A Qualitative Investigation of Professional Driver Behavior Due to Socio-Economic, Cultural, Religious Factors and Its Impact on Dubai Road Safety

A Qualitative Investigation of Professional Driver Behavior Due to Socio-Economic, Cultural, Religious Factors and its Impact on Dubai Road Safety.

Shahid Tanvir[1], Noor Zainab Habib[1], Guy H. Walker[2]

[1]School of Energy, Geoscience, Infrastructure and Society
Heriot-Watt University Dubai Campus
Dubai International Academic City, Dubai, UAE
[2]School of Energy, Geoscience, Infrastructure and Society
Heriot-Watt University, Edinburgh, UK
{st87, n.habib, g.h.walker}@hw.ac.uk

Abstract. Dubai (UAE) has experienced phenomenal transformation and rapid development recently. Despite high quality roads and transportation infrastructure, improving road safety is a major challenge due to extremely diverse socio-cultural background of Dubai's population. Smooth urban mobility is very critical to Dubai's continued economic growth and future development. Safer roads will not only boost investment and business activity but also improve quality of life for residents and visitors. In this regard, the vision of "zero fatality by 2020" is an ambitious government initiative. This research sought to understand the behavior of professional drivers influenced by unique socio-cultural, economic and religious factors and its impact on road safety in fast growing city of Dubai. The study adopted qualitative method involving in-depth interviews with 25 professional drivers of various backgrounds using thematic analysis. The findings show positive correlation between socio-cultural, economic factors and aberrant driver behavior but religious fatalism needs further research.

Keywords: Professional driver behavior · Human factors · Socio-cultural economic factors · Religious beliefs · Traffic safety culture · Dubai road safety

1 Introduction

The subject of road safety has received worldwide attention from policy makers, practitioners and academic researchers. The United Nations initiative "Decade of Action for Road Safety 2011-2020" has provided the necessary impetus for developing and developed countries to reduce motor vehicle accidents and improve safety of road users [1]. According to World Health Organization, road traffic injuries and fatalities are a major public health issue. Every year, more than 1.2 million people are killed, up to 50 million injured and the economic cost of road accidents for developing countries runs into billions of US$ annually, as reported by [2], [3]. The road safety research points to a strong relationship between human factors and road crashes and driver behavioral error appears to be the leading cause of traffic accidents [4]. In order

to achieve zero fatality, all stakeholders namely government, local, national, international bodies, civil society organizations, private companies, and the public at large must come together to achieve this noble mission [2]. It is important to gain a comprehensive understanding of human factors that cause motor vehicle accidents and implement right interventions to improve road safety. As highlighted in [2], [3], evidence-based interventions can curb the menace of road traffic injuries. A detailed literature review indicates that aberrant driver behavior takes many forms and shapes, is influenced by various factors and the actual reasons generally vary from country to country or even city to city. As highlighted by [5], [6], driving does not take place in isolation but is a social activity and requires undivided attention on the road, sound knowledge of surrounding environment and clear communication with other road users. In addition to driving skills, a driver needs peace of mind, sound judgement, and sustained attention while using the road. This also applies to other road users such as pedestrians and cyclists, especially in congested cities and high traffic situations.

The studies cited in this paper covered various factors such as socio-cultural beliefs [7], socio-cultural characteristics [8], driver aggression [9], reckless behavior [10], fatigue [11], organizational safety climate [12], seat belt and mobile phone use [13], and superstition, risk-taking, and risk perception [14] among vehicle drivers that cause traffic crashes and injuries.

According to a recent report [15], the United Arab Emirates (UAE) recorded 7.7 million speed violations and 525 road fatalities during 2017. Dubai is one of the seven emirates in UAE with 3 million population, 200 nationalities, 15 million tourists (annually), and 1.7 million registered vehicles. Due to rapid urbanization of Dubai and growth of private cars, driver behavior research is in tune with Dubai's vision of "Zero fatality by 2020" [16]. Dubai has one of the most diverse populations in the world. This diversity plays a key role in influencing Dubai's vibrant cultural fabric intertwined by social interactions among people of different cultures, ethnicities, educational background, financial strata, risk perceptions, social class, religions, beliefs and ethics. There are different levels of individual and cultural sensitivities and at times, even simple gestures may be interpreted in a diametrically opposite way based on driver's country of origin, culture, education and beliefs.

This study examines the behavior of Dubai based professional drivers (having full-time driving job and Dubai driver license) influenced by diverse socio-cultural, economic and religious backgrounds, and presents preliminary findings from an ongoing driver behavior research. It addresses gap in the current body of knowledge and shares insights on causes of traffic violations, unsafe practices, and aberrant behavior on the road exhibited by professional drivers. The findings from this study would help in developing road safety policies and awareness programs, improving driver training, promoting culture of road safety among road users, and saving lives in Dubai and the gulf countries.

1.1 Dubai Traffic Culture

Before delving into research method, it is important to understand Dubai traffic culture that is as unique as the city itself. The following list has been compiled based on personal experiences, and observations of Dubai based authors. The behavior noted below was also observed among professional drivers who drive Taxis, Vans, Trucks, Buses and Motorbikes.

1.1.1 Traffic Culture on Highways

a. Drivers reduce speed marginally near the camera and increase speed beyond legal limit after passing the camera.
b. Aggressive motorists pressure slow moving cars to change lane.
c. Tailgating and flashing are common during rush hour traffic.

1.1.2 Traffic Culture among Pedestrians:

a. Jaywalking is common near shops, metro stations and bus stops.
b. Pedestrians do not make eye contact with drivers, or communicate their intent before starting to cross the road.
c. Cell phone use while crossing roads is on the rise among pedestrians.
d. Drivers continue to drive over pedestrian crossing on a two-lane street, while pedestrian starts walking from the other end of the 2nd lane.

1.1.3 Traffic Culture in Roundabouts, Yield, Stop Sign:

a. Drivers do not adhere to "first come first serve" rule in roundabouts or give preference to the vehicle that entered the roundabout first.
b. Drivers do not stop fully at "Stop" signs, rather stop and roll.
c. Drivers entering from side roads refuse to yield, and intentionally ignore the right of way, for other vehicles on the main road.

1.1.4 Other observations:

a. Merge left is used for reckless overtaking, instead of merging safely.
b. Drivers are expected to have fast response time. As an example, drivers waiting behind start honking as soon as the traffic signal turns green.
c. Drivers cut solid white and yellow lines just to get ahead of other cars.
d. Use of cell phones while driving is common among drivers.
e. Jumping the queue at exits is rampant during rush hour.
f. Motorbike drivers overtake between lanes and drive on shoulders.
g. Slow moving vehicles drive on restricted lanes at prohibited speeds.

1.2 Professional driver background

The drivers in Dubai are hired from overseas. Professional drivers involved in driving Taxis, Buses, Motorbikes, Vans, and Trucks experience tremendous socio-cultural and economic uncertainties related to job relocation. They suffer from financial debts carried over from country of origin during migration to UAE. Many experience socio-economic class differences while growing up [17], and fail to complete basic education due to family obligations and financial instability. They live in joint families where a single breadwinner provides economic support to a large family. Majority of the drivers come from countries in South East Asia, Arab world or Africa where road infrastructure is not as advanced as in UAE, and traffic rules are rarely followed or enforced. Drivers were exposed to Right Hand Traffic or high speeds only in Dubai.

2 Research Method

Professional drivers play an important role in contributing to Dubai's unique traffic and road safety culture, presented earlier in section 1.1 and socio-cultural context explained in section 1.2. Previous researchers used qualitative and quantitative research methods to study behavior and perspectives on driving challenges. Some studies reviewed in the literature [7], [9], [13], [18], [19] deployed common qualitative research methods such as focus groups, in-depth interviews, and observations to understand behavior and perspective of road users. Other researchers adopted quantitative tools such as self-reported questionnaires [10], [11], [12], [14] for studying fatigue among truck and taxi drivers, reckless driving among truck drivers, and superstitions and risk perceptions among taxi drivers. The present study adopted qualitative method and conducted in-depth interviews of 25 professional drivers using thematic analysis.

2.1 Participation and Procedure

A formal consent was obtained and interviews were conducted in compliance with Heriot-Watt University Ethics Committee guidelines. Participants were recruited by approaching the drivers directly and research purpose was explained. The participant sign-off was obtained on the consent form before the interview. Drivers were assured complete anonymity and confidentiality related to data gathered during interviews.

The total number of drivers approached were 32, out of which seven drivers declined due to personal reasons. Remaining 25 male professional drivers volunteered to participate (78% response rate). Only male drivers were interviewed in different parts of the city. The interviews lasted up to 30 minutes. The interviews were conducted during the month of February 2018 and followed semi-structured, open-ended questions. The initial questions were aimed at breaking the ice and gathering basic personal information about participants. This was followed by questions seeking detailed information on personal experiences during relocation to Dubai, personal anecdotes and perspectives as drivers on Dubai roads, opinions, views, behaviors, attitudes, and

observations about other drivers, challenges due to socio-cultural, economic, health issues and suggestions on improving road safety.

The questions developed for the interview are as follows:

1. Share your personal experiences since arrival in Dubai to becoming a professional driver
2. Share your "On-the-road" experiences as professional drivers on Dubai roads
3. Share your opinions and views about other drivers
4. What are your suggestions to improve quality of life, safety on the road, and help professional drivers achieve their family obligations?

There were several follow up questions based on the response to earlier interview questions with the objective of identifying influences related to socio-cultural, economic or religious factors and if any of these affected driver behavior. The drivers were also asked to indicate how other drivers (professional or private vehicle drivers) behaved on different roads in Dubai.

2.2 Population and Sample Size

Following qualitative sampling methods were used for this study to obtain the required sample:

- criterion (road user with extensive driving background in the city)
- purposive (selecting different categories of professional drivers)
- snowball (selecting candidates recommended by other professional drivers)

As shown in Table 1, population of expatriates from three northern Emirates including Dubai, reported in [20], is compared with sample of professional drivers selected for this research study.

Table 1: Population and Sample Size (Source: **Dubai Statistics Centre**)

Countries	India	Pakistan	Bangladesh	Philippine	Egypt	Iran	Nepal
Population	25%	12%	7%	5%	4%	4%	3%
Sample	28%	48%	4%	4%	4%	4%	8%

The reason for choosing a higher driver sample size from Pakistan is that trucks and other heavy vehicles are driven pre-dominantly by Pakistani drivers, whereas Nepali drivers are mostly involved in delivery jobs, as per feedback from seasoned drivers.

2.3 Data Collection and Analysis

General information was gathered from drivers regarding their personal life characteristics. These included nationality, religion, age, marital status, employment contract duration, number of children, number of dependents (in country of origin), domicile (city or village), education, spoken languages (mother tongue, other languages), type

of accommodation (company provided or self-paid), driving experience, previous occupation, health issues and injuries, health insurance (company provided or self-paid), past accidents, and amount of traffic fines paid. Drivers were also asked about typical speeds they maintained on highways and main roads of the city. Finally, drivers were asked about their monthly income or commission and if they took any loans or incurred any financial debt during relocation to work in Dubai. The authors used guidelines for thematic analysis in qualitative research as discussed in [21]. The recorded interviews were reviewed multiple times for key messages and broad themes from interview transcripts.

3 Results and Discussion

The results of professional driver survey consisting of personal attributes are presented in the following paragraphs.

As shown in Table 2, in terms of vehicles driven, there were 28% Bus drivers (minibus and school bus), 24% Taxi drivers, 20% Truck drivers (mid-size and heavy-duty goods carrier), 16% motorbike drivers in delivery jobs, and 12% Van drivers (moving people and goods). In terms of nationality, 48% drivers were from Pakistan, 28% from India, 8% from Nepal, 16% belonged to Bangladesh, Philippine, Egypt, and Iran (combined).

In terms of religious background, 80% drivers were Muslims, followed by 12% Hindus and 8% Christians. There were 48% drivers from small towns or villages and 52% from small to medium size cities. Majority of Pakistani drivers interviewed grew up in tribal culture and studied up to high school or dropped out of school.

Table 2: Driver demographics **Vehicle driven**, **Religion**, **Nationality** (n=25)

Vehicle driven	**Distribution**	**Religion**	**Distribution**	**Nationality**	**Distribution**
Taxi	6 (24%)	Muslims	20 (80%)	Pakistan	12 (48%)
Bus	7 (28%)	Christians	2 (8%)	India	7 (28%)
Van	3 (12%)	Hindus	3 (12%)	Nepal	2 (8%)
Trucks	5 (20%)			Egypt	1 each (4%)
Motorbike	4 (16%)			Philippine Bangladesh Iran	(16% combined)

As shown in Table 3, the professional drivers were aged between 25 to 49 years with mean age of 34.52 years (standard deviation of 7.36 years). The driving experience varied from 1 year to 21 years with mean experience of about 10 years (standard deviation of 5.06 years). The results revealed that 88% drivers had done schooling up to Grade 12, of which 68% completed up to Grade 10 whereas 20% completed up to Grade 12. The percentage of undergraduate and post-graduate qualified drivers were 8% and 4% respectively. The top languages spoken by drivers included Urdu, Pashto,

Hindi, Malyalam, and English. Only drivers with higher educational qualifications were able to carry a conversation in English language. Others knew few basic words.

Table 3: Driver demographics **Age**, **Driving Experience**, **Education** (n=25)

Age	**Distribution**	**Driving Experience**	**Distribution**	**Education**	**Distribution**
20-26	2 (8%)	<5 years	6 (24%)	10th (School)	17 (68%)
27-36	16 (64%)	5-9 years	2 (8%)	12th (High School)	5 (20%)
37-46	5 (20%)	10-14 years	11 (44%)	Graduate	2 (8%)
>47	2 (8%)	15-19 years	5 (20%)	Post-Graduate	1 (4%)
		>20 years	1 (4%)		

The monthly income ranged from 1,800 to 4,000 in UAE Dirhams with a mean income of 2,984 (standard deviation of 628.27). It is important to highlight that the monthly income for some professional drivers is commission based and varies from month to month. Such drivers have a daily target and earn a certain percentage as commission. All drivers are responsible to pay toward traffic violations and fines from their earnings. Some drivers have a fixed amount in monthly salary, whereas some others get a basic monthly salary and earn additional commission based on job performance.

As shown in Table 4, out of 25 drivers interviewed, 80% were married, whereas 20% were single; among the married drivers, 60% drivers had 1-2 children whereas 20% had 3-4 children. The 96% drivers reported supporting at least three or more dependents in their countries.

Table 4: Driver demographics **Marital Status**, **Children**, **Dependents** (n=25)

Marital Status	**Distribution**	**Children**	**Distribution**	**Dependents**	**Distribution**
Married	20 (80%)	0	5 (20%)	1-2	1 (4%)
Single	5 (20%)	1-2	15 (60%)	3-4	6 (24%)
		3-4	5 (20%)	5-6	11 (44%)
		>5	0	>6	7 (28%)

Following key themes emerged from thematic analysis of in-depth driver interviews as per guidelines discussed in [21].

1. Multi-cultural / Tourist city
2. Work / Time pressure
3. Financial burden / Social responsibility

4. Education / Family values
5. Fatigue / Health Issues
6. Religion / Superstition

Authors developed a scheme to maintain privacy of participant information using codes. Education code is SS (10^{th} grade and below), HS (12^{th} grade), UG (Undergraduate) and PG (Postgraduate). ID is driver identification code and place of origin is C (City) and V (Village). For example, **PG48ID#6C** refers to a driver aged 48 years, ID#6 from a city.

1. Multi-cultural / Tourist city

Drivers recognized the need to follow rules strictly, yet admitted to making mistakes. Tourists come to Dubai from all over the world and senior drivers (**SS49ID#11C**) and (**PG48ID#6C**) explained that driving is a tedious job. Drivers spend hours at a stretch sitting in vehicles. Some argued it is human to be negatively impacted when others treated them badly. Hard honking was reported by (**HS28ID#10C**) as insulting whereas anger and shouting by customers was considered unfair by (**UG30ID#14C)**. Passengers of certain countries cause distress to taxi drivers by refusing to wear seatbelts or follow rules. Such a situation could turn into a heated exchange when the driver is already under stress.

(PG48ID#6C) shared recent interaction with a tourist, *"I got upset once when a customer asked me taxi fare to a certain location, I provided an estimate, but he accused me saying you are lying. You may charge more and try to cheat. I said pay by the meter but he refused to trust me."*

(**UG30ID#14C**) argued for his self-respect, "*Taxi drivers are expected to be perfect who should not make mistakes. I am willing to accept my fault but not when customers are clearly wrong. I face aggressive drivers outside and angry passengers inside. I am expected to follow orders from everyone as if I am not human.*"

Finding 1: Multi-culture and diverse population of Dubai may negatively affect driver behavior. This applies to all professional drivers in general and taxi drivers in particular, since they have direct dealings with customers. This finding is consistent with previous study [23] that reported cultural influences impact behavior of drivers.

2. Work / Time pressure

Several drivers described challenges due to work and time pressure. It is common for drivers to be dictated by delivery deadlines, but traffic adds more stress. They try to beat the rush hour traffic during morning or evening peak hours as confessed by multiple drivers. (**SS31ID#1C**) explained that trucks with heavy loads have a tendency to topple when driven at high speed on the ramp or curved roads due to work and time pressure. **(SS28ID#13V)** described the ordeal of locating an unknown place or maneuvering a fully loaded heavy trailer, weighing several tons.

(**HS27ID#4V**) reported, *"When I first moved to Dubai and started delivery job, I was not sure if I can deliver on time. It was a big change coming from a village to be in a big city and see speeding cars on the road. I learned and adjusted slowly."*

(SS28ID#13V) shared, *"Meeting delivery targets while driving a big heavy trailer is very difficult, particularly in foggy conditions and sandstorm. I regularly see small vehicles cut me. Controlling a big vehicle is not easy and it stresses me out."*

Finding 2: Work and time pressure may lead to risky driver behavior. This applies to all drivers, not just professional drivers. This finding is consistent with previous study [6] that highlighted negative emotions and psychological traits may cause aberrant drive behavior. Another study [12] highlighted improved organizational safety climate as a means to mitigate risky behavior due to work and time pressure.

3. Financial burden / Social responsibility

It is common for professional drivers to incur debt when relocating to Dubai. Those who were hired overseas without paying a fee to recruiters, did not report loan as an issue that bothered. All drivers interviewed reported having responsibility of their immediate or extended families. Not able to save enough to support family causes frustration. One driver (**PG48ID#6C**) lost previous job as office manager and started driving for survival. Being the sole breadwinner and social responsibility to support higher education of two grown up children, puts him under tremendous mental stress.

(**HS28ID#10C**) admitted, *"I took a loan of 25,000 from friends to find a job in Dubai. I survived without a job for a year until I got my driver's license and found a job. I was able to repay major portion of the loan but still owe money. I have 25 members in my family but only two earning members."* (25,000 AED is equivalent to US$6,500)

(**SS40ID#22C**) admitted, *"I had to pay 220,000 to the agent in India who recruited me for taxi driver job."* (220,000 INR is equivalent to US$3,300)

Finding 3: Financial commitments and social responsibilities may push a driver to increase his commissions at the cost of safety. This factor is applicable to only taxi drivers and those drivers whose earnings are linked to performance based commission. As previously noted, organizational safety climate [12] can have positive influence on driver behavior.

4. Education / Family values

Educated drivers highlighted the importance of safe behavior for a good image of Dubai. English language was highlighted as a must-have skill for taxi drivers to guide and offer better service to tourists. Ability to read road signs and make quick decisions on the road was considered as critical for road safety. Drivers (**SS29ID#9V**) and (**UG30ID#14C**) stated that despite work pressure and long hours behind wheels, education and family values help under provocation. Less educated drivers admitted to being sensitive to constant ill-treatment and bullying on the road by SUV drivers.

(**SS31ID#25C**) explained, *"Unfortunately, many professional drivers in Dubai are less educated. It is the main problem. I dropped out of school to support my family."*

(**HS28ID#10C**) claimed, *"...asking someone with no education or English skills to be a taxi driver in Dubai is too risky for the driver and passengers."*

Finding 4: Lack of education affects the driver job performance since basic knowledge of the city and ability to communicate effectively is essential in transporting people or goods in a fast growing city such as Dubai. As argued by [17], lower social class or economic status leads to lack of opportunities for better education and affects person's self-esteem.

5. Fatigue / Health issues

Most drivers complained about long shifts and having little time for social life. Although several participants indicated being happy to support their families financially through a job in Dubai, drivers also complained of fatigue, long work hours and not enough financial rewards.

(**PG48ID#6C**) explained, *"I care about my family. I am trying to survive through this temporary job and looking for a better option suitable to my qualifications. What is the point in complaining about long work hours, fatigue and health issues? I am happy that my kids are getting higher education. For me, it's a matter of survival."*

(**HS31ID#17V**) admitted, *"I am under tremendous pressure. Whatever I make, it goes to the company. I need to support my family back home. It is affecting my health and I am suffering from depression."*

Finding 5: Driver fatigue is prevalent among taxi drivers, truck drivers and some school bus drivers. Most drivers reported having no health issues, with a few exceptions. On average, taxi drivers drive at least 70-80hrs per week. Other professional drivers drive between 45-60hrs per week. The number of hours for Dubai drivers is on the higher side compared to other professional drivers as reported in [11]. Organizational safety climate improvement would create safety awareness, as reported in [12].

6. Religion / Superstition

Most drivers indicated reading from religious books before starting work. Private cars in Dubai are decorated with religious symbols such as verses from the holy book, stickers inside and outside, pendants, cross, saffron cloth from temple visit, and so on. These religious leanings were not witnessed while drivers were interviewed. Many drivers acknowledged listening to radio channels with religious programs or playing a CD while driving. Few drivers showed superstitious inclinations (black cat may spoil my day or some days are good and others are bad). Yet they also maintained that safety is the responsibility of drivers due to strict laws and enforcement in Dubai.

Finding 6: Almost all drivers indicated strong religious inclinations. However, unlike earlier research [7] that showed a strong association between religion and fatalism for

Pakistani drivers, this could not be established for Dubai based drivers and need further research.

4 Conclusions

The current research aimed to investigate relationship between personal life experiences of professional drivers (shaped by socio-cultural, economic and religious factors) and their behavior behind wheels. Professional drivers were chosen for this research since they play an important role in contributing to Dubai's unique traffic culture as frequent road users. This study used in-depth interview approach and thematic analysis. This is the first study of its kind and research findings strongly suggest that driver behavior is positively correlated with socio-cultural and economic status. To improve Dubai road safety with respect to professional drivers, holistic approach is recommended. By introducing organizational safety climate, and ensuring physical and spiritual well-being of professional drivers, Dubai roads can be made safer for all.

Majority drivers attributed traffic accidents to lack of driver focus and distractions. Drivers also agreed that driving requires full attention and multi-tasking is very risky. Drivers felt that accidents could be prevented by maintaining safe distance and following speed limits. Use of smartphones was highlighted as a major safety risk but drivers did not recognize use of hands-free phones while driving as risky. Consistent with global research findings, Dubai drivers considered their driving skills and safety practices as "superior" compared to other drivers. They described risky behavior among certain nationalities. As an example, Indian heavy vehicle drivers were seen as risk-takers whereas Pakistani taxi drivers were considered impulsive and rash.

The current research has limitations due to self-reported response bias. Drivers seemed to downplay self-reports of traffic violations fearing adverse impact on job. However, they described violations and aberrant behavior of other professional drivers in greater level of detail. The authors suggest future research with large focus groups or more participants for in-depth interviews in order to achieve better coverage of Dubai population diversity.

Following are few opportunities for improving traffic safety culture in Dubai:

- Police patrol should be increased to control aberrant driver behavior.
- More efforts are required to increase awareness and enforce traffic rules related to cellphones use while driving.
- Enforcement of lane / speed restrictions and on certain types of vehicles that tend to be less stable at high speeds should be strictly implemented.
- Random inspections should be carried out to ensure vehicles are in top condition, including older heavy vehicles, buses, and vans.

Acknowledgement:
The financial assistance of Heriot-Watt University towards this research study is hereby acknowledged.

5 References

1. United Nations Decade of Action for Road Safety, http://www.un.org/en/roadsafety/
2. United Nations Road Safety Collaboration, http://www.who.int/roadsafety/en/
3. Global status report on road safety 2015, http://www.who.int/violence_ injury _prevention/road_safety_status/2015/en/
4. The relative frequency of unsafe driving acts in serious traffic crashes, https://one.nhtsa .gov/people/injury/research/udashortrpt/summary.html
5. Alberto B., Cesare S., Valeria V.: Traffic psychology and driver behavior. Procedia Social and Behavioral Sciences. 53, 973-980 (2015)
6. Saba J., Vafa R. M.: Determinants of risky driving behavior: a narrative review. Medical Journal of Islamic Republic of Iran (MJIRI). Iran University of Medical Sciences (2014)
7. Ahsan, K., Mark K., Judy, F.: Socio-Cultural Beliefs and Road Use in a Low Income Country: a Qualitative Investigation of Superstition-Related Road Use Behavior in Pakistan (2012)
8. Karin M.: Socio-cultural characteristics of high versus low risk societies regarding road traffic safety. Safety Science. 45, 397-414 (2007)
9. Alexia L., Barry W.: "Teaching them a lesson?" A qualitative exploration of underlying motivations for driver aggression. Accident Analysis and Prevention. 43, 2200-2208 (2011)
10. Tova R., Ehud E., Amit S.: Approaches of truck drivers and non-truck drivers toward reckless on-road behavior. Accident Analysis and Prevention. 41, 723-728 (2009)
11. Fanxing M., Shuling L., Lingzhi C., Musen L., Qijia P., Chunhui W., Wei Z.: Driving Fatigue in Professional Drivers: A Survey of Truck and Taxi Drivers. Traffic Injury Prevention. Vol. 16, Issue 5 (2015)
12. Bahar O., Turker O., Timo L.: An investigation of professional drivers: Organizational safety climate, driver behaviours and performance. Transportation Research Part F, 16, 81-91 (2013)
13. Ziyad M., Sohaila C., Hekmat A., Mohammed T.: Seat belt and mobile phone use among vehicle drivers in the city of Doha, Qatar: an observational study. BioMed Central Public Health. 15:937 (2015)
14. Karl P., Walter R.: Superstition, risk-taking and risk perception of accidents among South African taxi drivers Accident Analysis and Prevention. 35, 619–623 (2003)
15. Khaleej Times, https://www.khaleejtimes.com/news/general/speeding-killed-230-in-uae-last-year-total-fatalities-525
16. Emirates247, https://www.emirates247.com/news/emirates/uae-zero-road-death-per-100- 000-by-2020-2013-04-23-1.503751
17. Farhana J.: Pyscho-social personality features among N.W.F.P. male population. Pakistan Journal of Professional Psychology, Research and Practice. Vol. 1, No. 1, 19-24 (2006)
18. Lauren S., Alexia L., Mark K.: A qualitative investigation of older pedestrian views of inferences on their road crossing safety. Australasian Road Safety Research, Policing and Education Conference, Wellington New Zealand (2012)
19. Farhana N., Graham C., David L.: Key challenges in tram/streetcar driving from the tram driver's perspective – A qualitative study. Transportation Research Part F, 49 39-48 (2017)
20. Gulfnews, http://gulfnews.com/multimedia/infographics/general/demographic-trends-expatriate-population-in-dubai-sharjah-and-ajman-1.1562565
21. Braun V., Vlarke V.: Using thematic analysis in psychology. Qualitative Research in Psychology, 3(3) 77-101 (2006)
22. Magableh, F., Grzebieta, R. H., Job, R. F.: The impact of culture on road safety in Jordan. Australasian Road Safety Research Policing Education Conference, Brisbane, Australia (2013)