Determination of the Perception of Driving's Safety by Users

Master's Thesis of Marina Martinez

Supervision:

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Total Averaged Unafety Level 316 Users 4,50 4,00 Averaged Unsafety Level 3,50 3,00 2,50 2,00 1,50 1,00 Between three and.. More than fifteen... Two years or less Between six and. ■ Total Unsafety Level

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Introduction

Safety plays a central role for drivers who seek to be safe when practicing this activity. However, the perception of safety varies across population due to several factors such as age, the degree of experience or even the location. Furthermore, the fact that driving is a daily task in people's life makes safety a complex issue that should be thoroughly evaluated. This thesis aims at measuring the feeling of safety, both quantitative and qualitative, when users drive cars in conventional roads.

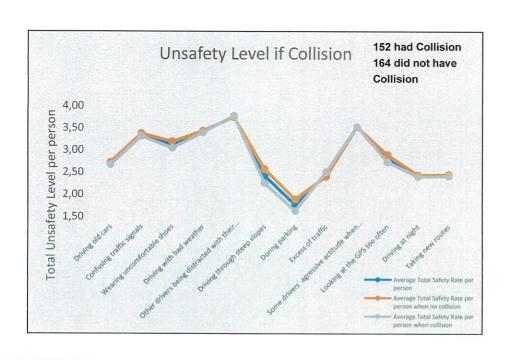
Several scenarios will be proposed in order to have a clear overview of the problem whilst they will allow to differentiate between the factors that lead to a lack of safety in users' driving behavior. The final purpose of this research is to provide some background on the topic that allows to better understand the importance of safety for drivers. The results obtained will allow to sketch some best practices and recommendations that can establish a starting point for further research opportunities.

Experimental Analysis

An online survey was filled by 316 people with driving license and from different nationalities through social media channels. The survey was sent in Spanish and English and the approximate time of completion is around 4 minutes.

In order to measure how unsafe someone feels when driving, an "unsafety value" has been determined as a result of the sum of all "unsafety rates" rated per factor assessed and averaged per person. Different trades such as gender or collisions have been assessed. Hence, the "unsafety value" will go along and through all the analysis to measure the propensity to feel unsafe in front of a certain factor.

It has been evaluated how important the factors were for both genders, collision case and type of vehicle variables.



142 Females Unsafety Value per Gender 174 Males 4,00 Average Unsafety Value per Person 3,50 3,00 2,50 2,00 1,50 Average Total Safety Rate per person Average Total Safety Rate per Woman

Results

A decrease in the Unsafety Level has been found when more experience.

Males feel safer when driving than females at any stage of their experience. Females also reported a higher unsafety feeling compared to males in 0,4 points average per person.

On the other hand, males have a quite constant unsafety feeling value through their experience 'years.

Wearing uncomfortable shoes, driving with slopes, bad weather and taking new routes are critical factors in females 'unsafety feeling while other drivers 'aggressiveness and other drivers being distracted is a common concern among both genders. Parking and excess of traffic are non-critical factors for users feeling of safety.

Lastly, users who had collisions in the past and have a level of driving experience below two years, reported a very low unsafety level when driving.