

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



ROAD ACCIDENT RISK PERCEPTION AMONG POLICE OFFICERS

THANESH RAJ A/L GOBAL



**MASTER OF SCIENCE
(OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT)**

UNIVERSITI UTARA MALAYSIA

2020

ROAD ACCIDENT RISK PERCEPTION AMONG POLICE OFFICERS

By:

THANESH RAJ A/L GOBAL

824123



Thesis submitted to

School of Business Management, Universiti Utara Malaysia,

in Partial Fulfillment of the Requirement for the

Masters of Science (Occupational Safety and Health Management)



**Pusat Pengajian Pengurusan
Perniagaan**
SCHOOL OF BUSINESS MANAGEMENT
Universiti Utara Malaysia

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

Saya, mengaku bertandatangan, memperakukan bahawa

(*I, the undersigned, certify that*)

THANESH RAJ GOBAL (824123)

Calon untuk Ijazah Sarjana

(*Candidate for the degree of*)

MASTER OF SCIENCE (OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT)

telah mengemukakan kertas penyelidikan yang bertajuk

(*has presented his/her research paper of the following title*)

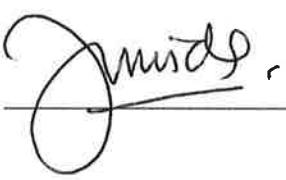
ROAD ACCIDENT RISK PERCEPTION AMONG POLICE OFFICERS

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

Bahawa kertas penyelidikan tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.

(*that the research paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the research paper*).

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

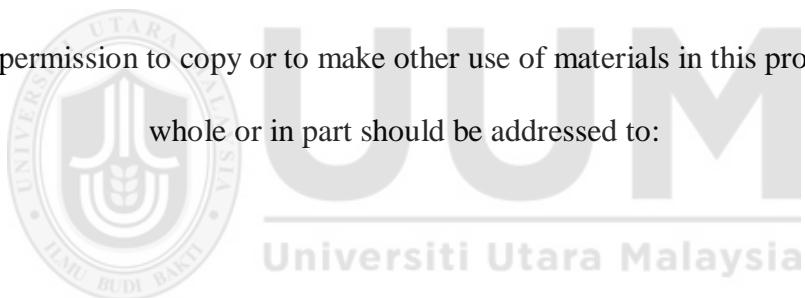
Tandatangan : 
(*Signature*)

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

PERMISSION TO USE

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

Request for permission to copy or to make other use of materials in this project paper in
whole or in part should be addressed to:



Dean School of Business Management

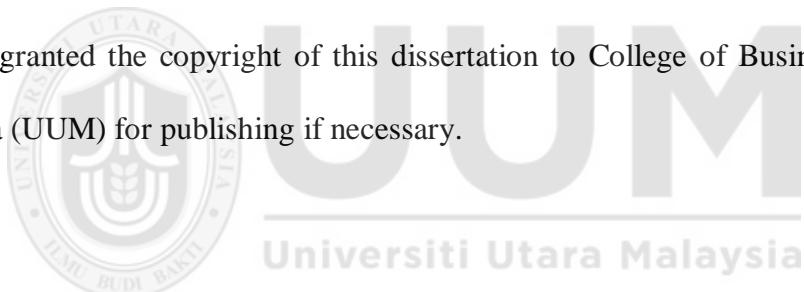
Universiti Utara Malaysia, 06010 UUM Sintok

Kedah Darul Aman.

DISCLAIMER

The author is responsible for the accuracy of all opinion, technical comment, factual report, data, figures, illustrations and photographs in the dissertation. The author bears full responsibility for the checking whether material submitted is subject to copyright or ownership right. Universiti Utara Malaysia (UUM) does not accept any liability for the accuracy of such comment, report and other technical and factual information and the copyright or ownership right claims.

The author declares that this dissertation is original and his own except those literatures, quotations, explanations and summarizations which are duly identified and recognized. The author hereby granted the copyright of this dissertation to College of Business, Universiti Utara Malaysia (UUM) for publishing if necessary.



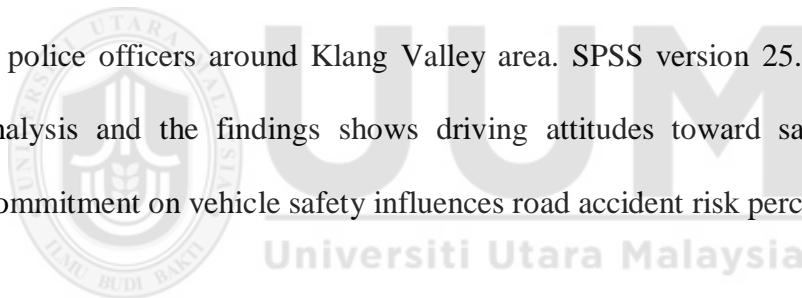
Date: 22 JUNE 2020

Student Signature:

A handwritten signature in black ink, appearing to read 'hameesh', is placed next to the student's name.

ABSTRACT

Police job is regarded as one of the riskiest profession with high likelihood to experience physical harm while on duty. Amongst the greatest safety and health hazards towards them are road accidents that may cause injuries and deaths. The purpose of this study is to investigate the differences and relationship level on road accident risk perception among police officers as dependent variable with independent variables which are demographic characteristics, driving attitudes toward safe driving and link between management commitment on vehicle safety. The research method is quantitative analysis and adopting cross-sectional survey in data gathering. Primary data generated from the questionnaire choose as a data collection which consist of 25 questions. Random sampling method used in collecting data involving police officers around Klang Valley area. SPSS version 25.0 was used for quantitative analysis and the findings shows driving attitudes toward safe driving and management commitment on vehicle safety influences road accident risk perception.



Keywords: Police officer, Risk perception, Demographic, Management commitment, Attitude, Road accident

ABSTRAK

Pekerjaan polis diketahui sebagai salah satu profesion paling berisiko dengan kemungkinan besar mengalami kecederaan fizikal semasa bertugas. Antara ancaman keselamatan dan kesihatan yang paling besar adalah kemalangan jalan raya yang boleh menyebabkan kecederaan dan kematian. Tujuan kajian ini adalah untuk mengkaji serta menyiasat perbezaan dan tahap hubungan terhadap persepsi risiko kemalangan jalan raya di kalangan pegawai polis di sekitar Lembah Klang sebagai pemboleh ubah bersandar dan menggunakan pemboleh ubah bebas pula merupakan ciri demografi, sikap memandu terhadap pemanduan yang selamat dan hubungan antara komitmen pengurusan terhadap keselamatan kenderaan. Kaedah kajian adalah analisis kuantitatif dan menggunakan pendekatan tinjauan keratan rentas dalam pengumpulan data. Data primer yang dihasilkan dari soal selidik dipilih sebagai pengumpulan data yang terdiri daripada 25 soalan. Kaedah pengambilan sampel secara rawak yang digunakan dalam mengumpulkan data yang melibatkan pegawai polis di sekitar kawasan Lembah Klang. SPSS versi 25.0 digunakan untuk analisis kuantitatif dan hasilnya menunjukkan sikap memandu terhadap pemanduan yang selamat dan komitmen pengurusan terhadap keselamatan kenderaan mempengaruhi persepsi risiko kemalangan jalan raya.

Katakunci: Pegawai polis, Persepsi risiko, Demografi, Komitmen pengurusan, Sikap, Kemalangan jalan raya

ACKNOWLEDGEMENT

First and foremost, praises and thanks to the God, for his showers of blessings, strength, peace of mind and good health throughout my research work to complete the research successfully.

I would like to express my special gratitude and thanks to my supervisor DR. ZURAIDA HASSAN for imparting her knowledge and expertise in this study. Without her encouragement, I would not have completed this study and I truly appreciate her guidance and support in making this research paper a success.

Lastly, I extend my gratitude towards my family, relatives, course mate and colleagues for their backing which aided me in the completion of this study. My beloved and supportive wife, KUPPU who is always by my side and helped me significantly for this study and completing my Masters course in this esteemed institution.

Universiti Utara Malaysia

Table of Contents

TITLE	PAGE
CERTIFICATION OF DISSERTATION	iii
PERMISSION TO USE	iv
DISCLAIMER	v
ABSTRACT	vi
ABSTRAK	vii
ACKNOWLEDGEMENT	viii
Table of Contents	ix
List of Tables	xiii
List of Figures	xiv
LIST OF ABBREVIATIONS	xv
CHAPTER 1 INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	4
1.3 Research Question	7
1.4 Research Objective	7
1.5 Scope and Limitation of the Study	8
1.6 Significance of the Study	8
1.7 Definitions of Key Concepts	9
1.7.1 Police Officers	9
1.7.2 Demographic Characteristics	9
1.7.3 Management Commitment	9

1.7.4 Driving Attitudes Toward Safe Driving	10
1.7.5 Road Accident Risk Perception	10
1.8 Organization of the Thesis	10
1.9 Summary	11
CHAPTER 2 LITERATURE REVIEW	12
2.1 Introduction	12
2.2 Road Users Accident Risk Perception	12
2.3 Road Accident Risk Perception	14
2.4 Factors Contribute to Road Accident Risk Perception	15
2.4.1 Demographic Characteristics	16
2.4.2 Driving Attitude on Safe Driving	20
2.4.3 Management Commitment on Vehicle Safety	21
2.5 Hypothesis Development	23
2.5.1 The Influence of Demographic Characteristic on Road Accident Risk Perception	23
2.5.2 The Relationship Between Driving Attitude on Safety Driving and Road Accident Risk Perception	24
2.5.3 The Link Between Management Commitment on Vehicle Safety and Road Accident Risk Perception	25
2.6 Underpinning Theory : Cultural Theory	26
2.7 Research Framework	28
2.8 Summary	29
CHAPTER 3 RESEARCH METHODOLOGY	30
3.1 Introduction	30
3.2 Research Design	30

3.3 Population, Sample Size, Sampling Techniques and Unit of Analysis	31
3.4 Research Instrument	31
3.5 Data Collection and Procedure	33
3.6 Pilot Study	34
3.7 Data Analysis Technique	34
3.8 Summary	35
CHAPTER 4 FINDINGS OF THE STUDY	36
4.1 Introduction	36
4.2 Demographic Profile of Respondents	36
4.3 Goodness of Measure	39
4.4 Reliability Test	39
4.5 Descriptive Analysis	40
4.6 Correlation Analysis	42
4.7 Multiple Regression Analysis	43
4.7.1 Summary of Regression Analysis	44
4.8 Summary	45
CHAPTER 5 DISCUSSION, RECOMMENDATION AND CONCLUSION	46
5.1 Introduction	46
5.2 Discussion	46
5.2.1 Relationship between Demographic Characteristics with Road Accident Risk Perception	47
5.2.1.1 Relationship between Gender Differences with Road Accident Risk Perception	47
5.2.1.2 Relationship between Age Differences with Road Accident Risk Perception	48

5.2.1.3 Relationship between Driving Experience with Road Accident Risk Perception	48
5.2.1.4 Relationship between Education Level with Road Accident Risk Perception	49
5.2.1.5 Relationship between Road Accident Experience with Road Accident Risk Perception	49
5.2.2 Relationship between Driving Attitude on Safe Driving with Road Accident Risk Perception	50
5.2.3 Relationship between Management Commitment on Vehicle Safety with Road Accident Risk Perception	50
5.3 Implications	52
5.3.1 Theoretical Implications	52
5.3.2 Managerial Implications	52
5.4 Limitations of the Study	53
5.5 Suggestion for Future Research	54
5.6 Conclusion	54
REFERENCES	56
APPENDIX A	66

List of Tables

Table 3.1 List of Instruments	32
Table 3.2 Reliability Coefficient for Each Variable	34
Table 4.1 Profile of Respondents	38
Table 4.2 Reliability of all The Studied Constructs	40
Table 4.3 Descriptive Statistics for All Variables	40
Table 4.4 ANOVA Results	41
Table 4.5 Pearson's Correlation Matrix of Study Variables	43
Table 4.6 Regression Result of the Relationship between Variables	44
Table 4.7 Model Summary B	44
Table 4.8 Summary of Hypotheses Testing	45



List of Figures

Figure 2.1 Research Framework

29



LIST OF ABBREVIATIONS

SPSS	Statistical Package for The Social Science
MPV	Multi-purpose Vehicle
URB	Motorcycle Patrol Unit
RMP	Royal Malaysian Police
MCO	Movement Control Order
KMO	Kaiser-Meyer-Olkin



CHAPTER 1

INTRODUCTION

This chapter sets to clarify certain important issues about this study. Firstly, it provides an overview of the background of the study, problem statement, research questions, research objectives, significance of the study, scope and limitations of the study.

1.1 Background of the study

The RMP is a centralized body with duties ranging from traffic control to gathering intelligence. The main functions of RMP as stated in Section 3(3) Police Act 1967, includes maintaining law and order, preserving Malaysia's peace and security, preventing and detecting crime, apprehending and prosecuting offenders and collecting intelligence on security matters.

However, studies have shown that the police work has been described as one of the most dangerous and physically demanding occupations in which injury occurs more frequently than in other professions (Larsen et al., 2016 & Claire, 2002). It is also categorized as an unsafe occupation due to significant likelihood of dying or getting seriously injured on the job (Tiesman et al., 2015). Due to the unpredictable, varied, and physical nature of law enforcement, these officers are at a high risk in facing threats to their safety and well-being compared to other vocations and general population. The physical law enforcement duties might include load-free and varied distances, detention of non-compliant suspects, transportation of wounded or unconscious persons, self-defense activity and handling tasks manually (Lyons et al., 2016).

REFERENCES

Arboleda, A., Morrow, P. C., Crum, M. R., & Shelley II, M. C. (2003). Management practices as antecedents of safety culture within the trucking industry: similarities and differences by hierarchical level. *Journal of safety research*, 34(2), 189-197.

Assum, T. (1997). Attitudes and road accident risk. *Accident Analysis & Prevention*, 29(2), 153-159.

Brown, I. D., & Groeger, J. A. (1988). Risk perception and decision taking during the transition between novice and experienced driver status. *Ergonomics*, 31(4), 585-597.

Castellà, J., Pérez, J., 2004. Sensitivity to punishment and sensitivity to reward and traffic violations. *Accid. Anal. Prev.* 36 (6), 947–952,

Chan, A.H.S., Kwok, W.Y. and Duffy, V.G. (2004), “Using AHP for determining priority in a safety management system”. *Industrial Management & Data Systems*, 104(5), pp. 430-445.

Constantinou, E., Panayiotou, G., Konstantinou, N., Loutsiou-Ladd, A., Kapardis, A., 2011. Risky and aggressive driving in young adults: personality matters. *Accid. Anal. Prev.* 43 (4), 1323–1331.

Cordellieri, P., Baralla, F., Ferlazzo, F., Sgalla, R., Piccardi, L., & Giannini, A. M. (2016). Gender effects in young road users on road safety attitudes, behaviors and risk perception. *Frontiers in psychology*, 7, 1412.

Deery, H. A. (1999). Hazard and risk perception among young novice drivers. *Journal of safety research*, 30(4), 225-236.

DeJoy, D. M. (1992). An examination of gender differences in traffic accident risk perception. *Accident Analysis & Prevention*, 24(3), 237-246.

DePasquale, J. P., & Geller, E. S. (1999). Critical success factors for behavior-based safety: A study of twenty industry-wide applications. *Journal of safety research*, 30(4), 237-249.

Dixit, V., Harrison, G. W., & Rutström, E. E. (2014). Estimating the subjective risks of driving simulator accidents. *Accident Analysis & Prevention*, 62, 63-78.

Douglas, M., & Wildavsky, A. (1982). Risk and culture: An essay on the selection of environmental and technological dangers. *Berkeley: University of California Press*, p12.

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt brace Jovanovich college publishers.

Eboli, L., Mazzulla, G., & Pungillo, G. (2017). Measuring the driver's perception error in the traffic accident risk evaluation. *IET intelligent transport systems*, 11(10), 659-666.

Elander, J., West, R., & French, D. (1993). Behavioral correlates of individual differences in road-traffic crash risk: An examination of methods and findings. *Psychological bulletin*, 113(2), 279.

Farik Zolkepli. (2018, December 05). *Policeman killed, another injured in road accident*. The Star Online, Retrieved from <https://www.thestar.com.my/news/nation/2018/12/05/policeman-killed-another-injured-in-road-accident/>

Fleming, M., Flin, R., Mearns, K., & Gordon, R. (1998). Risk perceptions of offshore workers on UK oil and gas platforms. *Risk Analysis*, 18(1), 103-110.

Glendon, A. I., McNally, B., Jarvis, A., Chalmers, S. L., & Salisbury, R. L. (2014). Evaluating a novice driver and pre-driver road safety intervention. *Accident Analysis & Prevention*, 64, 100-110.

Hair, J. F., Black, W. C., Balin, B. j., & Anderson, R. E. (2010). *Multivariate data analysis: Maxwell Macmillan International Editions.*

Hakes, J. K., & Viscusi, W. K. (2004). Dead Reckoning: Demographic Determinants of the Accuracy of Mortality Risk Perceptions. *Risk Analysis*, 24(3), 651–664.

Harrell, W. A. (1999). Perceived risk of work-related injury and intentions to change employment. *Psychological reports*, 84(1), 273-276.

Hidalgo-Fuentes, S., & Sospedra-Baeza, M. J. (2019). Gender and age distribution of motorcycle crashes in Spain. *International journal of injury control and safety promotion*, 26(1), 108-114.

Hilde Iversen & Torbjørn Rundmo (2004) Attitudes towards traffic safety, driving behaviour and accident involvement among the Norwegian public. *Ergonomics*, 47(5), 555-572.

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

Hon, C.K.H., Hinze, J. and Chan, A.P.C. (2014), “Safety climate and injury occurrence of repair, maintenance, minor alteration and addition works: a comparison of workers, supervisors and managers”. *Facilities*.

Hope M. Tiesman Rebecca J. Heick Srinivas Konda Scott Hendricks, (2015),"Law enforcement officers ' risk perceptions toward on-duty motor-vehicle events". *Policing: An International Journal of Police Strategies & Management*.

Huang, Y. H., Ho, M., Smith, G. S., & 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.

Iragüen, P., & de Dios Ortúzar, J. (2004). Willingness-to-pay for reducing fatal accident risk in urban areas: An Internet-based Web page stated preference survey. *Accident Analysis & Prevention*, 36(4), 513-524.

Iversen, H., & Rundmo, T. (2004). Attitudes towards traffic safety, driving behaviour and accident involvement among the Norwegian public. *Ergonomics*, 47(5), 555-572.

Jonah, B. A. (1986). Accident risk and risk-taking behaviour among young drivers. *Accident Analysis & Prevention*, 18(4), 255-271.

Kinnear, N., Kelly, S. W., Stradling, S., & Thomson, J. (2013). Understanding how drivers learn to anticipate risk on the road: A laboratory experiment of affective anticipation of road hazards. *Accident Analysis & Prevention*, 50, 1025-1033.

Kouabenan, D. R. (2002). Occupation, driving experience, and risk and accident perception. *Journal of Risk Research*, 5(1), 49–68.

Labodova, A. (2004), “Implementing integrated management systems using a risk analysis based approach”. *Journal of Cleaner Production*, 12, pp. 571-580.

Langford, D., Rowlinson, S. and Sawacha, E. (2000), “Safety behavior and safety management: its influence on the attitudes of workers in the UK construction industry”, Engineering. *Construction and Architectural Management*, 7(2), pp. 133-140.

Law, W.K., Chan, A.H.S. and Pun, K.F. (2006), “Prioritising the safety elements: a hierarchical analysis for manufacturing enterprises”. *Industrial Management and Data Systems*, 106(6), pp. 778-792.

Lokesh, L., Patra, S., & Venkatesan, S. (2016). Job satisfaction among police personnel: a socio-demographic study. *Global Journal of Interdisciplinary Social Sciences*, 4(5), 56-62.

Lund, I. O., & Rundmo, T. (2009). Cross-cultural comparisons of traffic safety, risk perception, attitudes and behaviour. *Safety Science*, 47(4), 547-553.

MacDonald, C. (2012). Understanding participatory action research: A qualitative research methodology option. *The Canadian Journal of Action Research*, 13(2), 34-50.

Machado-León, J. L., de Oña, J., de Oña, R., Eboli, L., & Mazzulla, G. (2016). Socio-economic and driving experience factors affecting drivers' perceptions of traffic crash risk. *Transportation research part F: traffic psychology and behaviour*, 37, 41-51.

Malaymail. (2019, February 28). *Duo nabbed for ramming police vehicle on Jalan Gombak*. Malaymail, Retrieved from <https://www.malaymail.com/news/malaysia/2019/02/28/duo-nabbed-for-ramming-police-vehicle-on-jalan-gombak/1727668>

Măirean, C. (2020). Posttraumatic stress symptoms, fear and avoidance of driving, and aberrant driving behaviors. The moderating role of gender. *Journal of Transport & Health*, 16, 100830.

McCartt, A.T., Mayhew, D.R., Braitman, K.A., Ferguson, S.A., Simpson, H.M., 2009. Effects of age and experience on young driver crashes: review of recent literature. *Traffic Inj. Prev.* 10 (3), 209–219.

McElvain, J. P., & Kposowa, A. J. (2008). Police officer characteristics and the likelihood of using deadly force. *Criminal justice and behavior*, 35(4), 505-521.

Mearns, K., & Flin, R. (1995). Risk perception and attitudes to safety by personnel in the offshore oil and gas industry: a review. *Journal of loss prevention in the process industries*, 8(5), 299-305.

Mills, K. L., Hall, R. D., McDonald, M., & Rolls, G. W. P. (1996). The effects of hazard perception training on the development of novice driver skills. In *Roadsafe'96*.

Influences Affecting Road User Behaviour. International Conference, London 24th And 25th July 1996. Conference Report.

Millstein, S. G., & Halpern-Felsher, B. L. (2002). Perceptions of risk and vulnerability. *Journal of adolescent health, 31*(1), 10-27.

Mohamed, M., & Bromfield, N. F. (2017). Attitudes, driving behavior, and accident involvement among young male drivers in Saudi Arabia. *Transportation research part F: traffic psychology and behaviour, 47*, 59-71.

Moradi, A., Motevalian, S.A., Mirkoohi, M., McKay, M.P., Rahimi-Movaghar, V., 2013. Exceeding the speed limit: prevalence and determinants in Iran. *Int. J. Inj. Contr. Saf. Promot. 20* (4), 307–312.

Mullen J. (2004). Investigating factors that influence individual safety behavior at work. *Journal of safety research, 35*(3), 275-285.

NHTSA, 2009. Traffic Safety Facts, 2008. U.S. Department of Transportation, National Center for Statistical Analysis, Washington, D.C.

Noland, R., 1995. Perceived risk and modal choice: risk compensation in transportation systems. *Accid. Anal. Prev. 27*, 503–521.

Nordfjærn, T., Jørgensen, S., & Rundmo, T. (2011). A cross-cultural comparison of road traffic risk perceptions, attitudes towards traffic safety and driver behaviour. *Journal of Risk Research, 14*(6), 657–684.

Organisation for Economic Co-operation and Development (OECD) (2016). *Road Accidents (Indicator)*. Available online at: <http://data.oecd.org/transport/road-accidents.htm>.

Oviedo-Trespalacios, O., King, M., Haque, M. M., & Washington, S. (2017). Risk factors of mobile phone use while driving in Queensland: Prevalence, attitudes, crash risk perception, and task-management strategies. *PLoS one, 12*(9).

Pallant, J. (2013). *SPSS survival manual*. McGraw-Hill Education (UK).

Parker, D., Lajunen, T., Stradling, S., 1998. Attitudinal predictors of interpersonal violations on the road. *Transportation Research Part F 1*, 11–24.

Parker, D., Manstead, A. S., Stradling, S. G., & Reason, J. T. (1992). Intention to commit driving violations: An application of the theory of planned behavior. *Journal of Applied Psychology*, 77, 94–101.

Peden, M., Scurfield, R., Sleet, D., Mohan, D., Hyder, A.A., Jarawan, E., Mathers, C., 2004. *World Report on Road Traffic Injury Prevention*. World Health Organization, Geneva.

Ram, T., & Chand, K. (2016). Effect of drivers' risk perception and perception of driving tasks on road safety attitude. *Transportation research part F: traffic psychology and behaviour*, 42, 162-176.

Rhodes, N., & Pivik, K. (2011). Age and gender differences in risky driving: The roles of positive affect and risk perception. *Accident Analysis & Prevention*, 43(3), 923–931.

Riordan, C. M., & Shore, L. M. (1997). Demographic diversity and employee attitudes: An empirical examination of relational demography within work units. *Journal of Applied Psychology*, 82(3), 342–358.

Robertson, L. S. (1975). Factors associated with safety belt use in 1974 starter-interlock equipped cars. *Journal of Health and Social Behavior*, 173-177.

Robertson, L. S., O'Neill, B., & Wixom, C. W. (1972). Factors associated with observed safety belt use. *Journal of Health and Social Behavior*, 18-24.

Rundmo, T. (2000). Safety climate, attitudes and risk perception in Norsk Hydro. *Safety Science*, 34(1-3), 47–59.

Sami, A., Najafi, A., Yamini, N., Moafian, G., Aghabeigi, M. R., Lankarani, K. B., & Heydari, S. T. (2013). Educational level and age as contributing factors to road traffic accidents. *Chinese journal of traumatology*, 16(5), 281-285.

Savage, I. (1993). Demographic influences on risk perceptions. *Risk analysis*, 13(4), 413-420.

Sekaran, U. (2003). Research methods for business (4th ed.). Hoboken, NJ: John Wiley & Sons.

Sekaran, U., & Bougie, R. (2010). Theoretical framework in theoretical framework and hypothesis development. *Research methods for business: A skill building approach*, 80, 13-25.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.

Shahid, I., & Hassan Syed, M. (2011). Effects of Demographic Characteristics on Consumer's Choice of Buying Green Products: An Empirical Study of Swedish Electricity Market: Can demographic characteristics of Swedish consumers, influence the choice of green electricity over conventional electricity?

Slovic, P., Finucane, M., Peters, E., & MacGregor, D. G. (2002). *Heuristics and biases: The psychology of intuitive judgment*. 'The affect heuristic', 397-420.

Storie, V. J. (1977). *Male and female car drivers: differences observed in accidents* (No. TRRL Lab Rept. 761).

Tabibi, Z., Borzabadi, H. H., Stavrinou, D., & Mashhadi, A. (2015). Predicting aberrant driving behaviour: The role of executive function. *Transportation research part F: traffic psychology and behaviour*, 34, 18-28.

Tao, D., Zhang, R., & Qu, X. (2017). The role of personality traits and driving experience in self-reported risky driving behaviors and accident risk among Chinese drivers. *Accident Analysis & Prevention*, 99, 228-235.

Thompson, M. (2018). cultural Theory Without grid and group. *The Institutional Dynamics of Culture, Volumes I and II: The New Durkheimians*, 159.

Thompson, M. (2018). *Cultural theory*. Routledge.

Tom LaTourrette . (2015). "Risk factors for injury in law enforcement officer vehicle crashes". *Policing: An International Journal of Police Strategies & Management*, 38(3), pp. 478 – 504

Tronsmoen, T., 2010. Associations between driver training, determinants of risky driving behaviour and crash involvement. *Safety Science*, 48 (1), 35–45

Ulleberg, P., & Rundmo, T. (2003). Personality, attitudes and risk perception as predictors of risky driving behaviour among young drivers. *Safety Science*, 41(5), 427–443.

Union IP. International Federation of Red Cross and Red Crescent Societies. [2013-01-10]. *Road safety call for action*. <http://www.ifrc.org/en/what-we-do/health/road-safety--a-major-concern/call-for-action/>

Vinodkumar, M. N., & Bhasi, M. (2010). Safety management practices and safety behaviour: Assessing the mediating role of safety knowledge and motivation. *Accident Analysis & Prevention*, 42(6), 2082-2093.

Vredenburgh, A.G. (2002), “Organisational safety: which management practices are most effective in reducing injury rates?”. *Journal of Safety Research*, 33(2), pp. 259-276.

Walton, D. (1999). Examining the self-enhancement bias: professional truck drivers' perceptions of speed, safety, skill and consideration. *Transportation research part F: traffic psychology and behaviour*, 2(2), 91-113.

Waring, A. (1996), “Corporate health and safety strategy”. *Facilities*, 14, pp. 52-55.

Weinstein, N. D. (1989). Effects of personal experience on self-protective behavior. *Psychological bulletin*, 105(1), 31.

World Health Organization (WHO) (2015). *Global Status on Road Safety*. Available online at: http://www.who.int/violence_injury_prevention/road_safety_status/2015/en/ (last accessed March 2016).

World Health Organization (WHO) (2020). *Road traffic injuries*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/road-trafficinjuries#:~:text=Approximately%201.35%20million%20people%20die,of%20their%20gross%20dome~tic%20product.>

Zhang, L., & Prevedouros, P. (2005). Motorist perceptions on the impact of rainy conditions on driver behavior and accident risk. In *Proceedings of the 84th Annual Meeting of the Transportation Research Board*, Washington, DC.

APENDIX A: RESEARCH QUESTIONNAIRE

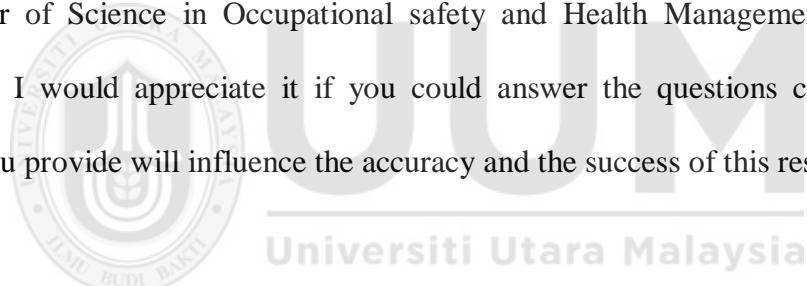


Dear Participant,

Thank you for agreeing to participate in this research titled:

ROAD ACCIDENT RISK PERCEPTION AMONG POLICE OFFICERS

I am a Master of Science in Occupational safety and Health Management student (By Research) and I would appreciate it if you could answer the questions carefully as the information you provide will influence the accuracy and the success of this research.



The objective of this research is to determine the road accident risk perception among police officers around Klang Valley. There is no right or wrong answer to the statements listed in the questionnaire. Your sincerity and honesty is highly required in answering these statements.

It will take no longer than 15 minutes to complete the questionnaire. All answers will be treated with strict confidence and will be used for the purpose of the study only. If you have any questions regarding this research, you may address them to me at the contact details below.

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

Yours Sincerely,



Thanesh Raj A/L Gobal
School of Business Management
Universiti Utara Malaysia
Malaysia
Email: thanesh4646@gmail.com



SECTION A: DEMOGRAPHIC INFORMATION

SEKSYEN A: MAKLUMAT DEMOGRAFI

Please fill in blank and tick (✓) in the appropriate boxes that corresponds to your answer to each of the following questions below.

Sila isikan tempat kosong dan tandakan (✓) untuk mewakili jawapan anda pada semua soalan di bawah.

1. Job title/ *Jawatan* : _____
2. Gender/ *Jantina* : Male/ *Lelaki* Female/ *Perempuan*
3. Age/ *Umur* : _____ years/ *tahun*
4. How long have you been working with the present organisation? /
Sudah berapa lama anda bekerja dengan organisasi sekarang? : _____ years/ *tahun*
5. Highest Educational level/ *Tahap pendidikan tertinggi* :

<input type="checkbox"/> Secondary school/ <i>Sekolah Menengah</i>	<input type="checkbox"/> Diploma/ <i>Diploma</i>
<input type="checkbox"/> Certificate/ <i>Sijil</i>	<input type="checkbox"/> Degree/ <i>Ijazah</i>
<input type="checkbox"/> Master above/ <i>Master ke atas</i>	<input type="checkbox"/> Others/ <i>Lain-lain</i> :.....
6. Have you ever had any road accident ever since you started working in this organisation/ *Adakah anda pernah mengalami kemalangan sepanjang bekerja di organisasi ini?*
 Yes/ Ya No/ Tidak
7. If yes, how many road accidents have you had while working in this organisation? / *Jika ya, berapakah bilangan kemalangan yang pernah dialami sepanjang bekerja di organisasi ini?*

<input type="checkbox"/> 1- 2	<input type="checkbox"/> 3 – 4
<input type="checkbox"/> 5 - 6	<input type="checkbox"/> Above / lebih 6

SECTION B

SEKSYEN B

GUIDELINES: Considering only your perception, please circle the most appropriate answer to you based on the scale below:

GARIS PANDUAN: Dengan hanya mengambil kira pandangan anda, bulatkan jawapan yang paling tepat kepada anda berpandukan pada skala jawapan di bawah:

	1 = Strongly Disagree / Sangat Tidak bersetuju (SD)	2 = Disagree / Tidak bersetuju (D)	3 = Neutral (N)	4 = Agree / Setuju (A)	5 = Strongly Agree / Sangat Bersetuju (SA)			
				SD	D	N	A	SA
B1.	Officer talking on cell phones. <i>Pegawai menggunakan telefon bimbit semasa memandu/menunggang.</i>			1	2	3	4	5
B2.	Officer driving/riding when restless. <i>Pegawai memandu/menunggang dalam keadaan pening kekurangan rehat.</i>			1	2	3	4	5
B3.	Officer driving/riding when sleepy. <i>Pegawai memandu/menunggang dalam keadaan mengantuk.</i>			1	2	3	4	5
B4.	Officer had enough sleep (8hours) prior reporting to duty. <i>Pegawai telah berehat secukupnya (8jam) sebelum lapor tugas.</i>			1	2	3	4	5
B5.	Officer driving/riding well over the speed limit. <i>Pegawai memandu lebih daripada had laju yang ditetapkan oleh kerajaan.</i>			1	2	3	4	5
B6.	Driving/riding their vehicle on the wrong lane (including during emergency calls). <i>Memandu/menunggang kendaraan dalam keadaan lawan arus (termasuk semasa kecemasan).</i>			1	2	3	4	5

B7.	Officer driving/riding while not obeying traffic signs (including during emergency calls). <i>Pegawai memandu/menunggang dalam keadaan tidak mengikut lampu isyarat (termasuk semasa kecemasan).</i>	1 2 3 4 5
B8.	Safety is given high priority by the Polis Diraja Malaysia (PDRM) management. <i>Tahap keselamatan dalam orginiasi PDRM diberi keutamaan yang tinggi.</i>	1 2 3 4 5
B9.	Safety rules and procedures are strictly followed by the PDRM management. <i>Peraturan dan prosedur keselamatan diikuti dengan ketat dalam organisasi PDRM.</i>	1 2 3 4 5
B10.	Corrective action is always taken when the PDRM management is told about unsafe practices. <i>Langkah-langkah pencegahan/pembetulan sentiasa diambil apabila organisasi PDRM dimaklumkan tentang amalan kerja tidak selamat.</i>	1 2 3 4 5
B11.	PDRM considers safety to be equally important as their daily Key Performance Indicator (KPI). <i>PDRM mempertimbangkan keselamatan adalah sama kepentingannya dengan KPI hariannya.</i>	1 2 3 4 5
B12.	I feel that management is willing to compromise on safety for increasing KPI. <i>Saya berpendapat bahawa PDRM bersedia berkompromi keselamatan untuk meningkatkan KPI.</i>	1 2 3 4 5
B13.	When near-miss accidents are reported, my PDRM management acts quickly to solve the problems. <i>Jika terdapat sebarang insiden kemalangan hampir berlaku, organisasi PDRM saya akan bertindak dengan cepat untuk menyelesaikan masalah tersebut.</i>	1 2 3 4 5
B14.	PDRM provides sufficient personal protective equipments for the officers. <i>PDRM akan memperuntukkan kelengkapan alat perlindungan diri yang secukupnya semasa bertugas di lapangan.</i>	1 2 3 4 5

SECTION C

SEKSYEN C

GUIDELINES: Considering only your perception, please circle the most appropriate answer to you based on the scale below:

GARIS PANDUAN: Dengan hanya mengambil kira pandangan anda, bulatkan jawapan yang paling tepat kepada anda berpandukan pada skala jawapan di bawah:

1 = Not at all dangerous / tidak berbahaya sama sekali (ND)	2 = Somewhat Dangerous / Seperti Membahayakan (SD)	3 = Dangerous / Bahaya (D)	5 = Very Dangerous / Sangat Bahaya (VD)
--	--	-------------------------------	---

		ND	SD	D	VD
C1.	Driving/riding under emergency conditions. <i>Memandu/menunggang semasa keadaan kecemasan.</i>	1	2	3	4
C2.	Driving under non-emergency conditions. <i>Memandu/menunggang semasa bukan kecemasan.</i>	1	2	3	4
C3.	Driving in responding to domestic violence calls. <i>Memandu untuk menangani/membalas panggilan keganasan domestic.</i>	1	2	3	4
C4.	Driving in responding to other scenes of violence. <i>Memandu untuk menangani/membalas keganasan di tempat-tempat kejadian yang lain.</i>	1	2	3	4

Thank you for your participation in answering this questionnaire.
Terima kasih di atas kerjasama anda dalam menjawab soal selidik ini.