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Thesis

Road Safety in Prishtina: A Study of Perception from Producers' and Road Users' Perspectives

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Summary

Prishtina is the capital city of Kosovo, the youngest country in Europe, who declared its independence in 2008. Before its independence, Kosovo is an autonomous province under Serbia, which was part of Socialist Federal Republic of Yugoslavia (SFRY). Kosovo has a long history of conflicts since the occupation of Turkish Ottoman Empire in Balkan Peninsula area until the recent one was the Kosova War in 1998 – 1999. As a post-conflict society, Prishtina is suffering from several urban challenges. One of these challenges is road safety issue indicated by increasing the number of traffic accidents in Prishtina and even nationwide. National government considered this situation as unusual for European countries.

This study aimed to answer a research question on how the road safety is perceived from two main perspectives, which are road users (pedestrians and cyclists) and stakeholders in the producer's level of road safety strategy in Prishtina. This study was conducted in urban zone of Prishtina, which is also the case study, with the regards to the increasing number of traffic accidents, which involve pedestrians and cyclists, as the vulnerable road users. Moreover, this research is driven from the importance of taking road users' perspective, especially their everyday experiences, into account in planning, designing, and implementing a road safety strategy towards the effort to reduce the number of traffic accidents in Prishtina and in Kosovo in general. Road users' everyday experiences are important to acknowledge in order to get a comprehensive understanding of what actually happened on the ground in term of road safety issues. This perspective, even tough is important, is often neglected by stakeholders in producer's level, especially in the context of post-conflict society, like Kosovo, where a strategy appear to be an utopia because it does not touch the real problem.

This thesis is used case study as the research strategy and rapid ethnographic assessment as the research methodology. Through a thick description as main characteristic of this study, it can be learned that road safety is perceived in almost a similar manner by road users and producers. This fact is on the contrary with academic literatures, which mentioned that road users and producers perceive road safety in various way, especially road users due to their diverse characteristics, such as age, gender, disability or handicap, companions, and education level. Findings show that young and adult pedestrians perceive road safety in slightly similar manner, except for elderly pedestrians. Both producers and road users perceive behaviour of other road users, with emphasise on car drivers' behaviours, as the main element that influence their road safety perception. In addition, probability of traffic accident occurrences dominates how road users and producers measure road safety. However, among all similarities between road users' and producers' perspective upon road safety. How the road safety perception is developed highlights a difference between these two perspectives. Producers use quantitative statistic data as a basis of their road safety perception development, meanwhile social value that lives among the society serves as the foundation of road users' road safety perception. In conclusion, this case study gives a remark that behaviours of traffic is driven from road safety perception, which depends on other road users' behaviours on traffic.

Keywords

Road safety, Prishtina, Kosova, Perception of road safety, User's perspective, Stakeholder's perspective, Pedestrians and cyclists, Urban mobility, Urban everyday life

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Abbreviations

EBRD	:	European Bank for Reconstruction and Development
EU	:	European Union
IHS	:	Institute for Housing and Urban Development
MM	:	Mott Macdonald (an international multidisciplinary consultant)
OSCE	:	Organisation for Security and Cooperation in Europe
ROW	:	Rights of Way
UK	:	United Kingdom
US	:	United States
UNODC	:	United Nations Office on Drugs and Crime
UNDP Kosovo	:	United Nations Development Programme Kosovo
SFRY	:	Socialist Federal Republic of Yugoslavia
SUMP	:	Sustainable Urban Mobility Plan Prishtina

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Chapter 1: Introduction

1.1 Background

Urban management and policy making process has been challenged for the last fifty years by the reason of fact that most cities worldwide have never achieved the objectives that set out in their plans due to the incremental urban development (Batty, 2008). Urban planning theories noted that there was a change in the way city has been seen from city as a machine, which argued that city works in a certainty like a machine (Corbusier and Etchells, 1987) to the perspective of city as a complex adaptive system, which highlighted the fact that the future of city is uncertain and it consists of considerable number of elements that interact to each others without any control. As the result, city grows incrementally bottom up and has never reached the 'ideal' case that set out in every city plans (Alexander, 1966, Bettencourt, 2013). This phenomenon has pushed traditional urban management and policymaking process to their limits. A new approach is needed to manage complexity that is happening globally in urban areas.

The traditional approach in urban management and policymaking process is no longer effective to implement in complex urban society because of several reasons. Firstly, the traditional approach within the policymaking process that is characterised by rational-based decision-making, has failed to understand the existing problems on the ground (Klijn, 2007a). It explains why there is commonly a gap between policy and implementation on the ground. Secondly, government as a single actor who dominates the whole policymaking process and formulation of problems are done with a single perspective diminishing the effectiveness of policy to overcome the issue that happened on the ground. In addition, this traditional process neglects the complexity happening on the ground, which involves multi-sectorial actors (Duit and Galaz, 2008). The last reason that explains why the traditional approach is unsuitable in complex rapidly changing urban society is the increased demand to have a more democratic policy making process by engaging society during the process (Klijn and Koppenjan, 2012).

There have been discourses in academic literature in finding the right approach to replace the traditional approach in policymaking process. According to Klijn and Koppenjan (2007b), the network approach is seen as an effective way to deal with complexity because policy makers are placed inside the network, which comprises various actors (public sectors, private companies, community organisations, and residents). These actors work together to determine the problem, find a solution for the problem, and make a decision. Policy making process is seen as a strategic game between these actors. Furthermore, this approach is a starting point in developing democratic process by opening an access to community participation (Klijn and Skelcher, 2007). However, there are three principal elements that already exist in the practice of each approach, which are software, orgware, and hardware (Speaks, 2005). Software is an element that deals with ideas and values, and in contrast, hardware is an element that comprises policy and its instruments, meanwhile orgware acts as a bridge, which connects software and hardware as tools and methodologies. Based on this perspective, it has been observed that the network approach deals merely as a software and several tools are missing in the practice to get a better understanding about what the real situation is on the ground.

In academic discourses, the root cause of the issue in understanding the real situation on the ground has been discovered. Authors, such as Margaret Crawford (2005) and Jan Gehl

(2010), argued that the neglecting of users' perspectives and everyday experiences that has been done by the stakeholders in producer level (central government, municipality, policy makers, architects, urban designer, urban planners, etc.) is the root cause of the issue in understanding the existing problem on the ground. Responding to this causal relation, ethnography, which originated from anthropology, is argued as an effective tool to overcome the issue in understanding the existing situation on the ground comprehensively because of at least three benefits. Firstly, ethnography supports the reflexive model of science through an iterative-inductive research methodology that aims to understand human experiences in the context of everyday life (Burawoy, 1998, O'reilly, 2012). It means that ethnography has a practical starting point by putting context as its point of departure. Secondly, ethnographic approach has a considerable potential, not only as a tool to gather information related to reality on the ground, but also to reconstruct government's framework to deliver policy and public services that are matched with public demand. In addition, ethnography can be helpful for policy makers to manage complexity and rapidly changing society, which are demanding a change in policy response when situations are changed (Kimbell, L., 2015). Lastly, ethnographic approach that is characterised with a thick description (Geertz, 1994), is useful in understanding political institutions' practices, explaining political actors' behaviour, and identifying the dynamic of political processes (Auyero, 2006). Moreover, due to its benefits, ethnography has been adapted in various disciplines, as evidenced by emerging movements, such as 'user-centered movement', which investigates the demand of various users in product design and business (Norman, 2013, Schuurman and De Marez, 2009), 'policy ethnography', that tries to integrate the "human factor" (such as experiences in policy implementation in everyday basis) in public administration studies (Dubois, 2009), and human-scale movement in urban planning (Gehl, 2010, Jacobs, 1961, Karssenberg, Laven, et al., 21016). Furthermore, these movements proof that end-users' (inhabitants') perspective, including behaviour and everyday experiences are currently taking into account. By contrast, although this approach has been proliferated in the last two years and argued have a potential to fill a gap in understanding the existing problem on the ground, there is an absence to affiliate perspectives from both producers and users level in academia. In respect to this absence, this research aims to contribute to answer the absence by using Prishtina, the capital city of Kosova, as a case study.

Prishtina, the capital city of Kosova has been chosen as a case study in this research because of its context as the post-conflict society is also part of consideration to choose this city. As a city that is still recovering from the conflict, Prishtina has an indication to have a gap between what is being planning with what actually happened on the ground. This indication demands a further study that uncovers the real situations on the ground, in that sense a plan or a strategy can be delivered effectively and user (residents) oriented. In addition, Prishtina has an urgency to have a strategy that involves users' perspectives, especially road safety strategy, due to the increasing traffic accidents in Prishtina (Muharremi, 2017, Ministry of Environment and Spatial Planning, 2003). Researches have been done to understand the causes of this phenomenon, but there is no single understanding in this issue. Traffic regulation obedience and negligence of pedestrians are argued as the main cause of this phenomenon ((Lenjani, Krasniqi, et al., 2013). Another argument mentioned that this phenomenon is the result of unintegrated spatial planning of Prishtina (Pallaska, 2013). Based on this argument, spatial planning of Prishtina does not consider the integration between city centre and other parts of the city and also the negligence of safety aspect for pedestrians' mobility within the city. The complexity of this phenomenon demands a study that gives an in-depth knowledge about this phenomenon.

In a nutshell, complex societal urban issues have demanded a new approach in urban management and policymaking process. A new approach is being in discourse both in practice and academia, which is the network governance approach. Through this approach, the policy making process is no longer seen as an institutional design process, but as a strategic game between various actors, including society. However, as a new approach in public administration study, there remains a gap between how to understand the complexity that has happened on the ground. This gap leads to the emerging several movements in various disciplines and these movements aim to enhance end-users' perspectives, which act as the key actors in the implementation process of a policy on the ground and the key sources to understand the realities on the ground, by using ethnography. On the contrary, it is also important to combine both perspectives from producers and users level in order to get a comprehensive picture of reality on the ground.

1.2 Problem Statement

The importance of taking users' behaviour and everyday experiences into account has spread out in many disciplines, including in the topic of road safety in both academia and policy level. In academia, Jacobs (1961) is the first author who elevated the role of residents to keep the sidewalks safer. Aligned with her, Sadik-Khan (2016) also pointed out that the knowledge of road users' behavior is substantial in order to have an effective road safety policy. Meanwhile, in policy level, European Commission (2010) has a vision to reduce road deaths by 50% by 2020. The discourses cover mainly three focus areas of an effective road safety strategy, which are infrastructure, behaviour of road users, and vehicles. Learning from the Netherlands, as the leading country in road safety strategy, behaviour of road users is in the first place of focus area, before vehicles and infrastructures (Ministry of Transport, Public Works, and Water Management, 2008). Studies have been conducted in order to understand the behaviour of road users in the first place, for example; Hurts et. al. (2011) studied the distractions of the car drivers, Martens et.al (1997) studied the effect of road design and driving behaviour, and Elvik et. al. (2009b) argued that traffic accidents can be reduced simultaneously if the road design can develop the perception of car driver on proper driving behaviour in particular road. However, these studies have limitations, which are merely focused on car drivers, including how they drive and their distractions, but neglect the behaviour of the other road users. Based on Vissers (2016), pedestrians and cyclists are argued as the most vulnerable group but the most difficult groups of road users in order to study their behaviour due to broad variations of behavioral intentions and responses to different types of vehicles. In addition, according to Golledge (1997b), perception should be the point of departure in order to study the human behaviour in particular topic. Relying on aforementioned arguments, there is a demand to conduct a study, which affiliates the perception of safety from both users level (in this case, pedestrians and cyclists) and producers level in road infrastructure provision. This research is intended for answering this demand by using Prishtina, the capital city of Kosova, as a case study.

Prishtina, the capital city of Kosova, has been chosen as a case study to investigate the perception of road safety due to the urgency in having a more effective road safety strategy to reduce the number of traffic accidents in the capital city. During the period of 2009 - 2012, traffic accidents which happened in Prishtina was considered as the highest number by Emergency Center Municipality of Prishtina and are considered as unusual in European Union countries (Lenjani, Krasniqi, et al., 2013). This phenomenon is related to post Kosova War 1999 conditions, which are characterised by the uncontrolled urban development of

Prishtina due to lack of integrated municipal development plan. This issue leads to the increased development of road constructions and the number of private vehicles ownership, but also proportionally with the increased number of traffic accidents in the city (Gollopeni, 2016). Statistic data showed that the number of traffic accidents mostly happen because of improper driving behaviour (driving above limits and negligence of pedestrians and cyclists) (Lenjani, Krasniqi, et al., 2013). Furthermore, in relation with location, the statistic data also mentioned that the number of traffic accidents increased on the straight type of road and commonly at night. According to these facts, it is crucial to conduct the study of perception of safety from both producers and users level as a starting point to understand the outcomes from both sides, which are the existing road infrastructure and behaviour of road users. Moreover, this matter acquired special attention in both the city and national level, which stated in Kosova Environmental Report (2003) and Kosova Profile (2004). These two documents stated the urgency of this matter and an effective road safety strategy was mentioned as a crucial demand, however 10 years later the aforementioned road safety strategy still remains absence at the moment.

In conclusion, the topic of road safety, especially the integrated strategy that has a core in incorporation between infrastructure, behaviour of road users, and vehicles, is demanded not only in Kosova, but also in all European countries in general. There is vast literature, which discusses the behaviour of the car drivers, yet the behaviour of pedestrians and cyclists remain lacking. In this context, this research aims to fill the gap in both academic road safety literatures and practical level by assessing the perception of road safety from both producers and road users' (pedestrians and cyclists) perspectives as a point of departure to understand the outcomes from both sides, which are behaviours of road users and existing road infrastructures that are provided by stakeholders in producers level.

1.3 Research Objective

This main objective of this research is to explain how the perception of road safety from two perspectives are developed, which are road users (pedestrians and cyclists) and stakeholders in producer level of road safety strategy, through a thick description by using Prishtina, the capital city of Kosova, as the case study. In addition, this research aims to explore how the context of Prishtina, as the post-conflict society, plays a role in shaping these perceptions from two different perspectives, which are road users and producers in road safety strategy. Furthermore, this study is visioned to give an understanding of behaviour of various road users in order to acquire a policy recommendation towards an user-oriented traffic safety measurements in Prishtina, Kosova.

1.4 Provisional Research Questions

The provisional main research question for this research is:
How is perception of road safety shaped from the perspective of pedestrians and cyclists as road users and the perspective of stakeholders in producer level of road safety strategy in Prishtina, Kosova?
The provisional sub research questions for this research are:

- What are the elements of the perception of road safety from the perspective of pedestrians and cyclists as road users?
- Do pedestrians and cyclists have the similar elements that create their perception of

road safety?

- What are the elements of the perception of road safety from the perspective of stakeholders in producer level of road safety strategy?
- Do road users and stakeholders in producer level have the similar elements that create their perception of road safety?
- Which elements of perception of road safety from both perspectives (road users and producers) do affect their behaviour and decision making process in the context of Prishtina, Kosova?

1.5 Significance of the Study

The study of the perception of road safety from the perspective of road users and stakeholders in producer level can be a learning paradigm in academia, policy level, and practical area. This section will provide a brief description on the various significances of the study in aforementioned areas. In academia, this study fills a gap in the knowledge of pedestrians' behaviours. In addition, the methodology that is used in this research, which is ethnography, can contribute to body of knowledge in urban planning discipline in term of understanding the complex reality that happens on the ground. In policy level, this study gives a better understanding of perception of road safety that is experienced by various characteristics of pedestrians in everyday basis can act as a gate to interpret and understand the behaviour of different characteristics of pedestrians, as the first focus area in order to deliver a more effective traffic safety measurements. In addition, by consolidating the both producers and road users' perspective, will help policy makers to deliver better strategies to reduce traffic accidents in Prishtina. In practical area, this research will help various actors in producer level, such as municipality, architects, urban designers, and urban planners, to have a better improvement and development of road infrastructure projects, through a comprehensive understanding of perception of safety from both producer's and user's sides in road infrastructure projects. This understanding is a starting point to develop knowledge in behaviour of road users as one of substantial elements in an effective road safety strategy mentioned by European Commission (2010). In addition, this study gives an indirect benefit to the society in term of reducing the number of traffic accidents in Prishtina, Kosova as a result of having an effective road safety strategy.

1.6 Scope and Limitations

This research covers only two two types of road users, which are pedestrians and cyclists, due to the limited information that have been known in relation with their perceptions and behaviours in everyday basis and also their vulnerable characteristics among other road users. The sample of road users are classified based on the group of age (adolescent children, adult, and elderly). However, this study does not discuss the perspective of cyclists that are younger than eighteen years old and older than 59 years old because none of the aforementioned inhabitants use a cycle as the mean of transportation in Prishtina. In addition, this study is focus on the urban zone of the Municipality of Prishtina and the fieldwork was conducted in Prishtina, Kosova, for three months, started in May 2017 until July 2017. Furthermore, this study is based on qualitative research, through rapid ethnographic assessment, as the research methodology to observe the perceptions from two main perspectives, which are the stakeholders that are involved in the road safety strategy in Prishtina and road users.

This study, on the other hand, has several limitations in term of research methodology that is used in this study and the language barrier between the author and the respondents. Due to the main characteristic of ethnography as a thick description, the comprehensiveness of the informations that are shared by the research informants depend on the introversion and extraversion of the informants' personality. In addition to that, the willingness of informants' to participate in the research progress affects the number of the research informants in this study (Geertz, 1994, Taplin, Scheld, et al., 2002). Language barrier between researcher and target group is another limitation, especially adolescence children and elderly, because these two groups does not speak English fluently. However, this limitation does not affect the reliability of the result of this study because ethnography uses the reflexive science model, which uses context as its point of departure (Burawoy, 1998). In addition to the language barrier, a translator helped the author in conducting some interviews, focus group discussions, and transcribing process. The possibility in bias information that was given by the translators is tackled by having a peer-review.

Chapter 2: Literature Review

2.1 Introduction

The word ‘safety’ and ‘perception’ are two buzzwords in academic contexts and in everyday life. Despite of their common use, these two concepts are defined differently in both contexts. In addition, academic discourses have a considerable attention to these two concepts due to their vague meanings and what are the elements that shape both of them. Several arguments have been developed to define the concept of ‘safety’ and ‘perception’ from diverse perspectives; for instance, the word ‘safety’ has been approached from scientific, psychological, and cultural point of views (Möller, 2012). Meanwhile, the concept of ‘perception’ has been discussed in psychological and geographical disciplines (Marshall, 2008, Garling and Golledge, 1993b).

This chapter will discuss further about two concepts that will use in this study, which are ‘safety’ and ‘perception’, starts from their definitions, their relevance, what elements that affect these concepts, and try to relate these two concepts in the context of road safety. In addition, this chapter aims to develop the basis of knowledge in order to answer aforementioned research questions by explaining concepts that are used in this study and developing a conceptual framework based on the literature review. Moreover, five sections will follow in this chapter. In Section 2.2, the concept of perception is explained, including its definition and what elements do shape it. In Section 2.3 explains the concept of safety and road safety specifically. Section 2.4 will give a comprehensive explanation about how safety is being defined from both stakeholders in producer level and road users. Furthermore, Section 2.5 will give a description about the post-conflict society, aimed to give an understanding about Pristina’s context as a starting point in this study. All concepts will be elaborated further in Section 2.6 and finally, this chapter is closed with a conclusion how these concepts are conceptualised for this study and how these concepts develop the basis of knowledge to help answering the research questions that in this study, that are mentioned in the previous chapter.

2.2 Perception

The study of perception began to spread beyond psychological disciplines when behavioural approaches are developed in geography in 1980s and these approaches tried to find a relationship between the behaviour and the physical environment (Garling and Golledge, 1993b). Current studies of perception are dominated by two approaches, which are psychological and geographical approaches. A perception is conceptualised differently among those approaches. According to Marshall (Marshall, 2008, p.125), perception is defined as, “a ‘transcending’ through and through in which the body forms a system with the world”. Psychology noted that there are two important elements in shaping a perception, which are the world, as the sender of information and stimulus, and the body, as the receiver of this information. Meanwhile, other disciplines, such as urban planning and architecture, followed the understanding of perception as conceptualised by geographers. In geography, perception is associated as a cognitive process in receiving and selecting information and building a template or mental images which create a perceptual environment that may differs from the reality because people also have knowledge, values, and goals that they bring on this

process (Golledge and Stimson, 1997a, Garling and Golledge, 1993b). Broader from psychology, geography acknowledges implicit messages of environment, such as cultural, political, legal, and administrative rules in large-scale spatial environment (neighbourhood, cities, or region).

Since the study of perception is developed upon two disciplines, it gives a notion the importance of acknowledging it for at least three reasons. First argument comes from the functionalist approach. This approach highlighted the importance of considering a perception because it serves as guidance to individual actions. People do not respond directly to their real environment, but to their mental image, as a result of a cognitive process (Zalla, M., 2014). It brings to the second argument which mentioned that the study of perception can help to answer why certain activities happen in certain locations, but not the vice versa (Garling and Golledge, 1993a). The last argument comes from Golledge (Golledge and Stimson, 1997a) and Marshall (2008), who argued that the built environment is the manifestation of decision making which is mostly related to the way people perceive spatial environments. Based on these arguments, the importance of studying a perception relies on its crucial role to trace back the behaviour and environment interface.

Since a perception is part of a cognitive process, it means that a perception is related to how information is received, coded, stored, and organised inside the brain and as a result of this process is individual knowledge or values. Environment as the main element of this process, is divided into two types, which are operational environment and perceptual environment (Casullo, 1986). Operational environment refers to the actual geographical environment and it is similar to everyone, meanwhile perceptual environment is part of operational environment of which people aware and influences their behaviour directly or indirectly. Another element that is important to recognise is the human brain itself. According to Hirtle and Heidorn (1993), a brain consists of millions neurons that are connected in the form of a complex network. While the operational environment is sending information to the brain in the form of stimuli that is received by human senses, various neurons are engaged competitively into networks. However, only the strong networks that are processing the information from the operational environment into the next step. The weak networks are unused and they wither away. As a result, the brain networks structure is built upon selected information and it is called mental images of operational environment (Golledge and Stimson, 1997a) or images schema (Hampe, 2005). On the next stage, these mental images develop a perceptual environment and it affects the future states, which are decision making and behavior (Ratey, 2001).

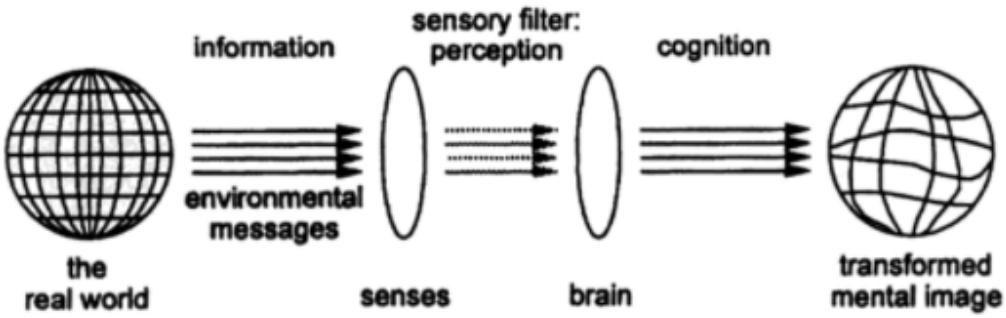


Figure 2.1
The developing process of mental images.
Source: (Golledge and Stimson, 1997a, p.191).

Golledge and Stimson (1997a) and Ratey (2001) mentioned that the nature of perception developing process and the structure of perceptual environment derive from several factors. These factors include:

1. *Individual spatial cognitive ability.*
   Spatial cognitive ability allows an individual having learning and exploration process upon the operational environment. It includes the process of paying attention, decoding and encoding information, also building a set of template and expectation. Experiences color the individual perception because experiences shape various templates and expectations; therefore perception is not the same between individual with and without a certain experience beforehand.
2. *Sensitivity to messages from environmental stimuli*.
   Information from the operational environment is received by human senses before it delivered to the brain to be processed. It explains obviously that disturbance in sensing, including listening, vision, or touch, can interfere the message that is received and delivered to the brain.
3. *Environmental stimulus*.
   Stimulus refers to anything or specifically events that evokes a specific functional reaction inside the brain. Stimulus that is given by the operational environment can affect the process of developing perception, due to its intensity, size, repetition, and clarity. Golledge (1993) raised spatial attributes that can be perceived while exploring the operational environments in everyday basis. These attributes are including:
   - Types of spatial phenomena, such as nodes and landmarks.
   - Spatial distributions of existed phenomena.
   - Spatial processes that account for the development and patterns of spatial phenomena.
   - Spatial contiguity and spatial association.
   - Linkage and connectivity.
   - Geographic regions.
   - Spatial stratification and hierarchies.
   - Spatial structure.
4. *Social values and constraints*.
   Social values, such as personal beliefs, needs, cultural and economic constraints, have a considerable influence on perception developing process upon individual. They affect sort of information that will be selected in order to form mental images of operational environment, which lead to the following outcomes, which are decision-making and individual behavior.

In a nutshell, perception has a considerable attention in geography and psychology and it has been defined differently. The differences are located in how these two disciplines perceive the scope of environment as the source of information. Psychology define the environment only as a physical environment, meanwhile geography has a broader scope in perceiving the environment, by including hidden messages in the environment, such as social, culture, and politics. The concept of perception in architecture and urban planning is conceptualised based on geographical perspective upon perception. In this study, the concept of perception refers to a cognitive process, which includes receiving information, processing information, and building mental images. As a result, perceptual environment is developed and acts as guidance in decision making and taking actions. This is why perception is a gate in understanding the occurrence of certain behaviour in certain locations. Furthermore, the process of creating a perception is derived by variety of aspects that come from internal and

external sides of an individual. These internal aspects are included individual spatial cognitive ability, sensitivity to messages from environmental stimuli, and social values and constraints. Moreover, the external aspect consists of the attributes of environmental stimulus, such as spatial phenomena, spatial distributions, spatial structure, etc. However, these aspects acquire a general perception, yet this study tries to investigate a perception in specific topic of road safety. For that reason, it requires further explanation of the concept of safety that will be discussed in the following section.

2.3 The Concept of Safety and Road Safety

The word ‘safety’ sounds familiar because of its common application in academic discourses and everyday life. However, there is a distinctive meaning of this concept in both academia and everyday use. In addition, the concept of ‘safety’ has considerable academic intentions in term of its definition and what is behind the concept. Boholm et. al. (2015) recently published a work that discussed the concept of ‘safety’ in everyday life. According to his paper, ‘safety’ is simply associated with the opposite of risk or danger. In addition, the word ‘safety’ is sometimes misleading with the word ‘security’. Aligned with the Boholm et.al. (2015), this study would like to emphasis the differences between these two concepts, which rely on the intended harm that will be experienced by an individual. ‘Safety’ is related to unintentional harm (such as: traffic accidents), meanwhile ‘security’ concerns on intentional harm that will be happened to an individual (such as: crime). On the contrary, there are two arguments in conceptualizing ‘safety’ that are prevalent in academic discourses. First argument tried to attach the concept of ‘safety’ with the concept of ‘risk’. According to Hansson (2013), the concept of ‘risk’ commonly refers to a probability of undesirable events that may occur. In the respect of that, risk is something that should be reduced or avoid, while safety is something that should be achieved by reducing a risk to a tolerable level (Möller, 2012). In this sense, the concept of ‘safety’ is similar with the notion of ‘acceptable risk’, which refers to a condition when the magnitude of risk does not consider being excessive (Kasperson and Dow, 1993, Elagin, 1996). Furthermore, another argument conceptualises ‘safety’ as a vague concept and is difficult to search for a single definition. It happens because ‘safety’ is relative and it depends on the criteria that are used by the society to define it. These criteria are called the safety threshold. According to Elagin (1996), the safety threshold is influenced by the context of society that includes the nature of society (such as: tradition and social values), the degree of economic development, individual preferences, also location and time (such as: geographical conditions, daytime, and nighttime). In addition, although the safety thresholds are vary due to the context of society, but they have common attributes, which are the type of system, whose safety is being discussed, the viewpoint while discussing safety, and the dynamics of the defining process that leads to changes to the system (Elagin, 1996, Vanlaar and Yannis, 2006).

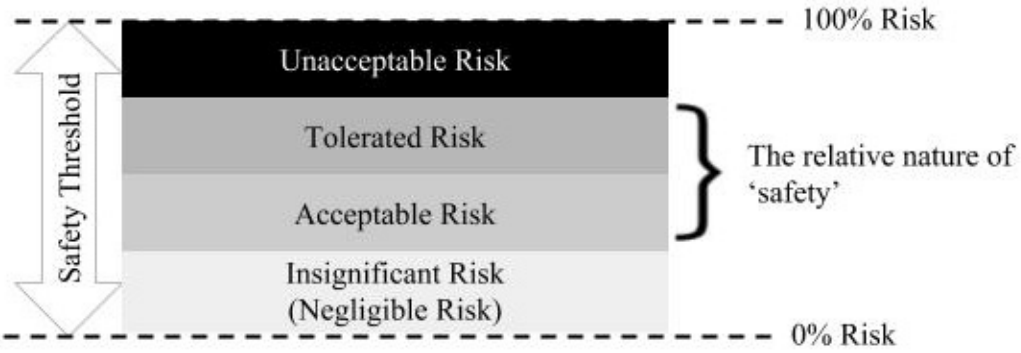


Figure 2.2
The schematic diagram of the relative nature of 'safety'.
Source: (Kasperson and Dow, 1993, p.208 - with adjustment).

The concept of 'safety' is may defined differently by the society, however in the context of road safety topic, the concept of 'road safety' is rather homogeneous. Road safety is conceptualised as a range of methods, evaluations, and measurements aimed to reduce the risk of traffic accidents, which include the recorded number of traffic accidents and the number of killed or injured road users in the traffic accidents (Tisca, Istrat, et al., 2016, Elvik, Hoye, et al., 2009a). Despite of its homogeneous definition, the number of recorded traffic accidents, which serves as a basis to define the road safety worldwide, is the considerable issue. According to Elvik, Hoye, et.al. (2009a), the recorded number of traffic accidents does not represent the annual number of traffic accidents in the same period of time. This issue may occur due to the random variation in the recorded traffic accidents numbers. It gives a notion of the importance to look at other variables while defining a road safety level, such as how road safety is perceived by various actors. This topic will be discussed further on the following section.

Academic discourses noted that there is a change of focus in the topic of road safety. This change leads to a trend that takes road users' perspectives into account in developing a road safety strategy. According to Tisca, Istrat, et.al. (2016), this trend started in 1950s, when the road safety management emphasized on behaviour of drivers and the role of drivers in the contribution of traffic accidents. Ten years later, the topic of discussion changed its focus to the safety infrastructures, including roads and vehicles. This trend lasted for twenty years, started from 1960s until 1970s. Furthermore, in 1980s until now, road safety discourses focused on the integrated management system, that involves behaviour of road users, infrastructures, and institutional arrangements. European countries, such as Sweden and Netherlands as the leaders in the road safety, have adapted this approach (European Transport Safety Council, 2016). Sweden has a road safety strategy that is called A Vision Zero, which puts human factor as a basis of this strategy (Whitelegg and Haq, 2006). Aligned with Sweden, the Netherlands has A Sustainable Safety Strategy that integrates road infrastructures, vehicles, and behaviour of road users (Ministry of Transport, Public Works, and Water Management, 2008, Wegman and Oppe, 2010).

The current road safety measurement commonly focuses on three elements, which are road infrastructure, behaviour or road users, and safety standards for vehicles. However, the behaviour of road users measurements merely put car drivers as their focal point and ignores other road users, such as pedestrians and cyclists. This study will focus on two out of three

focus elements of road safety, which are road infrastructure and behaviour of road users. Moreover, this study uses road infrastructure measurements that are formulated by Elvik et.al. (2009b) also Vanlaar and Yannis (2006) and Jones et.al. (2007a) describes the measurements for behaviour of car drivers and pedestrians. These measurements will be discussed further as follows:

1. *Road infrastructure* (Elvik, Hoye, et al., 2009b)
   Road design measurements:
   - Cycle lanes and tracks
   - Motorways
   - Bypasses
   - Urban arterial roads
   - Road junctions
   - Black spot treatment
   - Roundabouts
   - Cross-section
   - Roadside safety treatment
   - Road alignment and sight distance
   - Horizontal curve treatments
   - Road tunnel
   - Roadside rest and service areas

   Road furniture and equipment measurements:
   - Guardrails and crash cushions
   - Road lighting
2. *Behaviour of road users*
   Car drivers (Vanlaar and Yannis, 2006)
   - Driving attitude (driving under influence of drugs or alcohol)
   - Driving speed (driving above limits)
   - Driver's distraction (hands free, using cellphone while driving, using make-up, etc.)

In conclusion, academic literatures underlined that 'safety' is a vague concept due to various meaning. It is defines differently based on the context and several pre- conditions, for instance: whose safety is being discussed, the viewpoint while discussing safety, and the dynamics of the defining process that leads to changes to the meaning. However, there are two main arguments in defining the concept of safety in academia. First argument stated that 'safety' and 'risk' are contradictory, meanwhile another argument highlighted that 'safety' is similar with 'acceptable risk' and the degree of 'safety' is vary based on the safety threshold that is used by the society. This study would like to conceptualise 'safety' as a condition when the magnitude of risk can be accepted or tolerated by the society due to certain criteria. In addition, this study would like to stress the importance of context while studying this topic. Moreover, 'road safety', as another important concept that is mentioned in this study, is associated with the acceptable traffic accident risks based on the safety threshold that is set by the society. This is also important to note that assessing the road safety degree can not merely rely on the recorded number of traffic accidents because this number does not necessarily represent the actual number of traffic accidents due to the variation in the recording methodology. Hence, the road user's perspective is also needed to formulate the degree of road safety. The following section will explain how road safety is perceived by two perspectives, which are pedestrians and cyclists as road users and stakeholders in producer level, who play an important role in the provision of road safety strategy.

2.4 The Road Safety Perception from the Perspective of Producers and Road Users

Acknowledging perception of road safety is crucial since the trend of road safety strategy placed the behaviour of road users as one of focus area (European Commission, 2010, Tisca, Istrat, et al., 2016). This means that there is a demand to conduct a study which affiliates the perception of road safety from both sides; stakeholders in producer level and pedestrians and cyclists as negligible road users. This type of study has a considerable benefit for at least three reasons. Firstly, both producers and users have different perspectives in perceived the environment because of differences in the elements that shape their perceptions, such as spatial cognitive ability, sensitivity to messages, also social values and constraints (Golledge and Stimson, 1997a, Ratey, 2001). Secondly, the mismatched between both producers' and users' perceptions diminish the effectiveness of road safety strategy and road infrastructure that are produced by the producers and this matter leads to the bigger issue, which is the failure to reduce traffic accidents. This happens mainly because the stakeholders in producer level neglect user's experiences in regular basis (Crawford, 2005, Gehl, 2010). Lastly, due to different roles between two sides, it is important for both sides to have a mutual understanding about both perceptions of road safety, so that the gap between policy and implementation on the ground can be closed. The perception of road safety from both producers and users (pedestrians and cyclists) will be discussed further in following sections.

Road Safety Perception from the Perspective of Stakeholders in Producer Level

Academic literatures noted that the perception of road safety from producer's perspective is mainly aligned with European Commission Road Safety Vision, that has three main pillars: road infrastructure, behaviour of road users, and vehicles. However, there are only two elements that are observed as prevalent discourses among stakeholders in producer level. First approach argues that road infrastructure is the dominant element in generating road safety perception. This argument relies on the definition of perception as a cognitive process, which receives the stimulus from the physical environment. Authors, such as Wegman (2006), Theeuwes and Godthelp (1995), also Martens (1997), argued that road infrastructure, specifically road design elements, is the main element that dominates the process of creating a perception of road safety. This argument is stated in the concept of 'self-explaining road'. 'Self-explaining road' is a concept argues that the design of road infrastructure creates the perception of the proper driving speed in desired area leading to the proper driving behavior and they should be accommodated human error. This concept is derived based on fact that traffic accidents are mainly caused by human error, also education and law enforcement are observed not giving a considerable contribution to reduce traffic accidents(Theeuwes and Godthelp, 1995). Marteens (1997) and Theeuwes and Godthelp (1995) formulated road design elements that should be taken into account in creating road safety perception. These elements are:

- Road classification
- Road layout
- Road pavement
- Road furniture (such as: traffic calming instruments, warning signals).

Prevalent approach in the process of developing the road safety perception is the discussion about the car driver distractions as part of behaviour of road users discourses. According to Hurts et.al. (2011), driver distraction refers to anything that occurs and takes driver's attention away from whether inside and outside the vehicle. In short, the driver distractions

can be divided into two categories, which are in-vehicle devices and non-devices activities. The distractions that are categorised as in-vehicle devices are music, moving images from television, and communication devices (phone, smartphones, iPad). In addition, activities, such as: interactions with passengers, eating, drinking, grooming (or putting a make up on), reading, and writing, are categorised as non-devices distracted activities.

Road Safety Perception from the Perspective of Road Users: Pedestrians and Cyclists

Before discussing the road safety perception from the road users, it is important to point out the various types of road users. Global Designing City Initiatives (2016)classified road users into six categories. They are pedestrians, cyclists, transit riders (such as public transportation's passengers), motorists (motorcycle's riders and car drivers), freight and service operators, and people doing business (street vendors). This study only pinpoints pedestrians and cyclists but others types of road users due to the vulnerable characteristic of these road users compared with others types. Pedestrians and cyclists are the most vulnerable groups of road users because they do not have a 'protection' that will keep them safe from the dynamic of the traffic on the streets (Vissers, van der Kint, et al., 2016)Despite their vulnerable characteristic, pedestrians have various types due to their activities on the street, characteristics, and disabilities. Based on their activities on the streets, there are several types of pedestrians, which are: browsers (such as: window shopping), socialisers (are pedestrians who walk slowly in a big group), observers (such as: people who sit on the bench or in front of cafes of restaurants, waiters, resters, queuers, workers (such as: street vendors, prostitutes, road cleaning services), entertainers (such as: street musicians, and street artists), customers, and inhabiters (for example: homeless inhabitants) (Jones, Roberts, et al., 2007a)

Road safety perception from the perspectives of pedestrians and cyclists are quite rather different from the perspectives of stakeholders in producer level. While road infrastructure and driver's distractions are perceived as two main elements that dominate the road safety perception from the perspective of stakeholders in producer level, road safety perception of pedestrians and cyclists' perspectives are influenced not only by the environment (road infrastructure), but also by their adjacent attributes. According to Kaparias(2012), the factors, that affect pedestrians' road safety perception, are classified based on the source of these factors. These classifications are internal and external factors. The internal factors refer to adjacent attributes that pedestrians have, such as: gender, age, disability, companions, items being carried, the original country or nationality, items being carried, and mode of travel. Moreover, the external factors come from physical environment and/or behaviour of other road users. Further descriptions about these factors can be seen in **Table 2.1**. In addition, age factor diverses the attributes that affect pedestrians' road safety perception. Boateng and Thomson (1991) argued that pedestrians in the age of 5-7 years old have simple attributes in perceive a road safety. They perceive a road is safety or not based on the visibility of cars from their standing position and the crossing distance. Meanwhile, older children in the age of 8 - 11 years old use road layout and the existence of road design elements, such as: street lighting and zebra path, to determine a road safety. For older pedestrians, in the age of 18 - 65 years old, these attributes become more complex. However, road infrastructure is perceived dominantly instead of behaviour of road users(Ferrer, Ruiz, et al., 2015, Pikora, Giles-Corti, et al., 2003).

Another characteristic of pedestrians that need a special attention is disability. In academic literatures, the term disability and handicap are prevalent and sometimes interchangeable. However, there are differences between these two terminologies. Disability is "the restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or

within the range considered normal for a human being" (World Health Organisation, 1980, p. 14), meanwhile handicap refers to "the disadvantages experienced by the individual as a result of impairments and disabilities; handicaps thus reflect interaction with and adaptation to the individual's surroundings" (World Health Organisation, 1980, p. 14). There are eight categories for disabilities and six categories for handicaps. These categories can be seen on **Table 2.1** below. In this study, only communication disabilities, locomotor disabilities, and mobility handicap are paid into considerations of various characteristics of pedestrians with special attentions. Since, they have different conditions in sensory and motoric abilities, disabilities and handicaps perceive road safety differently. Basha (2005) conducted a study of how disabilities and handicaps experienced everyday life activities in two cities in Kosova, which are Prishtina and Prizren. Based on her study, obstacles that exist on the sidewalks are the first element that influences their perception of road safety, because these obstacles become their barriers to move properly on the sidewalks and they are forced to walk on the car roads that are not dedicated for pedestrians or make them lost their orientation while walking on the sidewalks. These obstacles are including: the placement of bollards on the middle of sidewalks, on street parking, shops' advertisement boards and exhibition racks, and narrow sidewalks. Other elements that become barriers for disabilities and handicaps, but also have a great influence to their road safety perception are traffic light signalling, the existence of ramp, condition of the pavement, and also horizontal road marking. Pedestrians with sight abilities cannot see the signal that is given by traffic light, so they need an audio signal to help giving them an orientation about traffic condition surrounding them. In addition, horizontal road marking with tactile strips, are helpful in giving pedestrians with sight disabilities an orientation. Ramp and conditions of the sidewalks' pavement are argued as the important element for pedestrians with mobility handicap and locomotor disabilities, for instance, elderly with walking sticks and wheelchair users. The existence of ramp helps to maneuverer easily from the sidewalks to public transportation and crossing the streets. At last, the good condition of sidewalks' pavement is obvious to help them move easily without having difficulties. In a nutshell, for pedestrians with certain disabilities and handicaps situations, their road safety perception relies on the physical elements of the road infrastructure.

Table 2.1
Categories of Disabilities and Handicaps

Characteristics	**Categories**	
Disabilities	Behaviour disabilities	• Awareness disabilities • Disabilities in relation
	Communication disabilities	• Speaking disabilities • Listening disabilities • Seeing disabilities
	Personal care disabilities	• Excretion disabilities • Personal hygiene disabilities • Dressing disabilities • Feeding disabilities
	Locomotor disabilities	• Ambulatory disabilities (e.g: walking, climbing stairs, running) • Confining disabilities
	Body disposition disabilities	• Domestic disabilities • Body movement disabilities
	Dexterity disabilities	• Daily activities disabilities

		• Manual activities disabilities
	Situational disabilities	• Dependence and endurance disabilities • Environment disabilities
Handicaps	• Orientation handicap Individual disability to give an orientation to himself about surroundings. • Physical independence handicap Individual disability to live without assistance. • Mobility handicap Individual disability to move freely and effectively. • Occupation handicap Individual disability to occupy his or her time in the manner of customary to age, sex, and culture, during the working days. • Social integration handicap Individual disability to participate and maintain a social relationship. • Economic self-sufficiency handicap Individual disability to have a sustain economic condition and independence.	

Source: (World Health Organisation, 1980).

In term of cyclists' perception, there are two arguments that are prevalent in academic discourses. First argument mentions that there are no differences in how pedestrians and cyclists perceive road safety(Jones, Roberts, et al., 2007b, Vanlaar and Yannis, 2006). This argument relies on the argument that pedestrians and cyclists are the vulnerable road users comparing with other road users. The last argument states that there are considerable differences in how pedestrians and cyclists perceive a road safety. Pikora et.al.(2003) found that the only attributes that matter from cyclists' perspectives are mode of travel for the internal factor and road design for the external factor.

Table 2.2
Road Safety Perception Attributes from the Perspective of Pedestrians

	Pedestrians	**Cyclists**
Internal factors	● Gender ● Age ● Disability ● Companions (e.g: children, friends, elderly) ● Items being carried ● Original country / nationality ● Mode of travel (e.g: transportation, recreation)	● Mode of travel (e.g: transportation, recreation).
External factors	● Road design (e.g: road conjuction layout, path or lane continuity, crossing facilities) ● Street furnitures (e.g: lighting, pedestrian lights, traffic calming instruments) ● Traffic conditions (traffic	● Road design (e.g: crossings, crossings aid, verge width, driveway crossovers, lanes marked, path or lane continuity).

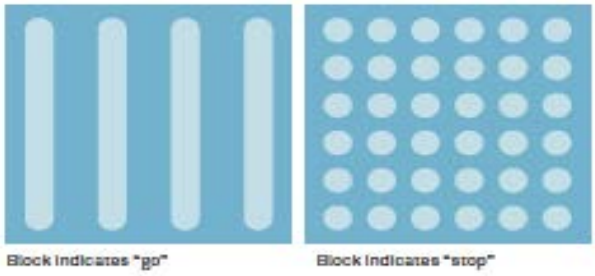
	volume, traffic speed, number of lanes). ● Behaviour of other road users (cyclists and drivers) ● Visibility ● Obstacles on sidewalks	

Source: (Kaparias, Bell, et al., 2012, Ferrer, Ruiz, et al., 2015, Pikora, Giles-Corti, et al., 2003, Ampofo- Boateng and Thomson, 1991, Basha, 2005).

Physical elements, such as road infrastructure, are argued the most dominant element for both sides: road users and stakeholders in the producer level. Global Designing City Initiative (2016) published the road design guidance for pedestrians and cyclists. This guidance underlined several criteria that require a good road infrastructure design in term of safety, comfort, connectivity, and accessible for even vulnerable users. These criteria can be seen in the **Table 2.3** and **Table 2.4** below.

Table 2.3
Criteria a Good Road Infrastructure Design for Pedestrians

Elements	Criteria	Requirements
Sidewalks	• Clear demarcation • Dimension	• Frontage zone • Clear path • Street furniture zone • Buffer zone 1.8 - 2.0 meter of clear path
Pedestrians crossings	• Location • Spacing • Marking • Signalisation • Length (crossing distance) • Width • Visibility and daylighting • Grade separation	Located on intersection. Distance between crossing: 80-100m. High visibility zebra cross marking. Pedestrian crossing signals. Short crossing distance for pedestrians. Pedestrian crossing should be at least as wide as the sidewalks (min. 3 m wide). Provide a space for pedestrians to see the traffic conditions. Separated pedestrian crossings, such as overpasses and underpassess increase the safety, but should be well maintenance.
Pedestrians refuge	• Pedestrian refuge island • Median	Wide: 1.8 - 2.4m, Length: 10-12m Extended tip or nose on the median. Median cut-throughs should be provided where there

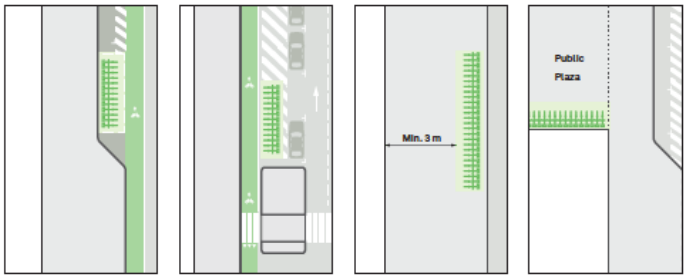
	• Median cut through	is a significant pedestrian desire line, e.g: bus stops.
Sidewalk extension	• Corner alignment • Bulb-outs • Slip lane removal	Corner alignment will increase the visibility of pedestrians. Bulb-outs are extensions of the sidewalk into the parking lane. It helps to reduce the vehicle's speed. It helps increasing the visibility of pedestrians.
Pedestrian ramps	• Slope • Top landing • Side landing	Elevation: 10% - 12%, wide: (1.8 - 2.4m)
Guidance for visually impaired	• Tactile paving	 Stripe: 'GO' and Dot: 'STOP'
Signage and wayfinding	• Quality • Location • Size	Wayfinding system should indicate 5-10 minutes walking time. Place signages near concentrated pedestrians crowd. Size of the signage should adapt to the human scale, considering wheelchair users.
Street furnitures and other elements	• Pedestrian countdown signals • Lighting • Seating • Water fountain • Weather protection • Curbs • Waste receptacles • Active building edges • Trees and landscaping	-

Source: (Global Designing City Initiative, 2016).

Table 2.4

Criteria a Good Road Infrastructure Design for Cyclists

Elements	Criteria	Requirements
Cycle facilities	• Type of facilities	Special cycle path in form of: cycle lane, cycle track, or cycle street.

	• Geometry	High safety cycle lane commonly has one of these geometries: • protected cycle track • bidirectional cycle track
	• Cycle facilities at transit stops	Cycle lane should be continuous and marked with visible colour.
	• Protected cycle facilities at intersections	Cycle lane in the protected intersection should be continuous and separated with other vehicle's traffic.
	• Cycle signals	Signalisation should be located in intersection.
	• Filtered permeability	Some barriers should be placed in intersections to manage the traffic and increase safety for cyclists.
	• Conflict zone marking	Traffic conflict area should be marked differently.
Cycle share	• Program coverage area	The standard of coverage area is commonly in the radius 300m.
	• Program density and station spacing	The distance between station should cover 5 minutes walking or 300-400 m distance.
	• Station placement	The location of bike sharing station should consider some key destinations, such as: schools, business districts, and commercial districts.
	• Station dimension and type	Bike sharing station should have the capacity of 100 bikes, with minimum 15m long and 2.5m widths.
	• Bike share station configuration	 4 types of bike sharing configuration

Source: (Global Designing City Initiative, 2016).

In short, perception of road users helps understanding behaviour of road user, as a part of consideration in road safety strategy planning. Moreover, acknowledging perception from both sides, which are: producers and users, seem important due to differences in their roles and as an effort to close the gap between policy as a product of stakeholders in producer level and road users. Academic literatures note that the perspectives of producers and road users in how they perceive road safety are rather different. From the perspective of stakeholders in

producer level, road infrastructure and drivers' distraction are two elements that perceive their perception of road safety. On the contrary, road users, such as pedestrians and cyclists, have various perspectives in perceiving road safety due to their adjacent internal attributes, for instance age, gender, disability, companions, items being carried, original country or nationality, and mode of travel. However, despite of this various perspectives, road infrastructure (including its design, its traffic condition, its visibility, and its design elements) is considered as a dominant element that shapes their perception. Although, from cyclist's perspective, it is quite simple. Road design is perceived as the only element that can shape their perception of road safety. Based on aforementioned description, road infrastructure is the similar element that is perceived by perspectives, producer and road users, as the element that can shape their perception of road safety.

2.5 Prishtina: The Context of Post-Conflict Society

Kosova experienced a long history of conflict since the Ottoman rule in fourteenth century and the recent conflict was Kosova War in 1998. As the rule of thumb, a conflict challenges many aspects within the society, including urban development and social values. Prishtina, as the capital city of Kosova, is suffering from several issues due to Post Kosova War 1999 conditions, including uncontrolled urban development, lack of integrated plan, and an increasing traffic accidents phenomenon. This section will give a brief description about the context of Prishtina, the capital city of Kosova, as a city that has challenges due to Kosova War. Before discussing how this conflict affects urban development and social values in Prishtina, the concept of conflict will be discussed in the first place.

Until now, academia does not have a mutual understanding in defining a concept of conflict. The concept of conflict is commonly associated with a competitive intention by having blocking behaviours of shared resources or interdependent activities that are done by certain parties and happen in the progress of achieving goals (Schmidt and Kochan, 1972, Thomas, 1992). According to Dietz, Stern, and Rycroft(1989), there are four types of resources that are in rivals. These resources are authority, public opinion, material resources and financial resources. These resources are crucial to accomplish the goal. However, coordination between various parties can also be blocked because of interdependent-power relationship in the progress of achieving a collective goal. Schmidt and Kochan(1972) classified three types of conflict, as can be seen on the **Figure 2.4** below. In conflict type 1, a party blocks shared resources, so that another party can not achieve its goal because this party does not have any resources that are needed to achieve its goal. Comparing to conflict type 2, the blocking behaviour that is done by one party happens in the stage of cooperation or interdependent activities. One party who has more power can interfere another party's activities to achieve its goals. In addition, in conflict type 3, the blocking behaviour can be happened in both stages: shared resources and activities to achieve goals.

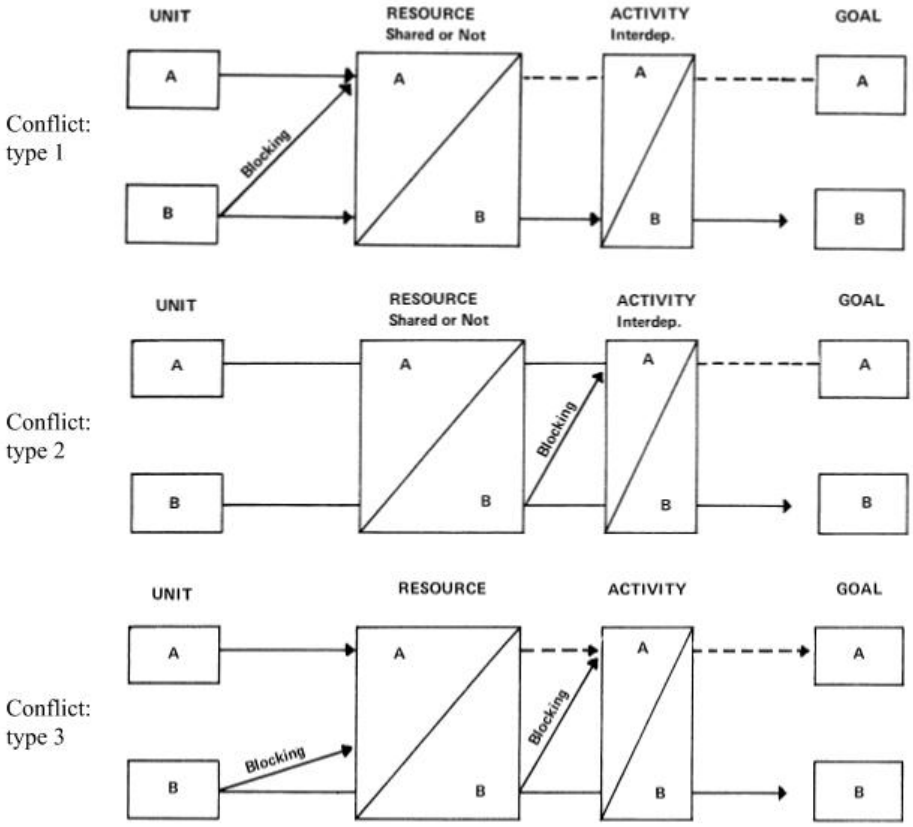


Figure 2.3
Three types of conflict.
Source: (Schmidt and Kochan, 1972, pp.364-365) .

It is prevalent that a conflict brings a considerable changes in many aspects within the society, such as: economy, social, psychology, and urban development. All of these aspects are connected to each others and eventually affect the urban development. Specifically for urban development, Collier et.al. (2003) mentioned that a conflict, such as war, is the reverse of urban development. The reverse of urban development is characterised with several phenomena in postwar conditions, such as: unstable urban economy, public policies that is less inclusive and it has a potential to emerge new conflict, also public sector and public services provision are less well managed. These conditions have emerged several social impacts within the society. The major social impact within the post war society is the loss of social capital, which is trust between society and the state. The trust breaks due to conflict, incapability of the state to recovery, and the perception of corruption that happens within the government institutions. Modell and Haggerty(1991) also mentioned other social impacts of a conflict, which are considerable change in both family structure and demographic structure in national and local level, trauma, and increased infant mortality for children due to inadequate health care facilities(Goldson, 1996).

After the Kosova War in 1998, Prishtina, as the capital city of Kosova and many other cities with the postwar situation, experiences challenges in many aspects, such as urban development, environment, institutional, social, and cultural aspects. The biggest challenge that Prishtina is dealing with at the moment is informal urban expansion. According to Gollopeni(2015), Prishtina has a rapid economic growth after the war because of its establishment as a capital city of Kosova and it received financial aid from international

organisations. Due to the concentrated development and the absence of postwar reconstructions in other cities in Kosova, there has been a massive internal migration to the capital city. As the result, illegal constructions emerged and Prishtina grows informally and uncontrolled (Gollopeni, 2004). This phenomena causes another challenge, which is live quality issues, such as water pollution, lack of proper infrastructures, lack of green open spaces within the city (Ministry of Environment and Spatial Planning, 2004). In addition, the illegal constructions emerge because the integrated planning remains absence and the municipality is incapable to manage a massive post war urbanisation. This incapability is caused by a corruption that happens within government institution (Gollopeni, 2016). Moreover, it seems that Prishtina also experiences the loss of trust, as a crucial social capital, between the society and the state. It is stated clearly by United Nations Office on Drugs and Crime (2011), who conducted a survey with the residents of Prishtina. The result showed that residents in Prishtina, has ever experienced bribery while having a contact with governmental institutions (municipality, public hospital, and police department) and furthermore, municipality and the government institutions are placed as the corrupt institution in Kosova from residents' perspective. In addition, Summerfield (2002) noted that the residents are in the progress of recovery from trauma of conflict, although Kosova, as a state, is still in struggle with Serbia, due to its independence in 2008.

2.6 The Correlation between Perception of Road Safety and Post-Conflict Society

Previous section explains how a conflict has a considerable impact on several aspects within the society, including psychology and urban development. A high conflict, such as a war, has been demolished major infrastructure within the city, including in the case of Pristina. As Gollopeni (2004) mentioned, Pristina has been grown informally by having uncontrolled illegal constructions due to postwar rapid urbanisation and the absence of integrated planning in municipality of Pristina. In addition, a conflict, no matter it is a high or low level of conflict, brings an influence to the society, especially in the process of creating a perception of road safety in at least three ways. From the socio-spatial perspective, a war reconstructs the existing infrastructures and there are differences in the postwar infrastructures. This new infrastructures give new experiences to the society in experiencing a spatial environment(Golledge and Stimson, 1997a). Furthermore, it is obvious that a conflict has a considerable effect in psychological manner. According to Modell and Haggerty(1991), a conflict can bring a trauma to the society that will last longer than the physical injuries. The trauma that is experienced by the society influences the perception of safety. According to a study that was conducted by Nissen et.al. (2015) , found out several interesting findings. First of all, proximity with the conflict area is the main factor that affects the perception of safety in postwar society. It is because people, who have much exposure to the conflict area, have higher degree of post traumatic stress reactions. As the result, they have less feeling of safety while being in public spaces. Second finding is, gender and age are two elements of residents' profile, which have positive relation in the process of creating a perception of safety. This study showed that women and elderly have less feeling of safety in public spaces. The last, a conflict brings various physical changes to people who were suffering from injuries during the war. These physical changes affect the sensory and spatial cognitive ability in experiencing spatial environment. As Golledge and Stimson(1997a) and Ratey(2001) stated, sensory is the receiver of information that are given by the environment. The disturbance in sensory affects spatial cognitive ability also how people perceived the safety.

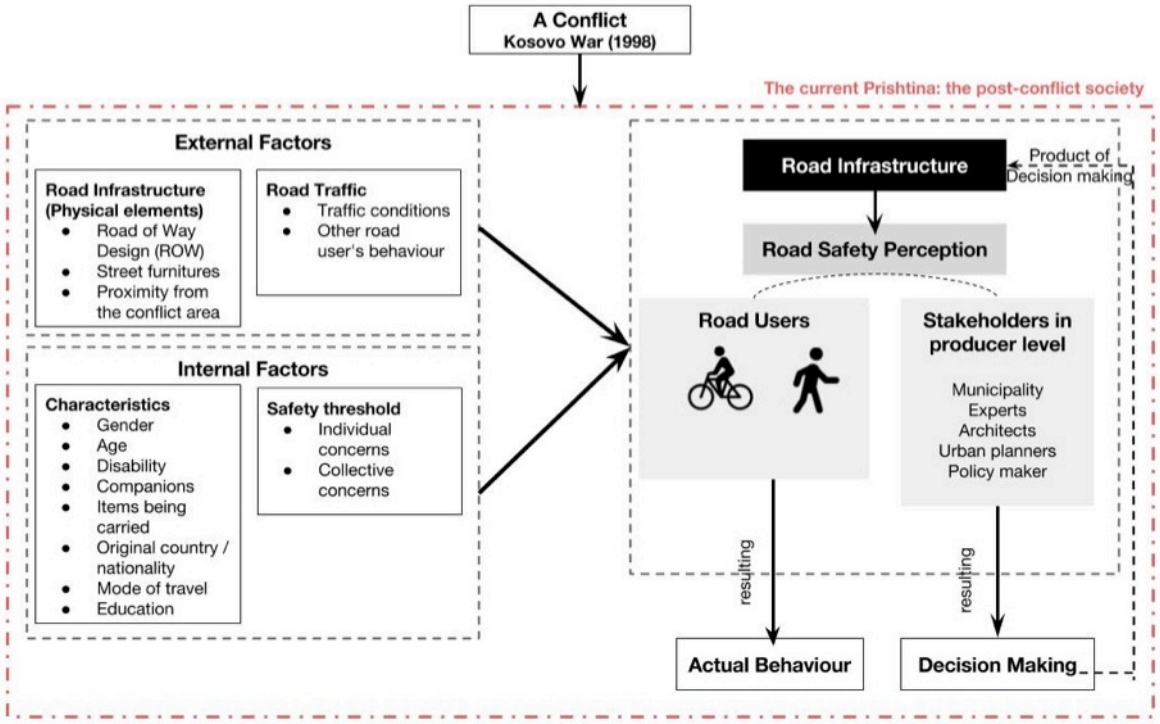


Figure 2.4
Conceptual framework.
(Image is own constructed)

2.7 Conclusion

Based on the aforementioned explanations in previous sections, it can be understood that the road safety is perceived differently by both producers also pedestrians and cyclists, as the road users. From the producer's perspective, external elements, such as the road infrastructure and the behaviours of the drivers are more dominant comparing to the internal elements that are rather homogeneous. Furthermore, pedestrians and cyclists have various perspectives in perceiving the road safety due to the adjacent elements in their profiles, individual ability, and collective values, as can be seen at Figure **2.5**. Despite of various perceptions of road users, physical elements of road infrastructure are the dominant external factor that shapes their road safety perception. In short, physical elements of road infrastructure are perceived as the dominant factor, which shapes the road safety perception from both sides, producers and road users level.

In relation with the conflict that happened in Prishtina, Kosova, academic literatures noted that there are considerable changes in road infrastructures as the spatial environment and the road safety perceptions that are generated by both producers and road users, due to this conflict. Society with post conflict experiences has considerable differences with the society without the experiences of a conflict. Based on the academia, there are some factors from both internal and external factors that give a considerable influence in the process of perceiving the road safety. They are certainly proximity to the conflict areas, gender, age, individual cognitive ability, and the last, sensitivity to the messages from the environmental stimulus.

Chapter 3: Research Design and Methods

3.1 Introduction

Different from previous chapter that discussed a theoretical part of this study, this chapter provides the methodological part of the study, namely research design. This chapter has two objectives. Firstly, this chapter aims to introduce the methodological and rationale of this study. Secondly, this chapter helps to structure this study by showing all elements in this study, including research strategy, research methodology, operationalisation, and sampling methodology, working together in a collaboration to address the research questions in this study. Furthermore, eight sections will follow this section. Section 3.2 discuss the adjustment that has been made in formulating research questions in this study, meanwhile research strategy and research methodology that are used in this study will be discussed further in Section 3.3 and Section 3.4. Moreover, the translation of conceptual framework into practical matters of this study will be discussed in Section 3.5. In Section 3.6, 3.7, and 3.8, will discuss further in how sample is formulated and how data is acquired. Discussing the validity and reliability of this study in Section 3.9 closes this chapter.

3.2 Revised Research Questions

The main research question for this study is:
How is the perception of road safety shaped from the perspective of pedestrians and cyclists as road users and the perspective of stakeholders as producer of a road safety strategy in Prishtina, Kosova?
The sub research questions for this study are:

- Which elements do shape the perception of road safety of pedestrians and cyclists as road users?
- How is the relation between various characteristics of pedestrians and cyclists and their perception of road safety?
- Which elements do shape the perception of road safety from the perspective of stakeholders as producer of a road safety strategy in Prishtina, Kosova?
- How do the road safety perceptions of road users and producers relate to each other?
- How do these elements of road safety perception from both perspectives (road users and producers) play a role in their behavior and decision making process?
- What are the nature of the interactions between the elements that shape perception of road safety with the context of Prishtina as a post-conflict society?

3.3 Research Strategy

Research strategy that used in this research was case study research strategy. Case study is a research strategy that uses a single phenomenon or several phenomena at a single point in time or over some period of time in a real-life setting as the point departure of the research (Gerring, 2006, van Thiel, 2007). In a nutshell, case study research strategy has several characteristics that match with the situations of this study, for at least in three ways. Firstly, case study is the only research strategy that uses the context as the point of departure in the research to examine the interaction between the phenomenon and the context (Burawoy,

1998), which in this case, context is really important in studying the perception of road safety, since safety is defined differently based on several preconditions, for instance: the nature of society (tradition and social values), the degree of economic development, individual preferences, also location and time (such as: geographical conditions, daytime, and nighttime) (Elagin, 1996). Secondly, case study research strategy usually has small number units of analysis, but large number variables (van Thiel, 2007), in this case, producers of a road safety strategy in Prishtina and road users (pedestrians and cyclists) are the unit of analysis, however this study has large number of factors, as the first variable, that shape the perception of road safety. This study aimed to explore what are these factors and how these factors are connected to each others and to the context of Prishtina. Lastly, case study strategy is often used to get an in-depth understanding about certain phenomena that has not been much studied before in order to build a theory. In addition, case study strategy is commonly used in inductive type of research (Eisenhardt, 1989). Since the topic of perception of road safety from pedestrians' and cyclists' perspectives have not been much explored in academia due to the difficulties to study the various behavioural intentions and their responses while interacting with the traffic situations (Vissers, van der Kint, et al., 2016), this study requires the inductive type of research to address the research question in this study and it is obvious that case study is the right research strategy to help answering the aforementioned research questions.

This study uses a single case study, which was the road safety in urban zone of Prishtina, Kosova. The case study was chosen because urban zone is given more priorities for pedestrians and cyclists due to the number of pedestrians and cyclists that are higher compared to the rural areas of the Municipality of Prishtina. In addition, the traffic accidents that involve pedestrians are located within the urban zone of Prishtina.

3.4 Research Methodology

The focus of this study is exploring the elements or factors that shape the road safety perception from two perspectives, which are producers of a road safety strategy and pedestrians and cyclists as the road users, also explaining how those elements are connected and interacted with the post-conflict society context. By considering the aforementioned focus of this study, ethnography is the required research methodology in conducting this study. According to O'Reilly (2012) and Kimbel (2015), ethnography is an iterative-inductive qualitative research methodology that is originated from anthropology and commonly used for investigating socio-cultural structures and human experience in everyday life. Angrosino (2007) highlighted three main characteristics in ethnographic methodology, which strengthens the arguments why ethnography has been chosen to conduct this study. First characteristic is the use of ethnographic methodology to identify social issues or behaviours that have not clearly discovered and understood in academic literature. As mentioned in the previous chapter, the perspectives of pedestrians and cyclists seem forgotten in road safety academic literatures. The prevalent literatures refer road users to merely car drivers or motorists, although pedestrians and cyclists are the most vulnerable road users (Vissers, van der Kint, et al., 2016). Furthermore, ethnography is characterised as the methodology that is worth to get people's perspectives in a specific issue, in this case is road safety. The last characteristic is related to how ethnographic research should be conducted. Ethnographic research should be conducted in the natural everyday life setting; in this case studying road safety is the topic that is experienced by every one in everyday life. Perception of a certain topic, in this case is road safety, can influence how people make a decision in

designing a road safety strategy and behave in a certain manner on the streets in regular basis. In addition, ethnography is the suitable methodology to seek the answers for this study because the statistic data of traffic accidents only rely on the reports that are made by the residents (Tisca, Istrat, et al., 2016). It means that the level of information bias in the statistic of traffic accidents are quite high, so it is needed to conduct a study that can touch the real situation on the ground by having the road users' opinion in everyday basis. Using ethnographic methodology in public administration and political studies has much benefits comparing with other methodologies because it provides qualitative data that based on reality that happens on the ground. This type of information cannot be achieved only by having a survey or any other quantitative methodologies (Dubois, 2009). Another benefit that can be achieved by having ethnography is the possibility to identify the causes, processes, and outcomes of dynamic interactions between actors or stakeholders through explanation of their behaviours (Auyero, 2006). However, ethnographic methodology has a limitation due to its precondition. This methodology can only be applied effectively to the target group that has extrovert expressions (Geertz, 1994). This limitation could be overcome by combining other methodologies while using rapid ethnographic assessment procedures, for instance focus group discussions in gathering the data, so the accuracy of information through ethnographic methodology can be achieved (Taplin, Scheld, et al., 2002). Further explanation how rapid ethnographic assessment procedures will be applied in this study could be found in Section 3.7.

3.5 Operationalisation: Variables and Indicators

This section transforms the theoretical part of this study to the practical part of this study by defining the variables that are used in this research and breaking down these variables into indicators for each variable that is used to guide the ethnographic procedures. The overview definition of the concepts that are used in this study can be seen in the **Table 3.2** below. In addition, the measurements and indicators of the variables are discussed further in the **Table 3.3**.

Table 3.2
Definitions of the Concepts

Concept	Definitions
Internal elements of road safety perception	Internal elements of road safety perception are one or **several things that are attached upon individual** and influence the perception developing process upon individual (Golledge and Stimson, 1997a). Academic literatures underlined that there are two internal elements that shape the road safety perception, which are **characteristics of the road users** (in this case, pedestrians and cyclists) and **safety threshold** (Kaparias, Bell, et al., 2012, Ferrer, Ruiz, et al., 2015, Pikora, Giles-Corti, et al., 2003, Ampofo- Boateng and Thomson, 1991, Basha, 2005).
External elements of road safety perception	External elements of road safety perception are one or **several things that are given by the environment**, which can influence the perception developing process (Golledge and Stimson, 1997a). Elements that are recognised as external elements of road safety perception are **physical elements of road infrastructure** and **traffic**

	conditions (Kaparias, Bell, et al., 2012, Ferrer, Ruiz, et al., 2015, Pikora, Giles-Corti, et al., 2003, Ampofo- Boateng and Thomson, 1991, Basha, 2005).
Perception of road safety	Perception of road safety in this study is defined as a cognitive process resulted **a subjective judgment** that is made by individuals **concerning the probability of traffic accidents risks** that would be happened (Golledge and Stimson, 1997a, Slovic, Finucane, et al., 2004, Hansson, 2013). As a cognitive process, perception of road safety can be measured by two factors, which are **dread risk factor** and **probability risk factor** (Golledge and Stimson, 1997a, Slovic, Finucane, et al., 2004, Hansson, 2013).

(Table is own constructed)

Table 3.3
Operationalisation of the Variables

Concepts	Variables	Indicators
Internal elements of road safety perception	**Characteristics**	• **Gender** - Female - Male • **Age** - Adolescent children (10-18 years old) - Adults (19-59 years old) - Elderly (>59 years old) • **Disabilities and handicaps** (WHO,1980) - Communication disability (speaking, listening, and sight disabilities) - Locomotor disability (ambulatory and confining disability) - Mobility handicap (wheelchair users) • **Companions** - Alone - Walking in a group - Walking with family member - Walking with children - Walking with elderly • **Education level** - Elementary school - High school - Higher education (undergraduate, graduate, and postgraduate)
	Safety threshold	• **Individual concerns** - Traffic regulation knowledge - Traffic accidents experience

		• **Collective concerns** - Traffic regulation education - Social values - Social constraints
External elements of road safety perceptions	**Physical elements**	• **Rights of Way (ROW) design** - Sidewalks (clear demarcation, dimension, & pavement condition) - Pedestrian crossings (location, spacing, marking, signalisation, crossing distance,width, visibility, grade separation, speed bump) - Pedestrian refuge (pedestrian refuge island, median, median cut through) - Sidewalk extension (corner alignment, bulb-out, slip lane removal) - Universal accessibility for disability (ramps and guidance for visually impaired) - Signage and wayfinding (quality, location, size) - Buffer (landscape, parking on street) • **Street furniture** - Pedestrian countdown signals - Pedestrian lighting - Crash cushions - Bollards - Fences - Guardrails - Seating
	Traffic	• **Traffic conditions** - Traffic volume - Traffic speed - Time (day and night / weekdays and weekend) • **Behaviour** - Crossing behaviour - Distraction activities - Traffic regulation obedience
Perception of road safety	**Perceived probability of traffic accident risk**	• **The degree of chance of traffic accident risk occurrence** - Low degree of chance

		(scale: 1-2-3) - Moderate degree of chance (scale: 4-5-6) - High degree of chance (scale: 7-8-9)
	Perceived traffic accident risk severity	• **The degree of awareness of traffic accident consequences (injury, death)** - Low degree of awareness (scale: 1-2-3) - Moderate degree of awareness (scale: 4-5-6) - High degree of awareness (scale: 7-8-9)
	Perceived dread risk of a traffic accident	• **The degree of fear of experiencing traffic accident in everyday life** - Low degree of fear (scale: 1-2-3) - Moderate degree of fear (scale: 4-5-6) - High degree of fear (scale: 7-8-9)

(Table is own constructed)

3.6 Sample Size and Selection

Purposive sampling method is the sampling method that was used in this study. According to van Thiel (2007), a sample is "a selection from the total population (N) of possible units of study". Based on this understanding, a sample refers to a unit of analysis that the researchers make based on several reasons. There are two types of sampling methods, which are: probability sampling methods and nonprobability sampling methods (purposive sampling methods). The decision making in choosing the sampling methods should be based on what type of generalization that is needed in generating the result. Onwuegbuzie and Collins (2007) mentioned that generalization could be made statistically or analytically.

"*...statistical generalisations which involve generalizing findings and inferences from a representative statistical sample to the population from which the sample was drawn. … "analytic" generalizations, which are applied to wider theory on the basis of how selected cases 'fit' with general constructs*" (Onwuegbuzie and Collins, 2007, p.283).

Furthermore, nonprobability sampling methods or so called, purposive sampling methods are sampling methodologies which researchers make a selection of certain units of analysis based on the theory to obtain in-depth insights of particular phenomena (van Thiel, 2007, Onwuegbuzie and Collins, 2007). In this study, two methods that are part of purposive sampling methods were chosen. These are snowball sampling and quota sampling methods. These two sampling methodologies were chosen because of two main reasons. The first

reason is because this study demands an in-depth knowledge of elements that shape a perception of road safety in the context of Prishtina, Kosova. Due to its demand, samples should be chosen based on their experiences in designing a road safety strategy in Prishtina or knowledge in road safety issues in Prishtina. Secondly, current academic literatures argued that age and disabilities have dominant influences to the process of developing road safety perception for both pedestrians and cyclists. This reason explains why age and disabilities become the basis of quota sampling for pedestrians and cyclists in Prishtina (**Table 3.3**).

In this study, snowball purposive sampling method was used for stakeholders as producers of a road safety strategy in Prishtina, Kosova. The researcher lets an interviewee giving a guide to other stakeholders who are involved in designing a road safety strategy and have capabilities and knowledge in road safety issues in Prishtina. These stakeholders could be governmental institutions, non-governmental institutions, experts, and private entities. Furthermore, quota purposive sampling method is used to gather information from road users (pedestrians and cyclists). Pedestrians and cyclists are categorised based on age, as the basis of the quota, and they will be asked for their perception of road safety based on everyday experiences. The researcher stopped gathering data from road users when saturation within quota (age and disabilities) has achieved by having no new information from the respondents.

Table 3.4
Sampling Methodologies and the Compositions of the Sample

Sampling Methods	Target Groups	Compositions
Snowball purposive sampling	Group 1: Stakeholders in producer level of road safety strategy	This group consists of all public institutions, experts, private entities, and organisations that play a role in designing a road safety strategy or plan in Prishtina, Kosova.
Quota purposive sampling	Group 2: Pedestrians in Prishtina who use walking as their transportation mode in everyday basis	The basis of quota: age and disability • Adolescent children (10-18 years old) • Adults (19-59 years old) • Elderly (>59 years old)
	Group 3: Cyclists in Prishtina who use bike as their transportation mode in everyday basis	The basis of quota: age. • Adults (19-59 years old).

(Table is own constructed)

3.7 Data Collection Methods

Data collection methods that are used are a combination between quantitative data collection methods and qualitative data collection methods. Since, ethnography is used as the research methodology of this study, content analysis as secondary quantitative data collection methods and rapid ethnographic assessment (Taplin, Scheld, et al., 2002) as primary qualitative data collection methods. The data collection methods in this research will be divided into two phases, as follows:

- First phase
  First phase of data collection method focuses on getting general mapping and understanding about the issues of road safety in Prishtina. Secondary quantitative data

(traffic accident statistic data and reports) and qualitative primary data will be gathered in this phase. In the first phase, these data will be collected by having preliminary observations, focus group discussions, and mental/cognitive mapping. The objective of the first phase of data collection is to get general understanding of road safety issues focusing on pedestrians and cyclists, elements that shaped their perceptions and locations within the urban zone of Prishtina that are perceived as unsafety by the respondents and have high number of traffic accidents that involve pedestrians and cyclists.

- Second phase
  Second phase of data collection focuses on primary quantitative data and primary qualitative data collection by using observations and semi-structured interviews. In this phase, researcher will observe several locations that have saturation between unsafety perception by pedestrians and cyclists and the actual unsafety due to high number of traffic accidents. The researcher will mainly focus on external elements of road safety, such as: physical elements and traffic conditions, during the observations. Moreover, in order to get in-depth understanding of what actually happen on these locations, the researcher will use semi-structured interviews with the experts.

Further explanation of data collection methods and type of data that will be acquired for each method can be seen in **Figure 3.1** and **Table 3.5**.

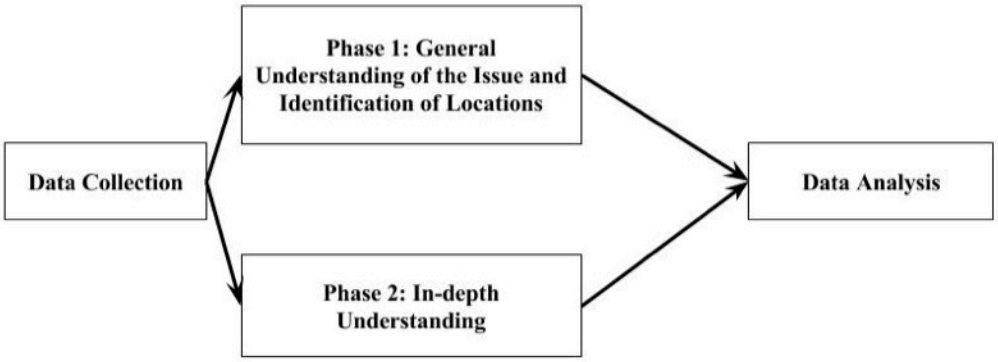


Figure 3.1
Steps in the data collection methods of this study.
(Image is own constructed)

Table 3.5
Data Collection Methods and Type of Acquired Data

Data Collection Methods	Type of Data	Type of Information
Phase One		
Preliminary observation	Quantitative primary data	• Unsafe locations for pedestrians and cyclists. • Traffic accidents locations. • Internal elements that shape road safety perception for pedestrians and cyclists. • External elements that shape road safety perception for pedestrians and cyclists. • Behaviours of pedestrians and cyclists.
Focus group discussions	Qualitative primary data	• General understanding in road safety issues in Prishtina from pedestrians and cyclists' point of views.

		• Understanding in how pedestrians and cyclists in different characteristics perceived probability of traffic accident risk. • Understanding in how pedestrians and cyclists in different characteristics perceived the main causes of traffic accidents in Prishtina. • Elements that shape their perceptions of road safety. • Understanding in how pedestrians and cyclists in different groups perceived traffic accident severity. • Understanding in how pedestrians and cyclists in different characteristics perceived dread risk of traffic accidents.
Mental/cognitive mapping	Quantitative primary data	• Identification of unsafe and safe experiences in particular locations within the urban zones of Prishtina.
Phase Two		
Observations	Quantitative primary data	• Physical elements and traffic conditions in several locations within urban zones Prishtina and in different time.
Semi-structured interviews	Qualitative primary data	• Elements that shape their perception of road safety. • In-depth understanding in how the experts designing road safety strategy, traffic regulations, and road infrastructure. • In-depth understanding in how safety is being defined by the experts. • High risk of traffic accidents locations.

(Table is own constructed)

3.8 Data Analysis Methods

Quantitative and qualitative data that are gathered analysed by using computer-assisted NCT analysis methodology. According to Friese (2014), NCT is steps in analysing data that consists of noticing interesting things in any forms of data, collecting similar things under the same code, and thinking the relationship between codes that are discovered. In this study, ATLAS.ti software will be used to help in analysing acquired data. This method is used because of its benefits. First benefit underlines the effectiveness of this methodology in term of time. By using a computer-assisted analysis programme, data can be analysed systematically, easily, and much less time consuming. Second benefit lies on the validity of research result. This methodology allows researcher to easily falsify or verify in developing theoretical thoughts based on empirical data, because of structured documentation. The last benefit of using this data analysis methodology is the possibility to combine quantitative and qualitative data analysis easily.

The computer-assisted NCT analysis is chosen as the data analysis method in this research due to its benefits, that are

Data that were gathered during the fieldwork, through observations, interviews, and focus group discussions, were well recorded. In the next step, data were coded by using qualitative data analysis software, ATLAS.ti, and categorised based on three main categories, which are road users' everyday experiences, internal and external elements that shape road safety perception from two perspectives used in this study: road users and producers. Data analysis part can be seen in Chapter 4 of this thesis.

3.9 Validity and Reliability

Validity and reliability are two aspects that are often used to review a research, no matter whether the research is quantitative or qualitative. However, both validity and reliability are vague concepts that are defined differently based on the researcher and the type of study that they conduct. For the purpose of this study, reliability is a concept that is used usually for testing or evaluating a research, based on the accuracy and consistency of the research (van Thiel, 2007, Golafshani, 2003). Accuracy in qualitative research means that the research instruments should capture the measurement of the concepts as precise as possible. In other words, when a researcher should operationalise the conceptual framework punctually into researchable measurements. Another aspect of reliability is consistency, which refers to the possibility to get a same result if the research is conducted under the same circumstances (van Thiel, 2007). Furthermore, validity refers to the truthfulness of a research internally and externally (van Thiel, 2007). Internal validity is related to "the correlation of research methods and the purposes of the research, rather than any universal or standardised test or procedure " (Winter, 2000, p.14). In addition, external validity is the ability of a research to generalise the result (van Thiel, 2007).

In this study, three following strategies are used to maintain validity and reliability of this study, as follows:

- Keeping the objectivity during the research
  Golafshani (2003) mentioned that a qualitative research could be valid and reliable if the researchers are keeping their objectivity by sticking to these principles: credibility, neutrality or confirmability, consistency or dependability and applicability or transferability. In the ethnographic research, it is important to use open questions during the interview, without any intention to steer the interviewee to a certain direction.
- Triangulation
  Triangulation is defined as a cross-examine methodology by using multiple methods or research instruments, data sources, and researchers (Mathison, 1988). In this study, triangulation is represented by having mixed data collection methods (quantitative and qualitative data collection methods), various data sources (primary and secondary data).
- Structured and systematic documentation
  All data, both qualitative and quantitative, that are collected in this research will be recorded and saved in structured and systematic documentation by using ATLAS.ti programme as the computer-assisted NCT analysis programme.

Chapter 4: Research Findings and Data Analysis

4.1 Introduction

This chapter aims to describe the findings that found on the ground while doing a fieldwork and having interactions with the target groups, followed by a discussion of the analysis of those findings. The findings are analysed to identify what the elements that are shaped the perception of road safety for each target group (producers and road users), how these elements shape their perceptions of road safety, and what are the differences, similarity, and overlapping between producers and road users when it comes into road safety perception. The findings are eventually examined in order to answer the research questions that guided the study. More over, this chapter is structured into four sections, started with the general information of Prishtina, as the location where the study is conducted in **Section 4.2**. **Section 4.3** gives a description regarding the road safety in Prishtina, as the case study. In addition, **Section 4.4** explains the findings on the ground from each perspective of target groups, followed by the data analysis in **Section 4.5**.

4.2 General Information of Prishtina

Figure 4.1

Kosova map and its municipalites (Map is own constructed).

Notes: First line indicates the name of districts in Albanian nomenclature and second line (in the bracket symbol) indicates the name of districts in Serbian nomenclature. In addition, the municipalities name is in Albanian nomenclature.

Prishtina is not only the capital city of Kosova, the youngest country in the European continent who got its independence in 2008, but also one of the capital cities of provinces in Kosova, altogether with Prizren, Ferizaj, Peja, Gjakova, Gjilan, and Mitrovica. As the background information, Kosova is located in the Balkan-Peninsula region and it was part of Serbia during the socialist era of The Socialist Federal Republic of Yugoslavia (SFRY) in 1945 until 1992. Before discus further about Prishtina, it is important to mention that Republic of Kosova is divided into seven districts that have the similar name with the major cities in Kosova (see **Figure 4.1**), which are District of Prishtina, District of Prizren, District of Gjilan, District of Peja, District of Mitrovica, District of Ferizaj, and District Gjakova. In addition, it is also crucial to underline that there are two versions of cities, districts, and streets nomenclatures in Kosova., which are done with two languages: Albanian and Serbian, because Kosova was part of Serbia before 2008. However, for the purpose of this thesis, Albanian nomenclature is used to mention cities, districts, and streets name. The case of Prishtina is quite unique because streets name can be altered based on the political dynamics in national and local level.

The District of Prishtina is located in the east part of Kosovo and consists of seven municipalities, as can be seen in **Figure 4.1**. In addition, the Municipality of Prishtina is located in the District of Prishtina and it covers geographical area 572sqkm (OSCE, 2015) that consists of urban area and rural area (see **Figure 4.2**). According to Kosova Statistic Agency (2013) and Municipality of Prishtina (2013), the Municipality of Prishtina has fourty villages included in rural area and there are fifteen neighbourhoods within the urban area.

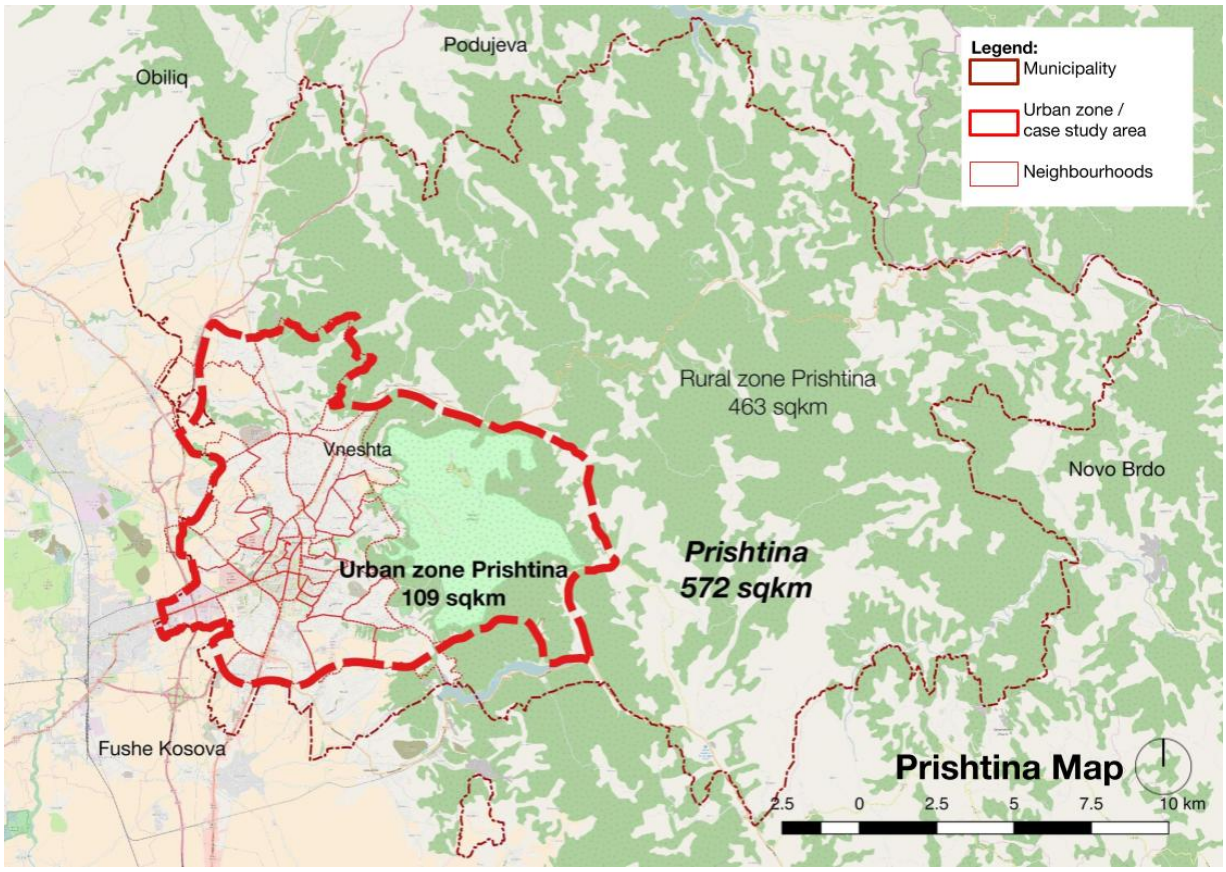


Figure 4.2
Urban zone and rural zone of Prishtina.
(Map is own constructed)

In term of urban development, Prishtina and Prizren are two cities in Kosova, that have the longest history in urban development. History noted that the earliest settlements in Prishtina began in Dardani period (4th Century BC – 2nd Century BC. Urban development in Prishtina was characterised by the demolition of several Turkish-style architectural buildings and development of public buildings with a modern architecture, such as 'Le Corbusier style' apartment blocks in Ulpiana neighbourhoods, Grand Hotel, Kosova National, and Youth and Sport Centre (Mydyti, 2013). Moreover, according to Gollopeni (2016), the current Prishtina is facing urban challenges at least in three areas: spatial, governance, and socio-economic. One of them is illegal constructions resulted an uncontrolled urban expansion. This phenomenon had been happening since 2000, right after the Kosova War ended (Pula, 2013), due to the massive urbanisation, which started after the Kosova War followed by the migration influx to the city and expansion of urban area to the surrounding peripheral areas. Based on the Regulation No. 2000/53 regarding Construction in Kosova, illegal construction is mentioned as any construction activities that happen but oppose the existing urban regulatory plan and have an absence in construction permit (Government of Kosovo, 2000). Lack of integrated municipal plan is also the reason why it happens and the consequences of this phenomenon are decreased quality of life, lack of green open spaces, lack of proper infrastructure, and water supply scarcity (Ministry of Environment and Spatial Planning, 2003). Building contractors did not put any considerations to the existing environments while constructing new buildings and as a result, the main infrastructures remained the same as before the War happened, albeit the population density in Prishtina has increased significantly after the War (Gollopeni, 2004). Municipality of Prishtina is adjudicated has failure in delivering its task in term of administrative provision, which is indicated by the lack of integrated municipal plan, because of corruptions within the municipal bodies, especially during the process of issuing a construction permit (UNODC, 2011). However, Spector (2003) explained further about this case. He mentioned that low salary is the root problem of corruption that happens and he confronted the previous argument, by saying that corruption is not a pervasive action that affects the services provision in Prishtina. In addition to the urban challenges that Prishtina encounters, considering its post-conflict society context, there is a lack of trust and collaboration between public entities resulted a huge gap in regulatory framework and urban management system (Augustinus, C. and Barry, M., 2004).

In term of population, Prishtina is the most densely populated city in Kosova among the others big cities in Kosova, 348 inhabitants/sqkm, followed by Ferizaj with 315 inhabitants/sqkm, Prizren with 284 inhabitants/sqkm, Gjilan with 234 inhabitants/sqkm, Gjakova with 161 inhabitants/sqkm, and Peja with 160 inhabitants/sqkm (Kosovo Agency of Statistics, 2013, OSCE, 2015). Based on the group of age, population in Prishtina is dominated by the young and productive population (0-59 years old). In addition, Albanian is the majority of ethnic group in Prishtina (OSCE, 2015). As a new country, the political situation in Kosovo is remarkably dynamic. The national election is held in four years and recently, in June 2017, Kosova did the third national election since its independence. In addition, Kosova will have the municipal election in October 2017. Governance structure in Kosova could be differentiated into two levels: the national government and the local government (the Municipality). National government consists of the Kosova Prime Minister, Deputy Prime Minister, Ministries, and the Kosova Assembly. Local government consists of the Municipality and the Municipal Assembly. Constitutional Framework for Provisional Self-Government in Kosovo (2001) mentioned that local government as a self-governance body that has an administrative and political decentralization. It means there is a transfer of power from the central government to the local government and local government has an

authority to develop its own rules and to fulfill its local needs independently, but this capacity is given without the financial capacity (Republic of Kosova, 2008).

4.3 Case Study Profile: Road Safety in Prishtina

Road safety situation in Prishtina

Road safety in Prishtina is chosen as the case study in this research due to the urgency of this issue nationwide as mentioned in Kosova Environmental Report (2003) and Kosova Profile (2004). **Figure 4.3** below showed the number of traffic accidents with casualties (traffic accident cases with injured and fatal severities) in Balkan-Peninsula countries (excludes Bosnia and Herzegovina and Montenegro, due to the absence of the traffic accidents data from those countries). As can be seen in statistic data, as showed in **Figure 4.3**, the traffic accidents in Kosova is above the average number of Eropean Union (EU) countries and even Balkan-Peninsula countries. In addition, Kosova has the highest number of traffic accidents in Balkan-Peninsula countries for the last five years, from 2012 – 2016. The road safety situation in Kosova is considered as unusual in EU Countries (Lenjani, Krasniqi, et al., 2013). The main cause of the novel increasing number of traffic accidents in Kosova is driving above limits, especially on the roads that have a straight profile.

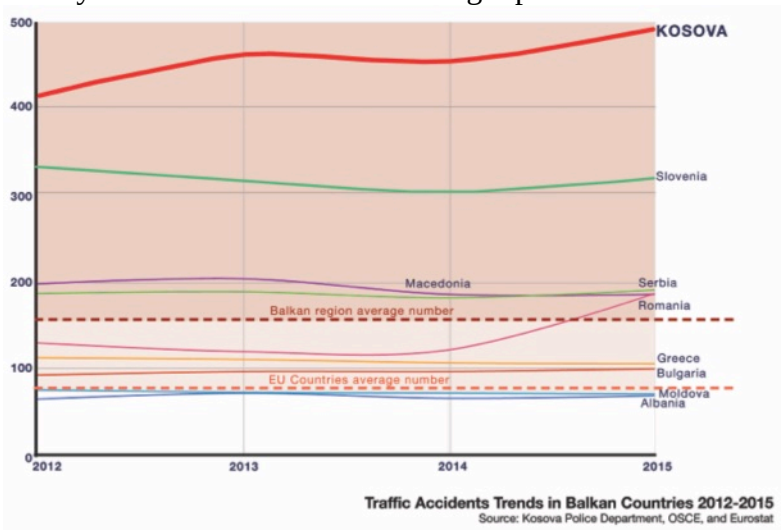


Figure 4.3
Traffic accidents trend in Balkan Peninsula countries in 2012 – 2015.
Source: Kosova Police Department, OSCE, and Eurostat.
Note: There are two countries in the Balkan Peninsula countries that are not included in this graph due to the absence of data in those countries. The aforementioned countries are Bosnia and Herzegovina and Montenegro.

As a capital city of Kosova, Prishtina is the biggest contributor of the nationwide number of traffic accidents. As can be seen in the statistic data in **Figure 4.4**, during the period of 2012 until 2016, the number of traffic accidents in Kosova is increasing, as well as in Prishtina. In average, Prishtina shares 38.40% of traffic accidents during the similar period of time. This fact highlights the importance of this issue in Prishtina. The national government and the Municipality of Prishtina should collaborate to solve this issue, while looking forward to become one of the EU member states in the framework of horizontal cohesion policy (European Commission, 2014). Road safety is an essential topic for Prishtina and Kosova since EU has a target to reduce the number of traffic accidents by 50% in 2020 (European Commission, 2010), meanwhile an effective road safety strategy remains absence until now.

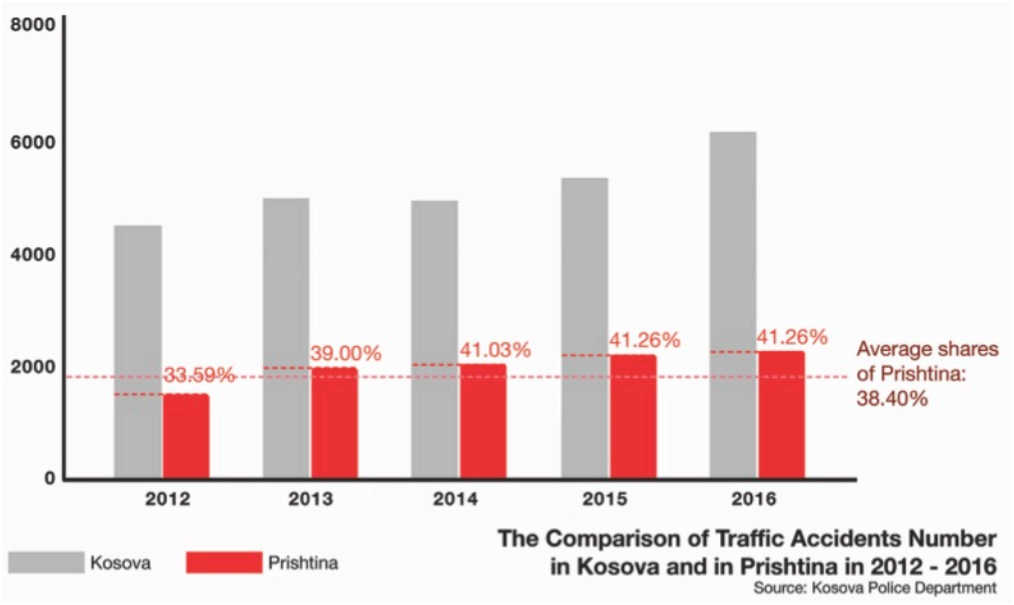


Figure 4.4
Traffic accidents trend in Prishtina in 2012 – 2016.
Source: Kosova Police Department.

Profile of two main groups of sample: producers and road users

There are two main groups of sample in this study: producers and road users. The first group consists of stakeholders that are involved in the design and planning process of road safety strategy in Prishtina, namely producers group. The stakeholders will be continuously regarded as producers in this research, mainly because their role in producing and delivering strategy and plan, also ensure the strategy and plan to be implemented on the practical level. In the context of urban zone Prishtina, it can be found two strategies and one legal framework that are regulated the road safety topic. These two strategies are Road Safety Strategy Plan 2016 – 2020 that were delivered by the Kosova Ministry of Infrastructure (Ministry of Infrastructure, 2015) meanwhile, Sustainable Urban Mobility Plan (SUMP), which is still in progress when this research is conducted, but targeted to be published by the end of September 2017. The Municipality of Prishtina with an alliance with an international consultant delivers the SUMP. Besides the aforementioned two strategies, nationwide traffic rules is regulated by the Law No. 05/L-088 on Road Traffic Provisions, which was published in 2016. The full list of producers, who are in charge in these three documents, can be seen in **Table 4.1** below. The researcher also conducted interviews with several local experts in the field of urban planning, road and traffic engineering, and sociology, in order to get deeper understanding about the topic.

Table 4.1
Sample Group 1: Producers

Scale	Strategy / Plan	Year	Stakeholders
National	Law No. 05/L-088 on Road Traffic Provisions	2016	• National Road Safety Council • Ministry of Infrastructure • Kosova Police Department
	Road Safety Strategy and Action Plan for Kosovo 2016 - 2020	2015	• Ministry of Infrastructure • National Road Safety Council • Academicians (Tempulli College)

Local	Sustainable Urban Mobility Plan (SUMP)	2017	• Municipality of Prishtina • Kosova Police Department • International Multidisciplinary Consultant (MM) • Steering committee (local experts and activists) • Civic society organisations

The second main group, the road users, is a group that consists of different categories of pedestrians and cyclists as the most vulnerable road users. The sample of this group is categorised based on their age, as follows: adolescent children (10-18 years old), adult (19-59 years old), and elderly (>59 years old). However, for cyclists who are younger than 19 years old and older than 59 years old, are not included in this research because observation discovered that they do not use a bike as a mean of transportation in a regular basis, which is the main criterion for sample in this study. In a nutshell, there are seven cyclists and 65 pedestrians that took a part in this study. A complete recapitulation of sample group 2 (Pedestrians) and group 3 (Cyclists) are presented in **Figure 4.5** below.

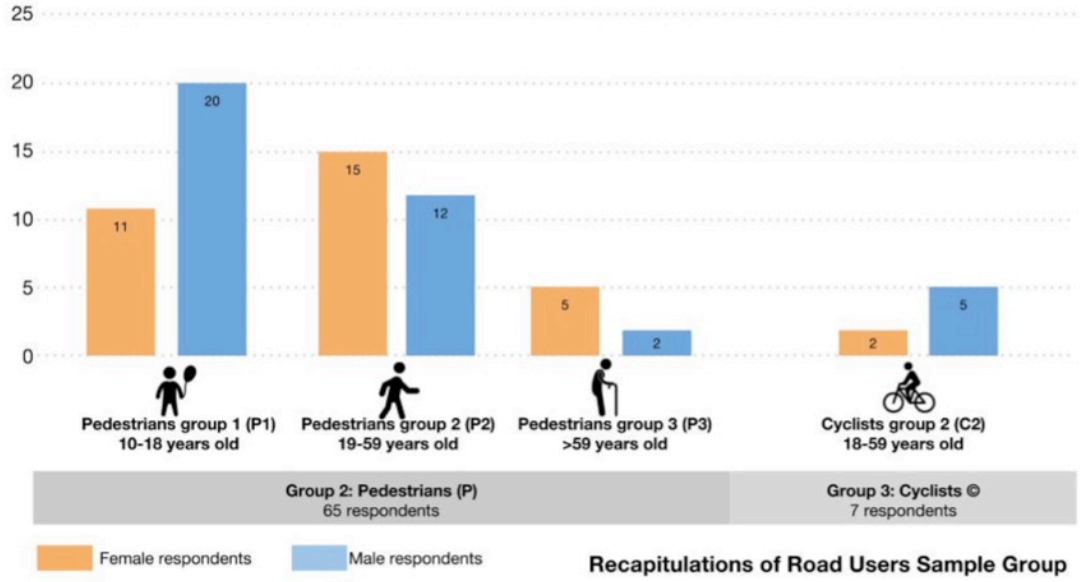


Figure 4.5
Recapitulation of sample group 2 (pedestrians) and group 3 (cyclists).
(Image is own constructed)

Observations within urban zones of Prishtina

Apart from interviews and focus groups discussions that were conducted with three sample groups, observations are also done in order to discover the everyday experiences of cyclists and pedestrians. Observations were done in seven locations within the urban zones of Prishtina, as the study area. These locations are Agim Ramadani street, Bill Clinton boulevard, Garibaldi street, Nazim Gafurri street, B road, UCK street, George Bush boulevard, and roundabout near the Prishtina Hospital. These locations are perceived as important by the Municipality of Prishtina due to the their roles as main axis within the city and by the road users as these came up frequently during the conversations (**Figure 4.6**). From the map (**Figure 4.6**), it can be seen that Agim Ramadani is the longest main road in Prishtina and the most important one because it divides urban zone Prishtina into west and east part, also connects urban zone with the rest of Municipality of Prishtina areas (rural

zone). Moreover, Bill Clinton boulevard and George Bush boulevard are not only well-known because they named after U.S. former presidents, but also they are the roads that are used the most by people who come by bus from other cities in Kosovo. According to 112 emergencies call webpage[1] (Open Data Kosovo, 2016), Bill Clinton and Agim Ramadani are two locations which have the highest number of traffic accidents during the period of 2014 - 2015 (especially for the pedestrians hit cases). History mentioned that Nazim Gafurri Street is the main road in Prishtina during the Turkish Ottoman period; this road is located in the old part of Prishtina, where all historical buildings from this period can be found. Garibaldi Street and Street B (Rruga B) are also well known among producers and road users because these streets are well known and distinct from other roads within urban zone. Garibaldi Street is newly renovated in 2010 funded by one of international organisations from Sweden and it is the only street in Prishtina that has a tactile pavement for blind pedestrians and traffic lights with sound indicator. In another word, this street is the only street, which is accessible for blind pedestrians. In addition, the last location is Street B. Street B is distinct because it is the only street that has separated bike lanes and part of Prishtina urban expansion. It is located in the newly built neighbourhoods in Prishtina (see **Figure 4.7**).

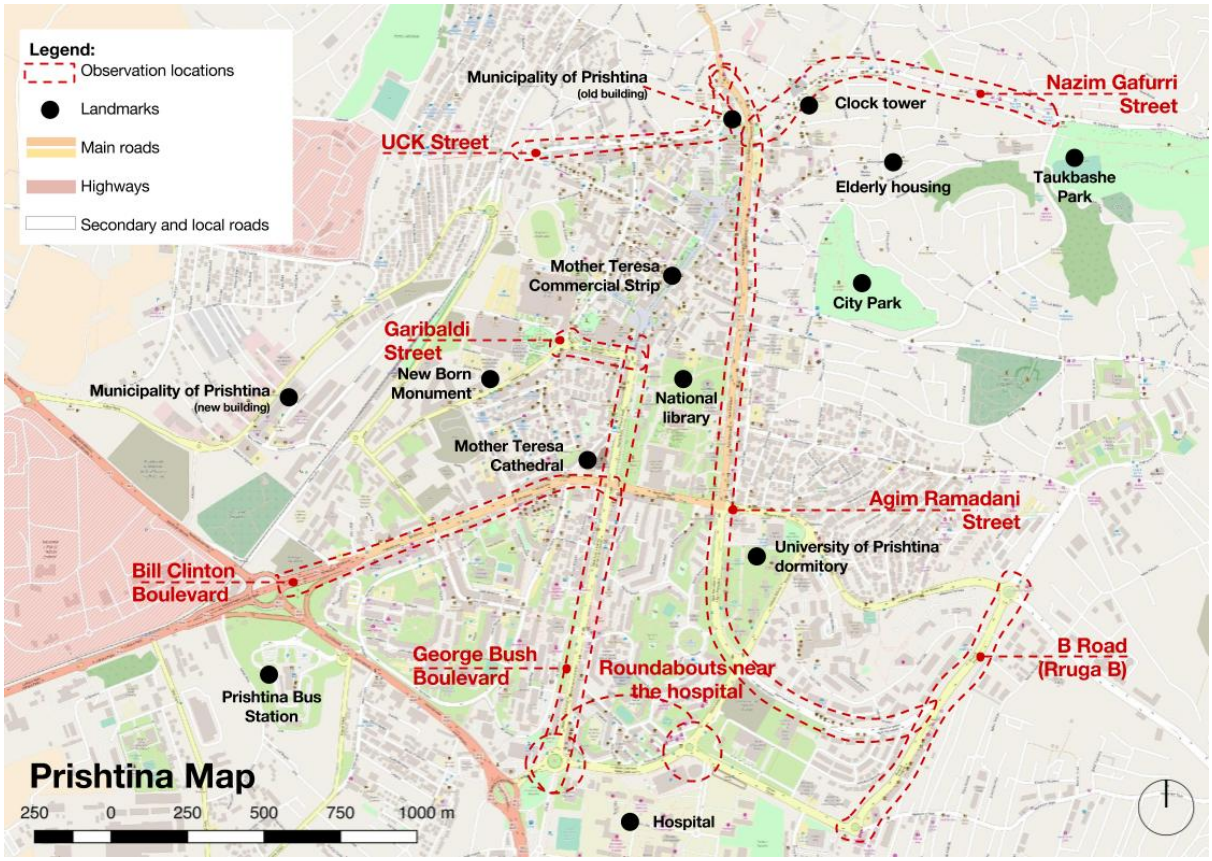


Figure 4.6
Seven focused observation locations within the urban zone of Prishtina.
(Image is own constructed)

[1] 112 emergency call is a webpage that was created by Open Data Kosovo (a local NGO based in Prishtina) funded by UNDP Kosovo in cooperation with Emergency Centre Prishtina and the Ministry of Internal Affairs where the residents of Prishtina can call this number anytime they have an emergency case, such as traffic accidents, health issue, and so on. The project was developed in 2014 and the webpage has sets of data from only two years, 2014 and 2015.

Bill Clinton Boulevard

Agim Ramadani Street

Street B (*Rruga B*)

UCK Street

Garibaldi Street

Nazim Gafurri Street

Figure 4.7
View of focused locations within urban zone Prishtina.
(Photo is taken by Yulia, 2017)

4.4 Results

This section will describe findings that have been found during the fieldwork and this section is structured based on several categories, such as road users' everyday experiences, internal and external elements that shape the perception of road safety from three sample groups: producers, pedestrians, and cyclists as road users. These results are deducted from observations, interviews, and focus group discussions, which were conducted with the aforementioned sample groups.

4.4.1 Road Users' Everyday Experiences

Cyclists' Everyday Experiences

How does it look like to cycle in Prishtina? This is the first question that should be answered in this part, as an ethnographic study. Observing cyclists who are riding their bike on the street, it can be learned that basically, cycling activity can be divided into several components of activities: when a cyclist prepares himself to go on roads, while a cyclist is riding his or her bike, crossing the streets, and when a cyclist arrives in a destination. The component of cycling activities in Prishtina is similar with cycling activities in other places, but there are several phenomena, which are interesting to describe while talking about cycling experiences in Prishtina. First of all, the usage of helmet, knee, and arm protections is a common practice in Prishtina. Based on observations that are conducted in seven locations within the urban zone of Prishtina, both female and male cyclists use helmet and other cycling protection gears while riding a bike in Prishtina. This habit is confirmed by respondents (see **Quotations 4.1**), albeit it is considered as optional for cyclists who are older than 16 years old based on the Law No. 05/L-088 on Road Traffic Provisions, as the new law that regulates traffic and road safety in Kosovo (Republic of Kosova, 2016) (see **Quotation 4.3**). However, one of respondents contradicts him about the usage of protecting gears. Even though he acknowledges that it is important to use helmet because the role of cyclist as a vulnerable road user and it can help reducing the consequences when having a traffic accident, he seldom uses helmet or any other protection gears because he does not travel in a long distance to go to his office everyday (see **Quotation 4.2**). It also shows how cyclists are aware to the traffic regulation and the severe consequences of having a traffic accident, but the obedience of cyclists upon the rules are vary among cyclists.

Quotations 4.1 (from an interview with male and female cyclists):
*"Helmet, usually. [...] It is mandatory for the law but of course, you are going to need that once you are on your bike. ***Although, it is not mandatory by the law to use cycling equipment, I will keep using them [the cycling equipment], because at least if someone hit me, at least my brain is protected*" (Cyclist 04, Female, 31-40 years old).

"I think it should be this way, you know, the cyclists should really prepare themselves to go out wherever they want to ride a bike. They should have a front light, a back light, all the gears, and everything, so that you are recognised on the car roads or on the sidewalks that you are riding a bike" (Cyclist 06, Male, 21-30 years old).

Quotation 4.2 (from an interview with a male cyclist):
" *Are you asking about me? No. Not every day. If it is from my house to my office, if I take Mother Teresa boulevard and there are no cars there, I do not wear a helmet. I should as I am contradicting myself, but it is enforced by the law, but again, because the road is not clearly define*" (Cyclist 06, Male, 21-30 years old).

Quotation 4.3 (from the Law No. 05/L-088 on Road Traffic Provisions):
"*Cyclist younger than sixteen (16) years must keep safety helmet while riding*" (Republic of Kosova, 2016, article 127.5).

Secondly, once cyclists are on their bike and trying to get on roads, most of cyclists admit that they experience confusion overtime they need to ride their bike on main roads. This confusion is caused by the absence of infrastructure for cyclists, including bike lanes and traffic lights for cyclists. The cyclists feel confuse where they suppose to ride their bike.

Moreover, cyclists have two options whether they can ride their bike on the sidewalks or on the roads altogether with the cars (see **Figure 4.8**). Cycling with this situation does not mean without problems. According to respondents, they feel safer when they ride a bike on sidewalks, but on the other hand, they have a tension with pedestrians because pedestrians thought that cyclists take their rights to use sidewalks (see **Quotations 4.4**). Another issue that also emerges is adjusting their cycling speed with cars while riding a bike on the roads. In addition to this, cyclists feel that their presence is not respected by car drivers. It shows from the car drivers' behaviours upon cyclists who do not keep a safety distance and drive above speed limit are two behaviours from car drivers that are seen as trigger to the cyclists' safety perception while riding a bike on roads (see **Quotation 4.5**). Apart from this, the Law No. 05/L-088 on Road Traffic Provisions mentioned that cyclists can ride their bike on sidewalks and share the space altogether with them (see **Quotation 4.6**)

Figure 4.8
How cyclists ride a bike in Prishtina.
Left: photo was taken near Garibaldi Street, city centre of Prishtina.
Right: photo was taken on one of the main roads in Prishtina.
(Photo by: Yulia)

Quotations 4.4 (from interviews):
"*Road safety here is more dangerous for a cyclist than for a pedestrian. Pedestrians have their own way to walk, even though most of these sidewalks for pedestrians are occupied by cars that park on the sidewalks. So, the pedestrians should choose whether they walk on car roads or on the front side of parked cars. Meanwhile, cyclists only have bicycle lane for 3km and on the other parts of the city, the cyclist should use the car roads or the sidewalks for the pedestrians*" (Cyclist 03, Male, 21-30 years old).

"*Yeah, but it is difficult to ride on the streets, because it would be better if we [cyclists] have a separated bicycle lane, but we don't have them and it is dangerous and difficult to ride a bike in the city with a bike*" (Cyclist 01, Male, 21-30 years old).

"*So, you can imagine a lot of cars, buses, public transportations use the same roads to go to many places. So, we have only a few roads here in the city and there are two main issues for the cyclists. First, you don't know where to ride your bike. You can go on the sidewalks and there you have pedestrians, or you ride your bike on the car roads, but then you will feel unsafe*" (Cyclist 06, Male, 21-30 years old).

Quotations 4.5 (from interviews):
"*However, people here do not respect a cyclist, just like they respect car drivers, because it is like a mentality, like "I have a car, if it's raining, I am safe inside my cars, I can bring three,*

four, five friends in my car inside, I can smoke, I can do whatever that I want do inside my car" (Cyclist 03, Male, 21-30 years old).

"*Hmmm... car drivers, I think the way they [car drivers] drive, mostly, sometimes drive quite fast or something and not respecting because I think that there aren't too much people that cycle here, so people are not used to, even the [car] drivers aren't used to see so many cyclists and not to be careful for them and do not expect to see to see so many of cyclists around them [car drivers] […]*" (Cyclist 02, Female, 41-59 years old).

"*We [the cyclists] are not taken into account, and then, even though, I think this is also because how people look at the cyclists. If you use a bike, they will think that oh.. you are poor, or just different. You feel like you are less valuable in the transportation chain*" (Cyclist 06, Male, 21-30 years old).

Quotations 4.6 (from the Law No. 05/L-088 on Road Traffic Provisions):
"*The driver of the bicycle (here in after: cyclist), must use the bicycle track or the common path for bicycle and pedestrians*" (Republic of Kosova, 2016, article 124.1).

"*The cyclist when using the common path for bicycles and pedestrian should be careful and should give priority to pedestrians*" (Republic of Kosova, 2016, article 124.1).

Thirdly and lastly, there are many variations in how cyclists cross the streets. Due to the absence of traffic lights for cyclists in Prishtina, again, cyclists need to be creative in how to deal with the traffic situation. Observations show that cyclists usually do some preparations before crossing the streets by getting off from their bike and wait together with the pedestrians. Once the traffic lights turn into green for pedestrians to cross, the cyclists walk with their bike altogether with pedestrians who are crossing the street (see **Figure 4.9**). However, based on the interviews, not all respondents do similar aforementioned activities while having a need to cross the streets. Another variation is cyclists will follow what the car drivers do. When they need to cross the street, they wait for the traffic lights for cars and follow the cars when the traffic lights turn into green (**Quotation 4.7**).

Figure 4.9
How a cyclist crosses a street in Prishtina.
Left: Before a cyclist crosses a street; Right: cyclist is crossing the street with pedestrians.
(Photo by: Yulia)

Quotation 4.7 (from interviews):
"*You have to stop riding your bike and walk like a pedestrian. I follow the traffic lights for the pedestrians. Sometimes, I walk with my bike in some parts of the city, because I think it's dangerous*" (Cyclist 07, Male, 41-59 years old).

"*Usually the traffic lights for the cars, because it is safer to stay behind the cars, if they are going really slow, instead of getting through on the side of the car, because there is another car coming from the other way, or something*" (Cyclist 05, Male, 21-30 years old).

On the regards to problems that they encounter while riding their bike in regular basis, cyclists also mention a number of difficulties during the conversations. These difficulties usually come from the various conditions on the streets, including usurpations of bicycle lanes on Street B by parked cars, weather (especially during the winter time), and topography of Prishtina. According to respondents, bicycle lane that are located on Street B, is occupied by parked cars due to the shortage of car parking surrounds that street. Street B is the new destination to hang out because there are new emerging cafes and restaurants in that location. Responding to this situation, cyclists should move quickly from the bicycle lane to car roads because some parts of bicycle lanes are used as car parking spots (see **Quotation 4.8**). Based on the observation on Agim Ramadani Street in the morning, there was one time when a construction was going on in the location where the terrain of the street is not flat and cyclists are having problem with visibility because a construction vehicle limited their sights to traffic conditions on the street. Car drivers usually drive faster than riding on the relatively flat terrain. By having an obstacle such as a construction vehicle which blocked the street, the cyclists should act quickly to reduce their speed and they need to "pay attention" to the traffic situation in oder to make a decision what they should properly do to overcome this barrier. Wintertime is also perceived as the worst time to use bike as a mean of transportation, because the condition of roads that are slippery and this is the time when cyclists define as dangerous and have a higher traffic accidents risk than summer time (see **Quotations 4.9**). In addition, topography is mentioned as a discouraging factor for cycling in Prishtina. Describing Prishtina from the topographic point of view is quite simple, because Prishtina can be drew like a bowl, where the city centre is the lowest part of the bowl and surrounded by hills. By having a topography like this, residents who live in the higher terrain need to think twice if they want to use a bike as a mean of transportation because it is really difficult to cycle where the terrain is not flat. Cyclists confirm this statement and describe that cycling not in flat terrain consumes much energy resulted decreasing of focus while cycling (see **Quotations 4.10**).

Quotation 4.8 (from interviews):
"*They see there aren't any car parking lots and they see a straight line, which is the bicycle lane, and what do they [the car drivers] do? They just park their cars in the bicycle lane, because there isn't any space on the other side of the road. They do not suppose to do that, so I think it's disrespect to the cyclists because maybe the car drivers think that, "I have a car and I am entitled to park everywhere*" (Cyclist 06, Male, 21-30 years old).

Quotations 4.9 (from interviews):
"*I think during the summer, at least it's a little bit safer because it's not slippery and during the winter, it can be foggy. So, there are many conditions that make accident happens*" (Cyclist 05, Male, 21-30 years old).

"*[…] but in the winter, we can't use the bike, because we have a lot of snow here and it is so dangerous and it is also so slippery, of course*" (Cyclist 07, Male, 41-59 years old).

"*When it is snowing, no. I don't find it safe enough, because you know the roads aren't designed for cycling, you know the only part that you can cycle without thinking how many cars that will come to you*" (Cyclist 02, Female, 41-59 years old).

Quotations 4.10 (from an interview):
"*Eah, of course, because if you feel less exhausted, you are better able to focus, you really need to focus while riding a bike, you need to focus where the cars are, you always have to be conscious, because whether it is your [the cyclist] fault or the car driver's fault, you will be the one who got injured the worst*" (Cyclist 06, Male, 21-30 years old).

"*Hmm... Maybe a bit, when I go downhill, I will go faster. That's for sure. That's why my feeling of safety is a bit more risky to go down with the fast speed*" (Cyclist 03, Male, 21-30 years old).

"*I live near the Taukbasche Park and the road to my house is like not very difficult, in term of topography*" (Cyclist 04, Female, 31-40 years old).

Through these experiences, it can be learned that cycling is an activity that appears to be independent on other road users behaviours and expectations, in this case, pedestrians and car drivers. Pedestrians expect that sidewalks are only used by fellow pedestrians without sharing the space with other road users, as well as what the car driver expects. Cyclists expect that car drivers will respect them by controlling their driving speed and keeping the safety distance between them and car drivers. Furthermore, the absence of infrastructures for cyclists emerge diverse behaviours of cycling, including where they suppose ride a bike and how they suppose cross the streets.

Pedestrians' Everyday Experiences

How does it feel as a pedestrian in Prishtina? Similar with cyclists' experiences, walking experiences in Prishtina are also substantial to discuss in this study. Differs from cyclists' infrastructures which are missing in the city, basic infrastructures for pedestrians (for instance: sidewalks and traffic lights for pedestrians) are existed and in a good conditions, although sidewalks that are located outside the city centre are not well-maintained also lack of accessibility for disable pedestrians, except for Garibaldi Street. Based on observations, in term of pattern, a walking activity consists of two parts: walking on sidewalks and crossing the streets, unlike cycling activity, which has more parts and complicated. While crossing the streets, observations and interviews show that pedestrians tend to choose cross walks with traffic lights (see **Quotations 4.11**), because they feel safer than cross on cross walk without traffic lights. On the contrary, jay-walking[2] is a common practice among pedestrians to cross a street.

Quotations 4.11 (from the interviews):
"*I prefer to choose the crossing with the traffic lights because that's safer at least it suppose to be safer, but there aren't so many traffic lights everywhere where there are zebra crossings, so I choose to be more careful with the car drivers and stuff, especially where there is a roundabout, because it is dangerous, because the car drivers can drive really fast. I would rather choose the crossings with the traffic lights*" (Pedestrian 06, Male, 21-30 years old).

[2] Someone is caught doing a jay-walking if he or she does not walk or cross a street on the desired places, such as zebra cross or cross walks, neither pay attention to the traffic rules and traffic regulation.

"*[…] Yeah, so if there are traffic lights, then I prefer that […]*" (Pedestrian 02, Female, 31-40 years old).

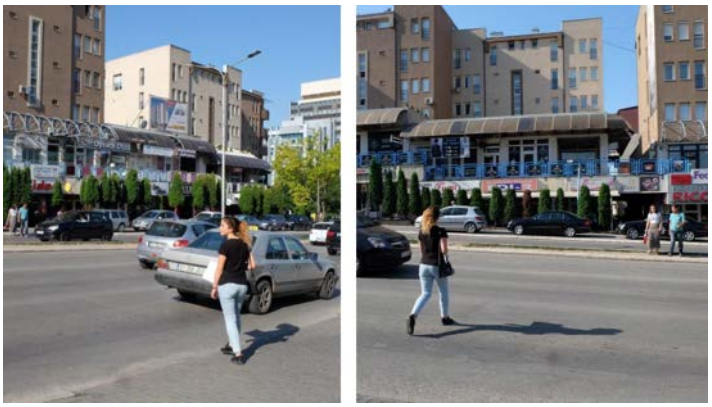


Figure 4.10
Jay-walking is seen as a common practice among pedestrians in Prishtina.
(Photo by: Yulia)

Jay-walking, as can be seen at the image above, is not an odd practice as a pedestrian in Prishtina. Although pedestrians acknowledge that jay-walking is violating the traffic rules and they put themselves into danger of having a traffic accident, but pedestrians keep doing it because they have a need to cross the street due to the close distance between their standing position to their final destination, as observations show. Pedestrians also perceive that doing jay-walking is easier than looking for a zebra cross or waiting for traffic lights that will help them give an indication of a 'safe' moment to cross. Based on the observations that were conducted in seven locations within the urban zone Prishtina, the desire of doing jay-walking is increasing in certain locations that have a close distance to the public facilities, for instance bus station, universities, and commercial strips. It is also interesting to find out that local inhabitants refuse to talk about jay-walking and international workers' opinions upon jay-walking. International workers in Prishtina said that they have never done any jay-walking in their hometown, yet they do jay-walking after life in Prishtina for couple months, because they perceive jay-walking as a common practice in Kosovo (see **Quotations 4.12**). Besides it is a common practice among pedestrians, other road users, in this case car drivers acknowledge the habit of jay-walking in Prishtina. As mentioned by two pedestrians in **Quotations 4.12**, car drivers usually will give a way to pedestrians who are doing jay-walking and pedestrians who do that will feel safe as long as they make an eye-contact with the car drivers as giving a signal that they want to cross the street.

Quotations 4.12 (from interviews):
"*So, sometimes you have to cross without any sign because you have to cross and you couldn't really find a traffic sign, you don't really know where they [the traffic signs] are, so you have to keep walking. […] Maybe it's because socially it's not really appreciated because it's illegal and it could be dangerous, but here, for example I want to cross a big road like here [UCK Street], I just make a sign as I do here. If I do this in Korea, they [the car drivers] will not ever stop, I guess because the pedestrians do not cross at the right place and they also do not care about it*" (Pedestrian 03, Female, 20-30 years old).

"*Yeah, it is fine but sometimes when I do a j-walk, sometimes there are some cars, they [the car drivers] are going back without seeing a pedestrian*" (Pedestrian 05, Male, 20-30 years old).

In addition to the crossing habits of pedestrians in Prishtina, pedestrians have their own 'safe' moment to cross a street in Prishtina, no matter they are crossing on the right place or doing jay-walking, most of pedestrians said that eye contact with car drivers is very important in order to give them a notice that there are pedestrians who are going to cross the street (see **Quotation 4.13**). Observations also showed that pedestrians have a sort of language by giving a sign by hand as a symbol that they want to cross the street, so the car drivers will notice them and slow down their speed. Furthermore, while crossing a street, pay attention to the traffic conditions, such as the distance between standing position and the coming cars are perceived as crucial, because that's when pedestrians decide when the 'safe' moment for them to cross the street (see **Figure 4.11**), whether they cross on the zebra cross or doing jay-walking.

Quotations 4.13 (from interviews):
"*I would say when there is no car coming. Yeah, eye contact to make sure that the car drivers see you or you make a sign with your hand and then you cross the street*" (Pedestrian 05, Male, 20-30 years old).

"*When the car drivers see me. So, I always look inside the car if the person actually sees me, because they just drive cross the zebra and then look at somewhere else [laugh]*" (Pedestrian 02, Female, 20-30 years old).

Figure 4.11
How pedestrians cross a street in Prishtina.
Left: pedestrians are looking at the traffic conditions before deciding to cross a street.
Right: pedestrians are crossing the street.
(Photo by: Yulia, 2017)

The second interesting finding from walking experiences in Prishtina is the usurpation of sidewalks temporarily by car parking or sometimes permanently by alfresco of restaurants or cafes (see **Figure 4.12**). These usurpations give a colour to everyday life of pedestrians in Prishtina. As mentioned before, there are two types of usurpations of sidewalks in Prishtina categorised based on the duration of the usurpations. Temporary usurpations of sidewalks usually are done by car drivers who park their cars on sidewalks during the working hours. Another type is permanent usurpations of sidewalks, are usually done by shop owners by putting the shop front on the sidewalks or the presence of alfresco of restaurants or cafes. As the result of this, pedestrians should walk on roads and put themselves into danger because there are no other ways to muddling through this obstacle while walking in the city. For elderly, this issue does matter for them and affect their perception of road safety while walking on the street, as mentioned in **Quotations 4.14**.

Figure 4.12
Usurpations of sidewalks in Prishtina.
Left: temporary usurpations by parked cars and right: permanent usurpation.
Left: photo by Yulia, 2017; right:(Techene, F., 2016)

Quotations 4.14 (from a focus group discussion with elderly):
"*Roads are good but only problem is that drivers are not careful while they are driving and they park in not allowed places*" (Pedestrian, >59 years old).

"*When u go out I have some difficulties because people park on sidewalks and I can't walk so I have to walk on street and sometimes cars are coming by*" (Pedestrian, >59 years old).

Besides usurpations of pavement, pedestrians also encounter some difficulties while walking on the streets and pedestrians who are older than 18 years old and older than 59 years old usually experience these difficulties. One of difficulties is confusion regarding the signalisation of traffic lights in several junctions located on main roads, such as: Agim Ramadani Street, Garibaldi Street, and Bill Clinton Boulevard (see **Figure 4.13**). While doing observations in these two streets, when traffic lights went green for the pedestrians and at the same time, the traffic lights for cars from opposite directions indicated the similar colour. At this moment, there is a 'conflict' of priority, moreover pedestrians will feel confuse and usually they will give a priority for cars to pass at the first place. This issue also mentioned by one of respondents, as mentioned below:

Quotation 4.15 (from an interview):
"*But the road that I cross every day, it's close to the big square [on the Mother Teresa Boulevard - Garibaldi Street] and when the green symbol of the pedestrians is on, you have couple seconds to cross but the cars already have a rights to pass, so they are coming from the left, so as you are crossing on the green symbol that you are waiting for 2 minutes, there are cars pass right behind you or in front of you and there are actual incidents that people hit the car too, because the cars are passing so quickly, right behind them, it's very dangerous*" (Pedestrian 02, Female, 20-30 years old).

Another confusion that pedestrians encounter during their walking experience is their interactions with car drivers. Pedestrians admit that they always feel confuse, uncomfortable, and cautious while walking on sidewalks because they acknowledge how people drive in Pristina and in Kosovo in general. Several behaviours of car drivers which pedestrians underline are how car drivers do not respect the traffic regulations, especially the speed limit, distraction by using mobile phone while driving, and the car driver who do not give priority to pedestrians who want to cross the street (see **Quotations 4.16**). Furthermore, one of the respondents explained cultural backgrounds behind the behaviour of car drivers on traffic in

Kosovo. According to her, in the context of Eastern Europe, it is prevalent among society that having a car represents a high social status, by then car drivers have a thought that they are 'above the law' due to the social status that they have (see **Quotations 4.17** below). This statement was confirmed by a local sociologist who was born in Prishtina, she mentioned that there is a certain understanding regarding the concept of 'masculinity' among young men. Driving faster is believed by the majority of young population (especially male) as a symbol of masculinity and domination.

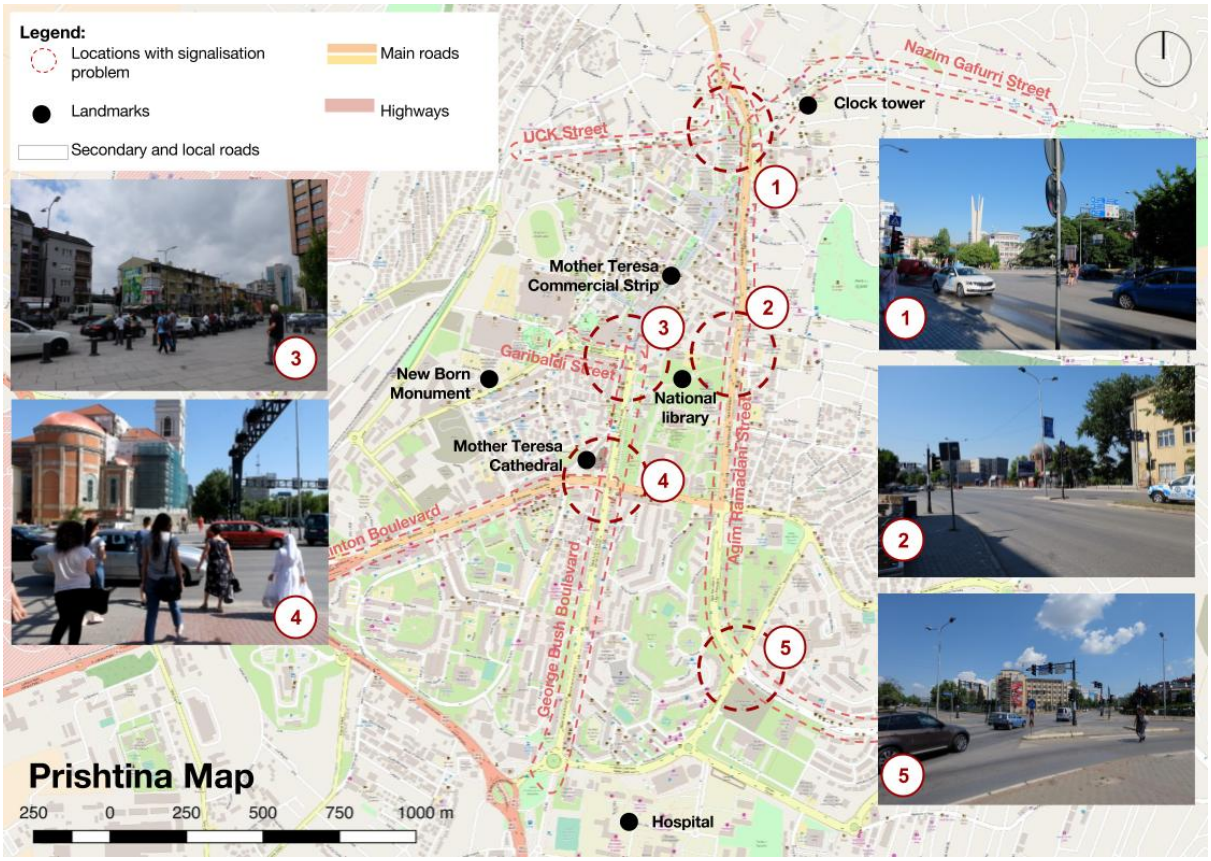


Figure 4.13
Locations where have a signalisation problem.
(Image is own constructed).

Quotations 4.16 (from interviews):
"*It's confusing the way they drive and I haven't driven yet but it's going to be a bit challenging, I think because the style of driving is quite hard. But, for the walking experience is not that nice but I heard that it's worst than I found that it is, but it's not really nice*" (Pedestrian 02, Female, 20-30 years old).

"*They don't respect the rules, they drive fast*" (Pedestrian, Male, 10-18 years old).

"*Lack of practices from the car drivers. They are not focused, or they are doing a lot of thing while driving*" (Pedestrian 06, Male, 21-30 years old).

Quotations 4.17 (from interviews):
" *[…] I think it's their cultural habits because people who live here are always like that, like having a good car, having a good vehicle, as a good sign of your wealth or life or whatever, so it's like they are on purpose to do that, like, "I have something", that's why they make*

noises" (Pedestrian 03, Female, 21-30 years old).

"*So, the population is young, but there is a certain common understanding of masculinity that makes fast driving, they feel more "manly" [man masculine], I guess when they drive faster. So, there is that element of it*" (Sociologist, Female, 31-40 years old).

In a nutshell, from aforementioned experiences, it is existing findings where pedestrians' safety and behaviours on the streets depend upon their interactions with other road users, in this case is car drivers, besides the built environments, like in the case of signalisation problem. It also draws a trust issue between pedestrians and car drivers on the streets, because pedestrians seem likely to blame car drivers for their behaviours and vice versa. At the upcoming sections, internal and external elements that are shaped the road safety perception resulted from interviews and focus group discussions with three sample groups will be discussed.

4.4.2 The Dynamic of Producers in Design Process of Road Safety Regulation and Strategy

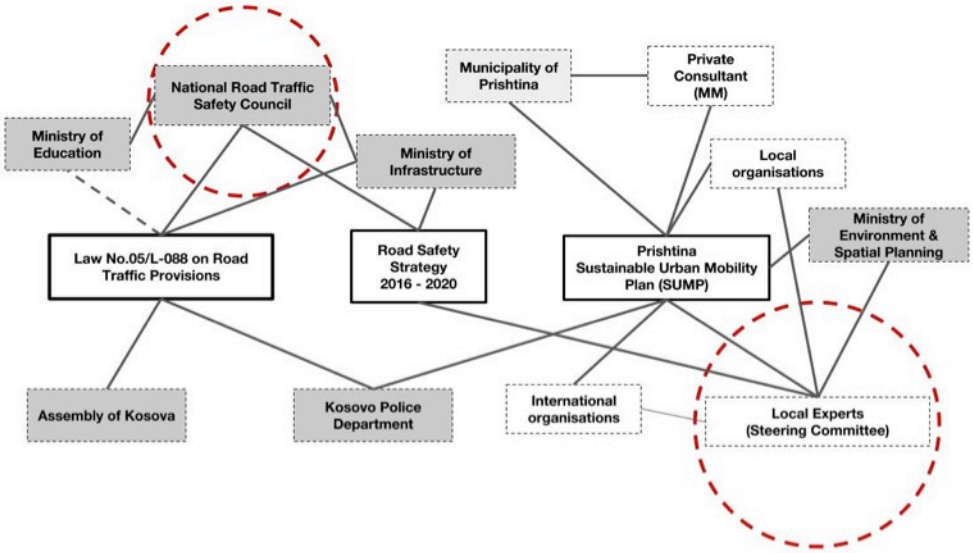


Figure 4.14
Producers' network: centralised but distributed network.
(Image is own constructed).

Discussing stakeholders that are involved in the planning process of road safety strategy is not complete without discussing the dynamic interactions between them. As mentioned in the previous section, especially on **Table 4.1**, there are three documents that are related to road safety safety issues in Prishtina: Law No.05/L-088 on Road Traffic Provisions (Republic of Kosova, 2016) and Road Safety Strategy 2016 – 2020 (Ministry of Infrastructure, 2015), also Sustainable Urban Mobility Plan (SUMP) that is still in progress but was initiated by stakeholders in municipal level.

Table 4.1 highlights two interesting points on how stakeholders participate in the planning process. Firstly, it can be seen that the stakeholders that are involved in planning process of national level road safety strategy are different than in planning process of local level. Kosovo Police Department is the only stakeholder who is participated in planning process of

a strategy in both levels, national and local. Secondly, the relation among stakeholders is more likely centralised but partly distributed network (see **Figure 4.14**). It means that there is no interaction among stakeholders as well as there are only few stakeholders that have a considerable influence in the network (Bicchieri, 2017). In this case, the National Road Traffic Safety Council and local experts are two actors that have a major influence in road safety field in Prishtina due to their involvements in planning process in national and local level, also their connections with other actors. It explains the diverse focuses on road safety strategy from national and local point of views.

4.4.3 Internal Elements that Shaped the Road Safety Perception

Elements that stimulate the development of road safety perception could be classified into two main categories: internal and external elements. As mentioned in previous chapter, internal elements are factors, which come from inside individual; meanwhile external elements are originated from outside an individual. Based on the interviews and focus group discussions, there are two main elements included in the category of internal elements, which are characteristics (of road users) and safety threshold. Indicators such as age, companions, safety cycling gear, and travel distance, are part of characteristics of road users. In addition, indicators, such as: acknowledge a traffic accidents (from media or word of mouth), individual traffic accident experiences, individual traffic regulation knowledge, social constraints, social value, traffic obedience, and traffic regulation education, are emerged as how respondents define a 'road safety' (or so called safety threshold). As can be seen in **Figure 4.15** and **Table 4.2**, which shows the recapitulation of emerging coding during the conversation, there are some points could be highlighted below.

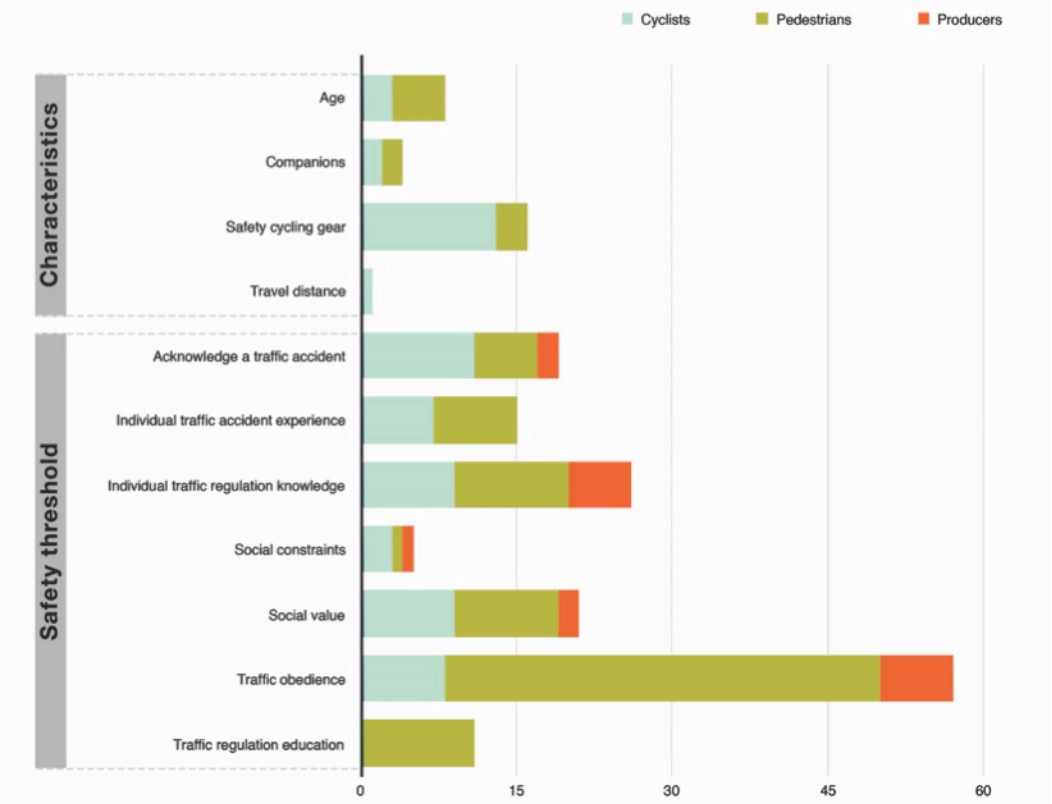


Figure 4.15
Recapitulation of internal elements that shape the road safety perception.
(Image is own constructed).

Table 4.2

How Internal Elements Shape the Road Safety Perception

Variables	Indicators	Road Users		Producers
		Cyclists	Pedestrians	
Characteristics	Age	Cyclists who are younger than 18 years old are perceived unaware with traffic situations and children are not allowed to use a bike outside their home nor as a transportation mode.	Young (10-18 years old) and elderly (>59 years old) pedestrians apprehend the age of car drivers as one of factors that shape their road safety because they think that young car drivers do not have much experiences and skills in driving a car.	During the interviews, producers (in national and municipal level) do not mention 'age' as a crucial factor, however based on the Road Safety Strategy 2016-2020 (Ministry of Infrastructure, 2015) , safety strategy pays a special attention to the age of pedestrians by having a separate strategy for young, adult, and elderly pedestrians.
	Companions	Cyclists prefer to cross a street with pedestrians because it is perceived as safer way to cross a street.	Adult pedestrians (19-59 years old) prefer to cross the street with other pedestrians instead of crossing alone because car drivers will give them a priority to pass if they crossed the streets in big number.	-
	Safety cycling gear	Cyclists acknowledge that safety cycling gear is optional for who are older than 16 years old, but they keep wearing it (usually helmet) while cycling because they believe that it can help to reduce the severe consequences while having a traffic accident.	-	Similar to the element of age, safety cycling gear did not mention during interviews, but it is stated on Law No. 05/L-088 on Road Traffic Provisions (Republic of Kosova, 2016, Ministry of Infrastructure, 2015) and Road Safety Strategy 2016-2020 that helmet is an obligatory safety gear for cyclists who are younger than 16 years old and optional for other groups of age.
	Travel distance	Short travel distance between home and office is perceived as 'safer' in the sense that the probability of traffic accident occurrences are fewer than long travel distance, so wearing safety cycling gear seems as unnecessary.	-	-
Safety thresholds	Acknowledge traffic accidents	Cyclists usually get information regarding traffic accidents that involved pedestrians through words of mouth during a talk with friends or family members and it gives them idea and it influences their feeling of safety in particular areas within the city.	Similar with the cyclists, pedestrians usually have knowledge of traffic accidents, which happened, in the city from family members and friends. This knowledge makes them cautious in particular locations where are perceived having high number of probability of traffic accidents occurrence.	Kosovo Police Department mentioned their efforts to keep the residents up to date with the recent road safety situation through publishing a report and doing a campaign. They also argue that having knowledge of the recent situation and the severe consequences of traffic accidents will make road users more careful on the streets.
	Individual traffic	There are two male respondents who have an experience of traffic accident and this experience	There is only one elderly respondent who has a traffic accident experience and since that	-

	accident experiences	influences their feeling while cycling in the city. One respondent did not use a bike for a year and another respondent increased his attention to the traffic conditions, especially how car drivers drive and give the first priority to car drivers.	accident, she barely goes out alone by walking and reduces her frequency to go to a park. If she needed to go out alone, she prefers to take a taxi.	
	Individual traffic regulation knowledge	There are variations of understanding traffic regulation among respondents, especially when it comes to where they suppose ride a bike. Most of them believe that riding altogether with cars is the proper option although they acknowledge that it's dangerous on the other hand.	Young and adult pedestrians argue that having a traffic regulation knowledge will help road users to respect the vulnerable road users (pedestrians and cyclists) also traffic regulation and signs.	According to the Law No. 05/L-088 on Road Traffic Provisions and the Head of National Road Traffic Safety Council, there is an urgent demand to have a traffic regulation subject in primary schools because he argues that primary school students are in the period of developing personality which is the right moment to teach them how they should behave on traffic.
	Social value	Cyclists mentioned a prevalent understanding regarding a social value that lives among Kosovar (Albanian ethnicity) that having a car shows a higher social status than other vehicles, moreover this understanding is perceived as the root cause of car drivers' behaviours on the street.	Adult pedestrians confirmed a concept of social status among inhabitants in Eastern Europe countries, where having a good car is a symbol of higher social status and these people are above the law due to their status.	Producers also confirm the validity of social norms that live among residents in Balkan Peninsula countries regarding a concept of social status by showing the cars, which they have, and driving above the speed limit.
	Traffic obedience	Traffic signs and regulation obedience of all road users are perceived as important to maintain safety for all road users but the law enforcement done by police officers seem important for cyclists.	Regarding traffic obedience, local residents do not admit if they have done jay-walking, meanwhile international workers mentioned that jay-walking is a common practice, as well as, what it is shown during observations. In addition to that, local residents emphasised on how car drivers' obedience upon regulation and traffic signs, such as driving above limits and not giving priority to pedestrians cross a street when traffic lights indicate green for pedestrians.	Producers state that traffic obedience of road users (put an emphasise to car drivers) depends on the presence of police officers on the street. Car drivers will obey the rules and signs if they aware of the presence of police officers yet the opposite for the absence of police officers on the streets.
	Traffic regulation education	-	Young and adult pedestrians emphasised the importance of having a traffic regulation education for car drivers due to low obedience to traffic regulations by car drivers.	The Law Law No. 05/L-088 on Road Traffic Provisions (Republic of Kosova, 2016) , which is the new amendment of previous law, which was issued in 2008, pointed up the task of Ministry of Education to add a traffic regulation to the educational curriculum.

Characteristics of Road Users

Regarding the elements categorised as characteristics of road users, safety cycling gear is perceived as the most important element in order to maintain safety for cyclists while cycling in the city. Conversations with cyclists and producers even underlined helmet is 'a must', meanwhile the type of cycling gear, for instance knee and elbow protectors as optional. Cyclists believe that helmet can protect them from the severe consequences to their brain while experiencing a traffic accident (see **Quotations 4.18**).

Quotations 4.18 (from an interview):
"*[…] Although, it is not mandatory by the law to use cycling equipment, I will keep using them [the cycling equipment], because at least if someone hit me, at least my brain is protected*" (Cyclist 04, Male, 21-30 years old).

"*For a helmet, I am sure it is. I am not 100% sure, but it should be. It is, probably, I need to check. For the other equipment, I am not sure. I think maybe just the helmet"* (Cyclist 06, Male, 21-30 years old).

Moreover, travel distance does not seem as crucial element to shape the safety from the perspective of majority of respondents from three sample groups. Interestingly, producers do not mention any characteristics of road users during the interviews but the elements of characteristics, such as age and safety cycling gear are stated on the Law No. 05/L-088 on Road Safety Provisions (Republic of Kosova, 2016) and Road Safety Strategy 2016 – 2020 (Ministry of Infrastructure, 2015) that were issued by institutions in national level (see **Table 4.2**). In addition to the characteristics of road users, the law document stated the obligatory of a special tool for blind pedestrians in order o help them giving a spatial orientation, as mentioned in **Quotation 4.19** below:

Quotation 4.19 (from the Law No. 05/L-088 on Road Safety Provisions):
"*When blind persons participate on traffic, he should retain the white stick as an identification sign, carry out the yellow ribbon in the shoulder or should be escorted by trained dog*" (Republic of Kosovo, 2016, article 36.1).

Safety Thresholds

Regarding the safety thresholds, traffic obedience is dominated the answers from three sample groups. Three sample groups reach a consensus that traffic obedience is an important element to maintain the safety for all road users even tough local residents do not confess their jay-walking habit in regular basis (see **Table 4.2**). Moreover, traffic obedience of road users (cyclists, pedestrians, and car drivers) depend on the presence of police officers on the street.

Quotations 4.20 (from an interview):
"*One of them is more police officer on the streets to check some specific spots where the most of traffic accidents happen*" (Kosovo Police Officer 02, Male, 31-40 years old).

"*I think that if the polices will be in more places in more roads and everyday of the week even in the holidays, I prefer that way in order for them [car drivers] to be more responsible […]*" (Pedestrian, Male, 10-18 years old).

Following at the second and third place are individual traffic regulation knowledge and social value, which mention the most by all sample groups (refer to **Figure 4.14**). As can be seen on

Table, traffic regulation knowledge is found vary among road users. Cyclists do not have a single understanding about where they should ride their bike and what kind of safety gear that they should wear to maintain their safety based on the law. From the perspective of pedestrians and producers, individual traffic regulation knowledge is perceived as important to raise an awareness and respect for vulnerable road users: pedestrians and cyclists and this knowledge should be given since young age (see **Quotation 4.21**). Similar consensus among various sample groups reaches the same as social value that lives among society, especially in Balkan Peninsula region countries, in term of concepts of social status and masculinity. Both road users and producers apprehend the possession of an expensive car shows higher social status and the capability to be 'above the law'. It means that for people who have higher social status, they believe that they do not oblige to follow any regulation due to their position that is above the law. A local sociologist also confirms this statement.

Quotation 4.21 (from the Law No. 05/L-088 on Road Safety Provisions):
"*Ministry of Education is obliged to develop educational programs aimed at training for safe participation in traffic, as well as establishing and developing the level of culture of traffic, and starting from preschool institutions, and continuing with all age groups, depending on their psychophysical level*" (Republic of Kosova, 2016, article 2.3).

Quotations 4.22 (from interviews):
"*It's just an issue of social status, I think. Here, if you have a good car, so you are a very important person. If you ride a bike, it shows that you don't have money. So, you are poor. I think we have similar issues in Balkan countries […]"* (Political activist, Male, 31-40 years old)"

"*[…] the first problem is just lack of control, lack of the real systematic punishment because in Kosova, if your father was a politician, we had a scandal couple years ago, when the famous of deputy of PDK party in Kosova, his son was caught for over speeding while driving and he almost beat up the police like, "how do you dare to stop me". It's also in the sense of being above the law for certain category of people […]*" (Sociologist, Female, 31-40 years old).

"*Another issue is how the cyclists are seen here by the car drivers. "If you ride a bike, you will be seen as 'less important', because you ride a bike". For people who drive a car, they feel superior. They can drive faster, they cannot respect the traffic signs, and they have a rights to go wherever before you [the cyclists] since they are using a car* "(Cyclist 06, Male, 21-30 years old).

"*I think it's their cultural habits because people who live here are always like that, like having a good car, having a good vehicle, as a good sign of your wealth or life or whatever, so it's like they are on purpose to do that, like, "I have something", that's why they make noises*" (Pedestrian 03, Female, 21-30 years old).

4.4.4 External Elements that Shaped the Road Safety Perception

External elements that shape the road safety perception consist of five categories: physical elements, traffic conditions, natural environments, post-War situation, and miscellaneous elements. As can be seen in **Figure 4.16**, Rights of Way Design (ROW) design, street furnitures, and traffic directions are classified into physical elements, meanwhile elements

like behaviour of other road users, behaviour on traffic, traffic conditions, and usurpations are part of traffic conditions. Besides that, there are also elements that do not only come from the built environment, but also the natural conditions, for instance time (day and night time), topography, and weather. The context of Prishtina as a post-conflict society also represents through an element of perceived changes after the Kosovo War. Lastly, there are also elements, such as: 'vulnerable' feeling, confusion, familiarity, attendance of police, and location of schools are classified as other elements or miscellaneous. From the **Figure 4.16**, it shows that in general, behaviour of other road users, in this case is car drivers, is the dominant external element that shapes road safety perception from three sample groups: cyclists, pedestrians, and producers, followed by Rights of Way (ROW) design in the second place. The overview of each category will be discussed further below and the summary can be found on **Table 4.3.**

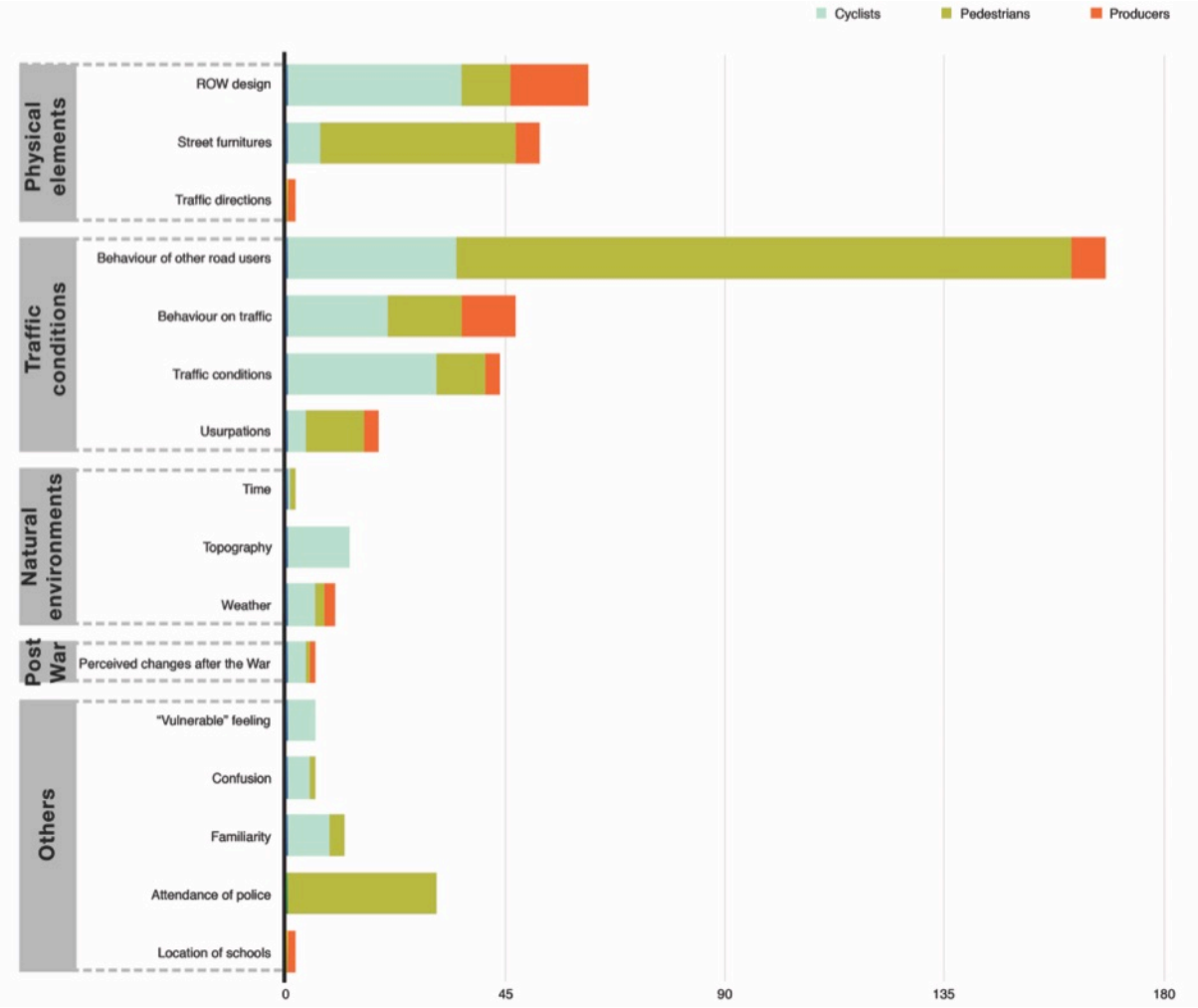


Figure 4.16
Recapitulation of external elements that shape the road safety perception.
(Image is own constructed).

Table 4.3

How External Elements Shape the Road Safety Perception

Variables	Indicators	Road Users		Producers
		Cyclists	**Pedestrians**	
Physical elements	ROW design	Cyclists experience confusion where they should ride a bike due to the absence of bike lanes in Prishtina, furthermore they encounter difficulties when they are riding a bike on road because they need to adjust their riding speed with cars and they perceive it as dangerous.	For adult pedestrians (19-59 years old), they mention that their walking spaces are taken by parked cars and sometimes it is difficult for them to muddling through these obstacles.	Producers in both local and national level acknowledge the importance of having bicycle lanes to maintain safety for cyclists, but none of it is mentioned in the legal document and road safety strategy. In addition, producers in local and national level have a different opinion in term of cross walk facilities for pedestrians. National level producers argue that the number of cross walks are enough but pedestrians seldom to use them, on the contrary, municipality stated that infrastructures for pedestrians should be improved in term of quality and quantity, including cross walks.
	Street furniture	Although most respondents prefer to cycle on roads altogether with cars, when they need to cross a street, they prefer to follow traffic lights for pedestrians and walk together with pedestrians. In addition, speed bumps are perceived as important street furniture because of its function to reduce the driving speed.	Respondents said that bollards which were installed in several locations within the city (for instance: Agim Ramadani Street, Garibaldi Street, and George Bush Boulevard) have a positive impact to decrease the number of temporary usurpation by parked cars on sidewalks.	National level producers perceive the necessity to have CCTVs at main roads in order to control the traffic conditions and the obedience of traffic rules on streets. Moreover, local level producers mentioned two interventions which they did to maintain pedestrians' safety: installments of bollards (to avoid usurpations by car drivers) and lightings on cross walks. Municipality said that these two interventions are effective to maintain safety, but speed bumps should be installed to reduce driving speed.
	Traffic direction	-	-	In the SUMP, Municipality has an idea to change Agim Ramadani Street to one-way street to increase the safety of pedestrians in the city centre. By having one-way street, pedestrians merely need to pay attention to one side of the roads, as Head of Public Services Municipality of Prishtina mentioned during the interview.

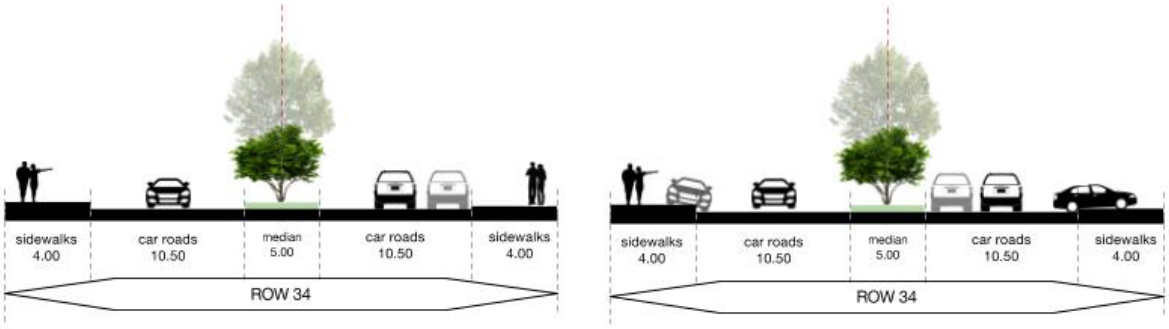
Variables	Indicators	Road Users		Producers
		Cyclists	Pedestrians	
Traffic conditions	Behaviour of other road users	Respondents emphasise on how car drivers behave on the streets, such as driving above limits, distraction while driving by using mobile phone, do not pay attention to cyclists, and do not obey traffic rules.	Similar to cyclists, pedestrians also concern to how car drivers behave on streets. Pedestrians feel unsafe when car drivers drive fast because this behaviour is perceived as the cause of traffic accident occurrence.	Like cyclists and pedestrians, producers also emphasise the behaviour of car drivers who do not respect the traffic rules and signs by driving above speed limit.
	Behaviour on traffic	While talking about cyclists' behaviour on traffic, respondents talked about where they ride a bike and cross a street. Most of respondents ride their bike on roads and cross the street like pedestrians.	When local residents avoid talking about their jay-walking habits, international workers admit that they do jay-walking during their stay in Kosovo and they perceive it as a common practice.	Producers underline jay-walking as a common practice among pedestrians and they argue that behaviour on traffic should be developed since young age by having a traffic regulation education in primary school.
	Traffic conditions	Cyclists also mention their decisions to ride their bike on car roads or sidewalks and the route that they choose to commute everyday are depended on traffic conditions on main roads, such as the number of cars on the streets as well as whether there is a traffic jam or not.	Traffic jam and driving above limit are two of traffic conditions that affect pedestrians' feeling of safety, especially when they are crossing the streets.	The increasing number of cars is perceived as a root cause of road safety issue in Prishtina.
	Usurpations	Cyclists also experience difficulties to ride their bike when car drivers park their cars on the part of ROW without any considerations to the traffic. Street B and local streets are given as two examples of this phenomenon.	Usurpation of sidewalks by parked cars is perceived as one of obstacles while walking in the city from the perspective of elderly pedestrians (older than 59 years old), because they need to move from sidewalks to roads and move back.	Producers acknowledge the issue of usurpations of sidewalks and bicycle lanes by cars and its implications to the pedestrians' walking activity and bollard are claimed as an effective intervention to prevent and solve this issue.
Post-War conditions	Perceived changes after the War	Cyclists recognised the two major changes in Prishtina after the War, which is the increasing number of cars on the streets and traffic jam that happens in the morning and in the afternoon.	The increasing population and number of cars are comprehended as two changes happened after the Kosovo War and adult pedestrians think those two conditions are the causes of increasing traffic accidents in Prishtina after the War.	Producers recognised that Prishtina was not built as a metropolitan city and it cannot accommodate the recent number of cars and vehicles in Prishtina.
Natural environments	Time	There is only one respondent who talks about time element. He mentioned that night time is easiest time for him to ride a bike because there aren't many cars and pedestrians on the street, but he prefers to ride a bike on sidewalks at night.	-	-

Variables	Indicators	Road Users		Producers
		Cyclists	Pedestrians	
Natural environments	Topography	Topography is part of considerations of cyclists when choose the commute route in everyday basis. Although they do not mind to go uphill and downhill, but they acknowledge that cycling uphill consumes more energy and it influences their focus on surrounding traffic situations.	-	-
	Weather	Cyclists perceive as impossible to cycle during winter because the roads are slippery and dangerous for them. All of respondents prefer to cycle only during the summer.	Only adult pedestrians who concern about the conditions during winter. They have an opinion that walking during the winter is more dangerous because the roads are slippery and cars are not in appropriate conditions (such as the brake and tiers).	-
Others	'Vulnerable' feeling	Cyclists acknowledge their position as one of vulnerable road users due to the severe consequences that they will get if they involved in a traffic accident. Regarding to this feeling, cyclists always feel cautious while riding a bike.	-	-
	Confusion	Confusion that is encountered by cyclists mainly because of the absence of bicycle lanes and the right side for them to ride a bike.	Adult pedestrians experience confusion due to the signalisation problem in main road junctions in the city.	-
	Familiarity	Regarding familiarity, there are two points that they highlighted. First, familiarity with traffic conditions and built environments is also part of cyclists' consideration when choose the commute route. Secondly, familiarity of expatriates who come to Prishtina during summer break. Expatriates are argued as one of the increasing traffic accidents in the summer because they are not familiar with the city and the traffic regulation.	Only one respondent who stated that she is used to the traffic situation and obstacles that she has in everyday basis, so her feeling of fear of having traffic accidents is low and she perceives that road safety issue in Prishtina is not in the harmful state.	-
	Attendance of police	-	Young pedestrians (10-18 years old) claim that the presence of police officers on streets could help to increase the traffic obedience of all road users and the traffic accidence risks decrease.	-

Variables	Indicators	Road Users		Producers
		Cyclists	Pedestrians	
Others	Location of schools	-	-	Head of Infrastructure from Ministry of Infrastructure mentioned that location of schools is crucial in encouraging jay-walking activities.

Physical Elements

From the physical elements, ROW design is the most dominant element which shape road safety perception from three sample groups, followed by street furniture and traffic direction at the second and third place. Based on the interviews, ROW design makes a sense of clarity for road users, especially cyclists, where they belong to be. The current situations, where the bicycle lanes are missing and sidewalks are occupied and used as car parking lots, make road users uncomfortable in their everyday experience and difficulties for particular groups of pedestrians, such as elderly pedestrians and disabilities (wheel chair users and blind pedestrians). Pictures below show how general ROW design in a main road in Prishtina (Agim Ramadani Street is derived as a representative example) and how the recent situations on the ROW in this street.



ROW design Agim Ramadani Street. Situation on Agim Ramadani Street.

Figure 4.17

ROW design of main roads in Prishtina and the recent situation.

Quotations 4.23 (from interviews):

"*The cyclist, for example, they don't have roads, like cycle lane, so we [cyclists] always be going on the roads of cars or to the pedestrians [mean: sidewalks], because we [cyclists] do not have a place to cycle*" (Cyclist 02, Female, 31-40 years old).

"*There is a place, where it is near to my office, it's basically a common place to cross the street, so you can easily get hit by a car. It's a really big road. There is no zebra cross*" (Pedestrian 07, Male, 21-30 years old).

"*In Prishtina, it's not safe to walk, because there are a lot of pedestrians and the distance between one zebra cross to another zebra cross is too close, so a lot of pedestrians cross the street. […] So, they need to make some underpass crossings and to make a guidance for the pedestrians, so pedestrians will not cross the street everywhere, so that pedestrians can cross safely. We need to localise the traffic of pedestrians in particular places, not every where, because it's also risky for them as well. So, that's my opinion*" (Head of Infrastructure, Ministry of Infrastructure, Male, 31-40 years old).

"*I am happy that the bollards existed. So I can walk, because I couldn't walk on the sidewalks because cars are parked there. So, now, at least I can walk on the sidewalks*" (Municipal officer, Female, 31-40 years old).

Traffic Conditions

Behaviour of car drivers was mentioned the most while talking about traffic conditions. Three sample groups underlined several examples of car drivers' behaviours, which concern their

feeling of safety, such as driving above speed limit, mobile phone usage while driving, and do not respect the traffic lights and signs. Other significant elements are behaviour on traffic and traffic conditions. As mentioned before in previous section, jay-walking is a prevalent practice among pedestrians and stakeholders in producer level perceive this practice increases the probability of traffic accident risks. In addition, the increasing number of cars ownership is perceived as a cause of increasing the probability of traffic accident risks in Prishtina and influence road users' feeling of safety.

Quotations 4.24 (from interviews):
"*Hmmm... cars [car drivers], I think the way they [car drivers] drive, mostly, sometimes drive quite fast or something and not respecting because I think that there aren't too much people that cycle here, so people are not used to, even the [car] drivers aren't used to see so many cyclists and not to be careful for them and do not expect to see to see so many of cyclists around them [car drivers] and probably that's one of the reason why the accident might happen*" (Cyclist 02, Female, 31-40 years old).

"*The car drivers here are really aggressive. I have never been honked at so much. People cut you off , Prishtina is just aggressive drivers*" (Pedestrian 05, Male, 31-40 years old).

"*The behaviour of car drivers that do not respect to the traffic signs, speed limit, not keeping a proper distance between vehicles, these are the main factors which cause the traffic accidents*" (Kosova Police Officer 01, Male, 31-40 years old).

Natural Environments
In term of natural environments, topography and weather are two elements affected the road safety perceptions mostly for road users. The topography of Prishtina, which is likely a bowl, influences the road safety perception for cyclists, yet the opposite for pedestrians and producers. Topography is an element that is considered by cyclists when choose the commuting route everyday, because the elevation of terrain affects the cyclists' focus due to the energy that is consumed while going uphill. In addition to the natural environments, both cyclists and pedestrians have a similar opinion about the weather. From road users' standpoint, wintertime is more dangerous than summer time, because of the conditions of roads that are slippery due to snow raining during wintertime. Most of cyclist respondents are not going to use a bike during winter.

Quotations 4.25 (from interviews):
"*The cyclists will feel more dangerous, than the pedestrians and the car drivers. As I told you, Prishtina is like a volcano, the city centre has the lowest terrain, and the rest of the city has the higher terrain. Most of the people who live in the city live in the upper part. So, they have to go downhill and when they need to go back home, they need to go uphill. That's why the cyclists are more scared*" (Cyclist 03, Male, 21-30 years old).

"*I don't know it is possible to bike during the winter, because of the wind and the snow. But, yeah, if the weather is fine and it's not raining, as long as, it's not slippery, or something like that I can hurt myself, I want to use my bike all the time*" (Cyclist 04, Female, 31-40 years old).

"*As a pedestrian, you have to be very careful because the roads are really slippery, not so clean. So, yeah, also the cars do not have good tires, so accidents happen easily. You know*" (Pedestrian 06, Male, 21-30 years old).

Post-War Conditions

As the youngest country in European continent, who declared an independence in 2008, the memory of war still remains strongly for respondents who are older than 18 years old. Albeit the changes happened after the War does not show a significant result to the development of road safety perception for three sample groups, however there are three phenomena, which were pinpointed by respondents regarding the comparison of Pristina's situations before and after the Kosovo War:

- Illegal constructions as the basis of Pristina's urban expansion. After the War, Kosovo did not have an integrated (spatial) planning resulted emerging uncontrolled illegal building constructions without construction permit. These constructions do not pay any considerations to neither projected populations nor necessary facilities and infrastructures for projected populations who would live in the new development. The infrastructures remain similar like before the War happened, although high-rise buildings emerged after the Kosovo War.
- The increasing number of populations and car ownerships. The next changes which are realised by the respondents are the increasing number of populations and car ownerships in Prishtina. Due to the destruction of housings in many areas in the country, there was a huge migration influx to Prishtina seeks for better life. In addition, respondents observe that there was only one car for each family, yet the current situation shows one family (who normally consists of 4-5 people) has two cars or more.
- Traffic jam in the morning and in the afternoon. Due to the increasing of cars usage, increasing number of populations, and cars ownership, resulted traffic jam in the morning from the outskirt areas to the city centre of Prishtina and vice versa in the afternoon. These conditions affect the feeling of safety for road users and car drivers are emphasised as the cause of road safety issues in the city by road users and producers.

Quotations 4.26 (from interviews):

"*After the War, Prishtina started getting bigger and bigger and expanding in any directions. This is the impact of the War. Besides that, there are several roads that are closed to make one-way road because Prishtina started having many people and many cars and there are many traffic accidents as the consequences of this situation*" (Cyclist 07, Male, 41-59 years old).

"*There are too many people come to work in Prishtina, students come to study here. It's very populated, that's why maybe people come by cars and traffic and traffic accidents happen*" (Pedestrian 04, Female, 31-40 years old).

Others

This category emerged during the interviews and focus group discussions with three sample groups. 'Vulnerable' feeling, confusion, familiarity, presence of police officers on the streets, and location of schools are elements classified in this category. These elements are vary from three stand points, because not all groups have a similar opinion or experience. For example, starting with the attendance of police, which was mentioned a lot during the conversations, it was argued only by young pedestrians (see **Table 4.3**). Similar with the location of schools, which is perceived merely by producers. However, confusion and familiarity with the built environment are experienced by both cyclists and pedestrians, although in different form. For cyclists, confusion happens because of the absence of bicycle lanes, yet pedestrians feel confuse because signalisation problems on several main road junctions within the city. Regarding the familiarity with built environment and traffic conditions is also perceived differently by road users. From cyclists' perspective, familiarity is also part of consideration

of choosing commuting route, besides topography, meanwhile familiarity reduces the fear of having a traffic accident, as argued by pedestrians who are older than 18 years old.

Quotations 4.27 (from interviews):
"*The problem is you get used to the situations. It's not that weird but anyway you just need to analyse the situation, you know*" (Pedestrian 04, Female, 31-40 years old).

"*I am even uncomfortable even for the locals, who have the higher level of what they are comfortable with, but I am also getting used to with the situations, too, so that's I think not very good"* (Pedestrians 02, Female, 21-30 years old).

"*But, in my opinion what has been done is the planning of the location of the schools. It is a complex method, in order to reduce as much as possible the number of jay-walking cases*" (Head of Infrastructure, Ministry of Infrastructure, Male, 31-40 years old).

4.5 Discussions

This section discusses how the three sample groups perceive road safety, including the how the road safety perceptions are overlapping each other among a similar groups and between various groups. At the end of this section, it will compare how the existing knowledge talks about the road safety perception and what have found on the ground from the fieldwork.

4.5.1 Producers' Perspectives upon Road Safety

In this study, perception of road safety is operationalised into three indicators: perceived dread risk of traffic accidents, perceived probability of traffic accident risk, and perceived traffic accident severity (citation). Producers's standpoints could be derived from two sources, which are legal documents (Law No. 05/L-088 on Road Traffic Provisions and Road Safety Strategy 2016-2020) and interviews. Based on these two sources, it can be concluded several things regarding how producers in both national and local level perceive road safety issues, as also summarised in **Figure 4.18** below.

- First of all, in general, behaviour of other road users (in this case is car drivers) shows a significant result for the element that shapes their road safety perception. It is confirmed in the new amendment of road safety law: Law No. 05/L-088 on Road Traffic Provisions, which merely has 11 articles out of 284 articles mentioned how pedestrians and cyclists should behave on traffic (citation).
- Secondly, ROW design, traffic obedience of all road users (pedestrians, cyclists, and car drivers), and individual traffic regulation knowledge are other elements that encourage the development of road safety perception from producers' point of view.
- Thirdly, acknowledge a traffic accident and street furnitures, such as: speed bumps and bollards, are perceived as less important in developing process of road safety perception.
- However, above all, among the indicators of road safety perception, perceived probability of traffic accident risk occurrence dominantly shapes road safety perception than other two indicators. It explains why road safety is measured through three quantitative indicators: the number of traffic accidents with fatalities (injured or killed people) per 100000 inhabitants and per 100000 vehicles, the number of injured people in traffic accidents, and the total number of traffic accidents (citation, page number).
- Based on the interviews, there are also five emerging elements, which are differ from the

existing knowledge: acknowledge a traffic accident, traffic obedience, traffic direction, and usurpations.

- Lastly, the producer's perception of traffic accident risk occurrences is shaped by the behaviour of car drivers, as showed in **Figure 4.18**. Producers argue that by having knowledge of traffic regulation, it develops awareness since young age, which will shape desired behaviour on traffic showed by traffic regulation obedience. It explains why producers focus on giving a traffic regulation education to primary school students (**Quotation 4.21**).

	Variables	Indicators	Perceived dread risk of traffic accident	Perceived probability of traffic accident risk	Perceived traffic accident severity	Total
Internal elements	Characteristics	Age				
		Companions				
		Safety cycling gear				
		Travel distance				
	Safety thresholds	Acknowledge a traffic accident	0.0	0.0	0.2	0.2
		Individual traffic accident experience				
		Individual traffic regulation knowledge	0.0	0.1	0.2	0.3
		Social contraints	0.0		0.1	0.1
		Social value				
		Traffic obedience	0.1	0.2		0.3
External elements	Physical elements	Rights of Way (ROW) design	0.2	0.1	0.0	0.3
		Street furniture	0.1	0.1		0.2
		Traffic direction		0.0		0.0
	Traffic conditions	Behaviour of other road users	0.2	0.4	0.0	0.6
		Behaviour on traffic	0.1	0.1	0.1	0.2
		Traffic conditions	0.1	0.1		0.1
		Usurpations	0.1	0.1		0.1
	Natural environments	Time				
		Topography				
		Weather	0.0	0.0		0.0
	Post-war	Perceived changes after the War		0.0		0.0
	Others	"Vulnerable" feeling				
		Confusion				
		Familiarity				
		Location of schools				
Total			0.9	1.1	0.5	

Emerging elements Significant result

Figure 4.18

Significant elements which shape producers' perspective upon road safety.
(Image is own constructed)

Note: a coefficient represents a relation between an element to another element and bigger coefficient illustrates stronger relation between 2 elements.

4.5.2 Road Users' Perspectives upon Road Safety

Cyclists' Perspectives upon Road Safety

	Variables	Indicators	Perceived dread risk of traffic accident	Perceived probability of traffic accident risk	Perceived traffic accident severity	Total
Internal elements	Characteristics	Age	0.0	0.0	0.0	0.1
		Companions	0.0			0.0
		Safety cycling gear	0.0	0.0	0.1	0.1
		Travel distance				
	Safety thresholds	Acknowledge a traffic accident	0.0	0.0	0.2	0.2
		Individual traffic accident experience	0.0			0.0
		Individual traffic regulation knowledge	0.0	0.1	0.2	0.3
		Social constraints	0.0		0.1	0.1
		Social value	0.0	0.0	0.0	0.1
		Traffic obedience	0.1	0.2		0.3
External elements	Physical elements	Rights of Way (ROW) design	0.2	0.1	0.0	0.3
		Street furniture	0.1	0.1		0.2
	Traffic conditions	Behaviour of other road users	0.2	0.4	0.0	0.6
		Behaviour on traffic	0.1	0.1	0.1	0.2
		Traffic conditions	0.1	0.1		0.1
		Usurpations	0.1	0.1		0.1
	Natural environments	Time		0.0		0.0
		Topography	0.0	0.0	0.1	0.1
		Weather	0.0	0.0		0.0
	Post-war	Perceived changes after the War		0.0		0.0
	Others	"Vulnerable" feeling	0.0	0.0	0.1	0.1
		Confusion	0.0	0.0		0.0
		Familiarity	0.0	0.0		0.0
		Location of schools				
	Total		1.1	1.2	0.8	

Emerging elements Significant result

Figure 4.19

Significant elements, which shape cyclists' perspective upon road safety.
(Image is own constructed)

Note: a coefficient represents a relation between an element to another element and bigger coefficient illustrates stronger relation between 2 elements.

Based on interviews which were conducted with seven adult cyclists, there are a number of underlined points regarding how cyclists perceive road safety, as also can be seen in **Figure 4.19** below.

- **Figure 4.19** shows that behaviour of car drivers strongly influences cyclists' road safety perception, especially regarding how cyclists perceive the probability of traffic accident risk. Cyclists concern how speed car drivers are driving, car drivers' focus, and the distance between cars and them, as explained in previous section. It concludes that cycling is an activity that appears to be dependent on other road users' behaviour and expectations,

in this case, car drivers.
- Moreover, other elements, which affect road safety perception from cyclists' point of views, are ROW design, in this case is (separated) bicycle lane, traffic obedience, and individual traffic regulation knowledge.
- Street furnitures and their behaviours on traffic seems having less influence in developing process of road safety perception.
- Among three types of road safety perception, cyclists' perceive their road safety state through perception of probability of traffic accident risks while cycling on the street, instead of feeling a fear of having a traffic accident and the severe consequences of having traffic accidents.
- Interviews figured out that there are some emerging elements that shape cyclists' perception upon road safety, for instance: safety cycling gear, travel distance, acknowledge a traffic accident, traffic obedience, usurpations of bicycle lane, time, topography, weather, 'vulnerable' feeling, confusion, and familiarity with built environment and traffic conditions.

Pedestrians' Perspectives upon Road Safety

Figure 4.20 gives comprehensive information on what and how elements those mainly shape the road safety perceptions from three points of view: young pedestrians (10-18 years old), adult pedestrians (19-59 years old), and elderly pedestrians (older than 59 years old). It can be concluded as follows:

- Firstly, behaviour of car drivers is strongly perceived as an element that shapes road safety perception from three pedestrians groups: young, adult, and elderly pedestrians. It means that cycling activities of young, adult, and elderly highly depended on behaviours of car drivers. Driving above the speed limit, driving with distractions, and obedience of car drivers to traffic regulations are some of examples of car drivers' behaviours that stimulate the road safety perceptions for pedestrians, no matter how old they are. It is also highlighted the trust issues between pedestrians and car drivers on the streets, because pedestrians are likely to blame car drivers for their behaviours and vice versa.
- Secondly, young and adult pedestrians perceive road safety in slightly similar way, which represents by affected elements upon their perceptions' developing progress. Behaviour of car drivers is at the first place; ROW design, traffic obedience, individual traffic regulation knowledge are at the second place; also acknowledge a traffic accident, street furniture, their behaviours on traffic, and presence of police officers on the streets are at the third place.
- Thirdly, elderly pedestrians perceive road safety in completely different ways. As showed in **Figure 4.20**, behaviour of car drivers is the only element that influences their perception of road safety.
- Lastly, from pedestrians' standpoint, road safety mainly refers to the probability of traffic accidents occurrence. All age groups of pedestrians perceive road safety in similar way and age does not play a role on it.

	Respondents		P1: 10-18 years old				P2: 19-59 years old				P3: >59 years old			
	Variables	Indicators	Perceived dread risk of traffic accident	Perceived probability of traffic accident risk	Perceived traffic accident severity		Perceived dread risk of traffic accident	Perceived probability of traffic accident risk	Perceived traffic accident severity		Perceived dread risk of traffic accident	Perceived probability of traffic accident risk	Perceived traffic accident severity	
Internal elements	Characteristics	Age	0.0	0.0	0.0	0.1					0.0	0.0		0.0
		Companions					0.0			0.0				
		Safety cycling gear					0.0	0.0	0.1	0.1				
		Travel distance												
	Safety thresholds	Acknowledge a traffic accident	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.2				
		Individual traffic accident experience									0.0			0.0
		Individual traffic regulation knowledge	0.0	0.1	0.2	0.3	0.0	0.1	0.2	0.3				
		Social constraints					0.0		0.1	0.1				
		Social value	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0		0.1
		Traffic obedience	0.1	0.2		0.3	0.1	0.2		0.3				
		Traffic regulation education	0.1	0.1		0.1	0.1	0.1		0.1				
External elements	Physical elements	Rights of Way (ROW) design	0.2	0.1	0.0	0.3	0.2	0.1	0.0	0.3				
		Street furniture	0.1	0.1		0.2	0.1	0.1		0.2				
		Traffic direction												
	Traffic conditions	Behaviour of other road users	0.2	0.4	0.0	0.6	0.2	0.4	0.0	0.6	0.2	0.4		0.6
		Behaviour on traffic	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1		0.1
		Traffic conditions	0.1	0.1		0.1	0.1	0.1		0.1				
		Usurpations	0.1	0.1		0.1	0.1	0.1		0.1				
	Natural environments	Time		0.0		0.0								
		Topography												
		Weather					0.0	0.0		0.0				
	Post-war	Perceived changes after the War						0.0		0.0				
	Others	"Vulnerable" feeling												
		Confusion					0.0	0.0		0.0				
		Familiarity					0.0	0.0		0.0				
		Attendance of Police	0.2	0.0		0.2	0.2	0.0		0.2				
		Location of schools												
	Total		1.1	1.2	0.5		1.2	1.3	0.6		0.4	0.5		

Emerging elements Significant result

Figure 4.20

Significant elements, which shape pedestrians' perspective upon road safety.
(Image is own constructed)

Note: a coefficient represents a relation between an element to another element and bigger coefficient illustrates stronger relation between 2 elements.

Cyclists vs. Pedestrians upon Road Safety

As vulnerable road users, cyclists and pedestrians perceive road safety in slightly various manners. First of all, during the interviews and focus group discussions with both groups, a number of elements emerge and these elements are different than what has known before in academia, for example; cyclists mentioned safety cycling gear, travel distance, topography, and 'vulnerable' feeling as elements which affect how cyclists' perceive road safety and at the end, those serve as a basis to decide the everyday commuting route, meanwhile, for pedestrians, traffic regulation education and attendance of police officers are argued as important to develop traffic obedience for all road users, so in that sense, pedestrians will have a clarity where they should walk and when the 'safe' moment for them to cross the streets.

On the other hand, cycling and walking activities are favourably depended on how other road users' behaviours on traffic. From the conversations, it could be understood that car drivers' behaviours play the biggest role for both cyclists and pedestrians, without diminishing the role of cyclists' behaviours for pedestrians and vice versa. It corresponds to the dominant element of road users' road safety perception developing progress, which is behaviour of car

drivers. Furthermore, both cyclists and pedestrians acknowledge the social value, which plays as a root cause of how car drivers behave on traffic, emphasised on driving above limits and disobedience of traffic regulations and signs. The social value, which has a special regard, is the understanding of social status and 'masculinity' concept among society, mainly in Balkan Peninsula region countries. Society believes that having car(s) symbolises higher social status (rich and 'power') which acts as a driving factor for contemplating traffic regulations due to the feeling of 'above law'. In addition to that, 'masculinity' is even understood by driving speed as a sign of 'brave', and 'dominant' among other road users.

Table 4.4
Cyclists vs. Pedestrians upon Road Safety

Category	Cyclists	Pedestrians
Emerging elements	**Safety cycling gear** **Travel distance** Acknowledge a traffic accident Traffic obedience Usurpations of bicycle lane Time **Topography** Weather **'Vulnerable' feeling** Confusion Familiarity	Acknowledge a traffic accident Traffic obedience **Traffic regulation education** Usurpations of sidewalks Time Weather Confusion Familiarity **Attendance of police officers**
Dominant elements	Behaviours of car drivers	Behaviours of car drivers
Other elements that affect road safety perception	ROW design Traffic obedience Individual traffic regulation knowledge	ROW design Traffic obedience Individual traffic regulation knowledge
	Acknowledge a traffic accident Street furniture Behaviour on traffic	Acknowledge a traffic accident Street furniture Behaviour on traffic **Attendance of police officers on the street**

Note: bold text represents differences between two perspectives and normal text indicates the similarities.

4.5.3 Producers vs. Road Users' Perspective upon Road Safety

Upon road safety, stakeholders in producer's level and road users seem perceive it in similar manner, if it is seen from a single point of view, which is the dominant element that shapes the perception. Both producers and road users reach a consensus that behaviour of car drivers plays a crucial role in road safety perception developing process. However, the difference is located on the basis on why behaviour of car drivers strongly influences the road safety perception. Producers rely on the main cause of traffic accidents happened in Prishtina and Kosovo in general, which is driving above speed limit included in human factor, as presented in quantitative statistical (Ministry of Infrastructure, 2015, Lenjani, Krasniqi, et al., 2013). It explains why the law document has more articles to control car driver's behaviours on traffic than other road users, even the vulnerable road users: pedestrians and cyclists. Meanwhile, from road users' perspective, behaviour of car drivers, especially regarding to driving habit is

understood contained a social value, which symbolises concepts of ‘social status’ and ‘masculinity’.

Besides the main element, which shapes road safety perception, road users and producers have distinct standpoints. Firstly, emerging elements based on interviews, focus group discussions, and documents issued by producers. Producers argue that location of schools encourage pedestrians to do jay-walking in everyday basis, but road users mention safety cycling gear, travel distance, time, topography, ‘vulnerable’ feeling, confusion, familiarity, and the presence of police officers. Secondly, for each classification of elements that shape road safety perception are also perceived differently by producers and road users, except for post-war conditions and traffic conditions (see **Table 4.5**). For instance, characteristics of road users are the only element, which does not find from producers’ point of view and miscellaneous elements consist of completely unlike elements.

Table 4.5
Producers vs. Road Users upon Road Safety

Categories	Producers	Road Users
Emerging elements	Acknowledge a traffic accident Traffic obedience Traffic regulation education Traffic direction Usurpations Weather **Location of schools**	**Safety cycling gear** **Travel distance** Acknowledge a traffic accident Traffic obedience Traffic regulation education Usurpations **Time** **Topography** Weather **‘Vulnerable’ feeling** **Confusion** **Familiarity** **Attendance of police officers**
Dominant element	Behaviour of car drivers	Behaviour of car drivers
Elements that shape road safety perception based on each classification		
Characteristics	-	**Age** **Companions** **Safety cycling gear**
Safety thresholds	Acknowledge a traffic accident Individual traffic regulation knowledge Traffic obedience Traffic regulation education	Acknowledge a traffic accident **Individual traffic accident experience** Individual traffic regulation knowledge **Social value** Traffic obedience Traffic regulation education
Physical elements	ROW design Street furnitures **Traffic direction**	ROW design Street furnitures
Traffic conditions	Behaviour of other road users Behaviour on traffic Traffic conditions Usurpations	Behaviour of other road users Behaviour on traffic Traffic conditions Usurpations

Natural environments	Weather	**Time** Weather **Topography**
Post-War conditions	Perceived changes after the War	Perceived changes after the War
Others	**Location of schools**	**Vulnerable' feeling** **Confusion** **Familiarity** **Attendance of police**

Note: bold text represents differences between two perspectives and normal text indicates the similarities.

4.6 Reflections

After presenting the results and discussing on how road safety is perceived comprehensively by three groups of sample, this section will reflect what the existing knowledge mentioned about road safety perception compared with the findings and the context of Prishtina, as the case study used in this study. Looking back to the theory of how road safety perception shaped by two main perspectives of this study: road users and producers, there are two major categories: internal elements and external elements, as can be seen on **Table 4.6** below. Moreover, according to what have been found during the fieldwork, there are emerging elements, which are different from what has been known in academia. First example is cyclists added safety cycling gear and travel distance as two elements characterised one cyclist to another. In addition, these two elements are related to each other's in the sense of how cyclists perceive the probability of traffic accident risk and traffic accident severe consequences. Cyclists argue that by using helmet, any severe consequences in a traffic accidents are reduced than without using a helmet, and for cyclists who have a shorter travel distance think the probability of them experiencing a traffic accident is fewer than cyclists who have a longer travel distance. Second example is usurpations of sidewalks and bicycle lanes by cars or an alfresco of cafes. Cyclists and pedestrians experience similar difficulties in their everyday walking and cycling activities. Third example is elements of natural environment, including time, topography, and weather, which are raised by cyclists and pedestrians. These elements are considered by mainly cyclists to choose an everyday commuting route. During the wintertime, cyclists do not use a bike because they perceive this condition as dangerous due to the slippery road conditions. Last example is other elements, such as: 'vulnerable' feeling, confusion, familiarity with built environment and traffic conditions, attendance of police officers on the streets, and location of schools.

Table 4.6
Emerging elements that shape the road safety perception

	Elements	Sub-elements	Emerging sub-elements
Internal elements	Characteristics	• Gender • Age • Companions • Disabilities and handicap • Education level	• Safety cycling gear • Travel distance
	Safety threshold	• Individual traffic accidents experience • Individual traffic regulation	• Acknowledge a traffic accident • Traffic obedience

		knowledge • Social constraints Social value	• Traffic regulation education
External elements	Physical elements	• ROW design • Street furniture	• Traffic direction
	Traffic conditions	• Behaviour of other road users • Behaviour on traffic • Traffic conditions	• Usurpations
	Natural environments	-	• Time • Topography • Weather
	Post-War conditions	-	• Perceived changes after the War
	Others	-	• 'Vulnerable' feeling • Confusion • Familiarity • Attendance of police • Location of schools
	Perception of road safety	• Perceived dread risk of traffic accidents • Perceived probability of traffic accident risk Perceived traffic accident severity	-

Compared to what has been known in the academia regarding how pedestrians and cyclists perceive road safety, case study shows a modest difference. According to Kaparias (2012) , pedestrians' road safety perceptions are varying based on adjacent characteristics that pedestrians have, for instance: age, gender, disability, companions, and education level. Boateng and Thomson (1991), who studied road safety perception from the perspective of adolescent children, confirmed this argument by mentioning adolescent children who are younger than 19 years old, perceive road safety in a very simple manner. They merely care about their distance from their standing position to a car, crossing distance, and the presence of physical elements, such as zebra cross and streetlights. However, this study discovered that young (10-18 years old) and adult pedestrians (19-59 years old) perceive road safety in slightly similar way in term of the elements shaped their perception upon road safety, as showed on **Figure 4.20**. In addition, elderly pedestrians (older than 59 years old) perceive it in completely different way. Above these differences, behaviour of car drivers is the most dominant element that encourages the development of road safety perception for all groups of age (young, adult, and elderly). Moreover, in the case of how cyclists perceive road safety, there are two prevalent arguments in academic literatures. First argument mentioned that cyclists perceive road safety in similar manner with pedestrians (Jones, Roberts, et al., 2007c, Vanlaar and Yannis, 2006) and the second argument comes from Pikora et.al. (2003), who said that road design is the only factor that shapes road safety from cyclists' standpoints. Nevertheless, cyclists' road safety perception in Prishtina is closely related to the first argument, because cyclists and pedestrians road safety perception is rather homogeneous in term of the element that dominated their perception (behaviour of car drivers) and their understanding of 'road safety', which is the probability of traffic accidents occurrence. In a nutshell, pedestrians and cyclists also share similar understanding of the concept of 'high

social status' and 'masculinity' which serve as the basis explained why car drivers' behave in particular manners (disobedience of traffic rules and signs) resulted a road safety perception from the perspectives of road users.

According to Wegman (2006) also Hurts et.al. (2011) road infrastructure and car drivers' distractive activities are two elements that shape road safety perception from stakeholders in producer level. Road design as part of built environment plays as a stimulator of road safety perception, which resulted how road users behave on the streets. On the contrary, behaviour of car drivers appears to be a dominant element in developing progress of road safety perception (see **Figure 4.18**). Furthermore, road users' and producers' road safety perception in Prishtina are developed by a similar element, which is behaviour of car drivers. Although they share the similar element, but producers and road users do not share a similar understanding why behaviour of car drivers concern their perception. As mentioned before, road users have a sort of cultural background as a basis of their concern, meanwhile producers' understanding rely on the quantitative data of main causes of traffic accidents in Prishtina, which is driving above the speed limit (Ministry of Infrastructure, 2015, Lenjani, Krasniqi, et al., 2013)

In relation with the context of Prishtina as a post-conflict society, academic literatures mentioned that the changes in road infrastructure also transform how residents perceive road safety in everyday basis. However, findings show that the changes happened in Prishtina, such as the expansion of the city, increasing number of population, and increasing the number of cars ownership do not give much influence in how both road users and producers perceive road safety.

Chapter 5: Conclusions and Recommendations

5.1 Conclusions

This chapter will present the summarised main findings with regard to research questions and general conclusions derived from findings of the studies, which could contribute, to the body of knowledge in urban planning and road safety topic. Furthermore, the strength and limitation of this study will also be presented followed by several suggestions for further research in similar field. This chapter also gives a recommendation for stakeholders who are responsible for decision makers of road safety strategy in Kosovo national government and the Municipality of Prishtina in the local level of government.

This research was intended to explain how the road safety perception from two perspectives are developed, which are producers and road users, including pedestrians and cyclists, by using Prishtina as a case study. What was found in this study with regards of road safety perception is slightly different with what has been known in academia. The existing academic literatures in Chapter 2 underline that there is a difference between how producers and road users perceive road safety. Producers perceive road infrastructure and distractive behaviours of car driver as two main elements, which shape their road safety perception (Wegman and Aarts, 2006, Hurts, Angell, et al., 2011) . Physical elements, including road infrastructure, stimulate the developing process of road safety perception from producers' point of views. However, road users' perceptions are developed in various manners depend on characteristics of pedestrians and cyclists, as road users, for instance: age, gender, disability or handicap, companions, and education level.

The findings of this study draws three conclusions which could contribute to the body of knowledge, especially in the field of urban planning and road safety topic. First of all, the study found that walking and cycling activities are dependent activities. It means that walking and cycling activities highly depend upon other road users activities and behaviours on the streets. Walking activities are influenced by cycling and driving activities, also vice versa for others two activities. It represents by having behaviour of other road users as the crucial element, which shapes road safety perception from road users, both cyclists and pedestrians. In addition, age does not play big role here, as showed in the findings on Chapter 4. Road users' road perceptions are mainly contingent to what other road users do on traffic, whether it is obedience or disobedience of traffic rules and signs. Secondly, road users and producers share the similar main element, which shape their road safety perception. This finding contradicts what has been known in the prevalent theories. Behaviour of other road users, in this case is car drivers' behaviours, plays a big role in driving the road safety perception for both road users and producers resulted their behaviours on the streets and decision making of producers reflected on legal documents that they issued. The last conclusion highlights the differences in how producers and road users develop their road safety perception. Although they share similar element that shapes their perception, the basis of perception development is entirely distinct from one to another. Road users understand behaviours of car drivers are driven by concepts of 'high social status' and 'masculinity' which live among society, especially in Balkan Peninsula region countries, meanwhile, stakeholders in producer's level use quantitative statistical data as their basis on road safety perception development. Statistical data showed that driving above speed limit is the main cause of traffic accidents in Kosovo (Lenjani, Krasniqi, et al., 2013, Ministry of Infrastructure, 2015).

This study stresses road safety perception works differently in the context of Prishtina, capital city of Kosovo, which is located geographically in Eastern Europe. Society in the aforementioned region, shares different perspective upon road safety compared to Western Europe countries, where the existing theories have been developed and used in this study. What happened in the case study upon road safety implies that dependent behaviours on traffic are driven by social value that lives among society as the basis of perception development. It also should be reminded that findings in this research are limited to young (younger than 19 years old) and elderly cyclists (older than 59 years old), due to their non-existence in the context of Prishtina.

In a nutshell, this study successfully discovered how road safety perception from both perspectives; producers and road users in the context of Prishtina, which has an urgency to reduce the number of traffic accidents happened in the city level and national level, through rapid ethnographic assessment methodologies. Producers and road users in Prishtina shares similar dominant element, yet different in understanding of how this element could affect their road safety perception. In addition, it is also stressed the importance of social value developed as a foundation in understanding behaviour of other road users.

5.2 Recommendations

In this study, an innovative research tool is developed and presented, which is a rapid ethnographic assessment originated from social anthropology field of study. This methodology is useful to discover the topic that is not familiar in academic literature, such as the study of perception presented in this thesis. Furthermore, there are two types of recommendations, which will be presented below. First recommendation is intended for further research in similar field and second recommendation is determined for road safety strategy decision makers in both national and local level of government in Kosovo (so called producers in this study).

At the academic research level, there are at least three main suggestions for further research is put forward below. First suggestion is related to the research methodology that is used in this study. Ethnography, especially rapid ethnographic assessments, is recommended to use in further research to discover road safety perception in various perspectives of actors in Prishtina. As mentioned before, residents of Kosovo is dominated by Albanian by ethnicity, which is relatively ‘open’ society in term of expressing their thoughts and feelings upon a particular topic. This personality has given benefits to the research methodology in term of gathering many inputs during fieldwork. Secondly, further research is necessary to explore how the social value, special regards to a concept of ‘social status’ and ‘masculinity’, was developed among society over time and why stakeholders in producer level appear to be neglected this social value even tough it exists and shares among road users (cyclists and pedestrians). Last suggestion would be related to the practical level of a research. Researcher should be aware of public holiday and working culture in Kosovo in order to minimise obstacles during fieldwork.

At the practical level, this study recommends the stakeholders in producer’s level who are responsible for planning, designing, and implementing a road safety strategy in both national and local level to have horizontal and vertical collaborations. Horizontal collaboration emphasises on cooperation across disciplines and working fields by involving other related stakeholders, such as Ministry of Education, academic institutions, and civic society

organisations in comprehensive process of planning, designing, and implementing a road safety strategy in Kosovo and in Prishtina. Meanwhile, vertical collaboration underlines a cooperation between stakeholders in national level with stakeholders in local level in planning, designing, and implementing a road safety strategy, because without those two types of collaborations, road safety strategy cannot be implemented properly due to lack of resources, such as budget or comprehensive skills. It is also important to avoid the overlapping strategy or action between two level of governance: national and local level. Furthermore, in regard to traffic education curriculum that is mentioned in the Law No.05/L-088 on Road Traffic Provisions, the curriculum should concerned on two fundamental points: how to alter an understanding upon a concept of 'higher social status' and 'masculinity' represented by a certain manner of driving behaviours and reshape an understanding of dependent behaviours on traffic among various road users. In conclusion, understanding road safety perception gives an important remark to the understanding of behaviours of various road users, which serves as a basis in further step to develop a more effective road safety strategy to reduce traffic accidents.

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Annex 1: Research Time Schedule

Activities	2017																			
	May				Jun				Jul				Aug				Sep			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Research Proposal																				
Research proposal writing																				
Development of research instruments																				
Submission of the research proposal																				
Acceptance of the research proposal																				
Fieldwork and Data Collection																				
Mobility in Prishtina, Kosova																				
Collecting contacts of institutions and road safety experts																				
First phase of data collection																				
Second phase of data collection																				
Data Analysis																				
Content analysis (secondary data)																				
Primary data entry and analysis																				
Thesis writing																				
Colloquium Schedule																				
Coloquium 3																				
Colloquium 4																				
Thesis defense																				
Thesis Submission																				
Thesis draft submission																				
Thesis final submission																				

Annex 2: Semi-Structured Interview Guide

This is the interview guide that the researcher used during the interview with the targeted group. The interview was structured into three main parts, which were: introduction, a set of questions, and closing comments. Improvisation in asking questions during interview happened due to the interactions between the researcher and interviewee and the actual situation during the interview. In this guide, the questions and confidentiality agreement between the researcher and intreviewee are also presented in two languages: English and Albanian, because Albanian is the national language of Kosova. The researcher also got help from a translator during the interview session with non-English speakers in Prishtina, Kosova.

Introduction Key components: • Greetings • Personal introduction • Purpose • Confidentiality • Duration • How interview will be conducted • Opportunity of questions • Signature of consent	Good morning / good afternoon. First of all, I would like to thank you for providing a time to meet me today. My name is Yulia and I am a master student from Erasmus University Rotterdam, the Netherlands. I am currently doing a thesis research about road safety perception from perspectives of stakeholders and pedestrians as road users. Today, I would like to discuss with you about my thesis topic and your experiences in _____ project / plan. I would like to structure my questions into four parts. The first part, I will ask you about the project / plan _____ . In the second part, I will ask you to give me a general overview of the issue of road safety in Prishtina. The next part, we will discuss specifically the perception of road safety for pedestrians and cyclists and in the last part, I would like to know your personal opinion and everyday experiences as one of the pedestrians. The interview should take maximum one hour. I also would like your permission to record our conversation today because I do not want to miss any of your comments. In addition, because we are on the tape, I would like you to speak a little bit louder, so that we will not miss any of your comment on the tape. I would like also to make sure that all responses will be kept confidential. This means that your responses will be only used for academic research purposes and I ensure any information included in the final report are anonymous. However, you may refuse to answer questions that you do not want to talk about during the interview. Before we start the interview, do you have any questions about what I have just explained? Please fill out this form and give your signature on it as proof of your willingness statement to participate in this interview.
Questions	**Part 1: Interviewee's involvement and explanation about _____ project/ plan** ***Pjesa 1: Përfshirja e intervistuesit dhe shpjegimi për _____ projektin / planin***

	1. Could you please explain to me about _____ project / plan that you are working on at the moment? *A mund të më shpjegoni mua në lidhje me _____ projektin / planin për të cilin po punoni në këtë moment ?* 2. Who are stakeholders that involve in this project / plan? *Kush janë palët e interesuara që përfshihen në këtë projekt / plan?* 3. What is the timeline for this project / plan? (Start and end) *Cila është afati kohor për këtë projekt / plan? (Fillimi dhe fundi)* 4. What is your role in this project / plan? *Cili është roli juaj në këtë projekt / plan?* 5. What are the barriers that you encounter in doing this project/plan? *Cilat janë pengesat që hasni gjatë kryerjes së këtij projekti / plani?* 6. How do you overcome these barriers? *Si i tejkaloni këto barriera?* **Part 2: General overview of road safety issues in Prishtina** ***Pjesa 2: Vështrim i përgjithshëm i çështjeve të sigurisë rrugore në Prishtinë*** 1. What do you think about the issue of road safety in Prishtina, Kosova? *Si mendoni për çështjen e sigurisë rrugore në Prishtinë, Kosovë?* 2. What does not work well in Prishtina? *Çfarë nuk funksionon mirë në Prishtinë*? 3. What does work well? *Çfarë funksionon mirë?* 4. What is your suggestion or recommendations to solve this issue? *Cili është sugjerimi ose rekomandimet tuaja për të zgjidhur këtë çështje?* **Part 3: Perception of road safety for pedestrians and cyclists** ***Pjesa 3: Perceptimi i sigurisë rrugore për këmbësorët dhe çiklistët*** 1. Could you please tell me where are the specific locations in the urban zone of Prishtina where traffic accidents that involve pedestrians and cyclists happen quite often? (Ask the interviewee to point on the map) *A mund të më tregoni se ku janë lokacionet specifike në zonën urbane të Prishtinës ku aksidentet e trafikut që përfshijnë këmbësorë dhe çiklistë ndodhin mjaft shpesh? (Pyetni të intervistuarin të tregojë në hartë)* 2. When do these traffic accidents usually happen in the aforementioned location? *Kur këto aksidente trafiku zakonisht ndodhin në lokacionin e lartpërmendur?* 3. Why do these traffic accidents happen in the aforementioned location? *Përse ndodhin këto aksidente trafiku në vendin e lartpërmendur?* 4. What do you think should be done to reduce traffic accidents that involve pedestrians and cyclists? Why? *Çfarë mendoni se duhet bërë për të zvogëluar aksidentet e trafikut që përfshijnë këmbësorë dhe çiklistë? Pse?* 5. What elements that you consider as important to consider while designing a strategy for pedestrian safety? Please explain. *Cilat elementë që konsideroni si të rëndësishme për t'u marrë parasysh*

	gjatë hartimit të një strategjie për sigurinë e këmbësorëve? Ju lutem shpjegoni. 6. What elements that you consider as important to consider while designing a strategy for cyclists safety? Please explain. *Cilat elemente që konsideroni si të rëndësishme për t'u marrë parasysh gjatë hartimit të një strategjie për sigurinë e çiklistëve? Ju lutem shpjegoni.* 7. If we are talking specifically about disability, which factors that are important to consider while designing a strategy for disability safety? Please explain. *Nëse po flasim në mënyrë specifike për aftësinë e kufizuar, cilët faktorë që janë të rëndësishëm për t'u marrë parasysh gjatë hartimit të një strategjie për sigurinë e aftësisë së kufizuar? Ju lutem shpjegoni.* 8. If we are talking specifically about children, which factors that are important to consider while designing a strategy for children safety? Please explain. *Nëse flasim në mënyrë specifike për fëmijët, cilët faktorë që janë të rëndësishëm për t'u marrë parasysh gjatë hartimit të një strategjie për sigurinë e fëmijëve? Ju lutem shpjegoni.* 9. If we are talking specifically about elderly, which factors that are important to consider while designing a strategy for elderly safety? Please explain. *Nëse po flasim veçanërisht për të moshuarit, cilët faktorë që janë të rëndësishëm për t'u marrë parasysh gjatë hartimit të një strategjie për sigurinë e moshuar? Ju lutem shpjegoni.* **Part 4: Personal opinion and everyday experiences as one of pedestrians** ***Pjesa 4: Mendimi personal dhe përvojat e përditshme si një nga këmbësorët*** 1. While you were walking alone during the day, do you feel safe from traffic accidents? Why? *Ndërkohë që ecët vetëm gjatë ditës, a ndiheni të sigurt nga aksidentet e trafikut? Pse?* 2. While you were walking alone at night, do you feel safe from traffic accidents? Why? *Ndërsa po ecnit vetëm gjatë natës, a ndiheni të sigurt nga aksidentet e trafikut? Pse?* 3. Could you please tell me your route that you usually take to go to your office from your home? (Ask the interviewee to draw the route on the map) *A mund të më tregoni rrugën tuaj që ju zakonisht merrni për të shkuar në zyrën tuaj nga shtëpia juaj? (Pyetni të intervistuarin që të tërheqë rrugën në hartë)* 4. During your walk, which locations that you feel safe and unsafe? Please explain. (Ask the interviewee to draw the route on the map) *Gjatë ecjes tuaj, cilat vende ju ndiheni të sigurt dhe të pasigurt? Ju lutem shpjegoni. (Pyetni të intervistuarin që të tërheqë rrugën në hartë)* 5. What do you usually do to overcome the unsafe situation? *Çfarë bëni zakonisht për të kapërcyer situatën e pasigurt?* 6. Which part of activities of walking on the streets that you always pay extra attention or have to be extra careful? Please explain. *Cila pjesë e aktiviteteve të ecjes në rrugë ju kushton gjithmonë vëmendje*

	shtesë ose duhet të jeni tepër të kujdesshëm? Ju lutem shpjegoni. 7. How is the chance to experience traffic accidents in Prishtina? Why? (Low, Medium, High) *Si është mundësia që të përjetohet aksident trafiku në Prishtinë? Pse?* *(I ulët, i mesëm, i lartë)* 8. If you have a chance to rate yourself, how could you rate the awareness of the traffic accidents severity (injured, deaths, etc.)? Why? (Low, Medium, High) *Nëse keni mundësi të vlerësoni veten tuaj, si mund ta vlerësoni ndërgjegjësimin për ashpërsinë e aksidenteve të trafikut (të plagosur, vdekje, etj.)? Pse?* *(I ulët, i mesëm, i lartë)* 9. How could you rate the awareness of the traffic accidents severity (injured, deaths, etc.) in general for pedestrians and cyclists in Prishtina? Why? (Low, Medium, High) *Si mund ta vlerësoni ndërgjegjësimin për ashpërsinë e aksidenteve të trafikut (plagosur, vdekje, etj.) Në përgjithësi për këmbësorët dhe çiklistët në Prishtinë? Pse?* *(I ulët, i mesëm, i lartë)* 10. How would you rate yourself about the fear of experiencing traffic accidents in Prishtina? Why? (Low, Medium, High) *Si do ta vlerësonit veten për frikën e aksidenteve të trafikut në Prishtinë? Pse?* *(I ulët, i mesëm, i lartë)*
Closing Key components: • Additional comments • Next steps • Thank you	I think I have already asked all my questions. Do you have something that you would like to add? I will analyse the information that you and other interviewees gave me and I will submit the draft of final report in August 2017 and finish my thesis research in the end of September 2017. I will be happy to share with you a copy of the draft report to you, so that you can give me feedbacks, if you are interested. After I submitted my final report, I also will share to you the summary of the final result of my research. Thank you for your time and we will keep in touch.

CONFIDENTIAL DISCLOSURE AGREEMENT
MARRËVESHJA KONFIDENCIALE

This interview confidential disclosure agreement is made effective upon the signatures of both parties.
Kjo intervistë marrëveshja e zbulimit konfidencial bëhet efektive me nënshkrimet e të dy palëve.

BETWEEN : _____, as the Interviewee
Ndërmjet *Si iintervistuari*

who has a position as _____
I cili ka një pozicion si
In _____
në
with its office located at _____
Me zyrën e saj të vendosur në

AND : **Ms. Yulia Yulia**, as the Interviewer and a master student of
dhe Urban Management and Development (UMD) 13 programme
Institute for Housing and Urban Development Studies (IHS)
Erasmus University Rotterdam, the Netherlands.

In consideration of the mutual covenants contained in this agreement, both parties agree as follows:
Në konsideratë të besëlidhjeve të ndërsjella të përmbajtura në këtë marrëveshje, të dy palët bien dakord si më poshtë:

1. The Interviewer is interviewing the Interviewee for the purpose of master thesis research, that is entitled, "Road Safety Perception from the Perspectives of Producers and Pedestrians as Road Users in Prishtina, Kosova".
   Intervistuesi interviston Intervistuesin me qëllim të hulumtimit të tezës së magjistraturës, me titull: "Perceptimi i sigurisë rrugore nga perspektiva e prodhuesve dhe këmbësorëve si përdorues të rrugëve në Prishtinë, Kosovë".
2. Both parties understand that all responses that are given by the Interviewee will be kept confidential and anonymous.
   Të dyja palët kuptojnë se të gjitha përgjigjet që jepen nga Intervistuesi do të mbahen konfidenciale dhe anonime.
3. Both parties understand that all responses and information that are given by the Interviewee will only be used for the purposes of academic research that is mentioned in point number 1.
   Të dyja palët kuptojnë se të gjitha përgjigjet dhe informatat që jepen nga Intervistuesi do të përdoren vetëm për qëllime të kërkimit akademik që përmendet në pikën numër 1.
4. At all times during and after the interview, the Interviewer will keep responses confidential and will not make use of or disclose to any third party any of responses, information, and data that are given by the Interviewee.
   Gjatë gjithë kohës dhe pas intervistës, Intervistuesi do t'i mbajë përgjigjet konfidenciale dhe nuk do të përdorë ose nuk do t'i zbulojë asnjë pale të tretë asnjë nga përgjigjet, informacionet dhe të dhënat që jepen nga Intervistuesi.

_____ , _____ 2017

INTERVIEWER
Intervistuesi

INTERVIEWEE
Intervistuari

_____
(Full name and signature)
(Emri i plotë dhe nënshkrimi)

_____
(Full name and signature)
(Emri i plotë dhe nënshkrimi)

Annex 3: Focus Group Discussion Guide

This is the focus group discussion guide that the researcher used to prepare and during the focus group discussion with the targeted group. This guide includes what should be done several days before the focus group discussions, the guide to conduct the focus group discussions, and what should do after each focus group discussion. The focus group discussion itself was structured into four main parts, which are: introduction, discussion session, cognitive mapping, and closing. Improvisation in asking questions during focus group discussions happened due to the interactions between the researcher and the respondents and the actual situation during the discussions. In this guide, the questions are presented in two languages: English and Albanian, because Albanian is the national language of Kosova. The researcher also got a help from a translator during the discussions with non-English speakers in Prishtina, Kosova.

Focus Group Discussion Preparation

- Recruiting participants
  Focus group discussions were designed for respondents in group 2 (pedestrians) and group 3 (cyclists). Participants recruited in several ways below.

Participants Recruitment Strategies	
Formal organisations	The researcher found organisations who are dealing with certain characteristics of participants, such as: disability, youth, children, or elderly. Discussing with formal institutions, such as schools and universities, are also possible to access and recruit the targeted groups.
Informal networks	The researcher identifies several informal networks, such as cultural groups or communities that are consisted of targeted groups, such as: youth community, etc. After identifying these communities, the researcher will ask for collaboration to conduct discussion activities with the member and public.
Advertisements	The researcher develops an advertisement about the study through social media (Facebook), magazine, or placement a poster in several prominent locations that are likely to be viewed by the targeted groups. For this strategy, the researcher will also provide a google form for participants to register, by then, it is easier for researcher to follow up the participation of the participants in the discussion.

- Sending invitations and ask for confirmations to all participants
  Once a group has been established, the researcher will send an invitation via email and ask for confirmation to participate in the discussion. Here is the sample of the invitation.

Focus Group Discussion Invitation
Place, Date

Dear _____,

Thank you for your interest to participate in the focus group discussion of my research. In the discussion, I would like to hear your opinions regarding road safety issues in Prishtina, Kosova. You would be in the group with (the number of participants) other participants that have the same range of age with you. Your responses during the discussion would be kept confidential and anonymous. The information of the date, time, and place of the discussion are listed below. Please look for signs directing you to the room where the discussion will be held.

Date :
Time:
Place:
(with a map)

If you have any questions or would not be able to attend the discussion for any reasons, please send me an email.
I am looking forward to seeing and listening to your opinion.

Sincerely,

Yulia Yulia
Master of Science (MSc.) Urban Management and Development (UMD)
Institute for Housing and Urban Development Studies (IHS)
Erasmus University Rotterdam
The Netherlands
[e] yuliayulia@student.eur.nl

Conducting Focus Group Discussion

Introduction Key components: • Greetings • Introduction • Purpose • Ground rules • Confidentiality • Duration • How discussion will be conducted • Opportunity of questions • Signature of consent	Good morning / good afternoon. First of all, I would like to thank you for your participation in this focus group discussion. My name is Yulia and I am a master student from Erasmus University Rotterdam, the Netherlands. I am currently doing a thesis research about road safety perception from perspectives of stakeholders and pedestrians and cyclists as road users. The reason of having this discussion is to find out your opinions as residents of Prishtina about the issue of road safety in Prishtina. The discussion will be divided into two parts. In the first part, we will discuss the topic in the general sense. However, in the second part, we will develop a map that represents your feelings and opinions about this issue. The discussion will take maximum two hours. Before we start, I will also introduce the ground rules of this discussion: • I would like everyone to participate and talk during the discussion. • There are no right or wrong answer. • What is said in this discussion today will stay here. • All your responses and personal details would be kept

	confidential and anonymous in the final report. Before we start the discussion, do you have any questions about what I have just explained? Please fill out this form and give your signature on it as proof of your willingness statement to participate in this interview.
Part 1: **Questions**	1. What do you think about road safety issues in Prishtina? *Çfarë mendoni për çështjet e sigurisë rrugore në Prishtinë?* 2. Have anyone of us experienced a traffic accident before? *Keni ndonjë prej nesh të përjetuar një aksident trafiku më parë?* 3. What do you think about the cause of traffic accident that involve pedestrians and cyclists? *Çfarë mendoni për shkakun e aksidentit të trafikut që përfshin këmbësorë dhe çiklistë?* 4. Let us flash back when we walked to this location today, what do you feel during your journey? *Le të kthehemi prapa kur kemi ecur sot në këtë vend, çfarë ndjehesh gjatë udhëtimit tënd?* 5. What would you suggest to be improved to increase the safety for pedestrians in Prishtina? *Çfarë do të sugjeronit të përmirësoheni për të rritur sigurinë për këmbësorët në Prishtinë?* 6. What would you suggest to be improved to increase the safety for cyclists in Prishtina? *Çfarë do të sugjeronit për t'u përmirësuar për të rritur sigurinë për çiklistët në Prishtinë?*
Part 2: **Cognitive mapping**	The researcher will ask participants to divide themself into small groups, that consist of 2-3 people per group. Each group will be asked to put their feelings and opinions about the topic into the provided map. Several items that are asked to be identified into the map: • Weekdays route (from home to working place or school). • Weekend route. • Participant's evaluations of traffic accidents occurrence probability locations within urban zone of Prishtina. • Participant's evaluations of the feeling of fear of traffic accidents occurrence locations within urban zone of Prishtina. • Participant's evaluations of the feeling of safe of traffic accidents occurrence locations within urban zone of Prishtina.
Closing Key components: • Concluding question • Additional comment • Thank you	We are coming to the end of our session today. One last question before officially ending our session, of all discussions that we had today, what is the most important to you? Could I have one last remarks from each of you? Thank you so much for your participation in the discussion today.

FOCUS GROUP DISCUSSION CONSENT OF PARTICIPATION

Research Title:
"Road Safety Perception from the Perspectives of Producers and Road Users (Pedestrians and Cyclists) in Prishtina, Kosova"

Researcher's Details:

Name	: Yulia Yulia
Study Program	: Master of Science (MSc.) in Urban Management and Development
Institution	: Institute for Housing and Urban Development Studies (IHS) Erasmus University Rotterdam the Netherlands

Focus Group Discussion Purpose:
This discussion aims to get in-depth understanding about the road safety issues from the perspective of road users. The information learned in the discussion will be used in the aforementioned academic research and to give recommendation in designing road safety strategy.

Voluntary Participation:
The Participant's participation in this study is completely voluntary and the Participant may choose to stop participating at any time. Participant's decision not to volunteer will not influence the relationship between the Participant with the Researchers or IHS Erasmus University Rotterdam in the future.

Confidentiality:
All responses and information that are given by the Participant will only be used for the purposes of academic research and the Researcher will keep responses confidential and will not make use of or disclose to any third party any of responses and information that are given by the Participant.

Consent of Participation Statement:
I have read the foregoing information, or it has been read to me. I consent my participation in the discussion that is conducted by the researcher. I have understood the nature of this research and wish to participate. I stated that my signature below indicates my consent.

_____ , _____ 2017

RESEARCHER PARTICIPANT

_____ _____

(Full name and signature) (Full name and signature)

DISPOZITAT E GRUPIT FOCUS PËR PJESËMARRJEN

Titulli i Kërkimit:
"Perceptimi i sigurisë rrugore nga perspektiva e prodhuesve dhe përdoruesve të rrugëve (këmbësorë dhe çiklistë) në Prishtinë, Kosovë"
"*Road Safety Perception from the Perspectives of Producers and Road Users (Pedestrians and Cyclists) in Prishtina, Kosova*"

Detajet e studiuesit:

Emër	: Yulia Yulia
Programi i studimit	: Master of Science (MSc.) in Urban Management and Development
Institucion	: Institute for Housing and Urban Development Studies (IHS) Erasmus University Rotterdam the Netherlands

Qëllimi i diskutimit të grupit të fokusit:
Ky diskutim synon të kuptojë më thellë çështjet e sigurisë rrugore nga perspektiva e përdoruesve të rrugës. Informacioni i mësuar në diskutim do të përdoret në hulumtimin akademik të lartpërmendur dhe do të japë rekomandime në hartimin e strategjisë së sigurisë rrugore.

Pjesëmarrja vullnetare:
Pjesëmarrja e pjesëmarrësit në këtë studim është krejtësisht vullnetare dhe pjesëmarrësi mund të zgjedhë të ndalojë pjesëmarrjen në çdo kohë. Vendimi i pjesëmarrësit për të mos vullnetar nuk do të ndikojë në marrëdhënien midis pjesëmarrësit me kërkuesit ose IHS Erasmus University Rotterdam në të ardhmen.

Konfidencialiteti:
Të gjitha përgjigjet dhe informatat që jepen nga Pjesëmarrësi do të përdoren vetëm për qëllime të hulumtimit akademik dhe Hulumtuesi do t'i mbajë përgjigjet konfidenciale dhe nuk do të përdorë ose zbulojë ndonjë pale të tretë asnjë nga përgjigjet dhe informacionet që jepen nga Pjesëmarrësi.

Pëlqimi i Deklaratës së Pjesëmarrjes:
Kam lexuar informacionin e mësipërm, ose është lexuar për mua. Unë pranoj pjesëmarrjen time në diskutimin që kryhet nga kërkuesi. Kam kuptuar natyrën e këtij hulumtimi dhe dëshiroj të marr pjesë. Unë deklarova se nënshkrimi im më poshtë tregon pëlqimin tim.

_____ , _____ 2017

STUDIUES PJESËMARRËS

_____ _____
(Emri i plotë dhe nënshkrimi) (Emri i plotë dhe nënshkrimi)

Offline Focus Group Discussion Invitation

Online Focus Group Discussion Invitation

Annex 4: Observation Guide

This is the observation guide that the researcher used during the observation on site. The observation guide consists of two measurements, which are physical elements and traffic.

Date : _____
Time : _____
Location : _____

Dimension 1: Physical Elements

Indicator	Sub-indicator	Observation
Right of Way Design	Sidewalks	
	Pedestrian crossings	
	Pedestrian refuge	
	Sidewalk extension	
	Accessibility for disability	
	Signage and way finding	
	Buffer	
Street furniture	Pedestrian countdown signals	
	Pedestrian lighting	
	Crash cushions	
	Bollards	
	Fences	
	Guardrails	
	Seating	

Dimension 2: Traffic

Indicator	Sub-indicator	Observation
Traffic conditions	Traffic volume	
	Traffic speed	
	Others	
Behaviour	Crossing behaviour	
	Distraction activities	
	Traffic regulation obedience	
	Others	

Annex 5: Research Translation Assistance Agreement

This Agreement is made effective upon the signatures of both parties.

BETWEEN : **Ms. Yulia Yulia**, as the researcher and master student of Urban Management and Development (UMD) 13 programme
Institute for Housing and Urban Development Studies (IHS)
Erasmus University Rotterdam
Burgemeester Oudlaan 50, Mandeville Building, 14th floor
3062 PA Rotterdam, the Netherlands
Email: yuliayulia@student.eur.nl

AND : **Ms./ Mr. _____**, as the translation assistant or translator, who resides at [address]
Email: _____

In consideration of the mutual covenants contained in this agreement, both parties agree as follows:

1. **Nature of Translation Assistance**
   This Agreement is made in the purpose of master thesis research, that is conducted by the Researcher and is entitled, "Road Safety Perception from the Perspectives of Producers and Road Users (Pedestrians and Cyclists) in Prishtina, Kosova".

2. **Description of Services**
   Translator, as the independent party, will provide these following services:
   a. Translation assistant for the focus groups discussions of the research that is mentioned in the point number 1.
   b. Translation transcript service for the focus groups discussion records and interview records of the research that is mentioned in the point number 1, which scheduled completion date, is on _____.
   c. The Translator shall make every effort to complete services by the above date but shall not be responsible for delays in completion caused by events beyond the Translator's control.
   d. The Researcher shall provide all necessary information and materials for the Translator to do his services.
   e. The Researcher and the Translator agree to deliver the translation documents via email and in the format of Microsoft Word document (.docx).

3. **Fee for Services**
   a. The Researcher agrees to pay EUR _____ per discussion session, as translation fee for the aforementioned services in the point number 2a.
   b. The Researcher agrees to pay EUR ____ per audio files, as translation fee for the aforementioned service in the point number 2b.
   c. The due dates for payment of fees and costs in the point number 3a under this Agreement shall be specified as follows:
      - The translation assistant service mentioned in the point number 2a, shall be paid by the Researcher within 3 working days after the day of the discussion by the mode of payment that is agreed by both parties.
      - The translation transcript service mentioned in the point number 2b, shall be

paid by the Researcher within 10 working days after the delivery date of the translation by the Translator.
- If there are mistakes that were made by the Translator upon the translation transcript service mentioned in the point number 2b, the Researcher shall pay within 10 working days after the Translator hand in the revision to the Researcher

4. Additional Costs

a. The Researcher shall reimburse the Translator for necessary out-of-pocket expenses incurred by the Translator that are part of translation procedure, which are transportation fees of the Translator to the focus group discussion venue.
b. Upon reimbursement the additional cost mentioned in point number 4a above from the Researcher, the Translator shall give the receipts or any written proofs to the Researcher beforehand, and within 10 days after receiving these written proofs from the Translator, the Researcher shall give the payment by the mode of payment that is agreed by both parties.

5. Review of Translation

a. Upon receipt of the translation from the Translator, the Researcher shall promptly review it, and within 10 working days after receiving the translation, the Researcher shall notify the Translator of any requested corrections or changes.
b. The Translator shall correct, at no cost to the Researcher, any errors made by the Translator.

6. Confidentiality

All knowledge and information that are provided by the Researcher in any formats for the purpose of translations shall be maintained in confidentiality by the Translator and shall not be divulged or published by Translator and shall not be authorized by Translator to be divulged or published by other parties.

7. Copyright of the Translation Documents

Upon the Researcher's completion of all payments provided herein, the translation of the item(s) described in the point number 2 above shall be the property of the Researcher. The Translator has no obligation to take any steps to protect any copyright, trademark or other rights of the Researcher with respect to the translation, except as may be expressly otherwise provided in this Agreement. Notwithstanding the foregoing, the Translator shall not have the rights to retain file copies of the item(s) to be translated and of the translations, subject to the provisions of point number 6 above.

This is the complete agreement of the parties as to the subject matter hereof. Any changes in this Agreement must be in writing signed by both parties. This Agreement becomes a binding contract only upon signature by both parties and the delivery of fully signed copies to each party.

_____, _____ 2017

RESEARCHER	TRANSLATOR
_____	_____
(Full name and signature)	(Full name and signature)

Annex 6: Fieldwork Letters

Fieldwork letter from IHS Erasmus University Rotterdam

IHS is the international institute of urban management of Erasmus University Rotterdam

IHS
Making cities work

Institute for Housing and Urban Development Studies
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F +31 (0)10 408 9826
E ihs@ihs.nl
www.ihs.nl

TO WHOM IT MAY CONCERN

Rotterdam, 10 May 2017

Dear Madam, Sir,

This is to certify that Ms Yulia Yulia, from Jakarta Indonesia, is a full-time student in our 13th MSc. Programme in Urban Management and Development (UMD-13), running at our institute in Rotterdam from October 2016 to September 2017.

The students of this course have now reached the phase in which they start writing their thesis. The topic of her thesis is "Perception of Road Safety in Pristina, Kosovo". For this, they are going on fieldwork and need to collect data. We support and approve of this fieldwork. We kindly ask you to assist our student in obtaining the necessary information. We would like to stress that the information obtained will only be used for academic purposes and will be treated confidentially.

We thank you in advance for your co-operation.

Best regards,
INSTITUTE FOR HOUSING AND URBAN DEVELOPMENT STUDIES

Ore F. Fika MSc
Programme Manager

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Fieldwork letter from University of Prishtina

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Mail: rektorati@uni-pr.edu

Dekani i FNA-së
Prof. Dr. Abdullah Zejnullahu
abdullah.zejnullahu@fna.uni-pr.edu
zyre :+381 38 548-644

Ref. nr. 2647/1 Prishtinë, 23.05.2017

ATYRE QË U INTERESON

Prishtinë, 18 May 2017

Te Nderuar Zonja/Zotërinj,

Universiteti i Prishtinës dhe Universiteti ERASMUS nga Rotterdami- Holandë, janë partnerë në programin e bashkëpunimit universitar ERASMUS +. Në kaudër të këtij programi 10 studentë nga Instituti i Studimeve të Banimit dhe Zhvillimit Urban - IHS, nga Rotterdami do të qëndrojnë në Kosovë prej 01 Maj - 30 Korrik 2017 për të hulumtuar tema të ndryshme në fushën e Menaxhimit Urban. Ata janë të sistemuar në kuadër të Fakultetit të Ndërtimtarisë dhe Arkitekturës.

Me këtë letër vërtetohet se zonja **Yulia Yulia**, nga Xhakarta/Indonezi, është studente e rregulltë në Programin për Menaxhimin dhe Zhvillimin Urban (UMD-13), në Universitetin ERASMUS në Rotterdam, nga Tetori 2016 deri në Shtator 2017. Në kuadër të programit ERASMUS +, studentët e këtij kursi gjatë tre muajve të ardhshëm, do të hulumtojnë çështjet e menaxhimit urban në Prishtinë. Tema e Znj.Yulia është "Perceptimi i Sigurisë Rrugore në Prishtinë". Për këtë qëllim, ajo është duke punuar në mbledhjen e të dhënave në terren. Fakulteti i Ndërtimtarisë dhe Arkitekturës si insitucion mikëpritës, në kuadër të këtij programi, miraton dhe e përkrahë hulumtimine saj në terren.

Prandaj në saje të mundësive, Ju lusim që ta ndihmoni Znj. Yulia, në sigurimin e informatave të nevojshme. Dëshirojmë të ju sigurojmë se informatat e marra do të përdoren vetëm për qëllime akademike dhe do të trajtohen në mënyrë konfidenciale.

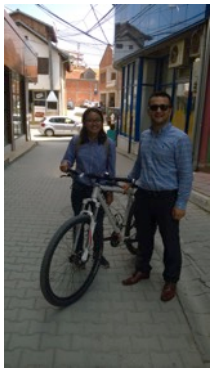
Ju falënderojmë paraprakisht për bashkëpunimin tuaj

Me respekt,

Dekan i FNA,
Prof. Dr. Abdullah Zejnullahu

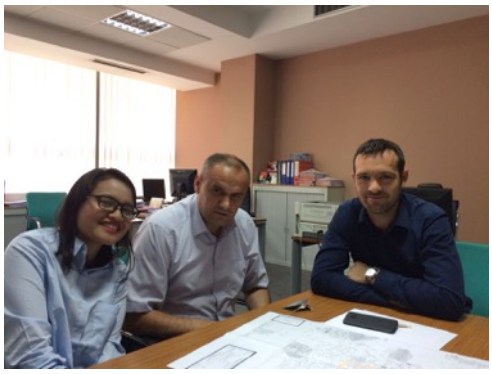
Annex 7: Fieldwork Photos

Focus group discussion with young pedestrians.



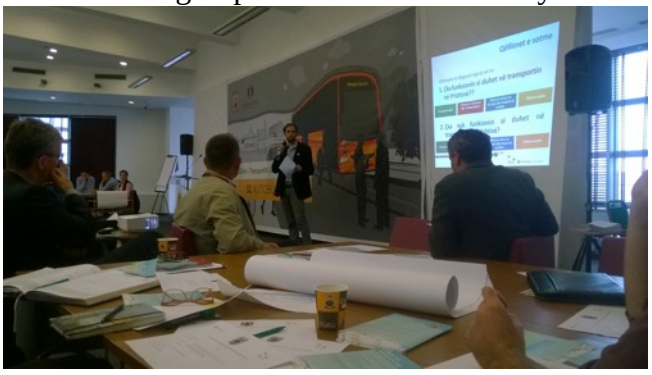
Interview with cyclist.

Interview with traffic department of Kosova Police Department.



Interview with Municipality of Prishtina.

Focus group discussion with elderly.



Prishtina SUMP stakeholders meeting.

Annex 8: IHS copyright form

In order to allow the IHS Research Committee to select and publish the best UMD theses, participants need to sign and hand in this copyright form to the course bureau together with their final thesis.

Criteria for publishing:

A summary of 300 to 500 words should be included in the thesis.

The number of pages for the thesis is about 60.

The thesis should be edited.

Please be aware of the length restrictions of the thesis. The Research Committee may choose not to publish very long and badly written theses.

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Thank you for your contribution to IHS.

Date : September, 7th, 2017

Your Name(s) : Yulia

Your Signature(s) :

Please direct this form and all questions regarding this form or IHS copyright policy to:

The Chairman, IHS Research Committee Burg. Oudlaan 50, T-Building 14th floor, 3062 PA Rotterdam, The Netherlands	j.edelenbos@ihs.nl Tel. +31 10 4089851