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REGIONAL BRANCH «DONETSK RAILWAY»
PJSC «UKRZALIZNYTSIA»

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A risk assessment method was used in this study when introducing innovative technical solutions for improving friction interaction in a two-point «wheel-rail» contact, which is based on the Monte Carlo method. In this case the results of the simulation coincide with the decision for choosing the most promising ways in order to improve the contact conditions in the «wheel-rail» tribocoupling using expert assessment. The least risky technical solutions for the introduction of railways that are aimed at reducing them were identified as a result of the simulation.

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IMPROVEMENT OF RAILWAY LOGISTICS OF GRAIN CARGO ON THE BASIS PRINCIPLES OF RIDESHARING

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In the conditions of crisis phenomena in the market of freight transportation of Ukraine, in particular in the market of grain transportation freight, there is a tendency to increase the cost of movement of wagon

shipments by rail network. It is possible to reduce costs and speed up the advancement of grain wagons application of the principles of ride-sharing service for the organization of step routes. This approach will allow JSC "Ukrzaliznytsia" to stay on the market of group and car shipments, and improve the rate turnover of grain trucks, which in turn will lead to increased traffic. Under such research conditions aimed at analyzing the use of ride-sharing transportation on various modes of transport and detection advantages of services for the possibility of improving the technology of grain transportation by rail transport are relevant.

One of the most dynamic emerging markets in the transportation industry is the services market transportation based on the principles of ride sharing. Ridesharing (English ride - a trip, share - to share), or carpooling (English car - car, pool - association) - sharing a vehicle with the help of services with search for companions based on the concept of sharing economy [1].

The first private startup projects of carpooling services began to appear in the early 2000s [1]. In 2001, a company called Mitfahrgelegenheit.de appeared on the German-speaking European market and on the international market was promoted as Carpooling.com brand [2]. This company was the first to have recognizable brand and had a large number of users, but later the company was bought by others BlaBlaCar project. In 2004, France launched the world's largest online search platform car companions called BlaBlaCar [1]. The idea of creating a service for joint trips for the first time appeared with the Frenchman Fred Mazella in 2004. The economic model of the startup is designed for long distances and targeted at car owners who find companions to fill vacancies during trips that would have occurred in any case. In essence, the idea of the service was to use the potential of the P2P system, which uniting people will give efficient use of resources with a positive effect on the economy and the environment [3].

In ridesharing distinguish the following stages of service:

- *Mediation*: drivers adjust their travel offer with all relevant driving details (start, destination, date, price, etc.) on the Internet portal. Online service shared the use of cars corresponds to these details with the search queries of passengers and establishes contact between users if they are compatible.

- *Organization*: If the indirect partners agree on a meeting place (landing), further details of the tour will be discussed at the stage of organization. The driver acts as an organizer among all passengers which he accepts.

- *Implementation*: The participants of the trip gather in an agreed place and start the journey.

- *Payment*: After a successful boarding, passengers pay the fare to the driver and, if it is required to pay an agency fee levied online.

One example of a slightly modified approach to the principle of ride sharing is the sharing service cars, which are not owned by any of the users, and which belongs to the manufacturers - Daimler AG and BMW Group [4]. This pilot project focuses on the implementation of the BMW Group service platform car sharing called "DriveNow". The DriveNow project allows you to attract new ones customers who need a car only occasionally.

It is important to highlight a slightly different view of ride-sharing services in the services of taxi companies - Uber and Lyft. Private drivers offer taxi services here. In these cases, however, it is the "passenger" who plans and organizes travel, while in the previously discussed sense of ride sharing, the driver of his own private car plans and organizes the route. The most famous company is Uber (German: über, meaning "above") - an American company was founded in 2009, which created a mobile application of the same name for finding, calling and paying for a taxi or private drivers [5]. In terms of the broader economic and social context, the company works within the concept economics of joint participation. The Uber mobile application allows the user to order a car with a driver and track its movement to the specified place, payment for driver services is made by bank cards or cash. The mobile application is available for download on mobile gadgets running on based on iOS and Android.

The direction of business model development is interesting for the improvement of railway grain logistics ridesharing, which allow a common economy of use and can be used in logistics. At the moment For some time now, about 41% of US consumers have used programs [6] that offer delivery services in that day itself, expedited services or services on request. Delivery company on request Postmates that based in the United States, is currently a leader in this field.

One of the areas of ride sharing is digital brokerage platforms that provide data flow in real-time and communication between shippers and carriers, and therefore provide a smooth coordination of cargoes with the available carrying capacity of different types of transport. The advantage of this approach is real-time communication, tracking shipments via mobile GPS, secure payment and critical collection of documents - all this is convenient to do in the mobile application. Brokerage platforms can effectively distribute excess capacity in all modes of transport with a larger audience shippers [7].

The analysis of ride-sharing services showed the effectiveness of their use in logistics markets services. The studied practical examples of application of ride-sharing services in various branches allowed to reveal im-

portant features of technology for the possibility of their application for railway logistics. Suggested to review the current operating model Hub & Spoke for transportation on the railway transport of Ukraine grain cargo by wagon shipments. You can significantly reduce costs and attract more senders cargo due to the use of a service product for the transportation of grain cargo based on principles of ride sharing. Within the digital platform-aggregator to combine car shipments in step route at the expense of consolidation of loading of parties of grain to 15-25 cars of various senders wishing send in matching calendar periods for the possibility of booking a place in the step route.

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