An Essential Element in Materials Control and Accountability (Vol. 25, pp. 61-66): Institute of Nuclear Materials Management.
- Hair, J. F., Anderson, R. E., Tatham, R. L., and Black, W. C. (1998). *Multivariate Data Analysis* (5th ed.). New Jersey: Prentice Hall, Inc.
- Hair, J. F., Black, W. C., Babin, B. J. and Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective* (7th ed.). New Jersey: Pearson Prentice.
- Hall.Halligan, M. and Zecevic, A. (2011). Safety Culture in Healthcare: A Review of Concepts, Dimensions, Measures and Progress. *BMJ Quality & Safety*, 20(4), 338-343.
- Hamilton-Atwell, A., Du Toit, A., Kirstein, L., Louw, M., Mtombeni, L., and Moses, R. (1997). Identification of Causes of Unsafe Acts or Neglect Resulting in Roof or Sidewall Accidents.
- Hannay, M. (2009). The Cross-cultural Leader: The Application of Servant Leadership Theory in the International Context. *Journal of International Business and Cultural Studies*, 1, 59-69.

- Hargrove, E. C., and Owens, J. E. (2002). Leadership in Context. *Politics and Policy*, 30(2), 199-207.
- Harkness, J. A., and Schoua-Glusberg, A. (1998). Questionnaire in Translation. *ZUMA-Nachrichten Spezial*, 87-126.
- Harms-Ringdahl, L. (2013). Guide to Safety Analysis for Accident Prevention. *IRS Riskhantering AB*.
- Harrington, D. (2008). *Confirmatory Factor Analysis*: Oxford University Press.
- Harwell, M. R. (2011). Research Design in Qualitative/Quantitative/Mixed Methods. *The Sage handbook for research in education*. 2nd ed. Los Angeles, CA: Sage, 147.
- Hassan, Z. A., Schattner, P., and MAzza, D. (2006). Doing a Pilot Study: Wht is it Essential? *Malaysian Family Physician*, 1(2/3), 70-73.
- Håvold, J. I. (2010). Safety Culture and Safety Management Aboard Tankers. *Reliability Engineering & System Safety*. 95(5), 511-519.
- Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. United Kingdom: Guildford Press.
- Hayes, A. F. (2015). An Index and Test of Linear Moderated Mediation. *Multivariate Behavioral Research*, 50(1), 1-22.
- Hendershot, D. C. (2013). Process safety: Remembering Piper Alpha. *Journal of Chemical Health and Safety*, 20(3), 58-59.
- Henriqson, É., Schuler, B., van Winsen, R. and Dekker, S. W. A. (2014). The Constitution and Effects of Safety Culture as an Object in the Discourse of Accident Prevention: A Foucauldian Approach. *Safety Science*, 70(0), 465-476.
- Henseler, J., Martens, H. and Naes, T. (2007). *A New and Simple Approach to Multi-group Analysis in Partial Least Squares Path Modeling*. Paper presented at the Proceedings of PLS'07–The 5th International Symposium on PLS and Related Methods.
- Hill, R. (1998). What Sample Size is “Enough” in Internet Survey Research. *Interpersonal Computing and Technology: An electronic journal for the 21st century*, 6(3-4), 1-12.
- Hirschfeld, G. and von Brachel, R. (2014). Multiple-Group Confirmatory Factor Analysis in RA Tutorial in Measurement Invariance with Continuous and Ordinal Indicators. *Prac Assess Res Eval*, 19(7), 2.

- Ho, A. D. and Carol, C. Y. (2015). Descriptive Statistics for Modern Test Score Distributions Skewness, Kurtosis, Discreteness, and Ceiling Effects. *Educational and Psychological Measurement*, 75(3), 365-388.
- Hoe, S. L. (2008). Issues and Procedures in Adopting Structural Equation Modelling Technique. *Journal of Applied Quantitative Methods*, 3(1), 76-83.
- Hoffmeister, K., Gibbons, A. M., Johnson, S. K., Cigularov, K. P. C., P. Y., and Rosecrance, J. C. (2014). The Differential Effects of Transformational Leadership Facets on Employee Safety. *Safety Science*. 62(2014), 68-78.
- Hofmann, D. A. and Morgeson, F. P. (1999). Safety-related Behavior as a Social Exchange: The Role of Perceived Organizational Support and Leader-Member Exchange. *Journal of Applied Psychology* 84, 286–296.
- Hofmann, D. A., and Stetzer, A. (1998). The Role of Safety Climate and Communication in Accident Interpretation: Implication from Negative Events. *Academy of Management Journal*, 41, 644–657.
- Hofmann, D. A., Morgeson, F. P. and Gerras, S. J. (2003). Climate as a Moderator of the Relationship Between Leader-Member Exchange and Content Specific Citizenship: Safety Climate as an Exemplar. *Journal of Applied Psychology*, 88(1), 170-178.
- Hoffmeister, K., Gibbons, A. M., Johnson, S. K., Cigularov, K. P. C., P. Y., and Rosecrance, J. C. (2014). The Differential Effects of Transformational Leadership Facets on Employee Safety. *Safety Science*, 62(2014), 68-78.
- Hollnagel, E. (1999). *Accidents and Barriers*. Paper presented at the Proceedings of Lex Valenciennes.
- Hollnagel, E. (2004). *Barriers and Accident Prevention*. United Kingdom: Ashgate.
- Homans, G. C. (1958). Social Behavior as Exchange. *American Journal of Sociology*, 63(6), 597-606.
- Hopkins, A. (2003). *Safety Culture, Mindfulness and Safe Behaviour: Converging Ideas?* National Research Centre for Occupational Health and Safety Regulation.
- Hosseini, S. S., and Torghabeh, Z. J. (2012). Major Theories of Construction Accident Causation Models: A Literature Review. *International Journal of Advances in Engineering & Technology*, 4(2), 53-66.

- Houghton, J. D., Pearce, C. L., Manz, C. C., Courtright, S. and Stewart, G. L. (2015). Sharing is Caring: Toward a Model of Proactive Caring through Shared Leadership. *Human Resource Management Review*, 25(3), 313-327.
- Hsu, I. Y., Su, T. S., Kao, C. S., Shu, Y. L., Lin, P. R., and Tseng, J. M. (2012). Analysis of Business Safety Performance by Structural Equation Models. *Safety Science*. 50(1), 1-11.
- Huang, Y. H., Ho, M., Smith, G. S., and Chen, P. Y. (2006). Safety Climate and Self-reported Injury: Assessing the Mediating Role of Employee Safety Control. *Accident Analysis & Prevention*, 38(3), 425-433.
- Huang, C. C., Wang, Y. M., Wu, T. W. and Wang, P. A. (2013). An Empirical Analysis of the Antecedents and Performance Consequences of Using the Moodle Platform. *International Journal of Information and Education Technology*, 3(2), 217-221.
- Hudson, P. (2001). Safety Management and Safety Culture: The Long, Hard and Winding Road. *Occupational Health and Safety Management Systems*, 3-32.
- Hudson, P. (2007). Implementing a Safety Culture in a Major-multinational. *Safety Science*, 45, 697-722.
- Hui Nee, A. (2014). Safety Culture in Malaysia Workplace: An Analysis of Occupational Accidents. *Health and the Environment Journal*, 5(3), 32-43.
- Hussain Haider, M., and Riaz, A. (2010). Role of Transformational and Transactional Leadership with Job Satisfaction and Career Satisfaction. *Business and Economic Horizons*, 1, 29-38.
- Ibrahim, I., Noor, S. M., Nasirun, N., and Ahmad, Z. (2012). Safety in The Office: Does It Matter to The Staff? *Procedia - Social and Behavioral Sciences*, 50(2012), 730-740.
- Inagaki, N. (2007). *Communicating the Impact of Communication for Development: Recent Trends in Empirical Research*: World Bank Publications.
- Inness, M., Turner, N., Barling, J., and Stride, C. B. (2010). Transformational Leadership and Employee Safety Performance: A Within-person, between-Jobs Design. *Journal of Occupational Health Psychology*, 15(3), 279.
- International Labour Organization (2012). *Improvement of National Reporting, Data Collection and Analysis of Occupational Accidents and Diseases*. Switzerland: International Labour Organization.

- Ismail, F., Ahmad, N., Hashim, A. E., and Ismail, R. (2013). The Behavioural Based Safety (BBS) and Culture Change Approach for Managing Workplace Safety. *Pertanika Journal Social Science and Human*, 21(4), 1327-1339.
- Ismail, F., Baharuddin, H. E. A., Hashim, A. E., and Ismail, R. (2012). Shared Perceptions on Safety Practices among Key Personnel within Construction Companies. *Procedia - Social and Behavioral Sciences*, 50, 361-368.
- Isman, A., and Altinay, F. (2005). Communication Barriers: A Study of Eastern Mediterranean University Students' and Teachers' of Online Program and Courses. *Online Submission*, 6(4), 138-160.
- Jaganathan, T. and Kaur, M. (2003). The Influence of Culture on the Communicative Style of Students in a Malaysian Secondary School. *Journal of Language Teaching, Linguistics and Literature*, 8, 63-76.
- Jansen, J. and Brent, A. (2005). Reducing Accidents in the Mining Industry - An Integrated Approach. *Journal-South African Institute of Mining and Metallurgy*, 105(10), 719.
- Jenatabadi, H. S., and Ismail, N. A. (2014). Application of Structural Equation Modelling for Estimating Airline Performance. *Journal of Air Transport Management*, 40, 25-33.
- Jiang, L., Yu, G., Li, Y., and 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.
- Johari, J., Yahya, K. K., and Omar, A. (2011). The Construct Validity of Organizational Structure Scale: Evidence from Malaysia. *World*, 3(2), 131-152.
- Johns, R. (2010). Likert items and scales. *Survey Question Bank: Methods Fact Sheet*, 1.
- Judge, T. A. and Bono, J. E. (2000). Five-factor Model of Personality and Transformational Leadership. *Journal of Applied Psychology*, 85(5), 751.
- Judge, T. A., and Piccolo, R. F. (2004). Transformational and Transactional Leadership: A Meta-analytic Test of their Relative Validity. *Journal of Applied Psychology*, 89(5), 755.
- Julie, P. (2013). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using IBM SPSS* (5th ed.). New York, USA: McGraw-Hill Education.
- Kaboub, F. (2008). Positivist Paradigm. *Leong, Encyclopaedia of Counselling, Thousand Oaks*, 786-787.

- Kao, L.-H., Stewart, M. and Lee, K.-H. (2009). Using Structural Equation Modeling to Predict Cabin Safety Outcomes among Taiwanese Airlines. *Transportation Research Part E: Logistics and Transportation Review*, 45(2), 357-365.
- Kapp, E. A. (2011). The Influence of Supervisor Leadership Practices and Perceived Group Safety Climate on Employee Safety Performance. *Safety Science*. 50(4), 1119-1124.
- Kaskutas, V., Dale, A. M., Lipscomb, H., and Evanoff, B. (2013). Fall Prevention and Safety Communication Training for Foremen: Report of a Pilot Project Designed to Improve Residential Construction Safety. *Journal of Safety Research*. 44, 111-118.
- Kato, T., Numagami, T., Karube, M., and Sasaki, M. (2013). Types of Upward Communication and Organizational Characteristics in Japanese Firms. *Hitotsubashi Journal of commerce and management*, 47(1), 1-16.
- Kath, L. M., Marks, K. M., and Ranney, J. (2010). Safety Climate Dimensions, Leader–Member Exchange, and Organizational Support as Predictors of Upward Safety Communication in a Sample of Rail Industry Workers. *Safety Science*, 48(5), 643-650.
- Katsakiori, P., Sakellaropoulos, G., and Manatakis, E. (2009). Towards an Evaluation of Accident Investigation Methods in Terms of Their Alignment with Accident Causation Models. *Safety Science*. 47(7), 1007-1015.
- Kaul, S., Boyle, K. J., Kuminoff, N. V., Parmeter, C. F., and Pope, J. C. (2013). What Can We Learn from Benefit Transfer Errors? Evidence from 20 years of Research on Convergent Validity. *Journal of Environmental Economics and Management*, 66(1), 90-104.
- Kelloway, E. K., Sivanathan, N., Francis, L. and Barling, J. (2005). Poor Leadership. *Handbook of work stress*, 89-112.
- Kelloway, K. E., Mullen, J., and Francis, L., (2006). Divergent Effects of Transformational and Passive Leadership on Employee Safety. *Journal of Occupational Health Psychology*, 11, 76-86.
- Kennedy, R., and Kirwan, B. (1998). Development of a Hazard and Operability - Based Method for Identifying Safety Management Vulnerabilities in High Risk Systems. *Safety Science*. 30, 249-274.
- Khairiah, S. (2008). Workers' Participation in Safety and Health at Work. *Jurnal Kemanusiaan*, 11, 15-23.

- Khattak, H. R., Yaqoob, S., and Basri, R. (2013). Communication Skills Module. Retrieved June 24.
- Khdair, W. A., Shamsudin, F. M., and Subramanim, C. (2011). Improving Safety Performance by Understanding Relationship Between Management Practices and Leadership Behavior in the Oil and Gas Industry In Iraq: A Proposed Model. *health*, 22, 23.
- Kim, J.-S., Kaye, J. and Wright, L. K. (2001). Moderating and Mediating Effects in Causal Models. *Issues in Mental Health Nursing*, 22(1), 63-75.
- Kim, C. W., McInerney, M. L., and Alexander, R. P. (2002). Job Satisfaction as Related to Safe Performance: A Case for a Manufacturing Firm. *The Coastal Business Journal*, 1(1).
- Kim, M. C., Park, J., and Jung, W. (2008). Sentence Completeness Analysis for Improving Team Communications of Safety-Critical System Operators. *Journal of Loss Prevention in the Process Industries*. 21(3), 255-259.
- Kim, H. Y. (2013). Statistical Notes for Clinical Researchers: Assessing Normal Distribution Using Skewness and Kurtosis. *Restorative Dentistry & Endodontics*, 38(1), 52-54.
- Kim, D. S., and Yoon, W. C. (2013). An Accident Causation Model for the Railway Industry: Application of the Model to 80 rail Accident Investigation Reports from the UK. *Safety Science*, 60, 57-68.
- Kines, P., Andersen, L. P. S., Spangenberg, S., Mikkelsen, K. L., Dyreborg, J., and Zohar, D. (2010). Improving Construction Site Safety through Leader-Based Verbal Safety Communication. *Journal of Safety Research*. 41(5), 399-406.
- Kleidon, M. W. (2010). *The Role of Fatigue, Safety Climate, and Emotional Intelligence in Shaping Safety Behaviours in Aviation Maintenance*. (Ph.D), University of Southern Queensland.
- Klenke, K. (2007). Authentic Leadership: A Self, Leader, and Spiritual Identity Perspective. *International Journal of Leadership Studies*, 3(1), 68-97.
- Kline, R. B. (2010). *Principles and Practice of Structural Equations Modeling*: Guilford Press.
- Kline, R. B. (2011). *Convergence of Structural Equation Modeling and Multilevel Modeling: Handbook of Methodological Innovation in Social Research Methods*. London: Sage.

- Kline, T. J. B. (2005). *Psychological Testing: A Practical Approach to Design and Evaluation*: Sage Publication.
- Koster, R. B. M., Daan, S., and Bert, M. B. (2011). Accidents Happen: The Influence of Safety-Specific Transformational Leadership, Safety Consciousness, and HAZard Reducing Systems on Warehouse Accidents. *Journal of Occupational Management*, 29(2011), 753-765.
- Kouabenan, D. R., Nguetsa, R. and Mbaye, S. (2015). Safety Climate, Perceived Risk, and Involvement in Safety Management. *Safety Science*, 77, 72-79.
- Krauss, S. E. (2005). Research Paradigms and Meaning Making: A Primer. *The qualitative report*, 10(4), 758-770.
- Krebs, K. D. (2005). *Can Servant-Leaders Be Safety Indicators? Development and Test of a Model Linking Servant Leadership to Occupational Safety*. Ph.D DePaul University, Chicago, Illinois.
- Krejcie, R. V., and Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educ Psychol Meas.*
- Krishnan, V. R. (2005). Leader-Member Exchange, Transformational Leadership, and Value System. *Electronic Journal of Business Ethics and Organization Studies*, 10(1), 14-21.
- Krivonos, P. D. (2007). *Communication in Aviation in Safety: Lessons Learned and Lessons Required*. Paper presented at the Regional Seminar of the Australia and New Zealand Societies of Air Safety Investigators.
- Kumako, S. K., and Asumeng, M. A. (2013). Transformational Leadership as a Moderator of the Relationship between Psychological Safety and Learning Behaviour in Work Teams in Ghana. *Journal of Industrial Psychology*, 39(1), 1-9.
- Lam, P. W. Y., Cheng, W., and Kong, K. C. C. Learning English through workplace communication: An evaluation of existing resources in Hong Kong. *English for Specific Purposes*.
- Langbert, M., and Friedman, H. H. (2003). Perspectives on Transformational Leadership in the Sanhedrin of Acient Judaism. *Journal of Management History*, 41(2), 199-207.
- Langerman, N. (2011). Safety Leadership. *Journal of Chemical Health and Safety*. 18(6), 35-36.

- Laughry, K. R. (2006). Safety Communications: Warnings. *Applied Ergonomics*, 37(4), 467-478.
- Laura, D. C. (2008). Mediation Effects of Safety Climate and Safety Motivation on the Relation between Organizational Climate and Safety Performance in the Workplace. *TPM*, 15(2), 77-90.
- Leiter, M. P., Zanaletti, W. and Argentero, P. (2009). Occupational Risk Perception, Safety Training, and Injury Prevention: Testing a Model in the Italian Printing Industry. *Journal of Occupational Health Psychology*, 14(1),
- Leonard, M. and Frankel, A. (2012). How can Leaders Influence a Safety Culture. *London: The Health Foundation*, 1-11.
- Lerner, D. (1958). *The Passing of Traditional Society*. Glencoe: Free Press.
- Lesch, M. F. (2005). Remembering to Be Afraid: Applications of Theories of Memory to the Science of Safety Communication. *Theoretical Issues in Ergonomics Science*. 6(2), 173-191.
- Leveson, N. (2004). A New Accident Model for Engineering Safer Systems. *Safety Science*, 42(4), 237-270.
- Liao, P. C., Jiang, L. X., Liu, B. S., Chen, C. T., Fang, D. P., Rao, P. L. and Zhang, M. C. (2014). A Cognitive Perspective on the Safety Communication Factors That Affect Worker Behavior. *Journal of Building Construction and Planning Research*, 2014(2), 183-197.
- Liden, R. C., Wayne, S. J., Zhao, H., and Henderson, D. (2008). Servant Leadership: Development of a Multidimensional Measure and Multi-Level Assessment. *The Leadership Quarterly*. 19(2), 161-177.
- Lievens, I., and Vlerick, P. (2013). Transformational Leadership and Safety Performance among Nurses: The Mediating Role of Knowledge-related Job Characteristics. *Journal of Advanced Nursing*.
- Lijie, C., Tao, T., Xianqiong, Z., and Schnieder, E. (2012). Verification of the Safety Communication Protocol in Train Control System Using Colored Petri Net. *Reliability Engineering & System Safety*. 100, 8-18.
- Linde, A., and Tutz, G. (2004). On Association in Regression: The Coefficient of Determination Revisited. 1-43.
- Lindhout, P., Van Gulijk, C., and Ale, B. J. M. (2011). Underestimation of Language Issues in Frequently Used Accident Investigation Methods: A New

- Taxonomy Problem Found in Dutch Accident Data. *Journal of Hazardous Materials*. 191(1–3), 158-162.
- Liu, C. C., and Chen, W. Y. (2006). Screw Pitch Precision Measurement Using Simple Linear Regression and Image Analysis. *Applied Mathematics and Computation*. 178(2), 390-404.
- Lleras, C. (2005). Path analysis. *Encyclopaedia of Social Measurement*, 3, 25-30.
- López-Arquillos, A. and Rubio-Romero, J. C. (2016). Analysis of Workplace Accidents in Automotive Repair Workshops in Spain. *Safety and Health at Work*, 7(3), 231-236.
- Lowe, A., Axelsson, L., Hayward, B. and Brandford, K. (2008). *Enhancing Safety Culture and Leadership in the Swedish Nuclear Power Industry*. Paper presented at the 8th International Symposium of the Australian Aviation Psychology Association, Sydney, Australia.
- Lu, C. S., and Yang, C. S. (2010). Safety Leadership and Safety Behavior in Container Terminal Operations. *Safety Science*. 48(2010), 123-134.
- Lubans, D. R., Plotnikoff, R. C., Morgan, P. J., Dewar, D., Costigan, S., and Collins, C. E. (2012). Explaining Dietary Intake in Adolescent Girls from Disadvantaged Secondary Schools. A Test of Social Cognitive Theory. *Appetite*, 58(2), 517-524.
- Lucas, B., Cox, C., Perry, L., and Bridges, J. (2013). Changing Clinical Team Practices in Preparation of Patients for Total Knee Replacement: Using Social Cognitive Theory to Examine Outcomes of an Action Research Study. *International Journal of Orthopaedic and Trauma Nursing*, 17(3), 140-150.
- Lümker, L. H. (2012). *The Impact of Communication on Safety Behavior of Employees*. (Master), University of Twente.
- Lunenburg, F. (2010a). Formal Communication Channels: Upward, Downward, Horizontal, and External. *FOCUS on Colleges, Universities, and Schools*, 4(1), 1-7.
- Lunenburg, F. C. (2010b). Leader-Member Exchange Theory: Another Perspective on the Leadership Process. *International Journal of Management, Business and Administration*, 13(1), 1-5.
- Lunenburg, F. C. (2010c). Communication: The Process, Barriers, and Improving Effectiveness (Vol. 1): Schooling.

- Luria, G. (2010). The Social Aspects of Safety Management: Trust and Safety Climate. *Accident Analysis & Prevention*, 42(4), 1288-1295.
- Luria, G., and Morag, I. (2012). Safety Management by Walking around: A Safety Intervention Program Based on Both Peer and Manager Participation. *Accident Analysis & Prevention*, 45, 248-257.
- Lyneis, J., and Madnick, S. (2008). Preventing Accidents and Building a Culture of Safety: Insights from a Simulation Model: MIT Sloan Research Paper.
- Lyu, S., Carol, K. H. H., Albert, P. C. C., Francis, K. W. W. and Arshad, A. J. (2018). Relationships among Safety Climate, Safety Behavior, and Safety Outcomes for Ethnic Minority Construction Workers. *International Journal of Environment Research and Public Health*, 15(484), 1-16.
- Machfudiyanto, R. A., Latief, Y., Arifuddin, R. and Yogiswara, Y. (2017). Identification of Safety Culture Dimensions Based on the Implementation of OSH Management System in Construction Company. *Procedia Engineering*, 171, 405-412.
- Mack, L. (2010). The Philosophical Underpinnings of Educational Research. *Polyglossia*, 19, 5-11.
- Madu, B. C. (2011). Organization Culture as Driver of Competitive Advantage. *Journal of Academic and Business Ethics*, 1-9.
- Mahmood, R., Isa, M. F. M., Mustafa, M., Aziz, F. S. A. and Salleh, A. (2009). *Safety Behaviour: The Role of Safety Commitment*. Paper presented at the 4th National Human Resource Management Conference. College of Business, Universiti Utara Malaysia.
- Maiyaki, A. A. (2013). Moderating Effect of Individualism/Collectivism on the Association between Service Quality, Corporate Reputation, Perceived Value and Consumer Behavioural Intention. *Journal of Marketing & Management*, 4(1), 1-20.
- Mallett-Hamer, B. (2005). *Communication within the Workplace*. University of Wisconsin-Stout.
- Mamabolo, L. R. C. (2009). The Experiences of Registered Nurses Involved in Termination of Pregnancy at Soshanguve Community Health Centre.
- Mann, C. (2003). Observational Research Methods. Research design II: Cohort, Cross Sectional, and Case-control Studies. *Emergency Medicine Journal*, 20(1), 54-60.

- Mann, C. J. (2012). Observational Research Methods—Cohort Studies, Cross Sectional Studies, and Case–Control Studies. *African Journal of Emergency Medicine*. 2(1), 38-46.
- Mannan, M. S., Mentzer, R. A., and Zhang, J. (2013). Framework for Creating a Best-in-Class Safety Culture. *Journal of Loss Prevention in the Process Industries*, 26(6), 1423-1432.
- Mardia, K. V. (1970). Measures of Multivariate Skewness and Kurtosis with Applications. *Biometrika*, 57, 519-530.
- Mariscal, M. A., Herrero, S. G., and Toca Otero, A. (2012). Assessing Safety Culture in the Spanish Nuclear Industry through the Use of Working Groups. *Safety Science*. 50(5), 1237-1246.
- Markos, S. and Sridevi, M. S. (2010). Employee Engagement: The Key to Improving Performance. *International Journal of Business and Management*, 5(12), 89-96.
- Masilamani, R. (2010). Recent Development in Occupational Health Services in Malaysia. *Malaysian Journal of Public Health Medicine*, 10(2), 1-5.
- Masud, M. M., Kari, F. B., Binti Yahaya, S. R., and Al-Amin, A. Q. (2014). Impact of Residents' Livelihoods on Attitudes towards Environmental Conservation Behaviour: An Empirical Investigation of Tioman Island Marine Park area, Malaysia. *Ocean & Coastal Management*, 93, 7-14.
- Martínez-Córcoles, M., Schöbel, M., Gracia, F. J., Tomás, I. and Peiró, J. M. (2012). Linking Empowering Leadership to Safety Participation in Nuclear Power Plants: A Structural Equation Model. *Journal of Safety Research*, 43(2012), 215-221.
- Martínez-Córcoles, M., Gracia, F. J., Tomás, I., Peiró, J. M., and Schöbel, M. (2013). Empowering Team Leadership and Safety Performance in Nuclear Power Plants: A Multilevel Approach. *Safety Science*. 51(1), 293-301.
- Maxfield, D., Grenny, J., Lavandero, R., and Groah, L. (2011). The Silent Treatment. *Why Safety Tools and Checklist Aren't Enough to Save Lives*.
- Mayhew, M. J., Hubbard, S. M., Finelli, C. J., Harding, T. S., and Carpenter, D. D. (2009). Using Structural Equation Modeling to Validate the Theory of Planned Behavior as a Model for Predicting Student Cheating. *The Review of Higher Education*, 32(4), 441-468.

- McFadden, K. L., Henagan, S. C. and Gowen Iii, C. R. (2009). The Patient Safety Chain: Transformational Leadership's Effect on Patient Safety Culture, Initiatives, and Outcomes. *Journal of Operations Management*, 27(5), 390-404.
- McFarlane, M. M. (1993). Psychological Prevention, Early Intervention and Response to Workplace Safety in the Transport Industry: Developing a Holistic People Risk Strategy. *Reason*, 1990(2).
- McKinlay, J., and Williamson, V. (2010). *Creating an Ideal Workplace Culture: The Keys to Unlocking People Talent*. Paper presented at the ALSR 2010: Conference Towards Future Possibilities.
- Meade, A. W., Watson, A. M. and Kroustalis, C. M. (2007). *Assessing Common Methods Bias in Organizational Research* Paper presented at the 22nd Annual Meeting of the Society for Industrial and Organizational Psychology, New York.
- Mearns, K. J., and Flin, R. (1999). Assessing the State of Organizational Safety-Culture or Climate? *Current Psychology*. 18(1), 5-17.
- Mearns, K., Kirwan, B., Reader, T. W., Jackson, J., Kennedy, R., and Gordon, R. (2013). Development of a Methodology for Understanding and Enhancing Safety Culture in Air Traffic Management. *Safety Science*. 53, 123-133.
- Michael, J. H., Guo, Z. G., Wiedenbeck, J. K. and Ray, C. D. (2006). Production Supervisor Impacts on Subordinates' Safety Outcomes: An Investigation on Leader-Member Exchange and Safety communication. *Journal of Safety Research*. 37(2006), 469-477.
- Mohamed Shaluf, I. and Ahamadun, F. I. R. (2008). An Overview on the Offshore Emergency Response Planning in Malaysia. *Disaster Prevention and Management: An International Journal*, 17(1), 83-93.
- Mohammed Ariff, M. I. and Arshad, N. I. (2013). *Estimating the Effect Of Common Method Bias: Method-Method Pair Technique*. Paper presented at the International Symposium on Mathematical Sciences and Computing Research, Perak, Malaysia.
- Mueller, R. O. (1997). Structural Equation Modeling: Back to Basics. *Structural Equation Modeling: A Multidisciplinary Journal*. 4(4), 353-369.
- Muhammad Safiih, L. and Nor Azreen, M. A. (2016). Confirmatory Factor Analysis Approach: A Case Study of Mathematics Students' Achievement in TIMSS. *Malaysian Journal of Mathematical Sciences*, 10, 41-51.

- Mullen, J. E., and Kelloway, E. K. (2009). Safety Leadership: A Longitudinal Study of the Effects of Transformational Leadership on Safety Outcomes. *Journal of Occupational and Organizational Psychology*, 82, 253-272.
- Mullen, J. E., Kelloway, E. K., and Teed, M. (2011). Inconsistent Style of Leadership as a Predictor of Safety Behaviour. *Work & Stress*, 25(1), 41-54. Jersey: Prentice Hall.
- Muller, D., Judd, C. M. and Yzerbyt, V. Y. (2005). When Moderation is Mediated and Mediation is Moderated. *Journal of Personality and Social Psychology*, 89(6), 852-863.
- Musálek, M. (2014). *Development of Test Batteries for Diagnostics of Motor Laterality Manifestation: Link Between Cerebellar Dominance and Hand Performance*: Karolinum.
- Nagelkerke, N. J. (1991). A Note on a General Definition of the Coefficient of Determination. *Biometrika*, 78(3), 691-692.
- Naing, L., Winn, T., and Rusli, B. (2006). Practical Issues in Calculating the Sample Size for Prevalence Studies. *Archives of Orofacial Sciences*, 1(1), 9-14.
- Neal, A., Griffin, M. A., and Hart, P. M. (2000). The Impact of Organizational Climate on Safety Climate and Individual Behavior. *Safety Science*, 34(1-3), 99-109.
- Neal, A. and Griffin, M. A. (2006). A Study of the Lagged Relationships Among Safety Climate, Safety Motivation, Safety Behavior, and Accidents at the Individual and Group Levels. *Journal of Applied Psychology*, 91(4), 946-953.
- Neto, A. S. V., Barroso, A. C. O., and Gonçalves, A. (2009). Knowledge Basis in Safety Culture for Researchers and Practitioners. *International Nuclear Atlantic Conference - INAC 2009 Rio de Janeiro, RJ, Brazil*.
- Newman, I., and Benz, C. R. (1998). *Qualitative-quantitative Research Methodology: Exploring the Interactive Continuum*: Southern Illinois University Press.
- Nielsen, K. and Randall, R. (2012). The Importance of Employee Participation and Perceptions of Changes in Procedures in a Teamworking Intervention. *Work and Stress*, 26(2), 91-111.
- Nielsen, K. J., Kines, P., Pedersen, L. M. and Andersen, D. R. (2013). A Multi-Case Study of the Implementation of an Integrated Approach to Safety in Small Enterprises. *Safety Science*, 71(1), 143-150.
- Nkhoma, M. Z., Dang, D. P. T. and De Souza-Daw, A. (2013). *Contributing Factors of Cloud Computing Adoption: A Technology-Organisation-Environment*

- Framework Approach*. Paper presented at the The 4th International Conference on Information Systems Management and Evaluation RMIT University Vietnam, Ho Chi Minh City, Vietnam.
- Noor Azniza, I., Malek, T. J., Ibrahim, Y. S. and Farid, T. M. (2011). Moderating Effect of Gender and Age on the Relationship between Emotional Intelligence with Social and Academic Adjustment among First Year University Students. *International Journal of Psychological Studies*, 3(1), 78.
- Nordlöf, H., Wiitavaara, B., Winblad, U., Wijk, K. and Westerling, R. (2015). Safety Culture and Reasons for Risk-taking at a Large Steel-manufacturing Company: Investigating the Worker Perspective. *Safety Science*, 73, 126-135.
- Nur Azlina, A. R., Ahmad Rasdan, I., & Muhamad Arifpin, M. (2014). Analysis of the Perception of Occupational Accident in Mining and Quarry Sector towards Safe and Healthy Working Environment. *International Journal of Current Research and Academic Review* (1), 95-102.
- O'Dea, A., and Flin, R. (2001). Site Managers and Safety Leadership in the Offshore Oil and Gas Industry. *Safety Science*. 37(1), 39-57.
- Odumeru, J. A., and Ogbonna, I. G. (2013). Transformational vs. Transactional Leadership Theories: Evidence in Literature. *International Review of Management and Business Research*, 2(2), 355-361.
- Ogbanna, E., and Harris, L. C. (2000). Leadership Style, Organizational Culture and Performance: Empirical Evidence from UK Companies. *Journal of Human Resource Management*. 11(4), 766-788.
- O'Hora, D. and Cummins, B. (2012). Creating a Safety Culture what are the Consequences? *Irish Ergonomics Review*.
- Olken, F., and Rotemt, D. (1986). Simple Random Sampling from Relational Databases, *Proceedings of the Twelfth International Conference on Very Large Data Bases*, Kyoto, Japan.
- Olsen, C., and St George, D. (2004). Cross-sectional Study Design and Data Analysis. *College Entrance Examination Board*.
- Olsen, N. S. (2011). Coding ATC Incident Data using HFACS: Inter-coder Consensus. *Safety Science*, 49(10), 1365-1370.
- Oltedal, S., Moen, B. E., Klempe, H., and Rundmo, T. (2004). *Explaining Risk Perception: An Evaluation of Cultural Theory* (Vol. 85). Trondheim: Norwegian University of Science and Technology.

- Oluwatayo, J. A. (2012). Validity and Reliability Issues in Educational Research. *Journal of Educational and Social Research*, 2(2), 391-400.
- Ong, C. H. (2014). Factors Contribute to Safety Culture in the Manufacturing Industry in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 4(4), 63-69.
- Osborn, R. N. (1999). Sayles' Managerial Behavior: Its Impact on Understanding Leadership and Nuclear Power Safety. *The Leadership Quarterly*, 10(1), 13-15.
- O'Sullivan, P. S., and Irby, D. M. (2014). Promoting Scholarship in Faculty Development: Relevant Research Paradigms and Methodologies *Faculty Development in the Health Professions* (pp. 375-398): Springer.
- O'Toole, M. (2002). The Relationship between Employees' Perceptions of Safety and Organizational Culture. *Journal of Safety Research*. 33(2), 231-243.
- Page, D. and Wong, T. P. (2000). A Conceptual Framework for Measuring Servant Leadership. *The Human Factor in Shaping the Course of History and Development*. Lanham, MD: University Press of America.
- Pallant, J. (2013). *A Step by Step Guide to Data Analysis Using IBM SPSS: SPSS Survival Manual* (5th ed.). England: Open University Press, McGraw-Hill Education.
- Panacek, E. A., and Thompson, C. B. (1995). Basics of Research (Part 3): Research Study Design. *Air Medical Journal*. 14(3), 139-146.
- Pancer, E. L. (2013). *The Causes and Effects of Inferences of Impression Management in Consumption*. (PhD), Queen's University, Kingston, Ontario, Canada.
- Parahoo, K., 1997. *Nursing Research – Principles, Process and Issues*. MacMillan Press, Basingstoke.
- Packard, V. (1962). *The Pyramid Climbers*. New York: McGraw Hill.
- Park, H. M. (2008a). Hypothesis Testing and Statistical Power of a Test. *The University Information Technology Services (UITS) Center for Statistical and Mathematical Computing, Indiana University*.
- Park, H. M. (2008b). Univariate Analysis and Normality Test using SAS, Stata, and SPSS. *The University Information Technology Services (UITS) Center for Statistical and Mathematical Computing, Indiana University*.
- Park, H. and Blenkinsopp, J. (2009). Whistleblowing as Planned Behavior – A Survey of South Korean Police Officers. *Journal of Business Ethics*, 85(4), 545-556.

- Parker, S. K., Axtell, C. M., and Turner, N. (2001). Designing a Safer Workplace: Importance of Job Autonomy, Communication Quality, and Supportive Supervisors. *Journal of Occupational Health Psychology*, 6(3), 211.
- Parker, D., Lawrie, M., and Hudson, P. (2006). A Framework for Understanding the Development of Organisational Safety Culture. *Safety Science*. 44(6), 551-562.
- Parry, K. W. and Bryman, A. (2006). Leadership in Organization *the Sage Handbook of Organization Studies* (pp. 447-468). London, Thousand Oaks, New Delhi: Sage Publications.
- Pastor, J. C., Mayo, M., and de Molina, C. M. (2006). *Transformational and Transactional Leadership: An Examination of Managerial Cognition among Spanish Upper Echelons*: Instituto de Empresa.
- Paté-Cornell, M. E. (1993). Learning from the Piper Alpha Accident: A Postmortem Analysis of Technical and Organizational Factors. *Risk Analysis*, 13(2), 215-232.
- Patterson, K. A. (2003). *Servant Leadership: A Theoretical Model*. Ph.D Regent University.
- Paolillo, A., Silva Silvia, A. and Pasini, M. (2016). Promoting Safety Participation through Diversity and Inclusion Climates. *International Journal of Workplace Health Management*, 9(3), 308-327.
- Petrocelli, J. V. (2003). Hierarchical Multiple Regression in Counselling Research: Common Problems and Possible Remedies. *Measurement and Evaluation in Counselling and Development*, 36(1), 9-22.
- Paul, J. A. (2012). Improving Communication with Foreign Speakers on the Shop Floor. *Safety Science*.
- Pettinger, C. B., Jr. (2000) *Improving Occupational Safety & Health Interventions - A Comparison of Safety Self-Efficacy & Safety Stages of Change*. (PhD), Virginia Polytechnic Institute & State University, Blacksburg Virginia.
- Pfeiffer, J. W. (1998). *Conditions that Hinder Effective Communication* (2nd ed. Vol. 6). Jossey-Bass: The Pfeiffer Library.
- Phipps, M., Ozanne, L. K., Luchs, M. G., Subrahmanyam, S., Kapitan, S., Catlin, J. R., Weaver, T. (2013). Understanding the Inherent Complexity of Sustainable Consumption: A Social Cognitive Framework. *Journal of Business Research*, 66(8), 1227-1234.

- Pidgeon, N. (1998). Safety Culture: Key Theoretical Issues. *Work & Stress*, 12(3), 202-216.
- Pilbeam, C., Doherty, N., Davidson, R. and Denyer, D. (2016). Safety Leadership Practices for Organizational Safety Compliance: Developing a Research Agenda from a Review of the Literature. *Safety Science*, 86, 110-121.
- Plester, B. A. (2008). *Laugh Out Loud: How Organisational Culture Influences Workplace Humour*. (Ph.D), Massey University, Albany, New Zealand.
- Podsakoff, P. M., MacKenzie, S. B., Jeong-Yeon, L. and Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Polit, D. F., and Beck, C. T. (2006). The Content Validity Index: Are You Sure You Know What's Being Reported? Critique and Recommendations. *Research in Nursing & Health*, 29(5), 489-497.
- Poulton, B., and McCammon, V. (2007). Measuring Self-Perceived Public Health Nursing Competencies Using a Quantitative Approach. *Nurse Education Today*, 27(3), 238-246.
- Preacher, K. J., Rucker, D. D. and Hayes, A. F. (2007). Addressing Moderated Mediation Hypotheses: Theory, Methods, and Prescriptions. *Multivariate Behavioral Research*, 42(1), 185-227.
- Preece, C. and Stocking, S. (1999). *Safety Communications Management in Construction Contracting*. Paper presented at the Hughes, W, 15th Annual ARCOM Conference, Liverpool John Moores University.
- Puplampu, B. B., and Quartey, S. H. (2012). Key Issues on Occupational Health and Safety Practices in Ghana: A Review. *International Journal of Business and Social Science*, 3(19), 151-156.
- Qureshi, Z. H. (2007). *A Review of Accident Modelling Approaches for Complex Socio-Technical Systems*. Paper presented at the Conference in Research and Practice in Information Technology, Adelaide.
- Rad, K. G. (2013). Application of Domino Theory to Justify and Prevent Accident Occurance in Construction Sites. *IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)*, 6(2), 72-76.
- Rajasekar, S., Philominathan, P. and Chinnathambi, V. (2006). Research Methodology.

- Rakowska, A., and Szubielska, J. (2013). *Safety Culture Model and its Dimensions on the Example of Coal Mines in Poland*. Paper presented at the Active Citizenship by Knowledge Management & Innovation: Proceedings of the Management, Knowledge and Learning International Conference 2013.
- Rampal, K. G., and Mohd Nizam, J. (2006). Developing Regulations for Occupational Exposures to Health Hazards in Malaysia. *Regulatory Toxicology and Pharmacology*, 46(2), 131-135.
- Razi, S. (2006). *The Organization Cultural Impact on Accidents: A Secondary Analysis of the Relationship between Culture and Safety*. Ph.D Capella University.
- Reason, J. (1998). Achieving a Safe Culture: Theory and Practice. *Work & Stress*, 12(3), 293-306.
- Reason, J. (2000). Safety Paradoxes and Safety Culture. *Injury Control and Safety Promotion*, 7(1), 3-14.
- Reason, J. (2013). *A Life in Error: From Little Slips to Big Disasters*. England: Ashgate Publishing Company.
- Reason, J., Hollnagel, E., and Paries, J. (2006). Revisiting the Swiss Cheese of Accident. France: European Organisation for the Safety of Air Navigation.
- Rieder, R. and Bepperling, S. L. (2011). Heinrich Triangle for Ground Operation. *Journal of System Safety*, 23-28.
- Reiman, T., and Oedewald, P. (2002). The Assessment of Organisational Culture. *A Methodological study. VTT Research Notes. VTT Industrial Systems, Espoo*.
- Reiman, T. and Rollenhagen, C. (2014). Does the Concept of Safety Culture Help or Hinder Systems Thinking in Safety? *Accident Analysis & Prevention*, 68, 5-15.
- Reiter, J. (2000). Using Statistics to Determine Causal Relationships. *American Mathematical Monthly*, 24-32.
- Relihan, E., Glynn, S., Daly, D., Silke, B., and Ryder, S. (2009). Measuring and Benchmarking Safety Culture: Application of the Safety Attitudes Questionnaire to an Acute Medical Admission Unit. *Irish Journal of Medical Science*, 178, 433-439.
- Reynaldo, A. S. (1999). Cronbach's Alpha: A Tool of Assessing the Reliability of Scales. *Journal of Extension*, 37(2).
- Richter, A., and Koch, C. (2004). Integration, Differentiation and Ambiguity in Safety Cultures. *Safety Science*, 42(8), 703-722.

- Rico, E. D., Dios, H. C., and Ruch, W. (2012). Content Validity Evidences in Test Development: An Applied Perspective. *International Journal of Clinical and Health Psychology*, 12(3), 449-460.
- Rieder, R., and Bepperling, S. (2011). Heinrich Triangle for Ground Operation. *Journal of System Safety*, 23-27.
- Richter, A., and Koch, C. (2004). Integration, Differentiation and Ambiguity in Safety Cultures. *Safety Science*. 42(8), 703-722.
- Robinson, J. (1987). Conditioning Ratio Estimates under Simple Random Sampling. *Journal of the American Statistical Association*. 82(399), 826-831.
- Rose, B. M., Holmbeck, G. N., Coakley, R. M. and Franks, E. A. (2004). Mediator and Moderator Effects in Developmental and Behavioral Pediatric Research. *Journal of Developmental & Behavioral Pediatrics*, 25(1), 58-67.
- Saad, M. S., Fatimah, S., and Zairihan, A. H. (2012). The Determinants of Industrial Accidents in the Malaysian Manufacturing Sector. *African Journal of Business Management*, 8(5), 1999-2006.
- Safe Work Australia (2015). Work Health and Safety Perceptions: Manufacturing Industry. Canberra: Safe Work Australia.
- Salaria, N. (2012). Meaning of The Term-Descriptive Survey Research Method. *International Journal of Transformations in Business Management*, 1 (6).
- Saldaña, M. A. M., Herrero, S. G., del Campo, M. A. M., and Ritzel, D. O. (2003). Assessing Definitions and Concepts Within the Safety Profession. *The International Electronic Journal of Health Education*, 6, 1-9.
- Sandelowski, M. (2000). Focus on Research Methods-whatever Happened to Qualitative Description? *Research in Nursing and Health*, 23(4), 334-340.
- Sanders, F. L. (2008). *Testing the Construct Validity of Self-efficacy in Relation to College Student Drinking*. (PhD), Virginia Polytechnic Institute and State University Blacksburg, Virginia.
- Sandy, S. (2008). Trust in Communication Key to Workplace Safety. *Occupational Hazards*. 70(8), 24.
- Sarkus, D. J. (1996). Servant-leadership in Safety: Advancing the Cause and Practice. *Professional Safety*, 26-32.
- Satten, G. A., and Grummer-Strawn, L. (2005). Cross-Sectional Study *Encyclopedia of Biostatistics*: John Wiley & Sons, Ltd.

- Schein, E. (1984). Coming to a New Awareness of Organizational Culture. *Sloan Management Review*. 25(2), 3-16.
- Schein, E. (1985). *Organizational Culture and Leadership*. London: Jossey-Bass.
- Schein, E. (1992). *Organizational Culture and Leadership* (2nd ed.). San Francisco: Jossey-Bass.
- Schein, E. (1996). Three Cultures of Management: The Key to Organizational Learning. *Sloan Management Review*. 38(1), 9-20.
- Scheiner, S., Mitchell, R. and Callahan, H. (2000). Using Path Analysis to Measure Natural Selection. *Journal of Evolutionary Biology*, 13(3), 423-433.
- Schöbel, M., Klostermann, A., Lassalle, R., Beck, J. and Manzey, D. (2017). Digging Deeper! Insights from a Multi-method Assessment of Safety Culture in Nuclear Power Plants based on Schein's Culture Model. *Safety Science*, 95, 38-49.
- Sekaran, U. and Bougie, R. (2009). *Research Methods for Business: A Skill-Building Approach*. Fourth Edition. United State of America: John Wiley and Sons, Inc.
- Scotland, J. (2012). Exploring the Philosophical Underpinnings of Research: Relating Ontology and Epistemology to the Methodology and Methods of the Scientific, Interpretive, and Critical Research Paradigms. *English Language Teaching*, 5(9), p9.
- Shadish, W. R., Cook, T. D., and Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*: Wadsworth Cengage learning.
- Shannon, C. E. and Weaver, W. (1948). A Mathematical Theory of Communication. *The Bell System Technical Journal*, 27, 379-423, 623-656.
- Shannon, C. E. (1961). *Two-way Communication Channels*. Paper presented at the Proc. 4th Berkeley Symp. Math. Stat. Prob.
- Sheehan, C., Donohue, R., Shea, T., Cooper, B. and Cieri, H. D. (2016). Leading and Lagging Indicators of Occupational Health and Safety: The Moderating Role of Safety Leadership. *Accident Analysis & Prevention*, 92, 130-138.
- Shepperson, A. (2008). Safety Culture and the Logic of Hazard. *Critical Arts*, 22(2), 187-234.
- Shtatland, E. S., Kleinman, K., and Cain, E. M. (2002). One More Time about R2 Measures of Fit in Logistic Regression. *NESUG 15 Proceedings*, 222-226.

- Shuang, D., Qin, Y and Heng, L. (2015). Positive Safety Participation and Assessment by Integrating Sharing Technology with Virtual Reality. *Procedia Engineering*, 123, 125-134.
- Siew, R. Y. J. (2015). Health and Safety Communication Strategy in a Malaysian Construction Company: A Case Study. *International Journal of Construction Management*, 15(4), 310-320.
- Simpson, N. C., Hancock, P. G. and Chuang, C.-H. (2008). Hyper-Projects and Emergent Logistics: Characterizing the Managerial Challenges of Emergency Response. *Journal of Applied Security Research*, 4(1-2), 36-47.
- Singer, S. J. and Tucker, A. L. (2005). Creating a Culture of Safety in Hospitals. *Abstr Academy Health Meet*, 22, 1-41.
- Siu, O. I., Phillips, D. R., and Leung, T. W. (2004). Safety Climate and Safety Performance among Construction Workers in Hong Kong: The Role of Psychological Strains as Mediators. *Accident Analysis & Prevention*. 36(3), 359-366.
- Skar, M., Sydnes, M. and Sydnes, A. K. (2016). Integrating Unorganized Volunteers in Emergency Response Management: A Case Study. *International Journal of Emergency Services*, 5(1), 52-65.
- Skeepers, N. C. and Mbohwa, C. (2015). A Study on the Leadership Behaviour, Safety Leadership and Safety Performance in the Construction Industry in South Africa. *Procedia Manufacturing*, 4(2015), 10-16.
- Skrondal, A., and Rabe-Hesketh, S. (2005). Structural Equation Modeling: Categorical Variables *Encyclopedia of Statistics in Behavioral Science*: Wiley.
- Smadi, A. A., and Abu-Afouna, N. H. (2012). On Least Squares Estimation in a Simple Linear Regression Model with Periodically Correlated Errors: A Cautionary Note. *Austrian Journal of Statistics*, 41(3), 211-226.
- Smith, G. T. (2005). On Construct Validity: Issues of Method and Measurement. *Psychological assessment*, 17(4), 396.
- Smith, A. P. and Wadsworth, E. J. (2009). Safety Culture, Advice and Performance. *Report submitted to the IOSH Research Committee*.
- Smits, M., Wagner, C., Spreeuwenberg, P., Timmermans, D. R. M., Wal, G., and Groenewegen, P. P. (2012). The Role of Patient Safety Culture in the Causation of Unintended Events in Hospitals. *Journal of Clinical Nursing*. 21(23-24), 3392-3401.

- Sobh, R., and Perry, C. (2005). Research Design and Data Analysis in Realism Research. *European Journal of Marketing*, 40(11/12), 1194-1209.
- Social Security Organization (2014). *Social Security Organization Annual Report*. SOCSO: Kuala Lumpur.
- Sorensen, J. N. (2002). Safety Culture: A Survey of the State-of-the-Art. *Reliability Engineering & System Safety*. 76(2), 189-204.
- Sparer, E. H., Catalano, P. J., Herrick, R. F. and Dennerlein, J. T. (2016). Improving Safety Climate through a Communication and Recognition Program for Construction: A Mixed Methods Study. *Scandinavian journal of work, environment & health*, 42(4), 329-337.
- Spears, L. C. (2010). On Character and Servant Leadership: Ten Characteristics of Effective, Caring Leaders. *The Journal of Virtues & Leadership*, 1(1), 25-30.
- Subramaniam, C., Ali, H. and Mohd Shamsudin, F. (2010). Understanding the Antecedents of Emergency Response: A Proposed Framework. *Disaster Prevention and Management: An International Journal*, 19(5), 571-581.
- Sukadarin, E. H., Suhaimi, N. S. and Abdull, N. (2012). Preliminary Study of the Safety Culture in a Manufacturing Industry. *International Journal of Humanities and Social Science*, 2(4), 176.
- Sumwalt, R. L. (2012). The Role of Organizational Culture, Safety Culture, and Safety Climate in Aviation and Aerospace Safety 1-21.
- Stave, C. (2005). *Safety as a Process: From Risk Perception to Safety Activity*. (Ph.D), Chalmers University of Technology Göteborg, Sweden.
- Stave, C., Pousette, A., and Törner, M. (2008). Risk and Safety Communication in Small Enterprises – How to Support a Lasting Change towards Work Safety Priority. *Journal of Risk Research*, 11(1-2), 195-206.
- Steinmetz, H., Schmidt, P., Tina-Booh, A., Wiczorek, S. and Schwartz, S. H. (2009). Testing Measurement Invariance Using Multigroup CFA: Differences between Educational Groups in Human Values Measurement. *Quality & Quantity*, 43(4), 599-616.
- Storbakken, R. (2002). *An Incident Investigation Procedure for Use in Industry*. Master of Science Degree in Risk Control University of Wisconsin-Stout, Menomonie.

- Stone, T. H., Jawahar, I., and Kisamore, J. L. (2010). Predicting Academic Misconduct Intentions and Behavior Using the Theory of Planned Behavior and Personality. *Basic and Applied Social Psychology*, 32(1), 35-45.
- Subramaniam, C., Ali, H. and Mohd Shamsudin, F. (2010a). Understanding the Antecedents of Emergency Response: A Proposed Framework. *Disaster Prevention and Management: An International Journal*, 19(5), 571-581.
- Subramaniam, C., Ali, H. and Shamsudin, F. M. (2012). Influence of Physical Ability on Initial Emergency Response Performance. *Disaster Prevention and Management*, 21(5), 556-571.
- Subramaniam, C., Faridahwati, M. S., Md. Lazim, M. Z., Sri Ramalu, S. and Zuraidah, H. (2016). Safety Management Practices and Safety Compliance in Small Medium Enterprises: Mediating Role of Safety Participation. *Asia-Pacific Journal of Business Administration*, 8(3), 226-244.
- Suhr, D. D. (2006). *Exploratory or Confirmatory Factor Analysis?* SAS Institute Cary.
- Suki, N. M. (2014). Passenger Satisfaction with Airline Service Quality in Malaysia: A Structural Equation Modeling Approach. *Research in Transportation Business & Management*, 10, 26-32.
- Syed Mohamed, M. S., and Ideris, H. (2012). Managing Risks in a Manufacturing Environment: A Perspective from Reason's Accident Causation Model. *Universal Journal of Management and Social Sciences*, 2(8), 38-46.
- Tam, C. M., Zeng, S. X., and Deng, Z. M. (2004). Identifying Elements of Poor Construction Safety Management in China. *Science Direct*. 42(7), 569-586.
- Tavakol, M., and Dennick, R. (2011). Making Sense of Cronbach's Alpha. *International journal of medical education*, 2, 53-55.
- Taylor, J. B. (2010). *Safety Culture: Organization Safety Culture Theory*: Ashgate.
- Teddlie, C., and Yu, F. (2007). Mixed Methods Sampling a Typology with Examples. *Journal of mixed methods research*, 1(1), 77-100.
- Tennis, J. T. (2008). Epistemology, Theory, and Methodology in Knowledge Organization: Toward a Classification, Metatheory, and Research Framework. *Knowledge Organization*, 35(2/3), 102-112.
- Thanasegaran, G. (2009). Reliability and Validity Issues in Research. *Integration & Dissemination*, 4, 35-40.
- Thibaut, J. W. and Kelley, H. H. (1959). *The Social Psychology in Groups*. New York: John Wiley & Sons, Inc.

- Thompson, C. B., and Panacek, E. A. (2007). Research Study Designs: Non-Experimental. *Air Medical Journal*, 26(1), 18-22.
- Thompson, K. N. (2010). *Servant-leadership: An Effective Model for Project Management*. (Ph.D), Capella University.
- Thorvaldsen, T., and Sønvisen, S. A. (2014). Multilingual Crews on Norwegian Fishing Vessels: Implications for Communication and Safety on Board. *Marine Policy*, 43, 301-306.
- Tolbize, A. (2008). Generational Differences in the Workplace. *Research and Training Center on Community Living*, 1-21.
- Tong, D. Y. K., Rasiah, D., Tong, X. F., and Lai, K. P. (2015). Leadership Empowerment Behaviour on Safety Officer and Safety Teamwork in Manufacturing Industry. *Safety Science*, 72, 190-198.
- Tourish, D. (2005). Critical Upward Communication: Ten Commandments for Improving Strategy and Decision Making. *Long Range Planning*, 38(5), 485-503.
- Trochim, W. M. (2006). *The Research Methods Knowledge Base* (2nd ed.).
- Tsai, M. T., and Cheng, N. C. (2010). Programmer Perceptions of Knowledge-sharing Behavior Under Social Cognitive Theory. *Expert Systems with Applications*, 37(12), 8479-8485.
- Tulonen, T. (2010). *Electrical Accident Risks in Electrical Work*. (PhD), Tampere University of Technology, Tampere. Tukes.
- Turner, T., Qvarfordt, P., Biehl, J. T., Golovchinsky, G., and Back, M. (2010). *Exploring the Workplace Communication Ecology*. Paper presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems.
- Ullman, J. B., and Bentler, P. M. (2003). Structural Equation Modeling *Handbook of Psychology*: John Wiley & Sons, Inc.
- Ullman, J. B. (2006). Structural Equation Modelling: Reviewing the Basics and Moving Forward. *Journal of Personality Assessment*, 87(1), 35-50.
- Vacar, A., and Miricescu, D. (2013). Leadership a Key Factor to a Successful Organization Part II. *Procedia Economics and Finance*. 6(2013), 430-435.
- Van Griensven, H., Moore, A. P., and Hall, V. (2014). Mixed Methods Research – The Best of Both Worlds? *Manual Therapy*, 19(5), 367-371.

- Van Ruler, B. and De Lange, R. (2003). Barriers to Communication Management in the Executive Suite. *Public Relations Review*, 29(2), 145-158.
- Vasconcelos, A. G. G., Almeida, R. M. V., and Nobre, F. F. (1998). The Path Analysis Approach for the Multivariate Analysis of Infant Mortality Data. *Annals of Epidemiology*. 8(4), 262-271.
- Vatcheva, K. P., Lee, M. J., McCormick, J. B. and Rahbar, M. H. (2016). Multicollinearity in Regression Analyses Conducted in Epidemiologic Studies. *Epidemiology*, 6(2), 1-9.
- Vecchio-Sadus, A. M. (2007). Enhancing Safety Culture through Effective Communication. *Safety Science Monitor*. 11(3).
- Versen, P. (1983). Employers' and Workers' Cooperation. *ILO Encyclopedia of Occupational Safety and Health*, 1, 754-756.
- Vicente, K. J., and Christoffersen, K. (2006). The Walkerton E. Coli Outbreak: A Test of Rasmussen's Framework for Risk Management in a Dynamic Society. *Theoretical Issues in Ergonomics Science*. 7(2), 93-112.
- Vinodkumar, M. N. and Bhasi, M. (2010). Safety Management Practices and Safety Behaviour: Assessing the Mediating Role of Safety Knowledge and Motivation. *Accident Analysis and Prevention*, 42, 2082-2093.
- Visagie, J. C., and Linde, H. (2010). Evolving Role and Nature of Workplace Leaders and Diversity: A Theoretical and Empirical Approach. *Managing Global Transitions*, 8(4), 381-403.
- Von Thiele Schwarz, U., Hasson, H. and Tafvelin, S. (2016). Leadership Training as an Occupational Health Intervention: Improved Safety and Sustained Productivity. *Safety Science*, 81, 35-45
- Voth-Gaeddert, L. E., and Oerther, D. B. (2014). Utilizing Structural Equation Modeling in the Development of a Standardized Intervention Assessment Tool. *Procedia Engineering*, 78, 218-223.
- Vredenburg, A. G. (2002). Organizational Safety: Which Management Practices Are Most Effective in Reducing Employee Injury Rates? *Journal of Safety Research*. 33, 259– 276.
- Wallance, J. C., Popp, E., and Mondore, S. (2006). Safety Climate as a Mediator between Foundation Climates and Occupational Accidents: A Group-level Investigation. *Journal of Applied Psychology*, 91(3), 681-688.

- Wang, Y. F., Faghieh Roohi, S., Hu, X. M. and Xie, M. (2011). Investigations of Human and Organizational Factors in hazardous vapor accidents. *Journal of Hazardous Materials*, 191(1–3), 69-82.
- Wang, C.-H., and Liu, Y.-J. (2012). Omnidirectional Safety Culture Analysis and Discussion for Railway Industry. *Safety Science*. 50(5), 1196-1204.
- Ward, R. (2009). The Management of Accidents. *Journal of Achievements in Materials and Manufacturing Engineering*, 32(1), 75-80.
- Wei, K.-K., Teo, H.-H., Chan, H. C., and Tan, B. C. (2011). Conceptualizing and Testing a Social Cognitive Model of the Digital Divide. *Information Systems Research*, 22(1), 170-187.
- Welman, J. C., and Kruger, S. J. (1999). *Research Methodology for the Business and Administrative Science*. Johannesburg, Africa: International Thompson.
- Webb, N. M., Shavelson, R. J., and Haertel, E. H. (2006). Reliability Coefficients and Generalizability Theory. *Handbook of statistics*, 26, 81-124.
- Westerman, M. A. (2014). Examining Arguments Against Quantitative Research: “Case studies” Illustrating the Challenge of Finding a Sound Philosophical Basis for a Human Sciences Approach to Psychology. *New Ideas in Psychology*, 32, 42-58.
- Williams, J. H. (2002). Improving Safety Leadership Using Industrial/Organizational Psychology to Enhance Safety Performance. *Professional Safety*, 43-47.
- Williams, J. H. (2006). *Improving Safety Communication Skills: Becoming an Empathic Communicator*. Paper presented at the Proceedings of the Annual Professional Development Conference for the American Society of Safety Engineers, Seattle, WA.
- Williams, J. H. (2008). Improving Management Support for Safety to Optimize Safety Culture, Part 2. *Occupational Hazards*, 70(6), 71.
- Williams, J. and Geller, E. S. (2008). Communication Strategies for Achieving a Total Safety Culture: Employers need to Overcome the Perception that Giving Safety-related Feedback Creates Interpersonal Conflict. *Occupational Hazards*, 70(7), 49-51.
- Willis, S., Clarke, S. and O'Connor, E. (2017). Contextualizing Leadership: Transformational Leadership and Management-By-Exception-Active in Safety-Critical Contexts. *Journal of Occupational and Organizational Psychology* (2017), 1-25.

- Wilson-Donnelly, K. A., Priest, H. A., Salas, E. and Burke, C. S. (2005). The Impact of Organizational Practices on Safety in Manufacturing: A Review and Reappraisal. *Human Factors and Ergonomics in Manufacturing & Service Industries*, 15(2), 133-176.
- Woo, D. M., and Vicente, K. J. (2003). Sociotechnical Systems, Risk Management, and Public Health: Comparing the North Battleford and Walkerton Outbreaks. *Reliability Engineering & System Safety*. 80(3), 253-269.
- Woodcock, B. and Au, Z. (2013). Human Factors Issues in the Management of Emergency Response at High Hazard Installations. *Journal of Loss Prevention in the Process Industries*, 26(3), 547-557.
- Wooten, L. P., and James, E. H. (2008). Linking Crisis Management and Leadership Competencies: The Role of Human Resource Development. *Advances in Developing Human Resources*, 10(3), 352-379.
- Wu, C. H. (2007). An Empirical Study on the Transformation of Likert-scale Data to Numerical Scores. *Applied Mathematical Sciences*, 1(58), 2851-2862.
- Wu, S., Hrudey, S., French, S., Bedford, T., Soane, E., and Pollard, S. (2009). A Role for Human Reliability Analysis (HRA) in Preventing Drinking Water Incidents and Securing Safe Drinking Water. *Water research*, 43(13), 3227-3238.
- Wu, T. C. (2005). The Validity and Reliability of Safety Leadership Scale in Universities of Taiwan. *International Journal of Technology and Engineering Education*, 2(1), 27-42.
- Wu, T. C., Liu, C. W., and Lu, M. C. (2007). Safety Climate in University and College Laboratories: Impact of Organizational and Individual Factors. *Journal of Safety Research*. 38, 91-102.
- Wu, T. C., Chen, C. H., and Li, C. C. (2008a). A Correlation among Safety Leadership, Safety Climate and Safety Performance. *Journal of Loss Prevention in the Process Industries*. 21(3), 307-318.
- Wu, T. C., Li, C. C., Chen, C. H., and Shu, C. M. (2008b). Interaction Effects of Organizational and Individual Factors on Safety Leadership in College and University Laboratories. *Journal of Loss Prevention in the Process Industries*. 21(3), 239-254.
- Wu, T. C. (2008c). Safety Leadership in the Teaching Laboratories of Electrical and Electronic Engineering Departments at Taiwanese Universities. *Journal of Safety Research*. 39(6), 599-607.

- Wu, T. C., Lin, C. H., and Shiau, S. Y. (2010). Predicting Safety Culture: The Roles of Employer, Operations Manager, and Safety Professional. *Journal of Safety Research*. 41(5), 423-431.
- Wu, C., Wang, F., Zou, P. X. W. and Fang, D. (2016). How Safety Leadership Works Among Owners, Contractors and Subcontractors in Construction Projects. *International Journal of Project Management*, 34(5), 789-805.
- Xiong, B., Skitmore, M., Xia, B., Masrom, M. A., Ye, K., and Bridge, A. (2014). Examining the Influence of Participant Performance Factors on Contractor Satisfaction: A Structural Equation Model. *International Journal of Project Management*, 32(3), 482-491.
- Xue, C. (2012). *Communication and its Role in Influencing Shipboard Occupational Health and Safety Management in Chinese Shipping*. (Ph.D), Cardiff University.
- Yang, C.-C., Wang, Y.-S., Chang, S.-T., Guo, S.-E. and Huang, M.-F. (2009). A Study on the Leadership Behavior, Safety Culture, and Safety Performance of the Healthcare Industry. *World Academy of Science, Engineering and Technology*, 53, 1148-1155.
- Yim, S. and Shin, M. (2014). Effects of System Quality and Information Quality on the Use and Job Performance of an Enterprise Mobility Solution for a Mobile Office with a Consideration of Task Mobility and Task Interdependence as Control Variables. *Asia Pacific Journal of Information Systems*, 24(2), 115-140.
- Young, P. (2012). *A Glance into Organizational Culture, Ethical Workplace Climate, and Employee Engagement Levels in a Health Organization Unit*. (Master), University of Prince Edward Island, Charlottetown.
- Youngquist, S. T., and Gee, C. A. (2011). Non-Experimental Studies in Air Medical Research. *Air Medical Journal*. 30(4), 168-172.
- Yukl, G. (1999). An Evaluation of Conceptual Weaknesses in Transformational and Charismatic Leadership Theories. *The Leadership Quarterly*, 10(2), 285-305.
- Yule, S. (2003). *Senior Management Influence on Safety Performance in the UK and US Energy Sectors*. (Ph.D), University of Aberdeen, Scotland.
- Yule, S., Flin, R., and Murdy, A. (2007). The Role of Management and Safety Climate in Preventing Risk-taking at Work. *International Journal of Risk Assessment and Management*, 7(2), 137-151.

- Yuzhong, S. (2013). *An Investigation of Safety Climate on Hong Kong Construction Sites*. (PhD), The University of Hong Kong, Hong Kong.
- Zaidatol, A. L. P. and Afsaneh, B. (2012). An Exploratory Study of Entrepreneurial Attributes among Malaysian University Students *Life Science Journal*, 9(3), 2358-2365.
- Zait, A. and Berteau, P. E. (2011). Methods for Testing Discriminant Validity. *Management and Marketing*, 9(2), 217-224.
- Zakaria, N. H., Mansor, N., and Abdullah, Z. (2012). Workplace Accident in Malaysia: Most Common Causes and Solutions. *Business and Management Review*, 2, 75-88.
- Zemba, Y., Young, M. J., and Morris, M. W. (2006). Blaming Leaders for Organizational Accidents: Proxy Logic in Collective Versus Individual Agency Cultures. *Organizational Behavior and Human Decision Processes*, 101(1), 36-51.
- Zhang, W., Wang, H., and Pearce, C. L. (2013). Consideration for Future Consequences as an Antecedent of Transformational Leadership Behavior: The Moderating Effects of Perceived Dynamic Work Environment. *The Leadership Quarterly*.
- Zimolong, B. and Elke, G. (2006). Occupational Health and Safety Management. *Handbook of Human Factors and Ergonomics*, 673-707.
- Zohar, D. (1980). Safety Climate in Industrial Organizations: Theoretical and Applied Implications. *Journal of Applied Psychology*. 65 (1), 96-102.
- Zohar, D. (2002). The Effects of Leadership Dimensions, Safety Climate, and Assigned Priorities on Minor Injuries in Work Groups. *Journal of Organizational Behavior*. 23, 75-92.
- Zohar, D. and Luria, G. (2003). The Use of Supervisory Practices as Leverage to Improve Safety Behavior: A Cross-level Intervention Model. *Journal of Safety Research*, 34(5), 567-577.