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QUALITY OF WORK LIFE (QWL) AND RIDING BEHAVIOUR AMONG WORKERS IN IMMIGRATION DEPARTMENT OF MALAYSIA

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BY

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ABSTRACT

QUALITY OF WORK LIFE (QWL) AND RIDING BEHEAVIOUR AMONG WORKERS IN IMMIGRATION DEPARTMENT OF MALAYSIA

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Introduction: The number of road accidents involving workers was on the rise, with more than 30,000 cases recorded and 76.9% involved motorcyclists and pillion riders. Despite of numerous studies have been conducted to explore the causes of this worrisome condition, little is known on the influence of working quality to riding behaviour. **Objectives**: This study aims to determine the association between quality of work life (QWL) with riding behaviour among workers. **Methodology**: This cross-sectional study involved 187 respondents in Department of Immigration Malaysia. Four location were purposely selected from Department of Immigration of Putrajaya, Federal Territory of Kuala Lumpur, Selangor and Kuala Lumpur International Airport (KLIA) followed by convenience sampling to select respondents in each department. Self-administered questionnaire consisting adapted questionnaire were used to collect the information on socio-demographic and working background information, riding experience information, quality of working life and riding behaviour. **Results**: There were a significant correlation between various independent variable factors such as age, gender, educational level, monthly income, alcohol consumption, average working experience, type of motorcycle used and years of obtaining valid motorcycle licence with the factors of the riding behaviour and factor of QWL which were stress at work (SAW) (r_s=0.179), Job and Career Satisfaction (JCS)(r_s=-0.177) and Control at work (CAW) (r_s=0.183) with riding behaviour among respondents. There was a significant mean difference (U=2868, p=0.003) and (U=2621, p=0.000) between unfit erroneous riding, intrusive and exhibitive behaviours and time and money opportunistic behaviours of riding behaviour score respectively for male compared to the female. **Conclusion**: The evidence from this study suggests that various independent variable factors such as age, gender, educational level, monthly income, alcohol consumption, average working experience, type of motorcycle used and years of obtaining valid motorcycle licence and QWL factors (SAW, JCS, CAW) are related to the way workers ride their motorcycle while commuting from and to the workplace.

Keywords: Quality of Work Life (QWL), Riding Behaviour, Workers of immigration, Commuting Accident

ABSTRAK

KUALITI KEHIDUPAN BEKERJA DAN TINGKAH LAKU MEUNGGANG MOTORSIKAL DALAM KALANGAN PEKERJA IMIGRESEN, MALAYSIA

NUR JAMIMA BINTI MOHAMAD

Pengenalan: Jumlah kemalangan jalan raya yang melibatkan pekerja semakin meningkat, dengan lebih daripada 30,000 kes direkodkan dan 76.9% melibatkan penunggang motosikal dan penumpang belakang. Walaupun banyak kajian telah dijalankan untuk meneroka sebab-sebab yang membimbangkan keadaan ini, sedikit diketahui mengenai pengaruh kualiti kerja terhadap tingkah laku menunggang. **Objektif**: Kajian ini bertujuan untuk menentukan hubungan antara kualiti kehidupan bekerja dengan tingkah laku menunggang dalam kalangan pekerja. **Kaedah:** Kajian keratan rentas ini melibatkan 187 responden di Jabatan Imigresen Malaysia. Empat lokasi dipilih secara terpilih dari Jabatan Imigresen Malaysia Putrajaya, Wilayah Persekutuan Kuala Lumpur, Selangor dan Lapangan Terbang Antarabangsa Kuala Lumpur (KLIA) diikuti dengan persampelan mudah untuk memilih responden di setiap jabatan. Survey yang terdiri daripada soal selidik yang diadaptasi digunakan untuk mengumpulkan maklumat tentang maklumat latar belakang sosio-demografi dan kerja, pengalaman menunggang, kualiti kehidupan kerja dan tingkah laku menunggang. **Keputusan**: Terdapat hubungan yang signifikan antara faktor-faktor pemboleh ubah bebas seperti umur, jantina, tahap pendidikan, pendapatan bulanan, penggunaan alkohol, pengalaman kerja purata, jenis motosikal yang digunakan dan tahun-tahun mendapatkan lesen motosikal yang sah dengan faktor-faktor daripada tingkah laku menunggang dan faktor QWL, yang mengalami tekanan di tempat kerja *(SAW)* (rs =0.179), Kepuasan Kerja dan Kareer (JCS) (rs = -0.177) dan Kawalan di tempat kerja (CAW) (rs = 0.183) dengan tingkah laku menunggang dalam kalangan responden. Terdapat perbezaan yang signifikan (U = 2868, p = 0.003) dan (U = 2621, p = 0.000) antara tingkah laku menunggang yang salah, mengganggu dan menunjuk-nunjuk dan tingkah laku peluang wang dan masa bagi lelaki berbanding wanita. **Kesimpulan**: Bukti dari kajian ini mencadangkan faktor-faktor pemboleh ubah bebas seperti umur, jantina, tahap pendidikan, pendapatan bulanan, penggunaan alkohol, purata pengalaman kerja, jenis motosikal yang digunakan dan tahun mendapatkan lesen motosikal yang sah dan faktor-faktor kualiti kehidupan bekerja (*SAW, JCS, CAW*) berkaitan dengan cara para pekerja menunggang motosikal semasa bertolak dari dan ke tempat kerja.

Kata kunci: Kualiti Kehidupan Bekerja (KKB), Tingkah Laku Menunggang, Pekerja Imigresen, Kemalangan dari Perjalanan ke Tempat Kerja dari Rumah

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LIST OF ABBREVATIONS

QWL Quality of Work Life

SMRBQ Short Motorcycle Riding Behaviour Questionnaire

CA Commuting Accident

NIOSH National Institute of Occupational Safety and Health

SOCSO Social Security Organization

WHO World Health Organization

NHTSA National Highway Traffic Safety Administration

ILO International Labour Organization

CHAPTER 1

INTRODUCTION

1.1 Background

Since Malaysia economy is growing faster, the number of road users increased sharply in the last decade (Yuen, Rehan & Saifizul, 2014). Each year, the numbers of traffic accidents that were recorded in Malaysia are standing very high and pose a heavy burden to the economic and social well-being with the loss of critical manpower and productivity (Nordin, 2014). In Malaysia, motorcycles constitute more than half of total vehicle population and contribute more than 50% of the casualties including deaths and serious and minor injuries in traffic accident (Marizwan, 2012). Based on few research on accident trends in the country have shown that the rapid increase in level of motorization and growth in motorcycle population has contributed towards the increase in accidents involving motorcyclists (Yuen, 2011)

Due to high casualty's rate from motorcyclist, the need to create policy in improving safety of this transport mode becomes an important issue nowadays. As per mile travelled, fatalities occur 28 times more frequently for motorcyclists than occupants of four-wheel passenger vehicles (National Highway Traffic Safety Administration (NHTSA), 2018). It can be inferred that in the event of a traffic accident involving a motorcyclist and other motorized vehicle, the motorcyclist will be facing higher risk of injury or fatality because the degree of exposure to injury is higher for the motorcyclist as compared to other vehicle occupant in the event of a accident (Yuen, 2011). Thus,

safety of this form of transportation is an important issue and the need for reduction of this type of accident is a big deal in the road safety aspect in our country.

This increasing trend of road accident is most susceptible to the people who are commuting to and from their work especially during the peak hours. The Social Security Organisation (SOCSO) has found that the number of road accidents involving workers was on the rise, with more than 30,000 cases recorded last year (The Star, 2018). According to SOCSO (2017) annual report, the number of commuting accidents (CA) continued to rise despite an overall reduction in work-related accident cases. There was an increased by 542 cases or 1.93 percent to 28,579 cases in 2015 compared to 28,037 cases in 2014. Commuting accident is defined as an accident occurring on the habitual route, in either direction between the place of work or work-related training and: (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration; which results in death or personal injury (International Labour Organization (ILO), 2010)

Most common cause of commuting accidents in Malaysia was identified as bad attitudes or driving habits, level of health and behavioural problem of workers besides of other factors such as individual, workload demand factors, physical environment and social environment (Selamat & Surienty, 2015). Previous studies by Hoe (2014) has found that commuting accidents happen during travel to and from work (88.5%), during the morning shifts (68.8%) and involving less than five kilometres of travel (55.0%).

Among them, motorcyclists are the most contributors to these casualties; 49.7 percent of casualties and 58.7 percent of the total fatalities.

Research on the crash risk of motorcyclists has investigated a variety of issues, such as rider attributes, motorcycle characteristics, roadway, environmental and traffic factors, and overexposure of motorcycles at intersections (Haque, Chin & Debnath, 2012). However, this study focusing on the rider behaviour because human error is the aberrant behaviour which the road user failed to perform a planned action for safe movement (Farooq & Juhasz, 2018). Chang and Yeh (2007) investigation showed that young and male motorcycle riders seem to have more accidents due to risky and violation behaviour.

In addition, previous work of Steg and Brussel (2009) had found that speeding violations were the most common aberrant behaviour among the motorcyclists. Young motorcycle riders may not be fully aware of the errors, lapses, and violations they make and may not provide accurate assessments of their aberrant behaviour. Accidents statistics also proved that young drivers have significantly higher accident violation rates than older drivers. This is further supported in Wong et al. (2010) study, where they had identified young motorcyclist as high-risk population causing motorcycle accidents. In order to reduce the risk of motorcycle accident especially involving workers during their commuting trip, one has to understand the risk factors that contributed with it and as far as we concern that the impact of quality of work life on the

operation of two-wheel vehicles (e.g., scooters and motorcycles), has not been examined among Malaysian riders.

Quality of work life (QWL) is one of the important factors that can affect workers' job satisfaction, commitment and productivity in order to have a safe and healthy working condition. In relation to the importance and prominent role of human power in an organization, investigation of the elements, which increase staff's power, productivity and reduce absenteeism that consecutively lead to an increase in efficiency, is one of the great importance for researchers and experts (Salamzade,2008). Work related demands can have detrimental effects on family life and the general wellbeing of employees (Letooane & Kenneth, 2014). Measurement of quality of work life will have an impact on increasing the positive attitude of employees towards their work and to the company, increase productivity and intrinsic motivation of employees, increase the effectiveness of the company and the company competitive in the face of global business (Tjahyanti, 2013).

According to Easton and van Laar (2012), the theories on Quality of Work Life were inconsistently defined and at times contradictory. After a thorough review of the literature, they conceptualized Quality of Working Life as broader than job satisfaction or intrinsic factors related to the job. Quality of work life is a very important model to explain the impact of how conditions at work create an impact on the outcomes at work. Along with job satisfaction, they have included general well-being, the work-home interaction, stress experienced at work, the physical environment and the level of

control at work. An attractive workplace should be designed in order to absorb new workers and to preserve the existing staffs in the system.

In this present study, riding behaviour was the dependent variable that was measured, and it is hypothesized that several independent variables such as socio-demographic factors, working background factors, riding experience and quality of work life (QWL) have significant association with the riding behaviour of the respondents. Riding behaviour was divided into three factors which were unfit erroneous riding, intrusive and exhibitive behaviours, time and money opportunistic behaviours and helmet use behaviours. Unfit erroneous riding, intrusive and exhibitive behaviours are behaviour that the rider fails to avoid in an accident because the situation exceeds the limitation. For instance, tailgating the vehicle in front them. Whereas, time and money opportunistic behaviours is the behaviour in which the rider take advantage of situations without thinking about whether their actions are right or wrong. These include road behaviour such as speeding, using telephone while riding, etc. Last but not least, helmet use behaviour is the behaviour measured whether the rider or their pillion rider are wearing helmet or not during their ride.

The natures of work as an immigration officer are undoubtedly challenging and stressful as they are dealing with all sorts of characters throughout the day of working. The employees that worked at immigration department attempts to do a necessary and risky job in a reasonable manner. His powers are tailored to the difficulties of his task, but they are subject to constitutional, statutory, and judicial restraints, which require

him to take a reasonable and humane approach in the performance of his duties (Gordon, 1973). Their unpredictable working schedule and shift work might bring them to some problem such as stress, fatigue, sleepiness which then expected to influence their behaviour during riding or driving to work. This situation might bring them in the likelihood of involving in the road accident. South China Morning Post (2011) reported that insomnia, fear of crowds and anxiety attacks were common mental health problems among officers who had lengthy periods of duty at the border.

1.2 Problem Statement

According to the National Institute of Occupational Safety and Health (NIOSH) (2019), the main issue confronting occupational safety and health in Malaysia is the rising trend of work-related commuting accidents. While safety risks and resulting workplace accidents are diminishing, work-related commuting accidents are on the rise in many developed and developing nations such as Malaysia (International Labour Organization, 2014). ILO stated that 2.2 million work-related deaths occurred every year in which 350,000 deaths were from accidents at work, 1.7 million due to occupational diseases and 158,000 due to commuting accidents.

In Malaysia, according to our Social Security Organisation (SOCSO), there were three work-related deaths every day in 2011. Two out of the three deaths were due to commuting accidents indicating a serious situation and the nation was concerned about it. On average, two workers are killed in accidents daily whilst commuting to and from the workplace and most of the victims are motorcyclists (Thye, 2019).

The impact of commuting accidents is far greater than the industrial accidents as commuting accidents normally involve multiple injuries and the injuries sustained during these accidents are far worsen and traumatizing when compared to the workplace accidents. (NIOSH, 2012). The problems related to the rising number of commuting accidents are lack of awareness among the workers for safe riding and driving while commuting to work, lack of comprehensive training programme targeted to commuting accidents, lack of Commuting Safety Management or lack of road safety elements in OSH Management System at workplaces (NIOSH, 2012)

Promoting safety and health at work represents a fundamental task for achieving improvement in the quality of working life and preventing accidental injuries at work. (Micheli, 2006). It is becoming a major concern when the road accident involving people while they are working in an organization. It is well known that work-related quality of life is an important factor that can affect the productivity of a workers and how it works in determining an employee's health, wellbeing and satisfaction with their work life. There is still lack of baseline data on this factor and how it contributes to the dangerous riding behaviour of the motorcyclist.

In Malaysia, even though issues of riding behaviour have been increasingly publicized in commercial, but there has been very limited number of available scientific evidence to understand working quality on the riding behaviour among government workers such as workers in immigration department. Most of the previous research have

focusing their study among healthcare workers such as nurse and doctor and also academician like teachers and lecturers.

1.3 Research Justification

In order to solve problems regarding how work-related factors affect the riding performance, this study must be conducted to measure how influence quality of work life on the riding behaviour. The number of road fatalities in Malaysia is alarming. There are more than 6,000 fatalities every year for the last few years and that translates into 18-20 people killed every day. Motorcyclists and pillion riders make up about 60% of the fatalities and most of them are young and in the prime of their lives (NIOSH, 2012). When it comes to road accidents, everyone could imagine the disastrous and how bad the effect of involving in this "war on road". This tragedy is not a laughing matter. Based on statistic from Social Security Organisation (SOCSO)(2018), there were 35,195 commuting accidents in 2018, equivalent to 48% of the total 72,631 occupational safety and health-related accidents reported that year. Contradictory, lack of established data are available to explain this condition especially factors on riding behaviour or unsafe act while ride a motorcycle.

Due to the lack of study and very limited number of available scientific evidence to explain the influence of working quality on the riding behaviour among workers in immigration department, thus, this study attempts to provide the baseline data on the association between the quality of work life, socio-demographic factor, riding experiences and work characteristics with the riding behaviour of workers in the

immigration department. Findings from this study can be used to assist in identifying the risk factors of road accident. A better understanding of the problem would enable appropriate intervention and modification of existing practices, policies and related procedures.

By virtue of fast-paced of road accident in Malaysia especially among motorcycle riders which are the high-risk group in traffic and lack of established data to explain this situation thoroughly, this study will begin to address the knowledge gap in the research by providing better insight on how working quality influenced the rider intentions and behaviour.

Workers of immigration was chosen as the study population since there was no baseline data on the riding behaviour among them. Most of the previous study focusing on the health care workers, academician and public group. Also, considering on their unpredictable working schedule and shift work which might influence their way of riding motorcycle.

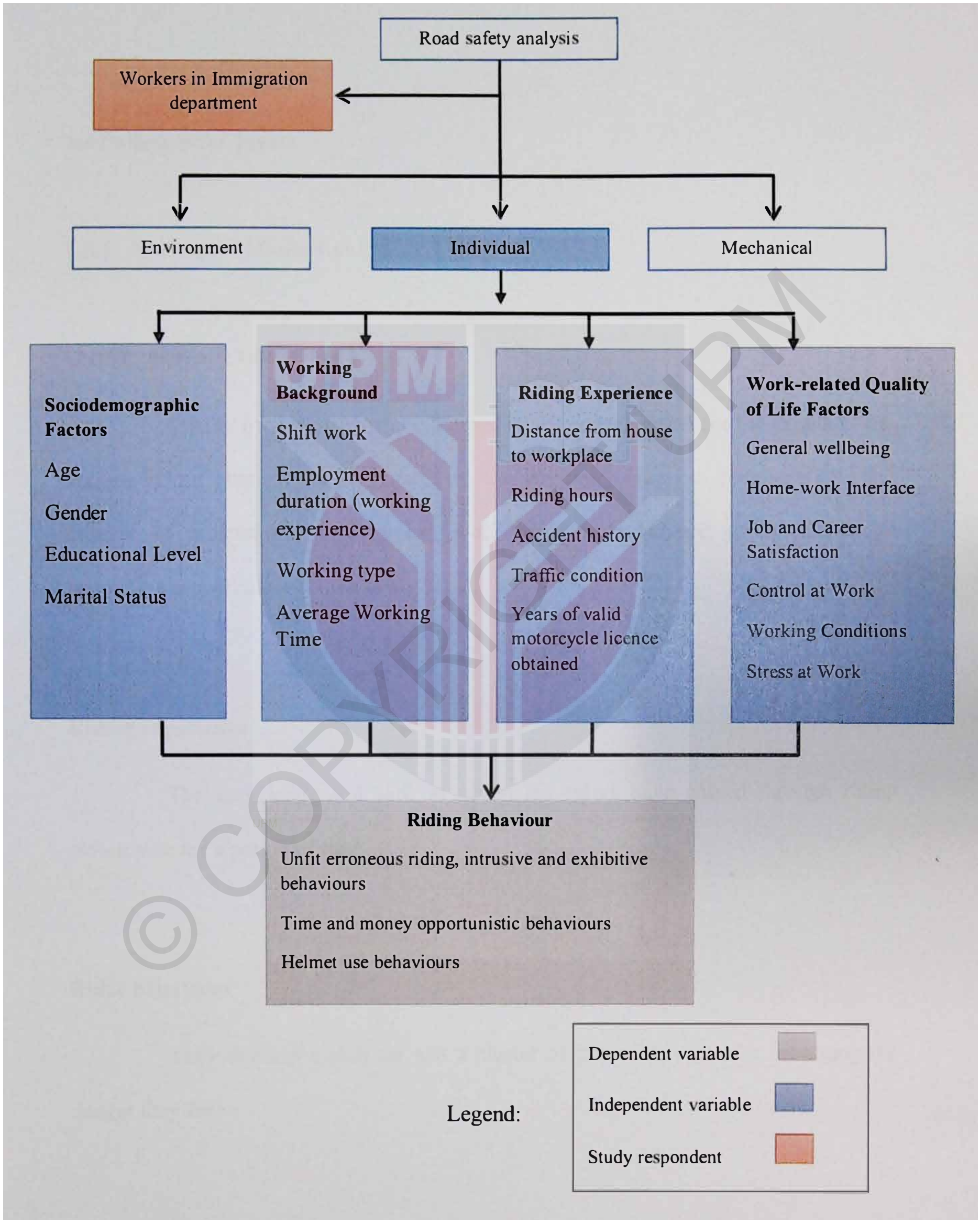
1.4 Conceptual Framework

The conceptual framework was designed as shown in Figure 1.1 based on the study of interest. The research literature has shown that key factors that significantly involve in the motorcycles crashes are human factors, road and vehicle conditions (mechanical factor) and environment factors. Nevertheless, this study was only focusing on the individual factor which targeted workers of immigration as the study respondents.

Riding behaviour was the dependent variable or outcome that was being measured in this present study. According to Hosseinpourfeizi et al, (2018), riding behaviour can be divided into three factors which were unfit erroneous riding, intrusive and exhibitive behaviours, time and money opportunistic behaviours and helmet use behaviours.

The independent variable or the factors that were assessed to influence the riding behaviour of the respondents include factor of sociodemographic, working background, riding experience, quality of work life (QWL) as those factors were hypothesized to have the significant association with the riding behaviour among the workers of immigration.

Figure 1.1: Conceptual Framework



1.5 Definition of Terms

1.5.1 Conceptual Definitions

Quality of Work Life (QWL)

Quality of work life can be defined as the consideration for the exigency and longing of an employee with regards to the working condition, remuneration, and chances of professional development, work-family, role balance, safety and social interaction at workplace (Horst et al, 2014)

Riding experience

The knowledge and skill in which the riders have gained through riding motorcycle for a period of time.

Rider behaviour

They develop a skill set and a cluster of tactics they use for managing the danger they face

1.5.2 Operational Definitions

Quality of work life (QWL)

Quality of work life is measured using six psychosocial sub-factors which are General Well-being, Home-Work Interface, Job-Career ,Satisfaction, Control at Work, Working Conditions and Stress at Work based on 23-item psychometric scale to gauge the perceived quality of life of employees

Riding experience

Riding experiences such as distance from house to workplace, riding hours, accident history, traffic condition from house to workplace and years of valid motorcycle licence were assessed in the Part C of the self-administered questionnaire as these factors were hypothesised in the study to influence the riding behaviour of the workers.

Rider behaviour

Rider behaviour has been categorized into three factors which are unfit erroneous riding, intrusive and exhibitive behaviour; time and money opportunistic behaviour and helmet use behaviour which were assessed via SMRBQ as this behaviour were hypothesis to influence by socio-demographic factors, working background, riding experiences and work-related quality of life.

1.6 Research Objectives

1.6.1 General Objective

To determine the association between quality of work life (QWL) with riding behaviour among workers in of Department of Immigration Malaysia

1.6.2 Specific Objectives

1. To determine the socio-demographic background, working background and riding experiences information among workers in Department of Immigration at Putrajaya, Kuala Lumpur, Selangor and KLIA
2. To compare the means of socio-demographic factors (gender, educational level, marital status and average income level) and riding experiences (traffic condition, accident history and type of motorcycle) on riding behaviour among workers
3. To measure the relationship between sociodemographic factor, working background and riding experience with riding behaviour among workers
4. To measure the association between work-related quality of life factors (general wellbeing, home-work interface, job and career satisfaction, control at work, working conditions and stress at work) with riding behaviour among workers

1.7 Research Hypothesis

Table 1.0 below show the research objective and its relevant hypothesis in this study

Table 1.0 Research Objective and its Research Hypothesis

No.	Research Objectives	Research Hypothesis
1	To determine the socio-demographic background, working background and riding experiences information among workers in Department of Immigration at Putrajaya, Kuala Lumpur, Selangor and KLIA	None
2	To compare the means of socio-demographic factors (gender, educational level, marital status and average income level) and riding experiences (traffic condition, accident history and type of motorcycle) on riding behaviour among the workers	There was a significant difference between the factor of gender, educational level and average monthly income, traffic condition, accident history and type of motorcycle on the riding behaviour
3.	To measure the relationship between sociodemographic factor, working background and riding experience with riding behaviour among workers	There was a significant relationship between sociodemographic factor, working background and riding experience with riding behaviour among workers

4	To measure the relationship between work-related quality of life factors (general wellbeing, home-work interface, job and career satisfaction, control at work, working conditions and stress at work) with riding behaviour among workers	There is a significant relationship between work-related quality of life factors (general wellbeing, home-work interface, job and career satisfaction, control at work, working conditions and stress at work) with riding behaviour among workers

CHAPTER 2

LITERATURE REVIEW

2.1 Overview

In Malaysia, road crash fatalities are increasing yearly (WHO, 2014). The important contributor to this is the steady rise in motorcycle crash fatalities rate since the year 2003 (PDRM., 2012). In 2017, the number of motorcycle crash fatalities keep elevating with 4348 fatalities (JKJR and MIROS, PDRM, 2018). This event has highly impact our country's economic, which has lost on average RM6.45 billion since 2010 (RM5.94 billion loss) to 2016 (RM9.21 billion loss per year). Thus, if nothing is done to mitigate Malaysia's motorcycle crash fatalities, the figures may continue to increase over the coming years, and Malaysia will continue to suffer severe economic losses.

2.2 Riding Behaviour

In Malaysia, it is common thing that a car owner also owns a motorcycle to avoid traffic congestion especially in the busy cities such as Kuala Lumpur and Selangor. But, this become more problematic when a large number of motorcycles in the general traffic that have trigger other problems related to motorcycle rider behaviour such as unskilled rider, traffic violation, aggressive behaviour, etc. Ever since, Driver Behaviour Questionnaire (DBQ) has been developed in western countries for a long period as logical consequences for car dominated countries. As such instrument cannot directly be used to assess motorcycle rider behaviour, there have been some research in England (Elliott et al, 2007), Iran (Ali et al, 2011 and Motevalian et al, 2011), Hong

Kong (Cheng et al, 2010), Australia (Sakashita et al, 2014) and Turkey (Ozkan et al, 2012) to develop motorcycle rider behaviour questionnaire (MRBQ).

With regard to Driver Behaviour Questionnaire (DBQ) which classifies driver behaviour into a system of errors (the failure of planned actions to achieve their intended consequences) and violations (deliberate deviations from those practices necessary to maintain the safe operation of a potentially hazardous system), MRBQ measured errors and violations, but with regard to motorcycling rather than car driving (Elliott, Baughan & Sexton, 2007).

During the previous work in the development of MRBQ, some of the researchers have examined the different characteristics of motorcyclist behaviour compare to car driver. For instance, in the development of MRBQ in England, Elliots et al (2007) extracted 43 items into 5 subscales, i.e. traffic errors, speed violations, stunts, control errors and safety equipment. In Persian MRBQ (Motevalian et al, 2011) the first four subscales were the same with English MRBQ, i.e. traffic errors, speed violations, stunts and control errors but safety equipment was not included as protective clothing were not common in Iran. Instead, in Persian MRBQ 2 other subscales added, i.e. safety violations and traffic violations. In Australian MRBQ (Sakashita et al, 2014), there were 4 subscales, i.e. errors (no distinction between traffic and control errors), speed violations, stunts and protective gear (similar with safety equipment).

In a previous study conducted among university lecturer and employees in Indonesia, the finding have shown that most of the respondents were either never or seldom carry out risky behaviour during their daily motorcycle ride (suggesting that most of the respondents were low risk rider). They also indicated that respondents in older age group tend to carry out speed related violations less frequent compare to the younger age group Putranto et al., (2014). This finding shown the same result as in the study of Ozkan et al (2012).

Meanwhile, in other study that examined the psychometric properties of the MRBQ amongst novice riders in Australia, they found that a four-factor model of errors, speed violations, stunts, and protective gear was found to be most appropriate in the present sample (Sakashita,2014). Other than that, a study conducted by Watson et al., (2007, significant associations were found between self-reported traffic offences and the three 'riskier' intentions examined in the study (i.e. those relating to more volitional risk-taking, namely, bend the road rules, push my limits and perform stunts and/or ride at extreme speeds)

Motorcyclists are frequently perceived as "speed rebels" and "risk takers (Chen, Liu & Tulliani, 2015). Risky behaviour is directly related to driving violations (Parker, Reason, Manstead, & Stradling, 1995), which can be defined as deliberate deviation from those normal practices. Studies by Lucidi et al., (2010) indicate that there is a relationship between driving violations and accidents. In general, driving violations can be categorised into two distinct types based on the underlying reason for the behaviour.

First one is known as ordinary violations in which people deliberately break the law, but do not have an aggressive motivation for doing so. For the second type, labelled as aggressive violations in which the perpetrator is interpersonally aggressive (Lajunen, Parker, & Summala, 2004

2.3 Variable that Influence an Individual Riding Behaviour

1. Sociodemographic Factors, Working Background

Some of socio-demographics factors such as age, gender, educational level as well as monthly income were assumed to influence the riding behaviour of an individual when in the road. Previous study carried by Chang and Yeh (2007) shows that young and male motorcycle riders seem to have more risk toward accidents due to risky and violation behaviour and a higher tendency towards negligence of traffic regulations and motorcycle safety checks. Besides, female riders also found involved in an accident due to other latent factors such as lack of experience and skills. Furthermore, riders who ride at unsafe high speed will have higher crash probability due to lack of control and imbalance motion during ride a motorcycle (Broughton et al., 2009). There is also a research that showing that greater proportions of both young and elderly drivers lead to higher death rates (Andrew and Thomas, 2009).

In a more detailed study on Malaysia motorcycle accident data, it was found that the number of casualties for riders of age group 21–40 recorded the highest number of casualties followed by riders of age group 0–20, while elder group riders are recorded as the least casualties compared to other age groups. It seems like riders with lower age

group tend to involve and get injured in motorcycle accident compared to riders from the elder group. According to Charles et al., (2009), they have found evidence showing that young drivers have significant higher accident violation rates than older drivers. To summarize, many previous studies have proved that young riders seem to expose more in the motorcycle crash.

In addition, according to Wong et al. (2010) study's, they had identified that young motorcyclist is categorize as high-risk and vulnerable population involve in motorcycle accidents. The most common aberrant behaviour among the motorcyclist are speeding violations (Steg and van Brussel, 2009). This is happen because young motorcycle riders may not be fully aware of the errors, lapses, and violations they make and may not provide accurate assessments of their aberrant behaviour.

It was found that, for example, moped riders having a positive attitude towards speeding, thoughts of others' approval for their speeding, and a stronger intention to disobey speed were more likely to speed (Steg and van Brussel, 2009). Other study by Jamson et al. (2005) found that past behaviour (i.e., engaging in a risky behaviour in the past), attitudes and behavioural beliefs (e.g., beliefs that speeding is enjoyable and that speeding allows me to beat the traffic) emerged as the significant predictors of intentions to engage in the various risky riding behaviours among older motorcyclists. Watson et al. (2007) also reported similar finding among Australian riders.

Other factor regarding to work patterns was expected to influence riders' way of riding. Previous work from Jennifer et al, (2013) have showed that from their preliminary regression analysis revealed a number of predictors of collision risk amongst commuter motorcyclists including worker who working more shift hours. Night-shift work increases the risk for drowsy driving crashes, especially on the morning commute home from overnight work (Crummy et al., 2008) when elevated homeostatic sleep pressure interacts with the peak of circadian sleep propensity to create a critical zone of performance vulnerability (Czeisler & Gooley, 2007)

Riding Experience

Several researchers have provided the evidence for believing that self-reported risky riding behaviour were linked to increase crash involvement for inexperienced riders. According to Perez-Fuster et al., (2013), inexperienced motorcyclists have a tendency to violate traffic rules. Besides, study by Elliott et al. (2007) also found that the crash liabilities of motorcyclists increased with exposure and fell with age and riding experience for both "all crashes" (i.e., during the last 12 months) and "blame crashes" (i.e., crashes in which the rider accepted some degree of blame).

Furthermore, Tumwesigye, Atuyambe & Kobusingye (2016) in their study also have demonstrated their finding by reporting that having an injury was strongly associated with lower engine capacity (<100cc), having a riding permit, having few years of riding experience (less than 3 years), not changing a motorcycle in past 1 year, riding for longer hours and sharing a motorcycle.

In another work of Haworth, Symmons & Kowadlo, (2001), have stated that the research undertaken with car drivers shows that drivers with better driving records and older or more experienced drivers respond more quickly on hazard perception tasks. Their finding found that there was a statistically significant reduction in crash risk as a function of years of on-road riding experience. However, their finding contradicts with the assumption since they found that inexperienced riders (defined as riders who had ridden on the road for less than three years or rode less than three days or less than 100 km per week) were not found to be associated with a statistically significant increase in crash risk.

Moreover, other factor that can contribute to crash risk is motorcycle characteristics. High capacity bikes (cc> 250) are associated with higher risk than bikes with lower capacity (Bjørnskau et al., 2010, Broughton et al., 2009, Teoh and Campbell, 2010, Yannis et al., 2005). Other than that, one main factor which leads to high rate of motorcycle crashes is lack of conspicuity of motorcycles by other road users especially during day time traffic (Davoodi & Hossayni, 2015). When a person not having the headlight activated could contribute to poor visibility and low level of conspicuity (Mitsopoulos-Rubens and Lenné, 2012, Radin Umar, 2005, Thomson, 1980, Williams and Hoffman, 1979) which may lead to crashes (Elvik et al., 2009).

Quality of Work Life (QWL)

The most important asset for the organization is high quality manpower and quality of human resources depends on the quality of working life (Jayan, 2012). Providing a Quality of Work Life (QWL) to employees is one of the important aspects of organisations to manage the human resources effectively and efficiently (Usha & Rohini, 2018). In measurement of the quality of working life, many indicators have been used including performance metrics such as productivity, efficiency and effectiveness; statistical indicators as rates of turnover, absenteeism, accident and tardiness, disputes between employees, number of employees, proposals of employees; comparison of measurements of physical working conditions as lighting, ventilation, heat, noise, dust, vibration, visual and mental concentration and physical effort to standards, surveys, interviews and observations (Akal, 2005).

The goal of quality of work life (QWL) is to increase the employee satisfaction, improve employee productivity, enhance the physical and psychological health of employees who create positive feelings, strengthen learning process in the workplace, improve constantly management of change and transition, building the organization's image as the best in employee recruitment and retention and motivation. (Reddy & Reddy, 2010). According to Gayathiri and Ramakrishna (2013), Good QWL can reduce absenteeism, lower turnover and improve job satisfaction. QWL is a management perspective on human work and organization. The key elements of QWL is a management concern about the impact of work on people, the effectiveness of the

organization and the importance of employees in solving decisions concerning employment, career, income and their fate in work (Arifin, 2010).

A relatively new measure on QWL is the Work Related Quality of Life (WRQoL) Scale developed by Van Laar and friends (2007). WRQoL measures work and non-work QWL and also stress in the workplace, expanding upon earlier theoretical models. The WRQoL scale is one of the most concise, psychometrically valid and reliable QWL measures in the literature.

According to Van Laar and friends (2007), there are six factors of quality of working life. First factor is General Well-Being (GWB). This factor measures the degree to which an individual feels good or content with their life in general. It includes physical and psychological well-being, both of which is influenced by and influence work. When wellbeing is low, the individual may find it difficult to concentrate on the job, reducing work performance. The physical ill-health affects the work performance, which in turn can affect psychological well-being. (Gokhale, 2015). On the other hand, if the well-being is high, the employee is likely to work more and better. Therefore, it is important to create awareness among employees regarding their psychological well-being and how it can be enhanced or maintained, instead of focusing on giving help when problems arise.

Second factor is Home-Work Interface (HWI). This is the degree to which the employee is able to balance between the demands of work and home. An imbalance between these two demands leads to conflict. The individual may find it difficult to

leave work behind after reaching home, or he may even find it difficult to be fully present at work due to pressures at home. (Gokhale,2015). The present scale focuses on the extent to which the organization is seen as supportive of the employees' family life, and cognizant of the employees needs beyond the workplace.

Third factor is Job and Career Satisfaction (JCS). This assesses the amount of satisfaction the individual has with his ability to do his work and having a sense of achievement. Job satisfaction has been defined as the positive emotional reaction and attitude an individual has towards their (Oshagbemi, 1999). In a meta-analysis of 485 studies, Faragher, Cass and Cooper (2005) stated that job satisfaction is a significant predictor of physical and psychological well-being. A recent study (Stephen and Dhanpal, 2012) also revealed that employees' perception about social support, interpersonal relationships, work environment positively affects their job satisfaction

Control at Work (CAW) reflects the level at which the employee feels that he is involved in the decisions which affect him at work. It indicates the perception of control in the work environment. Spector (1986) has noted that there is a positive significant relationship between personal control and job satisfaction. In a further study, Spector (2002) found that individual perceptions of control at work influenced negative emotional reactions, physical health problems (short-term as well as long-term) and counterproductive behaviour at work.

Fifth factor is Working Conditions (WCS). This factor reflects the extent of satisfaction an employee has regarding the working conditions including physical, fundamental resources and security. Although this seems to be a factor within the job satisfaction, there are some differences in the two factors. Job Satisfaction reflects the extent to which the workplace makes the individual feel good; while the Working conditions assesses the employees' perception that the organization is able to fulfil their basic requirements. Certain working conditions can physically affect the employee (dust, fumes, heat, etc) influencing them to avoid the workplace and increase turnover also (Oxenburgh & Marlow).

The last factor in the quality of working life is Stress at Work (SAW). This factor measures the degree of stress experienced at work. Stress can be defined as the state of physical or psychological strain which imposes demands for adjustment upon the individual (Corsini, 2002). Workplace stress is a highly studied variable in the context of other variables such as work-place conflict (Aziz & Cunningham, 2008), job performance (Emadzadeh et. al, 2012), life satisfaction (Bedeian, Burke & Moffett, 1988), organizational commitment (Babakus, Cravens, Johnston & Moncrief, 1999; Jamal, 1984; Leong et al., 1996; Lopopolo, 2002). Therefore, this is one important variable which must be studied in the context of quality of working life.

CHAPTER 3

METHODOLOGY

3.1 Study Design

A cross-sectional study design was used throughout the research to determine the association between quality of working life with riding behaviour of workers in Department of Immigration Malaysia. This research has been conducted from January 2019 until May 2019.

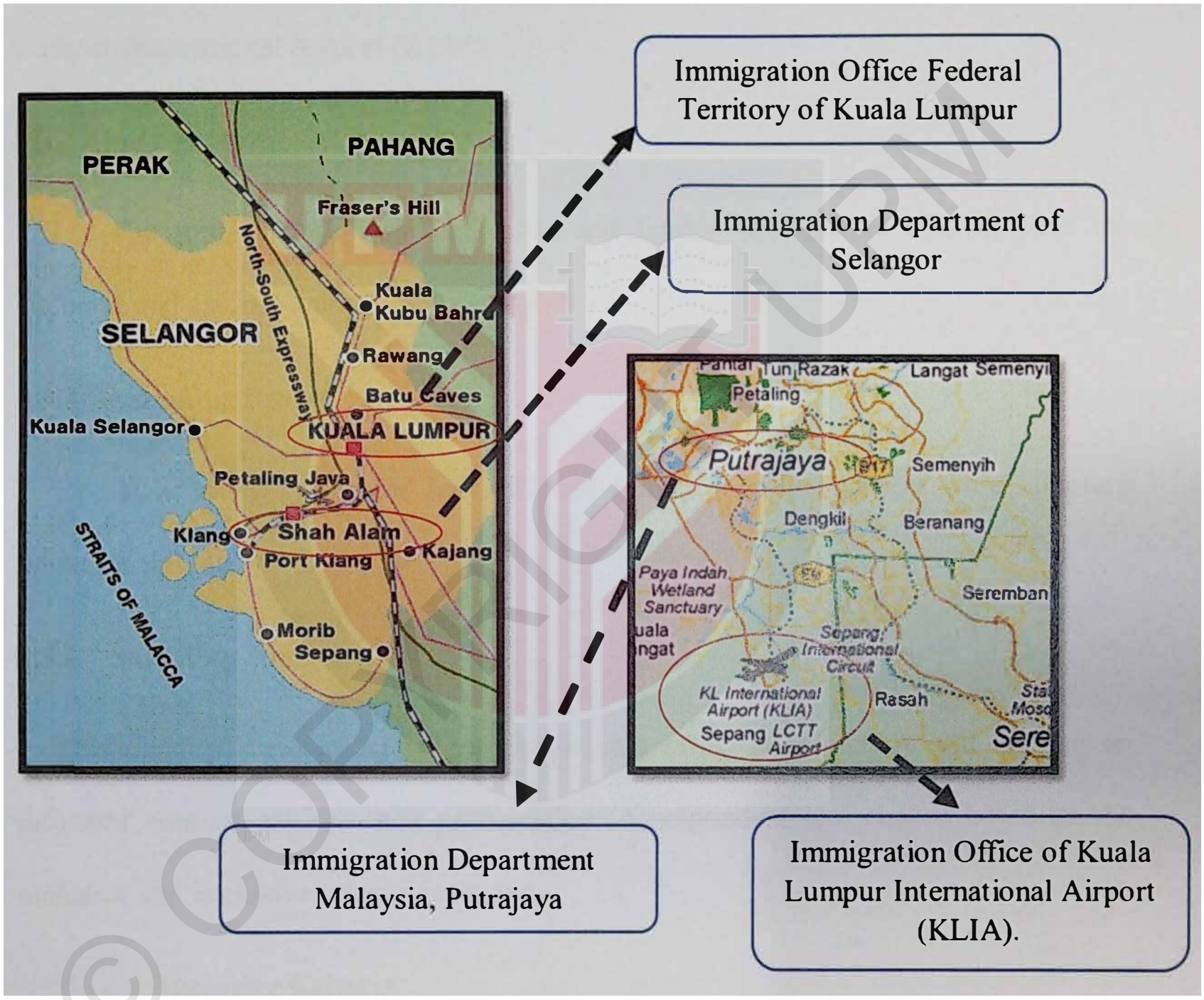
3.2 Study Location

This study was conducted at four different location of Department of Immigration Malaysia which were Immigration Department Malaysia, Putrajaya, Immigration Office Federal Territory of Kuala Lumpur, Immigration Department of Selangor and Immigration Office of Kuala Lumpur International Airport (KLIA). The department is chosen through purposive sampling according to the approval by the Head of the Federal Officer in the Immigration Office.

The lists of the divisions in Putrajaya, Shah Alam, Kuala Lumpur and KLIA were obtained from the Official Portal of Immigration Department of Malaysia (Ministry of Home Affairs). Immigration department has been selected as the study location since there was no baseline data on the riding behaviour among the workers in the immigration. The division that were chosen for this study like Human Resource Division, Administration Service Division, Policy and Strategic Planning Division,

Quality Management and ISO Security and Passport Division Foreign Workers Division, and Visa Passport Division being choose. The exact location of sampling site is shown in the map below:

Figure 3.1: Map of study location



3.3 Sampling

3.3.1 Study Population

The targeted population for this study was chosen among workers who work at Immigration Department Malaysia, Putrajaya, Immigration Office Federal Territory of Kuala Lumpur, Immigration Department of Selangor and Immigration Office of Kuala Lumpur International Airport (KLIA).

3.3.2 Study Sample

The study sample consisted male and female respondents who fulfilled the inclusive and exclusive criteria.

3.3.3 Sampling Frame

All workers at selected four different Immigration Department were sampling frame for this study

3.3.4 Sampling Unit

Respondents were asked to participate voluntarily in this study and signing an informed consent prior to their participation. A respondent was chosen based on the inclusive and exclusive criteria as below:

1. **Inclusive Criteria**
   - i. Malaysian nationality
   - ii. Age between 18-60
   - iii. Have a valid motorcycle license
   - iv. They need to ride motorcycle to work regularly; to be precise, at least once a week

2. **Exclusive Criteria**

i. A person who has drug and alcohol addiction

3.3.5 Sampling Method

Firstly, a purposive sampling method was used in this study to select the study location. The four location was purposely selected because the accident statistic was high in this state especially at the Selangor and Kuala Lumpur. After that, the respondents were selected by convenience sampling and the self-administered questionnaire were distributed only to workers who were voluntarily interested to participate in this study.

3.3.6 Sample Size

The sample size, n was calculated by using Lemeshow et al (1990) sampling formula calculation as follows:

$$n = \frac{Z^2 P(1-P)}{d^2}$$

The sample size estimation is calculated based on the previous study on riding behaviour study conducted by Oxley, Yuen, Ravi and Hoareau (2013). The prevalence obtained from previous study among Malaysian was P=0.88, with confidence interval of 95% (1.96), and desired precision was set d=0.05 into the formula. Therefore, from the sample calculation, the number of respondents required to be significantly representing the total population for this study is 168 respondents

Therefore, from the sample calculation, the number of respondents required to be significantly representing total population for this study is 168. 10% of total respondents was added (16 respondents) to make it a total of 184 respondents as the minimum requirement for this study.

3.3.7 Subject Sampling

All 184 respondents were sampled for the purpose of this study. The sampling was done based on availability of the respondent and most of it was during their resting time.

3.4 Variables

3.4.3 Dependent Variable

Riding behaviour

3.4.4 Independent Variable

Sociodemographic factors, working background factors, riding experience, quality of working life (QWL) factors

3.5 Study Instruments

3.5.1 Self-Administered Questionnaire

The present study used a self-administered questionnaire that has been modified and adopted from previous study to assess the study variable. The questionnaire were consisted of five part which were (i) socio-demographic information of respondents; (ii)working background information ; (iii) riding experience while travelling to and from work ; (iv)working condition and (v) riding behaviour. The designed questionnaire was translated into Bahasa Melayu (BM) from its original English version and have double check for the validation of the translation.

The sociodemographic variables that have being asked in the questionnaire including the age, gender, marital status, educational level, income level, number of family, alcohol consumption, smoking status and history of chronic disease. Meanwhile, for work characteristics such as the unit/department worked, status of work, work experience, average of working in a day, shift working, total days of working in a week and working type.

Work-related quality of life (WRQoL) Scale

The Work-Related Quality of Life (WRQoL) Scale was constructed and standardized by Easton and van Laar (2012). The scale consists of 24 statements measuring six dimensions, which are Control at work, General well-being, Home-work interface, Job career satisfaction, Stress at work and Working conditions.

- General Well-Being (GWB) -six items-: Items are related to happiness and life satisfaction: e.g. "Generally things work out well for me".
- Home–Work Interface (HWI) -three items-: Items are related to issues of accommodating family and work commitments, e.g. "My current working hours/patterns suit my personal circumstances"
- Job and Career Satisfaction (JCS) -six items- e.g. "I am satisfied with the career opportunities available to me at the organization"
- Control at Work (CAW) (three items): Items are related to being able to have control over decisions, e.g. "I am involved in decisions that affect me in my own area of work"
- Working Conditions (WCS) -three items-: Items are related to the physical working environment: e.g. "The working conditions are satisfactory".
- Stress at Work (SAW) -two items-: Items are related to demands. e.g. "I often feel under pressure at work"

Response is given on a 5-point Likert scale (1=Strongly Disagree; 2= Disagree; 3 =Neutral; 4=Agree and 5=Strongly Agree). The score for each dimension is calculated

by finding the average of the items contributing to that dimension. The dimensions were established on the basis of conducting a Principal Components Analysis (PCA) on the initial pool of 61 items. The dimensions have good internal consistency, as demonstrated by having Alpha coefficients range from 0.72 to 0.90, with the coefficient for the overall score being 0.94. Test-retest coefficients ranged from 0.77 to 0.88, with the overall score being 0.87.

Short English version of Motorcycle Riding Behaviour Questionnaire (SMRBQ)

Motorcycle riding behaviour was assessed with the Short English version of Motorcycle Rider Behaviour Questionnaire (SMRBQ) by (Hosseinpourfeizi et al, 2018). In this questionnaire, the answers for each item of the questionnaire have five Likert-scaled choices as "never = 0", "seldom = 1", "sometimes = 2", "often = 3" and "always = 4". In order to assess the reliability of the SMRBQ, the internal consistency of the final dimensionally reduced factor analysis model was assessed using Cronbach's alpha coefficient calculated for each factor as well as total scale separately. The scale had adequate internal consistency based on the calculated Cronbach's alpha which was 0.85 for the scale. Cronbach's alpha was equal to 0.86 for the first factor subscale, 0.68 for the second factor and 0.69 for the last factor subscale.

The three factors extracted could be labelled as follows: factor 1: Unfit erroneous riding, intrusive and exhibitive behaviours including items; 1-15, factor 2: time and money opportunistic behaviours including items 26-21 and factor 3: helmet use

behaviours including items 22 & 23. Previous study showed that they use normalized scores for scoring the SMRBQ values

3.6 Data Collection Procedure

Upon approval from the Research Ethic Committee Universiti Putra Malaysia to conduct the study, the earlier study process was continued by purposely selected the Immigration department in Malaysia. A meeting was conducted between the researcher and the Human Resources Unit (HR) for the explanation of the study, and an approval from the selected Immigration department's top management was obtained.

Next, after the approval from the Director of Human Resources of Immigration Headquarter (HQ), the workers from each department in four different location were allocated for this study. A brief introduction about the study and the questionnaire was given to the workers before beginning of the distribution the questionnaire. The self-administered questionnaire was distributed only to workers who were voluntarily interested to participate in this study and a simple random sampling method was used to select the respondent. The confidentiality was assured, and the respondents were requested to solve the questionnaires during their free time.

3.7 Statistical Analysis

Data management and analysis were performed using IBM SPSS Statistic Version 22. Prior to further statistical analysing the data, the raw data obtained were checked for completeness and normality test was applied to all continuous data. For data analysis, both descriptive and inferential statistical analysis were used. Descriptive analysis was used for describing socio-demographic, working background and riding experience of the sample population. Whereas to test the correlation between the risk factors and dependent variable of interest, bivariate analysis was done to determine the significant correlation between the risk factors and dependent variable. It was assumed that, 2-tailed p-value which has less than 0.05 was considered as significant for this study. To compare the mean score on riding behaviour between two or more unrelated group of independent variables, the statistical analysis of Independent T-test and ANOVA were used for normally distributed data and Mann-Whitney U test and Kruskall-Wallis test for non-normally distributed data.

3.8 Ethical Concern

Human subject's approval was obtained first from the Research Ethics Committee of Universiti Putra Malaysia (UPM) before the start of any collection. Each respondent was given a consent form to read and sign before answering the questionnaire. The consent states that the participation of this study is voluntarily, and participant can withdraw from it as they will. It also stated that the purpose of the study clearly, steps they need to undergo on this study, the benefits and possible risks. Participants are also free to ask any questions regarding this study.

CHAPTER 4

RESULTS

4.1 Response Rate of the Respondents

A total of 200 questionnaires were distributed and only 187 questionnaires was returned and valid which make the response rate for this study was 93.5 %.

4.2 Reliability of Work-Related Quality of Life (WRQoL) Scale and Short Motorcycle Riding Behaviour Questionnaire (SMRBQ)

The internal consistency of the score scales for WRQoL and SMRBQ used in this study were good, reliable and acceptable (Cronbach's ά-coefficient > 0.7). For this questionnaire the value for Cronbach's ά-coefficient was 0.841 for Work-Related Quality of Life (WRQoL) Scale and 0.930 for Short Motorcycle Riding Behaviour Questionnaire (SMRBQ). Refer to Table 4.1 and Table 4.2.

Table 4.1 Reliability Statistic for WRQoL

Cronbach's Alpha	0.841
N of items	24

Item Statistics

Items	Mean	Std. Deviation	N
I have a clear set of goals and aims to enable me to do my job	4.16	0.64	187
I feel able to voice opinions and influence changes in my area of work	3.74	0.67	187
I have the opportunity to use my abilities at work	3.88	0.61	187
I feel well at the moment	3.76	0.76	187
My employer provides adequate facilities and flexibility for me to fit work in around my family life	3.68	0.74	187
My current working hours / patterns suit my personal circumstances	3.85	0.75	187
I often feel under pressure at work	2.61	0.88	187
When I have done a good job it is acknowledged	3.45	0.81	187

by my line manager			
Recently, I have been feeling unhappy and depressed	2.54	0.94	187
I am satisfied with my life	3.81	0.80	187
I am encouraged to develop new skills	4.03	0.64	187
I am involved in decisions that affect me in my own area of work	3.56	0.73	187
My employer provides me with what I need to do my job effectively	3.65	0.67	187
My line manager actively promotes flexible working hours / patterns	3.71	0.74	187
In most ways my life is close to ideal	3.53	0.72	187
I work in a safe environment	3.76	0.78	187
Generally things work out well for me	3.60	0.64	187
I am satisfied with the career opportunities available for me here	3.66	0.75	187
I often feel excessive levels of stress at work	2.42	0.84	187
I am satisfied with the training I receive in order to perform my present job	3.43	0.70	187
Recently, I have been feeling reasonably happy	3.54	0.70	187

all things considered			
The working conditions are satisfactory	3.56	0.80	187
I am involved in decisions that affect members of the public in my own area of work	3.21	0.76	187
I am satisfied with the overall quality of my working life	3.62	0.65	187

Table 4.2 Reliability Statistics for SMRBQ

Cronbach's Alpha	0.930
N of items	23

Item Statistics

Items	Mean	Std. Deviation	N
Tailgating the vehicles in front	2.48	0.89	187
Wide ride going round the corners	2.26	1.00	187
Speeding (when reaching corners)	1.72	0.90	187
Scaring speeding (when reaching corners)	1.71	0.94	187

Wheelie attempts	1.55	0.88	187
Off road due to very quick pull away	1.24	0.65	187
Wheel spin (on purpose)	1.44	0.78	187
Wheel spin (unintentional)	1.47	0.82	187
Riding at night just with dipped light	1.56	0.80	187
Riding impaired motorbike	2.11	1.20	187
Riding while on drugs or medications affecting riding safety	1.43	0.80	187
Riding against the legal traffic direction	1.16	0.57	187
Sidewalk riding	1.43	0.80	187
Mobile conversation or messaging while riding	1.39	0.73	187
Speeding (motorways)	1.57	0.83	187
Speeding (residential roads)	2.54	1.24	187
Riding between fast lanes of traffic	1.64	0.92	187
Carrying heavy weight	1.78	0.90	187
Ride with more than one pillion passenger	1.90	0.98	187
Likely of hitting opened car doors	1.41	0.73	187
Passing the red lights	2.14	1.127	187

Not using helmets while riding	**1.71**	**0.86**	**187**
Not using helmets by pillion passengers	**1.64**	**0.83**	**187**

4.3 Socio-demographics Information of Respondents

Table 4.3 shows the distribution of socio-demographic information and working background of the respondent participated in this study. The total number of respondents who took part in this study was 187 respondents. The age range for the respondent were 20 years old (minimum age) and 60 years old (maximum age) with the average of 33 years. For the distribution of age, the majority of the respondents involved in this study were from age group of 30-39 years old (*f*=96, 51.3%), followed by age group of 20-29 years old (*f*=61, 32.6%) and last one age group of 40 years old and above (*f*=30, 16.0%).

Next, for the distribution of gender, the majority of the respondents were males (*f*=124, 66.3%) and the rest were female (*f*=63, 33.7%). Most of the respondents were married (*f*=139, 74.3%), and the remaining were single (*f*=45, 24.1%), and divorced (*f*=3, 1.6%). Besides, for educational level, majority of the respondent have certificate/diploma (*f*=101, 54.0%), while the remaining were from SPM (*f*=64, 34.2%), bachelor and above (*f*=21, 11.2%), and one of them reported that she/he does not have education (*f*=1, 0.5%). Other than that, for the distribution of total monthly income, majority of the respondent have income more than RM 3000.00 (*f*=105, 56.1%) and the rest have income less than RM 3000.00 (*f*=82, 43.9%). The data collected shows that most of the respondent did not consume alcohol (*f*=184, 98.4%) and only 3 person took alcohol (*f*=3, 1.6%) while for smoking status, 51 respondents are smoker (*f*= 51, 27.3%) and the rest are non-smoker (*f*=136, 72.7%).

In term of working background, most of the respondents have working experience of 1-5 years (*f*=75, 40.1%), followed by more than 10 years (*f*=74, 39.6%), 6-10 years (*f*=26, 13.9%) and less than 1 years (*f*=12, 6.4%). Other than that, the data collected shows that majority of the respondents work for more than 8 hours (*f*=131, 70.1%) and the rest work within 5- 8 hours (*f*=56, 29.9%). Most of the respondents are non-shift workers (*f*=170, 90.9%). For the days working, most of the respondents work for 5 days in a week (*f*=151, 80.7%) and the remaining work for 6 days (*f*=11, 5.9%), 7 days (*f*=8, 4.3%), and not fixed days (*f*=16, 8.6%). Among the respondent, most of them have work pattern of active (*f*=77, 41.2%), followed by fairly active (*f*=75, 40.1%), moderately active (*f*=40, 21.4%), not active (*f*=14, 7.5%) and very active (*f*=7, 3.7%).

Table 4.3 Distribution of Socio-demographic and Working Background information among the respondents (N=187)

Variables	**[a]Mean ± SD / Median (IQR)**	**Minimum-Maximum**	**Frequency (N/%)**
Age	[a]33.40 ± 7.42	20.0-60.0	
20-29 years old			61(32.6)
30-39 years old			96(51.3)
40 and above years old			30(16.0)
Gender			
Male			124(66.3)

Female			63(33.7)
Marital Status	2.0(0.0)		
Single			45(24.1)
Married			139(74.3)
Divorce			3(1.6)
Educational Level	4.0(1.0)		
No education			1(0.5)
SPM			64(34.2)
Certificate/Diploma			101(54.0)
Bachelor and above			21(11.2)
Total Monthly Income (RM)	3426.8 ± 1613.0	1200-8000	
Less than RM3000			82(43.9)
More than RM3000			105(56.1)
Number of Family	2.17 ± 1.76	0-7	
0-3			142(75.9)
4-7			45(24.1)
Alcohol Consumption	2.0(1.0)	1.0-2.0	

Yes (1)		**3(1.6)**
No (2)		**184(98.4)**
Smoking	2.0(1.0)	1.0-2.0
Yes (1)		**51(27.3)**
No (2)		**136(72.7)**
Working Experience	[a]8.30 ± 6.23	0.2-36.0
Less than 1 year		**12(6.4)**
1-5 years		**75(40.1)**
6-10 years		**26(13.9)**
More than 10 years		**74(39.6)**
Average Working Time (Hours/day)	2.0(1.0)	1.0-2.0
5-8 hours (1)		**56(29.9)**
More than 8 hours (2)		**131(70.1)**
Type of Shift work	0.0(0.0)	1.0-2.0
Yes (1)		**17 (9.1)**
No (2)		**170(90.9)**
Days Working (Days)	0.0(0.0)	1.0-4.0

5 (1)			151(80.7)
6 (2)			11(5.9)
7 (3)			8(4.3)
Not fixed (4)			16(8.6)
Working Type	3.0(2.0)	1.0-5.0	
Not Active (1)			14(7.5)
Moderately Active (2)			40(21.4)
Fairly Active (3)			49(26.2)
Active (4)			77(41.2)
Very Active (5)			7(3.7)

Descriptive analysis : IQR= Interquartile range *f*=frequency

[a]Normal Distribution: Mean ± Standard Deviation (SD)

4.4 Riding Experience Information of Respondents

A few questions were asked about the factor of riding experience among the respondents during their commuting trip to workplace. For the distribution of distance to workplace, majority of the respondent were travelled within 1-29 km (*f*=151, 80.7%), followed with 30-59 km (*f*=29, 15.5%) and 60-90 km (*f*=7, 3.7%). Besides, this study also assessed the time they travelled from home to workplace. Most of the respondents answered that they travelled more than 30 minutes (*f*=109, 58.3%) and the rest travelled less than 30 minutes (*f*=78, 41.7%). Respondents were also asked about the traffic condition that they faced to work every day. Most of the them reported that they are facing slow but still moving traffic condition (*f*=79, 42.2%), followed by smooth traffic condition (*f*=69, 36.9%). But, about 39 respondents (20.9%) reported that they are facing congested traffic condition when travelled from home to workplace every day.

Furthermore, this study also asked the respondents about the duration they have obtained the valid motorcycle licence. About 55.6 % of the total respondent or equivalent to 104 respondents stated that they have more than 10 years duration of licence. This is followed by 6-10 years (*f*=49, 26.2%), 2-5 years (*f*=28, 15.0%) and less than one year (*f*=6, 3.2 %). Other than that, respondent were also asked about their history of accident involvement in the past five years. Only 54 respondents from the total of 187 (28.9%) answered that they have involved in the accident within the past 5 years. The remaining of 133 respondents (71.1%) did not have any experience with accident involvement in the past 5 years

Besides, the type of motorcycle used was also asked in the questionnaire. Majority of the respondent were riding underboned/moped type of motorcycles's (*f*=97,

51.9%), followed by motorbike (*f*=47, 25.1%) and scooter (*f*=43, 23.0%). Refer to Table 4.4 for the descriptive analysis of riding experience among respondents

Table 4.4 Distribution of Riding Experience Information among Respondents (N=187)

Variables	**[a]Mean ± SD / Median (IQR)**	**Minimum-Maximum**	**Frequency (N/%)**
Distance to Workplace (km)	[a]19.38±16.06	1.0-90.0	
1-29.9 km			151(80.7)
30-59 km			29(15.5)
60-90 km			7(3.7)
Time Travelling to Work (Minutes)	[a]36.06 ± 25.66	1-120	
Less than 30 minutes			78(41.7)
More than 30 minutes			109(58.3)
Traffic Condition	2.0(1.0)	1.0-3.0	
Smooth (1)			69(36.9)
Slow but still moving (2)			79(42.2)

Congested (3)			39(20.9)
History of Accident Involvement	2.0(1.0)	1.0-2.0	
Yes (1)			54(28.9)
No (2)			133(71.1)
Years of Valid Motorcycle Licence	[a]12.97 ± 7.40	1.0-34.0	
Less than one year			6(3.2)
2-5 years			28(15.0)
6-10 years			49(26.2)
More than 10 years			104(55.6)
Type of Motorcycle	2.0(1.0)	1.0-3.0	
Motorbike (1)			47(25.1)
Moped/underboned (2)			97(51.9)
Scooter (3)			43(23.0)

Descriptive analysis: IQR= Interquartile range *f*=frequency

[a]Normal Distribution: Mean ± Standard Deviation (SD)

4.5 Riding Behaviour among the Workers in Immigration Department of Malaysia

Riding behaviour was the dependent variable measured in this study. Based on the previous study by (Hosseinpourfeizi et al, 2018), there are three factors that can be extracted from the original version questionnaire (43 items) and it was labelled as table below

Table 4.5: Three factors of riding behaviour

Factors	Descriptions
Factor 1	Unfit erroneous riding, intrusive and exhibitive behaviours including questions number 1-15
Factor 2	Time and money opportunistic behaviours including questions number 16-21
Factor 3	Helmet use behaviours including items 22 & 23

Table 4.6 shows the distribution of riding behaviour among the respondents. Most of the respondents tend to have unfit erroneous riding, intrusive and exhibitive behaviours, followed by time and money opportunistic behaviours and helmet use behaviours. Table 4.7 shows the results score of three factors of riding behaviour respectively.

Table 4.6 Riding Behaviour among Respondents (N=187)

Factors	N	Mean	Std. Deviation
Unfit erroneous riding, intrusive and exhibitive behaviors	187	24.52	8.36
Time and money opportunistic behaviors	187	11.40	4.23
Helmet use behaviors	187	3.35	1.59
Total Score SMRBQ	187	39.27	12.88

Table 4.7 Result of Short Motorcycle Riding Behaviour Questionnaire (N=187)

Items	*f* (%)						
	Never	Seldom	Sometimes	Often	Always	Mean	SD
Factor 1							
Tailgating the vehicle in front	22(11.8)	78(41.7)	65(34.8)	19(10.	3(1.6)	2.48	0.888

				2)			
Riding between fast lanes of traffic	51(27.3)	58(31.0)	59(31.6)	16(8.6)	3(1.6)	2.26	1.006
Wide rides going round the corners	94(50.3)	62(33.2)	23(12.3)	5(2.7)	3(1.6)	1.72	0.897
Speeding (when reaching corners)	101(54.0)	53(28.3)	21(11.2)	10(5.3)	2(1.1)	1.71	0.940
Scaring speeding (when reaching corners)	120(64.2)	41(21.9)	19(10.2)	4(2.1)	3(1.6)	1.55	0.881
Wheelie attempts	159(85.0)	17(9.1)	7(3.7)	3(1.6)	1(0.5)	1.24	0.646
Off road due to very quick pull away	131(70.1)	35(18.7)	16(8.6)	4(2.1)	1(0.5)	1.44	0.783
Wheel spin (on purpose)	130(69.5)	34(18.2)	15(8.0)	8(4.3)	0(0)	1.47	0.818

Wheel spin (unintentional)	113(60.4)	49(26.2)	19(10.2)	6(3.2)	0(0)	1.56	0.803
Riding at night just with dipped light	81(43.3)	41(21.9)	34(18.2)	25(13.4)	6(3.2)	2.11	1.197
Riding impaired motorbike	136(72.7)	28(15.0)	18(9.6)	4(2.1)	1(0.5)1	1.43	0.796
Riding while on drugs or medications affecting riding safety	171(91.4)	6(3.2)	6(3.2)	4(2.1)	0(0)	1.16	0.574
Riding against the legal traffic direction	138(73.8)	23(12.3)	22(11.8)	3(1.6)	1(0.5)	1.43	0.802
Sidewalk riding	138(73.8)	30(16.0)	16(8.6)	2(1.1)	1(0.5)	1.39	0.734
Mobile conversion or messaging	115(61.5)	42(22.5)	26(13.9)	3(1.6(	1(0.5)	1.57	0.829

while riding							
Factor 2							
Speeding (motorways)	55(29.4)	32(17.1)	53(28.3)	38(20.3)	9(4.8)	2.54	1.241
Speeding (residential roads)	112(59.9)	42(22.5)	24(12.8)	7(3.7)	2(1.1)	1.64	0.920
Carrying heavy weight	91(48.7)	54(28.9)	35(18.7)	6(3.2)	1(0.5)	1.78	0.898
Ride with more than one pillion passenger	84(4.9)	50(26.7)	45(24.1)	4(2.1)	4(2.1)	1.90	0.981
Likely of hitting opened car doors	133(71.1)	36(19.3)	15(8.0)	2(1.1)	1(0.5)	1.41	0.73
Passing the red light	70(37.4)	50(26.7)	46(24.6)	13(7.0)	8(4.3)	2.14	1.127
Factor 3							
Not using helmets while riding	97(51.9)	54(28.9)	29(15.5)	7(3.7)	1(0.5)	1.71	0.863

Not using helmets by pillion passengers	103(55.1)	55(29.4)	24(12.8)	4(2.1)	1(0.5)	1.64	0.827

4.6 Quality of Work Life among the Respondents

In this study, the quality of work life among the respondent were asked in the questionnaire consisting of 24 questions. Work-related quality of life (WRQoL) scale was used to assess the six factors which are job and career satisfaction (JCS), general wellbeing (GWB), work conditions (WCS), home-work interface (HWI), stress at work (SAW), and control at work (CAW).Table 4.8 shows the questions numbers and statements related to the WRQoL scale at each field.

Table 4.8 Questions numbers and statements related to each factor of quality of work life.

Factors for quality of working life	Numbers in the question	Total Statement
Job and Career Satisfaction (JCS)	20,18, 11,8, 3,1	6
General Well-Being (GWB)	21,17,15,10,9,4	6
Home-Work Interface (HWI)	5,6,14	3
Control at Work (CAW)	2,12,23	3
Working Conditions (WCS)	13,16,22	3
Stress at Work (SAW)	7,19	2

Table 4.9 shows the opinions of Immigration officers about their work-related quality of life. Among the six factors, JCS obtained the highest average (22.6%) and stress at work had lowest average (5.1%)

Mean ± SD score was used to report the frequency rank of 24 items asked in the Work-related quality of life (WRQoL) scale in which the respondent has to evaluate their quality of working life based on 5 Likert scale which were Strongly Disagree, Disagree, Neutral, Agree and strongly Agree. Overall, 53.5% and 5.9% of respondent answered "agree" and "strongly agreed" that they were satisfied with their quality of working life. Refer Table 4.10 for the distribution for each question in the (WRQoL) scale.

Table 4.9 Distribution of Work-Related Quality of Life among the respondents for each dimension (N=187)

No. of Question	Quality of Working Life Dimension	Mean ± SD score
	Job Career Satisfaction (JCS)	
1	I have a clear set of goals and aims to enable me to do my job	4.16 ± 0.641
3	I have the opportunity to use my abilities at work	3.88 ± 0.605
8	When I have done a good job it is acknowledged by my line manager	3.45 ± 0.811

11	I am encouraged to develop new skills	4.03 ± 0.638
18	I am satisfied with the career opportunities available for me here	3.66 ± 0.747
20	I am satisfied with the training I receive in order to perform my present job	3.43 ± 0.702
	General Well-Being (GWB)	
4	I feel well at the moment	3.76 ± 0.756
9	Recently, I have been feeling unhappy and depressed	2.54 ± 0.945
10	I am satisfied with my life	3.81 ± 0.800
15	In most ways my life is close to ideal	3.53 ± 0.721
17	Generally things work out well for me	3.60 ± 0.635
21	Recently, I have been feeling reasonably happy all things considered	3.54 ± 0.697
	Home-Work Interface (HWI)	
5	My employer provides adequate facilities and flexibility for me to fit work in around my family life	3.68 ± 0.735
6	My current working hours / patterns suit my personal circumstances	3.85 ± 0.754

14	My line manager actively promotes flexible working hours / patterns	3.71 ± 0.736
	Control at Work WRQoL (CAW)	
2	I feel able to voice opinions and influence changes in my area of work	3.74 ± 0.673
12	I feel able to voice opinions and influence changes in my area of work	0.734 ± 3.56
23	I am involved in decisions that affect members of the public in my own area of work	3.21 ± 0.760
	Working Conditions (WCS)	
13	My employer provides me with what I need to do my job effectively	3.65 ± 0.674
16	I work in a safe environment	3.76 ± 0.777
22	The working conditions are satisfactory	3.56 ± 0.797
	Stress at Work (SAW)	
7	I often feel under pressure at work	2.61 ± 0.881
19	I often feel excessive levels of stress at work	2.42 ± 0.835

Table 4.10 Distribution of Work-related Quality of Life Questionnaire (N=187)

Items	*f* (%)						
	Strong Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Mean**	**SD**
I have a clear set of goals and aims to enable me to do my job	1 (0.5)	0 (0)	20 (10.7)	114 (61.0)	52 (27.8)	4.16	0.641
I feel able to voice opinions and influence changes in my area of work	1(0.5)	4(2.1)	55(29.4)	110(58.8)	17 (9.1)	3.74	0.673
I have the opportunity to use my abilities at work	1(0.5)	0(0)	44(23.5)	119(63.6)	23(12.3)	3.88	0.605
I feel well at the moment	2(1.1)	7(3.7)	48(25.7)	107(57.2)	23(12.3)	3.76	0.756

My employer provides adequate facilities and flexibility for me to fit work in around my family life	1(0.5)	8(4.3)	59(31.6)	100(53.5)	19(10.2)	3.68	0.735
My current working hours / patterns suit my personal circumstances	3(1.6)	6(3.2)	33(17.6)	119(63.6)	26(13.9)	3.85	0.754
I often feel under pressure at work	19(10.2)	64(34.2)	77(41.2)	25(13.4)	2(1.1)	2.61	0.881
When I have done a good job it is acknowledged by my line manager	5(2.7)	12(6.4)	75(40.1)	84(44.9)	11(5.9)	3.45	0.811

Recently, I have been feeling unhappy and depressed	21(11.2)	76(40.6)	63(33.7)	22(11.8)	5(2.7)	2.54	0.935
I am satisfied with my life	1(0.5)	9(4.8)	48(25.7)	96(51.3)	33(17.6)	3.81	0.800
I am encouraged to develop new skills	0(0)	1(0.5)	32(17.1)	114(61.0)	40(21.4)	4.03	0.638
I am involved in decisions that affect me in my own area of work	0(0)	10(5.3)	80(42.8)	80(42.8)	17(9.1)	3.56	0.734
My employer provides me with what I need to do my job effectively	1(0.5)	7(3.7)	59(31.6)	109(58.3)	11(5.9)	3.65	0.674
My line manager	3(1.6)	4(2.1)	56(29.9)	106(56.7)	18(9.6)	3.71	0.736

actively promotes flexible working hours / patterns							
In most ways my life is close to ideal	1(0.5)	10(5.3)	77(41.2)	87(46.5)	12(6.4)	3.53	0.721
I work in a safe environment	3(1.6)	6(3.2)	48(25.7)	106(56.7)	24(12.8)	3.76	0.777
Generally things work out well for me	1(0.5)	4(2.1)	72(38.5)	102(54.5)	8(4.3)	3.60	0.635
I am satisfied with the career opportunities available for me here	4(2.1)	4(2.1)	58(31.0)	106(56.7)	15(8.0)	3.66	0.747
I often feel excessive levels of	21(11.2)	84(44.9)	67(35.8)	12(6.4)	3(1.6)	2.42	0.835

stress at work							
I am satisfied with the training I receive in order to perform my present job	4(2.1)	7(3.7)	85(45.5)	87(46.5)	4(2.1)	3.43	0.702
Recently, I have been feeling reasonably happy all things considered	2(1.1)	8(4.3)	72(38.5)	97(51.9)	8(4.3)	3.54	0.697
The working conditions are satisfactory	6(3.2)	7(3.7)	62(33.2)	101(54.0)	11(5.9)	3.56	0.797
I am involved in decisions that affect members of the public in my own area	2(1.1)	24(12.8)	101(54.0)	52(27.8)	8(4.3)	3.21	0.760

of work							
I am satisfied with the overall quality of my working life	0(0)	6(3.2)	70(37.4)	100(53.5)	11(5.9)	3.62	0.648

4.7 Comparison of Means of Socio-demographic Factors and Riding Experiences on Riding Behaviour among Workers

To answer objective 2, the means of socio-demographic factors (gender, age educational level, marital status and average income level) and riding experiences (traffic condition, accident history and type of motorcycle used) on riding behaviour was compared among the workers.

From the analysis, there was significant difference of mean score between gender ($p<0.05$). A Mann-Whitney U test showed that there was a significant difference ($U=2868$, $p=0.003$) between unfit erroneous riding, intrusive and exhibitive behaviours and time and money opportunistic behaviours ($U=4637$, $p=0.000$) for male group compare to female group. While, Kruskal Wallis test showed that there was a significant difference of mean between age group and unfit erroneous riding, intrusive and exhibitive behaviours and helmet use behaviour. Post hoc tests (Pairwise Comparison) showed that there were significant difference between age group of 40 and above and

20-29 years old at p=0.002 for unfit erroneous riding, intrusive and exhibitive behaviours and p=0.017 for helmet use behaviour. However, there was no significant mean difference found on the factor of marital status, educational level and average income level. In term of riding experience, there was no significant mean difference found on the traffic condition, accident history and type of motorcycle used with score of riding behaviour. Refer to Table 4.11, Table 4.12, Table 4.13

Table 4.11: Comparison of mean between two or more than two group independent variable with riding behaviour (N=187)

Variables	N	Mean Rank	z-statistic	U	df	$\chi 2$	p
Gender[a]							
Male	124	103.67	-3.428	2707.500	-	-	0.001*
Female	63	74.98					
Marital Status[b]							
Single	45	97.37					
Married	139	93.05	-	-	2	0.260	0.878
Divorce	3	87.50					
Educational level[b]							
No education	1	172					
SPM	64	93.16	-	-	3	3.465	0.325

Certificate/Diploma	101	96.42					
Bachelor and above	21	81.24					
Alcohol Consumption[a]							
Yes	3	48.33		139	-	-	0.140
No	184	94.74	-1.474				
Shift working[b]							
No (office hour)	170	95.17					
Yes, day	0	0	-	-	2	1.034	0.596
Yes, night	1	103.50					
Both	16	81.0					
Working type[b]			-	-			
Not Active	13	108.04					
Moderately Active	40	96.05			4	5.819	0.213
Fairly Active	49	81.55					
Active	77	99.51					
Very Active	7	69.43					
Accident history[a]							
Yes	54	98.08	-0.658	3370	-	-	0.511
No	133	92.34					

Traffic condition[b]							
Smooth	**69**	**94.59**					
Slow but still moving	**79**	**88.54**	**-**	**-**	**2**	**2.148**	**0.342**
Congested							
	39	**104.01**					
Type of Motorcycle Used[b]							
Motorbike	**47**	**103.39**	**-**	**-**	**2**	**5.933**	**0.051**
Moped/underboned	**97**	**96.96**					
Scooter	**43**	**77.05**					

[a]Mann-Whitney test [b]Kruskall-Wallis test.

***p-value is significant at 0.05 level**

Table 4.12: Comparison of mean between age group (N=187)

Variable	Age group[b]	N	Mean rank	p-value
Unfit erroneous riding, intrusive and exhibitive behaviours	20-29 years old	61	109.11	
	30-39 years old	96	92.66	0.02
	More than 40 years old	30	66.69	
Time and money opportunistic behaviours	20-29 years old	61	105.28	
	30-39 years old	96	90.50	0.104
	More than 40 years old	30	81.98	
Helmet use behaviour	20-29 years old	61	104.85	0.021
	30-39 years old	96	93.38	
	More than 40 years old	30	73.26	

*p-value is significant at 0.05 level

Table 4.13: Comparison of mean between gender (N=187)

Variables	Gender[a]	N	Mean rank	U	z	p-value
Unfit erroneous riding, intrusive and exhibitive behaviours	Male	124	102.37	2868	-2.971	
	Female	63	77.53			0.003
Time and money opportunistic behaviours	Male	124	104.36	4637	-3.689	
	Female	63	73.60			<0.01
Helmet use behaviour	Male	124	98.29	3374	-1.628	0.103
	Female	63	85.56			

*p-value is significant at 0.05 level

4.8 Relationship between the Socio-demographic Factors, Working Background and Riding Experience with Riding Behaviour among Respondents

To answer objective 3, the correlation between independent variables such as socio-demographic factor, working background factor and riding experience factor with riding behaviour were tested.

Socio-demographic factors such as age, gender, educational level, marital status as well as alcohol consumption were hypothesised to influence the riding behaviour of an individual when in the road. The correlation shows that there was significant

correlation between age and three type of riding behaviour. Gender also has significant correlation with two type of riding behaviour named it unfit erroneous riding, intrusive and exhibitive behaviours and also time and money opportunistic behaviour. Chang and Yeh (2007) in their study have shown that young and male motorcycle riders seem to have more accidents due to risky and violation behaviour. Educational level and monthly income have significant correlation with helmet use behaviour. Alcohol consumption has significant correlation with unfit erroneous riding, intrusive and exhibitive behaviours,

Next, for working background, there was significant correlation of average of working experience with unfit erroneous riding, intrusive and exhibitive behaviours. However, there was no significant correlation between average working time, shift working and working type with the riding behaviour among the respondents.

In term of riding experiences, type of motorcycle used, and years of valid motorcycle licence has significant correlation with unfit erroneous riding, intrusive and exhibitive behaviours. Table 4.14 shows the correlation between the Socio-demographic Factors, Working Background Factors and Riding Experience with 3 Factor of Riding Behaviour among Respondents

Table 4.14: Correlation between the Socio-demographic Factors, Working Background Factors and Riding Experience with 3 Factor of Riding Behaviour among Respondents

Variables	**Correlation between the Socio-demographic Factors, Working Background Factors and Riding Experience with 3 Factor of Riding Behaviour among Respondents (N=187)**					
	Unfit erroneous riding, intrusive and exhibitive behaviours		**Time and money opportunistic behaviours**		**Helmet use behaviour**	
	r	**p-value**	**r**	**p-value**	**r**	**p-value**
Age	0.276	**<0.01**	-0.152	**0.03**	0.177	**0.01**
Gender	-0.218	**0.003**	-0.270	**<0.01**	-0.119	0.104
Marital Status	-0.076	0.303	0.036	0.620	-0.025	0.736
Educational Level	-0.037	0.613	-0.011	0.877	-0.145	**0.048**

Monthly income	-0.059	0.423	-0.028	0.701	-0.156	**0.03**
Alcohol consumption	0.156	**0.03**	0.059	0.426	-0.018	0.81
Average working experience	-0.163	**0.02**	-0.024	0.747	-0.108	0.142
Average Working Time	0.091	0.214	0.117	0.11	0.045	0.537
Shift working	-0.058	0.428	-0.045	0.539	-0.102	0.163
Working Type	0.019	0.800	-0.019	0.794	-0.037	0.614
Distance to Workplace	0.130	0.077	0.138	0.06	-0.015	0.835
Time taken for travelled from home to workplace	0.043	0.563	0.082	0.262	-0.037	0.612

Traffic condition	0.022	0.766	0.097	0.188	-0.025	0 .738
History of accident	-0.04	0.54	-0.046	0.529	0.02	0 .763
Type of motorcycle used	-0.184	**0.01**	-0.12	0.103	-0.130	0 .076
Years of valid motorcycle licence	-0.188	**0.01**	-0.090	0.223	-0.115	0 .117

Spearman rho correlation,

*p-value is significant at 0.05 level

4.9 Relationship between Quality of Work Life with Riding Behaviour

In this study, the association between the quality of working life with riding behaviour were measure using Spearman Correlation Test. There are 27 items that are being asked from the respondent in this section which assessed what is the quality of work life among the respondents. The 24 questions were adopted from the Work-Related Quality of Life (WRQoL) Scale.

Based on the correlation result, the correlation between the total Work-related quality of life and riding behaviour was positive for Unfit erroneous riding, intrusive and exhibitive behaviours, but negative for both time and money opportunistic behaviour and helmet use behaviour and does not statistically significant at 0.05 level. Four of the six dimensions of Work-related quality of life, Stress at work were significantly correlated with all the factor of riding behaviour. Job and Career Satisfaction has a positive significant correlation with factor 3. Control at work has a significant positive correlation with Unfit erroneous riding, intrusive and exhibitive behaviour and Time and money opportunistic behaviours.

Table 4.15 Correlation between Quality of Working Life with Riding Behaviour

Correlation between Quality of Work Life with 3 factors of Riding Behaviour				
		Unfit erroneous riding, intrusive and exhibitive behaviours (Factor1)	Time and money opportunistic behaviours (Factor 2)	Helmet Use behaviours (Factor 3)
1. **Job, Career Satisfaction (JCS)**	correlation p	-0.056 0.449	-0.122 0.096	-0.177* 0.015
2. **General well-being (GWB)**	correlation p	0.056 0.444	-0.086 0.241	-0.132 0.071
3. **Working Condition**	correlation p	0.060 0.413	0.045 0.543	-0.031 0.676

	(WCS)				
4.	Home Work interface (HWI)	correlation	-0.098	-0.083	-0.098
		p	0.180	0.260	0.181
5.	Stress at Work (SAW)	Correlation	0.225**	0.144	0.179*
		p	0.002	0.050	0.014
6.	Control at Work (CAW)	correlation	0.183*	0.141	-0.012
		p	0.012	0.054	0.876
7.	Total Score WRQoL	correlation	0.053	-0.050	-0.096
		p	0.467	0.498	0.192

Spearman rho correlation,

**Correlation is significant at the level 0.01(2 tailed); *significant at 0.05 (2 tailed)

CHAPTER 5

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Background of the Respondents

A total of 187 respondents from four immigration department had been involved in this study. Most of the respondents were male which was 124 (66.3%) respondents, while 63 (33.7 %) respondents are female. All of them were selected based on inclusive criteria, which were Malaysian nationality, age between 18-60 years old, have a valid motorcycle license and they need to ride motorcycle to work regularly; to be precise, at least once a week.

5.2 Comparison of means of socio-demographic factors and riding experiences on riding behaviour among workers

In this study, the means of socio-demographic factor and riding experience on riding behaviour was compared among workers using Man-Whitney test and Kruskall Walis.

Based on the finding, it found that there was a significant mean difference between gender and the test showed that male respondents that male respondent scored significantly higher than female respondents on unfit erroneous riding, intrusive and exhibitive behaviours and time and money opportunistic behaviours of the riding behaviour score. There was a significant difference of mean between age group and unfit erroneous riding, intrusive and exhibitive behaviours and helmet use behaviour.

Further analysis by post hoc tests showed that there was significant difference between age group of 40 and above and 20-29 years old at p=0.002 for unfit erroneous riding, intrusive and exhibitive behaviours and p=0.017 for helmet use behaviour. According to Chang and Yeh (2007), they have shown that young and male motorcycle riders seem to have more accidents due to risky and violation behaviour. While, Andrew and Thomas (2009) in their study showed that greater proportion of both young and elderly drivers lead to higher death rates.

Despite that previous study shown that there was significant relationship of riding experience with riding performance, unfortunately, this study unable to find any significant mean difference on the riding experience factor, such as traffic condition, accident history and type of motorcycle with the score of riding behaviour.

5.3 Relationship of Socio-demographic Factor, Working Background and Riding Experience with Riding Behaviour

To answer objective number 3, the correlation between the socio-demographic factor, working background factor and riding experience factor with riding behaviour among respondents was done using Spearman Correlation test.

The evidence from this study suggests that there was a significant correlation between various independent variable factors such as age, gender, educational level, monthly income, alcohol consumption, average working experience, type of motorcycle used and years of obtaining valid motorcycle licence with the factors of the riding behaviour. This finding can be support with previous studies where its related to crash involvement, rider's age and gender have been shown to affect the severity of crash outcomes (i.e. the risk of fatal injury given a crash). Male and elderly motorist are more likely to be fatally injured in a crash than female and in the younger age ranges (Huang and Lai, 2011, Kim et al., 2013). Sami et al. (2013) found that educational level and age are significantly correlated to mortality rate. The youth and uneducated or low educated people suffer more fatal road traffic accident. Another relevant finding from other research related to income level, lower economic level was associated with increased incidence and mortality of traffic accident (Sehat et al, 2012)

In terms of working background, only a weak positive correlation was found between working experience and riding behaviour ($r=0.163$). However, no significant relationship found between working time (hour). No significant difference on mean also

found between shift working and working type. This finding is contradicted with some research that have found shift working could increase the possibility of accident especially when they are working on the night shift. Based on the study conducted by Lee et al, (2016), they have found that a high risk of dangerous driving and near-crash events during actual driving by night-shift workers following overnight work, when physiological markers of drowsiness were significantly increased. Their data indicate that prolonged driving may be especially hazardous during the homeward commute following night-shift work. This result could be agreed since majority of the respondents did not work on shift.

For the aspect of riding experience, this study found correlation between the factor of the years the respondents had acquired their motorcycle licence and type of motorcycle used with the riding behaviour where the p-value < 0.05. From the result, it could be assumed that riders who is newly get their motorcycle license will have less experience and skill in riding and tend to do error and mistake. Teenage drivers are eight times more likely to be involved in a collision or near miss during the first three months after getting a driver's license, compared to the previous three months on a learner's permit, suggests a study led by the National Institutes of Health (NIH) (2018).

Motorcycle characteristics can also contribute to crash risk. High capacity bikes (cc> 250) are associated with higher risk than bikes with lower capacity (Bjørnskau et al., 2010, Broughton et al., 2009, Teoh and Campbell, 2010, Yannis et al., 2005).

5.4 Riding Behaviour Among the Respondents

In this study, the rider behaviour was assessed by using the Short English version of Motorcycle Riding Behaviour Questionnaire (SMRBQ). Based on the assessment of the rider behaviour questionnaire, the result show that majority of the respondent tend to have unfit erroneous riding, intrusive and exhibitive behaviours (24.52 ± 8.36). The highest frequency reported was "Tailgating the vehicle in front", followed by "riding between fast lanes of traffic" and "riding at night just with dipped light".

For factor 2, the highest frequency recorded was for "Speeding (motorways)", followed by "passing the red light" and "ride with more than one pillion passenger". From the result of the assessment, it has found that 34.8 % of the respondent tend to conduct tailgating the vehicle in front sometime and only 10.2 % doing this action as often. Following too closely behind another motorist, or tailgating, is an aggressive driving or riding behaviour.

According to research by the Highways' Agency (2015), tailgating is a contributing factor in more than one third of all crashes on the road and is one of our top causes of car or motorcycle accidents. Tailgating is when a driver or the rider follows the car or motorcycle in front too closely, literally riding up on its tail. When a driver or rider cannot avoid hitting another automobile, tailgating can cause an accident. Sometimes, when a driver is getting tailgated by another driver, the motorist in front will get angry at the person behind them and sometimes will doing action such as by

taping their brakes (just to get the brake lights to go on) in an attempt to get the tailgater to back off and use a safer following distance. This is very dangerous action and causes needless auto accidents when car drivers lose control or crash into someone's rear bumper as a result. 23.8% of the respondent answered that they tend to do "often" speeding behaviour especially at the highway. According to a study analysis conducted by Yuen, Rehan and Saifizul (2014) among Malaysian riders, they have found there is a significant correlation between various aspects of riding behaviour such as speed, throttle, and brakes applied, with riders' attributes and distance from the speed table.

As for the helmet use behaviours, half of the study respondent reported that they never do the action of "Not using helmets while riding" such were asked in the questions number 22. This is a good action and it can say that the respondent has high awareness on the helmet uses when riding a motorcycle. According to Nur Sabahiah and Satoshi (2011), the top cause of motorcycle collision fatalities in Malaysia is head damage resulting from not wearing a helmet. They have claimed that motorcycle helmets could reduce the risk of head injury up to 72%.

5.5 Relationship between Quality of Work Life (QWL) and Riding Behaviour

In this study, the quality of work life of the respondent was assessed whether it has association with the riding behaviour of the respondent. There are 6 domains of the quality of working life which are Job and Career Satisfaction (JCS), General Well-Being (GWB), Home-Work Interface (HWI), Control at Work WRQoL (CAW) and Working Conditions (WCS).

53.5 % of the respondent has agreed that they have satisfied with the overall quality of their working life. In order to relate the quality of working life with their behaviour when riding a motorcycle, an association has been made and it is found that Stress at work (SAW) were significantly correlated with all the factor of riding behaviour ($p<0.05$). This could be explained that the effect of work-related stress could affect the riding behaviour of a workers. Stressing out about work can mess with your sleep, make you gain weight, and increase your risk of heart disease. One of the health risks which could be relatable with work stress is road accidents. People who have a lot of work stress are more likely to have a dangerous event occur during their commute, says a new study in the European Journal of Work and Organizational Psychology. This could be support by previous literature that showed there is significant associations between work-related factors: measures of stress and self-reported rates of traffic fines with the driving pattern (Montorro, 2018). Researchers have found that the number-one stressor that indicates someone will take more risks while driving is if they're having a hard time balancing work and family life.

5.6 CONCLUSION

In conclusion, findings from this study have found significant mean difference of male and younger age with more risky riding behaviour among the workers. The evidence from this study suggests that there were a significant correlation between various independent variable factors such as age, gender, educational level, monthly income, alcohol consumption, and average working experience, type of motorcycle used and years of obtaining valid motorcycle licence with the factors of the riding behaviour. In relation with quality of work life, 53.5% of the respondents agreed that they have satisfied with the overall quality of their working life. This recent finding has shown that stress at work (SAW), Job and Career Satisfaction and Control at work has significant association and correlation with the riding behaviour. In the end, these finding might be of relevance in designing road safety programme and intervention in order to reduce the number of motorcycle road accident in Malaysia associated with the riding behaviour. A proactive approach to this problem involves not only a particular party to ensure the wellbeing of workers in Malaysia, but all authorities should play important roles in enhancing safety and health aspect of workers especially on the occurrence of road accident. Manager and organisation should provide a good working environment as it is very essential in order for the employees to have a better quality of work life and balance lifestyle. This could reduce any negative impact of poor work environment such as work-stress related, work-related fatigue, absenteeism, work-related accident and low productivity to their work task.

5.7 LIMITATION OF THE STUDY

There were several limitations found in this study. Firstly, the duration of research was done in short period of time since the study design is the cross-sectional study. Cross-sectional study cannot be used to analysed behaviour over a period of time and, thus not allowing the research to better explore and observe how quality of working life influenced the way of riding among the respondents. Since the exposure and outcome are simultaneously assessed, there is generally no evidence of a temporal relationship between exposure and outcome.

Besides, there is limited study that focusing on the impact of work quality toward the riding behaviour in Malaysia and other region, thus make it difficult to find the baseline data of the QWL on the riding behaviour. This cause the reliance toward the external research's finding which might not really explained the situation of interest.

Other than that, during the data collection, it is difficult to find the respondents especially female respondents that using motorcycle to work since most of them were using other transportation such as car and public transport. This have resulted in unbalance distribution of the gender.

5.8 RECOMMENDATION

The result and finding of the study should be making use for reducing and controlling the risk of road accident due to the unsafe riding behaviour of the respondents. Since the sample of study is limited to the workers of immigration department in the four location only, it is suggests for the future studies to take account in other immigration department to extend and validate the findings of this study. The number of sample size should be increased to better explain and represent the total population of the workers of immigration.

Future studies can also test the role of other mediators since this study only focusing of the impact of QWL toward the riding behaviour. There are still many other relevant variables which could be the factors that might influence the way of riding. Future studies may also conduct a series of comparative studies focusing on QWL and riding behaviour of other uniform bodies in Malaysia

Since this study only use questionnaire, it is recommended for the future work to use instrumental measurement on the subject to strengthen the finding of the study. For example, using simulator or instrumented motorcycle to better observe and assessed the behaviour of the respondent when using motorcycle.

Other than that, for the recommendation for organisation, employer should take care of the quality of work life of their workers since it is significant to all

organizational inputs which lead to the employees' satisfaction and influence organizational effectiveness. Actions should be taken among the workers of immigration department in controlling and preventing the unsafe riding behaviour due to the impact of working life such as work-related stress, job satisfaction and also control at work.

Some recommended action that could be done to tackle this issue by provide a positive working environment. A motivating working environment will make the workers to work in productive condition and thus can reduce any problem. Workers who make complaints of having work-related stress should be educate to join stress-management program in order to identify and reduce any problems at work that could contribute to the stress condition. Role of employer to encourage their employee to have a balance and healthy working quality is really important in an organisation to retain the good well-being of the workers.

Last but not least, organisation can provide training on the safe riding or driving during commuting to workplace especially for the younger group to increase the awareness among themselves on the importance of safe ride or drive.

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APPENDICES

APPENDIX 1

RESPONDENTS'S INFORMATION SHEET AND CONSENT

JAWATANKUASA ETIKA UNIVERSITI UNTUK PENYELIDIKAN MELIBATKAN MANUSIA (JKEUPM)
UNIVERSITI PUTRA MALAYSIA, 43400 UPM SERDANG, SELANGOR, MALAYSIA

FORM 2.4: RESPONDENT'S INFORMATION SHEET AND INFORMED CONSENT FORM

Please read the following information carefully and do not hesitate to discuss any questions you may have with the researcher.

1. STUDY TITLE :

Quality of Working Life and Riding Behaviour among Workers in Immigration Department of Malaysia.

2. INTRODUCTION:

Traffic accidents represent a major problem facing by many countries around the world. Relative to its population, Malaysia has one of the highest traffic fatality rates in the world. The number of road accidents involving workers was on the rise, with more than 30,000 cases recorded and 76.9% involved motorcyclists and pillion riders. Despite of numerous studies have been conducted to explore the causes of this worrisome condition, little is known on the influence of working quality to riding behaviour.

3. WHAT WILL YOU HAVE TO DO?

This research will involve a questionnaire survey.Before answering the questionnaire, you are advised to read, understand and answer all the question truthfully in the questionaire form. Choose the best answer that represent yourself. After aswering all of the questions, the questionnaire form should be returned to the researcher.

4. WHO SHOULD NOT PARTICIPATE IN THE STUDY?

Respondent who have the following conditions are excluding from participating in this study:

i. Respondent who disagree to participate in this study

ii. Respondent who does not have valid riding license

iii. Respondent who does not ride a motorcycle to work

5. WHAT WILL BE THE BENEFITS OF THE STUDY:

(a) TO YOU AS THE SUBJECT?

This study will provide an insight to the respondents whether the quality of working life have an association with riding behaviour.From here, we will study how these factors contribute to your driving behaviour and performance. If the finding found there is significant association,we will propose you as well as your company's management on how to improve your safety on the road.

(b) TO THE INVESTIGATOR?

The finding of this study will provide baseline data for the future research on the association of quality of working life (QWL) on the riding outcome. The data could be used and applied in development of intervention program to reduce the number of road accident especially among the workers

6. WHAT ARE THE POSSIBLE RISKS?

There is no possible risks involved in participating in this study research.

7. WILL THE INFORMATION THAT YOU PROVIDE AND YOUR IDENTITY REMAIN CONFIDENTIAL?

All the information obtained through the questionnaire and the respondent' s information sheet and consent form are remain confidential and will not to be disclosed to the third party.

8. WHO SHOULD YOU CONTACT IF YOU HAVE ADDITIONAL QUESTIONS DURING THE COURSE OF THE RESEARCH?

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9. CONSENT

I ..... Identity Card No. ..... address..... ....hereby voluntarily agree to take part in the research stated above *(clinical /drug trial/video recording/ focus group/interview-based/ questionnaire-based).

I have been informed about the nature of the research in terms of methodology, possible adverse
effects and complications (as written in the Respondent's Information Sheet). I understand that I have the right to withdraw from this research at any time without giving any reason whatsoever. I also understand that this study is confidential and all information provided with regard to my identity will remain private and confidential.

I* wish / do not wish to know the results related to my participation in the research

I agree/do not agree that the images/photos/video recordings/voice recordings related to me be used in any form of publication or presentation (if applicable)

* delete where necessary

Signature ..... (Respondent)

Date :.....

Signature ..... (Witness)

Name :.....

I/C No. :.....

I confirm that I have explained to the respondent the nature and purpose of the above-mentioned research.

Date .....

Signature ..... (Researcher)

APPENDIX II

BORANG PENERANGAN DAN PERSETUJUAN RESPONDEN

JAWATANKUASA ETIKA UNIVERSITI UNTUK PENYELIDIKAN MELIBATKAN MANUSIA (JKEUPM)
UNIVERSITI PUTRA MALAYSIA, 43400 UPM SERDANG, SELANGOR, MALAYSIA

BORANG 2.4: PENERANGAN DAN PERSETUJUAN RESPONDEN

Sila baca maklumat berikut dengan teliti. Sekiranya anda mempunyai sebarang pertanyaan, sila kemukakan kepada penyelidik.

1.TAJUK KAJIAN

Kualiti Kehidupan Bekerja dan Tingkah Laku Menunngang Motorsikal Dalam Kalangan Pekerja Imigresen, Malaysia.

2. PENGENALAN

Kemalangan jalan raya merupakan masalah utama yang dihadapi oleh banyak negara di seluruh dunia. Berkaitan dengan penduduknya, Malaysia merupakan salah satu daripada negara yang mempunyai kadar kematian tertinggi di dunia. Jumlah kemalangan jalan raya yang melibatkan pekerja meningkat, dengan lebih daripada 30,000 kes direkodkan dan 76.9% melibatkan penunggang motosikal dan penunggang basikal. Walaupun banyak kajian telah dijalankan untuk meneroka sebab-sebab yang membimbangkan keadaan ini, sedikit diketahui mengenai pengaruh kualiti kerja untuk tingkah laku menunggang.

3. APAKAH YANG PERLU ANDA LAKUKAN?

Penyelidikan ini akan melibatkan kaji selidik. Sebelum menjawab soal selidik, anda dinasihatkan untuk membaca, memahami dan menjawab semua soalan dengan jujur dalam borang soal selidik. Pilih jawapan terbaik yang mewakili diri anda. Selepas menjawab semua soalan, borang soal selidik harus dikembalikan kepada penyelidik.

4. SIAPA YANG TIDAK BOLEH MENYERTAI KAJIAN INI?

Responden yang mempunyai syarat berikut tidak boleh menyertai dalam kajian ini:

i. Responden yang tidak bersetuju untuk mengambil bahagian dalam kajian ini

ii. Responden yang tidak mempunyai lesen menunggang yang sah

iii. Responden yang tidak menunggang motosikal untuk bekerja

5. APAKAH FAEDAH MENYERTAI KAJIAN INI?

a) KEPADA ANDA SEBAGAI PESERTA?

Kajian ini akan memberikan pandangan kepada responden sama ada kualiti kehidupan kerja mempunyai hubungan dengan tingkah laku menunggang. Dari sini, kami akan mengkaji bagaimana faktor-faktor ini menyumbang kepada tingkah laku dan prestasi memandu anda. Sekiranya dapatan kajian menunjukan terdapat hubungan yang signifikan, kami akan mencadangkan kepada majikan anda untuk memerikan perhatian kepada faktor kualiti kerja dan juga tentang cara meningkatkan keselamatan anda di jalan raya.

b) KEPADA PENYELIDIK?

Dapatan kajian ini akan menyediakan data asas untuk penyelidikan masa depan untuk mengurangkan bilangan kemalangan jalan raya terutamanya di kalangan pekerja dan meyediakan program intervesi yang efisyen.

6. ADAKAH IA BERISIKO?

Tiada risiko

7. ADAKAH MAKLUMAT DAN IDENTITI SAYA KEKAL RAHSIA?

Segala maklumat dan identiti responden adalah SULIT

8. SIAPA YANG SAYA PERLU HUBUNGI SEKIRANYA SAYA MEMPUNYAI SOALAN TAMBAHAN SEMASA MENGIKUTI PENYELIDIKAN INI?

Nur Jamima binti Mohamad

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9. PERSETUJUAN

Saya…… No Kad Pengenalan. …… beralamat……
……dengan ini bersetuju untuk mengambil bahagian secara sukarela dalam penyelidikan yang tersebut di atas *(kajian klinikal/percubaan ubat-ubatan/rakaman video/kumpulan sasaran/temuduga/ soal selidik).

Saya telah diberi penjelasan secara menyeluruh mengenai penyelidikan ini dari segi metodologi, risiko dan komplikasi (seperti tertulis pada Helaian Penerangan Responden). Saya memahami bahawa saya berhak menarik diri dari penyelidikan ini pada bila-bila masa tanpa memberi sebarang alasan.Saya juga memahami bahawa sebarang maklumat yang berkaitan identiti saya akan dirahsiakan.

Saya* berminat / tidak berminat untuk mengetahui keputusan kajian yang melibatkan saya.

I setuju/tidak bersetuju untuk imei/gambar/rakaman video/ rakaman suara digunakan dalam apa jua bentuk penerbitan atau pembentangan. (sekiranya berkaitan).

*potong yang tidak berkenaan

Tandatangan ……
(*Responden*)

Tarikh :……

Tandatangan ……
(*Saksi*)

Nama :……

No. K/P: ……

Saya mengesahkan bahawa saya telah menerangkan kepada responden ini sifat dan tujuan penyelidikan yang tersebut di atas.

Tarikh ……

Tandatangan ……
(*Penyelidik*)

APPENDIX III

BORANG KAJI SELIDIK

BAHAGIAN A: LATAR BELAKANG RESPONDEN

Sila isikan maklumat di ruang kosong dan tandakan √ pada petak yang berkenaan

1. **Umur:** _____Tahun

2. **Jantina:** ☐ Lelaki ☐ Perempuan

3. **Status perkahwinan:** ☐ Bujang ☐ Berkahwin ☐ Bercerai hidup/mati/berpisah

4. **Tahap pendidikan tertinggi:** ☐ Tiada pendidikan ☐ Sekolah rendah ☐ Sekolah Menengah
   ☐ Sijil/Diploma ☐ Ijazah & ke atas

5. **Jumlah pendapatan isi rumah sebulan:** RM _____

6. **Jumlah Tanggungan:** _____ orang

7. **Status kewarganegaraan:** ☐ Malaysia ☐ Bukan Malaysia , Nyatakan _____

8. **Adakah anda mengambil alkohol?** ☐ Tidak ☐ Ya, setiap bulan
   ☐ Ya, setiap minggu ☐ Ya, setiap hari

9. **Adakah anda merokok?** ☐ Tidak ☐ Ya, bukan setiap hari
   ☐ Ya, setiap hari

10. **Adakah anda menghidapi penyakit kronik?**

☐ Tidak ☐ Diabetes ☐ Asthma/masalah paru-paru kronik
☐ Kanser/Ketumbuhan ☐ Masalah buah pinggang ☐ Masalah Jantung

☐ Lain-lain. Nyatakan _____

BAHAGIAN B: MAKLUMAT AM PEKERJAAN

1. Sila nyatakan bahagian/unit anda berkhidmat organisasi ini:

☐ Bahagian sumber Manusia
☐ Bahagian Pekerja Asing
☐ Bahagian Keselamatan dan Passport
☐ Bahagian Pengurusan Kualiti
☐ Bahagian Perkhidmatan Pentadbiran
☐ Bahagian Visa, Passport dan Permit

☐ Lain-lain. Nyatakan _____

2. Nama penuh jawatan sekarang: _____

3. Status pekerjaan: ☐ Tetap ☐ Kontrak ☐Sementara ☐ Sambilan

4. Berapa lamakah anda telah bekerja untuk jawatan semasa anda sekarang? _____tahun

5. Berapa jam purata anda bekerja sehari? _____ jam

6. Adakah anda bekerja syif? ☐ Tidak (waktu pejabat) ☐ Ya, siang
☐ Ya, malam ☐ Ya, siang dan malam

7. Berapa hari anda bekerja dalam seminggu?

☐ 5 hari ☐6 hari ☐ 7 hari ☐ Tidak tetap

8. Terangkan kebiasaan jenis kerja anda di di tempat bekerja

☐ Tidak aktif (contoh: duduk di kerusi dan melakukan kerja-kerja komputer/perkeranian)

☐ Sederhana aktif (contoh: duduk dan melakukan kerja-kerja manual ringan menggunakan tangan/lengan

☐ Agak aktif (contoh: berdiri dan melakukan kerja-kerja manual ringan menggunakan tangan/lengan dan berjalan sekali sekala)

☐ Aktif (contoh: Banyak berjalan dari satu kawasan ke satu kawasan di dalam satu bangunan/kawasan kerja

☐ Sangat aktif (contoh: Melakukan kerja-kerja berat seperti mencangkul, mengangkat barang berat, banyak pergerakan badan)

BAHAGIAN C: PENGALAMAN PERGI BALIK TEMPAT KERJA

1. Anggaran jarak tempat kerja dari rumah: _____ km

2. Purata masa perjalanan pergi balik kerja setiap hari:

_____ jam _____ minit

3. Apakah keadaan lalu lintas perjalanan pergi balik kerja setiap hari

☐ Lancar ☐ Bergerak perlahan ☐ Kesesakan yang teruk

4. Adakah anda pernah terlibat dalam kemalangan jalan raya dalam 5 tahun kebelakangan ini ?

☐ Ya ☐ Tidak

5. **Berapa lamakah anda telah mendapat lesen memandu yang sah?** _____ tahun

6. **Jenis motosikal yang digunakan pergi balik kerja**

☐ Motorbike ☐ Underbone/moped (Kapcai) ☐ Skuter ☐Lain-lain. Nyatakan _____

BAHAGIAN D: KEADAAN TEMPAT KERJA

ARAHAN: Soal selidik ini direka untuk menilai kualiti hidup berkaitan dengan pekerjaan anda. Sila TANDAKAN (/) di skala yang disediakan di bawah.

	SEJAUH MANA ANDA BERSETUJU DENGAN BERIKUT?	SKALA				
		Sangat tidak setuju	Tidak setuju	Neutral	Setuju	Sangat Setuju
1.	Saya mempunyai matlamat yang jelas dalam melakukan tugas					
2.	Saya boleh memberi pendapat dan berpengaruh untuk membuat perubahan terhadap kerja saya.					
3.	Saya berpeluang untuk menggunakan kebolehan-kebolehan saya ditempat kerja					
4.	Saya berasa selesa ketika ini.					
5.	Majikan menyediakan kemudahan mencukupi untuk saya menyesuaikan antara kerja dan keluarga					
6.	Waktu kerja/corak masa kerja sesuai dengan keadaan peribadi saya					
7.	Saya sering berasa tertekan ditempat kerja					
8.	Apabila saya telah melakukan perkerjaan dengan baik, pihak atasan saya akan menghargai					
9.	Kebelakangan ini, saya berasa tidak gembira dan tertekan					
10.	Saya berpuas hati dengan kehidupan saya					

11.	Saya digalakkan untuk menambah kemahiran baru					
12.	Di dalam kerja, saya terlibat membuat keputusan yang akan memberi kesan kepada saya					
13.	Majikan memberikan apa yang saya perlu untuk melaksanakan tugas dengan baik					
14.	Majikan mengalakkan waktu kerja/corak masa kerja yang fleksibel					
15.	Cara kehidupan saya hampir ideal/sempurna					
16.	Saya bekerja dalam persekitaran yang selamat					
17.	Secara amnya, semua perkara lancar untuk saya					
18.	Saya berpuas hati dengan peluang perkembangan kerjaya yang ada untuk saya disini					

	SEJAUH MANA ANDA BERSETUJU DENGAN BERIKUT?	SKALA				
		Sangat tidak setuju	Tidak setuju	Neutral	Setuju	Sangat Setuju
19.	Saya sering merasa stres yang melampau dalam kerja					
20.	Saya berpuas hati dengan latihan yang diterima untuk melaksakan kerja sekarang					
21.	Kebelakangan ini, setelah mempertimbangkan semua perkara, saya berasa cukup gembira					
22.	Keadaan tempat kerja adalah memuaskan					
23.	Di dalam kerja, saya terlibat membuat keputusan yang akan memberi kesan kepada pekerja lain					
24.	Saya berpuas hati dengan keseluruhan kualiti kehidupan kerja saya					
25.	Majikan saya mementingkan keselamatan dan kesihatan tempat kerja					
26.	Secara amnya, budaya/amalan keselamatan dan kesihatan pekerjaan di tempat kerja adalah baik					
27.	Saya menitikberatkan amalan kerja selamat					

BAHAGIAN E: TINGKAHLAKU MENUNGGANG MOTOSIKAL

ARAHAN: Bahagian ini mengandungi soalan berkaitan tingkah laku anda semasa menunggang motosikal. Sila TANDAKAN (/) di skala yang disediakan di bawah.

	SITUASI	SKALA				
		Tidak pernah	Jarang	Kadang-kadang	Selalu	Sangat kerap
1.	Mengikuti kenderaan di hadapan dengan jarak yang terlalu dekat					
2.	Memotong di antara kenderaan secara cilok (zig zag)					
3.	Menunggang dengan bahaya di sekitar selekoh					
4.	Memecut (apabila mencapai selekoh)					
5.	Memecut dengan kelajuan ngeri (ketika mencapai selekoh)					
6.	Percubaan untuk melakukan "wheelie"					
7.	Tersasar dari jalan disebabkan menunggang dengan laju					
8.	Putaran roda belakang motosikal berputar dengan lebih cepat dari keadaan normal (disengajakan/bertujuan)					
9.	Putaran roda belakang motosikal berputar dengan lebih cepat dari keadaan normal (tidak disengajakan)					
10.	Menunggang pada waktu malam hanya dengan cahaya lampu rendah					
11.	Menunggang motosikal yang rosak					
12.	Menunggang semasa dalam pengaruh dadah/alkohol atau ubat yang menjejaskan keselamatan menunggang					

13.	Menunggang melawan arah trafik					
14.	Menunggang di kawasan pejalan kaki					
15.	Menggunakan telefon atau menghantar mesej semasa menunggang					
16.	Memecut (di kawasan lebuh raya)					
17.	Memecut (di kawasan perumahan)					
18.	Membawa bebanan yang berat semasa menunggang					
19.	Menunggang dengan lebih daripada satu penumpang					
20.	Kemungkinan untuk melanggar pintu kereta yang terbuka					
21.	Melanggar lampu isyarat merah					
22.	Tidak menggunakan topi keledar semasa menunggang					
23.	Pembonceng tidak menggunakan topi keledar					

TAMAT, TERIMA KASIH

APPENDIX IV

ETHIC COMMITTEE FOR RESEARCH INVOLVING HUMAN SUBJECTSMOF

UNIVERSITI PUTRA MALAYSIA (JKEUPM) APPROVAL LETTER

ETHICS COMMITTEE FOR RESEARCH INVOLVING HUMAN SUBJECTS
(JKEUPM)
UNIVERSITI PUTRA MALAYSIA

Research title	:	**The Association Between Human Factors Variables and Driving Behaviour Among Immigration Officer in Jabatan Imigresen Putrajaya, Malaysia**
Study Site	:	**Jabatan Imigresen Putrajaya, Malaysia**
JKEUPM Ref No.	:	**JKEUPM-2018-367**
Researcher	:	**Nur Jamima binti Mohamad**
Supervisor	:	**Dr. Irniza binti Rasdi**

Documents received and reviewed with reference to the above study:

1. Ethics Application Form, Version 1 dated 29/10/2018
2. Respondent Information Sheet & Consent (English), Version 1 dated 29/10/2018
3. Proposal (English), Version 3 dated 4/1/2019
4. Questionnaires/ Interviews (English), Version 2 dated 17/12/2018
5. Curriculum Vitae of:
   a. Dr. Irniza binti Rasdi

The University Research Ethics Committee, Universiti Putra Malaysia (JKEUPM) operates in accordance to the ICH-GCP Guidelines.

Decision by JKEUPM:

[X] Approved

[X] **Permission MUST BE OBTAINED from the respective hospitals/ institutions before conducting the research**

[ ] Disapproved

Please note that the approval is **VALID UNTIL 9 JANUARY 2020**

Researchers should comply with the following:

I. Complete a Study Final Report upon study completion (Form 3.2).

II. Ethical approval is required in the case of amendments/ changes to the study documents/ study sites/ study team.

III. Applicable for Clinical Trial Studies and Clinical interventional Studies only. Progress Report has to be submitted to JKEUPM at every 6 months from the date of approval (Form 3.1). Report occurrences of all Serious Adverse Events (SAEs), Suspected Unexpected Serious Adverse

APPENDIX V

APPROVAL LETTER TO CONDUCT FINAL YEAR PROJECT FOR EOH4999A&EOH4999B

JABATAN IMIGRESEN MALAYSIA
(KEMENTERIAN DALAM NEGERI)
NO. 15, TINGKAT 1-7 (PODIUM)
PERSIARAN PERDANA, PRESINT 2,
62550 PUTRAJAYA
WILAYAH PERSEKUTUAN

Telefon : 603-8000 8000
Faks : 603-8880 1200
Portal Rasmi : www.imi.gov.my

"KEDAULATAN DAN KESELAMATAN NEGARA TANGGUNGJAWAB BERSAMA"

Ruj. Tuan :

Ruj. Kami: IM.101/HQ-C/596/2

Tarikh: 7 Jamadil Akhir 1439H
14 Februari 2019M

SENARAI EDARAN SEPERTI DI LAMPIRAN

YBhg. Dato'/Tuan/Puan,

KEBENARAN MENJALANKAN PENYELIDIKAN BAGI KURSUS EOH49999A&B (PROJEK ILMIAH TAHUN AKHIR) UNIVERSITI PUTRA MALAYSIA

Dengan segala hormatnya saya diarah merujuk kepada perkara di atas.

2. Sukacita dimaklumkan pelajar Tahun Empat (4) Program Ijazah Sarjana Muda Sains (Kesihatan Persekitaran Dan Pekerjaan), Fakulti Perubatan Dan Sains Kesihatan, UPM akan menjalankan penyelidikan bagi memenuhi syarat pengajian dan keperluan projek ilmiah mereka di Jabatan Imigresen Malaysia. Justeru, pihak BPSM telah mengadakan pertemuan awal bersama pelajar-pelajar ini pada 25 Januari 2019, untuk melihat skop kajian dan bentuk soal selidik yang bakal dijalankan. Kajian ini akan dilaksanakan bermula pada **18 Februari 2019 hingga 29 Mac 2019**.