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Innovative Technologies for Assessment and Correction of the Driving Style

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Abstract

The article considers the relevance of the assessment, monitoring, and correction of the driving style and suggests methods for its correction.

The study originality lies in the system analysis of technologies for the assessment and correction of the driving style, development of the system of driving characteristics, driving style assessment and correction methods' application algorithm at the automobile operating company (AOC).

The study has shown the following scientific results:

- correlation between indicators characterizing peculiarities of driving and sustainable development of the AOC has been revealed;
- algorithm for the monitoring, assessment, and correction of the driving style has been suggested;
- conclusion with regard to the fact that the considered driving style indicators, assessment and correction methods methodologically predetermine the regulation of AOC efficiency has been made.

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Keywords: innovative technologies; driving style; transport; sustainable development; traffic safety

1. Main text

In the year 2014, in the territory of the Russian Federation, more than 200 ths road traffic accidents (RTAs) were registered. During these accidents, 25.1 ths people died and 252.8 ths were injured. The analysis of historical data (Fig. 1) shows that the main reason of RTAs is non-observance of road traffic regulations by drivers in as much as 87% of the total number of accidents (173.9 ths RTAs). At that, almost 40% or 76.9 ths RTAs were caused by drivers which had been administratively liable on more than one occasion [1].

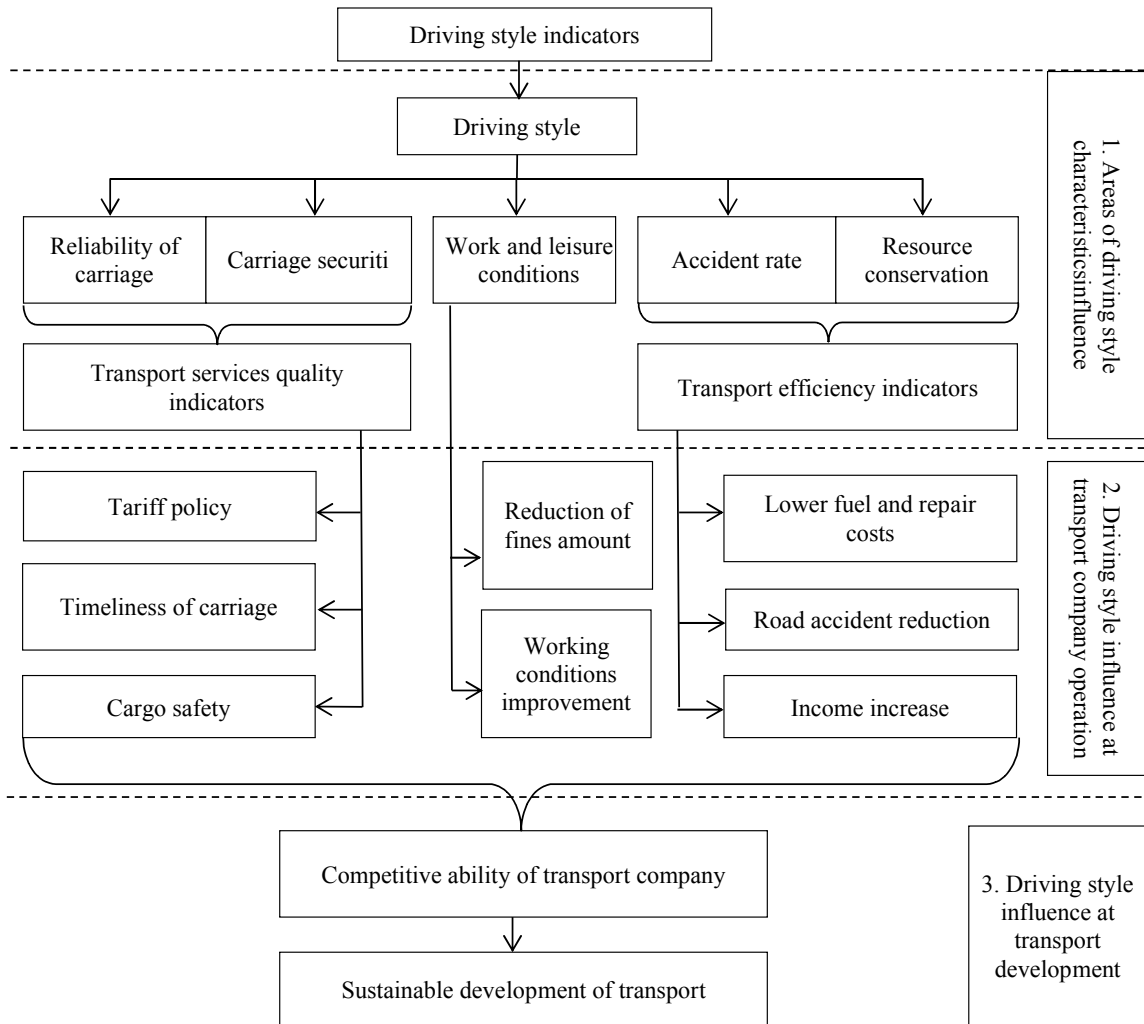


Fig. 1. Logical scheme of correlation between the driving style and sustainable development of the transport service market.

According to the statistics, multiple breaches are committed by a narrow group of individuals — in 2014, 4.2 thousand physical persons and legal entities committed 100 and more breaches of road traffic regulations [2].

Multiple breaches of road traffic regulations are indicative of the formation of the driving style hazardous for other road users. To decrease the traffic accident rate and minimize accident consequences, it is required to assess and control the driving style as well as correct it in those drivers who regularly breach road traffic regulations. However, the difficulty of driving style determination, monitoring, and correction lies in the fact that, currently, in the Russian Federation, they are performed without application of innovative technologies which makes them labor consuming, expensive, and, therefore, of no interest for transport companies.

The study is aimed at revealing the possibility of application of innovative technologies for driving style monitoring and correction.

For this purpose, it is suggested to give the author’s vision of the issue with regard to determination of parameters for driving style assessment and respective correction methods to enhance the traffic safety in big cities alongside with enhancing AOC efficiency.

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