Improving Quality of Russian Railways Logistics Services and Client-Centricity Level on “One Contact” Principle by Creating Unified Customer Responsibility Center

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Abstract — The article considers the structure of import and export cargo transported through the Multidirectional Automobile Border Crossing Point Zabaykalsk. Measures are proposed to improve the quality of logistics services and the level of customer focus of Russian Railways by developing a transport and logistics cluster in the Trans-Baikal Territory and introducing a Unified Customer Responsibility Center. The present paper defines the following concepts: transport and logistics cluster and amodal transportation center.

Keywords — logistics services, international transportation, transport and logistics cluster, amodal transportation

I. INTRODUCTION

Improving the quality of logistics services is one of the priority tasks of a holding company “Russian Railways”. It is necessary to provide the possibility of reaching a new level of development being sales omnichannel and key processes reengineering with the aim to adapt them to digital management technologies and mutual integration of disembodied communication formats into a single electronic commerce system in order to obtain a high synergistic effect between the holding and its customers.

Currently, the concept of transport and logistics business development is aimed to increase the Russian Railways efficiency and mitigate the risks in competitive transportation areas. [1] Implementation of all the stated initiatives is going to lead to a coherent transition to new levels of a customer-oriented sales system development. This means shifting the focus of attention from indicators of intercompany processes to the organization of mutually beneficial and reliable relations with customers to ensure the necessary level of income for Russian Railways.

II. ANALYSIS OF TRANSPORT OPERATION IN ZABAYKALSKY KRAI

According to the Zabaykalsk Multidirectional Automobile Border Crossing Point, the freight turnover of automobile and railway transport for 2016–2018 amounted to about 48590 thousand tons. Moreover, 75% of cargo is imported by railway. These data are presented in Table 1.

| Year | Road transport, thousand tons | Railway transport, thousand tons |
|------|-----------------------------|---------------------------------|
| 2016 | 639                         | 14125                           |
| 2017 | 757                         | 15849                           |
| 2018 | 805                         | 16324                           |

At the same time, about 480 carriers having certificates for international road transportation, according to which about 546 thousand units of vehicles have been transported through Zabaykalsk Multidirectional Automobile Border Crossing Point over the past three years, are registered.

Fig 1 Proportion of import transportation by transport mode
The nomenclature of imported goods transported by road through the Zabaykalsk Border Crossing Point is quite diverse, but it mainly consists of furniture, vegetables and fruits, while export goods mainly account for timber, sugar and confectionery.

Import transportations implemented by railway traffic mostly include such freight as building materials, equipment and food cargoes, while export transportations include timber, fertilizers and ore.

![Diagram of import and export services by road](image)

### Fig 2 Proportion of imported and exported goods transported by road

According to preliminary estimates, freight traffic will increase by 17–20% by the year 2020 due to distributing traffic flows to new routes.

Further growth up to 10% per year is also possible, which corresponds to the average annual growth in foreign trade of Russia and China and does not contradict the research conducted by one of the authors of this work [2].

### III. IMPROVING THE QUALITY OF LOGISTICS SERVICES AND CLIENT ORIENTATION LEVEL OF JSC RUSSIAN RAILWAYS

Russian Railways is a key linkers in the country’s transport system. In order to keep its place in the future as well as make a significant contribution to the country’s economy and meet all its requirements, it is necessary to change and modernize the existing system of interaction with customers. A lot has already been achieved within this direction, specifically, the list of necessary documents for making contracts has already been reduced and simplified, and offers are being used as well. In this direction, the electronic trading platform is now being actively used. With its help, a client can order a transportation service without leaving an office. You can also process transportation documents, order services to providing rolling stock (clients receive off-the-shelf transport solutions and advice, sign a single contract for freight forwarding services) remotely.

![Diagram of import and export services by railway](image)

### Fig 3 Proportion of imported and exported goods transported by railway

Despite all the measures taken to improve the quality of services, the existing market conditions, the trends of Russian and world economies development pose new challenges for the company. Thus, at present, Russian Railways is undergoing a transformation from a transportation company to a transport and logistics company, which, in addition to the basic transportation service, provides a full range of services with an expansion of the range of 3PL, 4PL services and the formation of end-to-end supply chains in the cargo segment.

The main goal pursued by Russian Railways and the Trans-Baikal Territorial Center of Premium Transport Service is to provide a client with a spectrum of all the railway transport possibilities. Specifically, these are high speeds for long-distance transport and the capabilities of infrastructure, which most often has a huge potential for flexibility.

One of the effective ways to achieve the abovementioned goals, in our opinion, is to develop a transport and logistics cluster.

A great contribution to the development of cluster theory was made by Michael Porter, who gave a fairly complete definition of the concept of cluster [3].

Despite the fact that M. Porter defined the concept of a cluster and examined clusters in various sectors of the state’s economic activity in sufficient detail, he missed the topic of transport and logistics cluster. This concept is quite common in Russian and foreign scientific works. [4, 5, 6] This article provides one of the concepts quite fully revealing the essence of transport and logistics cluster.

Transport and logistics cluster is a community of enterprises and organizations of one or several types of transport and other industries in a certain territory united by the task of increasing the efficiency and quality of transport services based on the use of innovative technologies [7].

The fundamental idea in creating transport and logistics clusters is to unite the participants in the transportation process in order to improve the quality of the services provided and obtain the greatest benefit (for transport companies part) as well as to obtain high-quality services (for clients part).

At the same time, to ensure the efficiency of transport and logistics clusters and improvement of the services quality in accordance with “one contact” there is a need of a Unified Customer Responsibility Center (Amodal Transportation Center) [8] principle in the cluster structure. This center will contribute to interstate cooperation in the field of improving the work quality of checkpoints and the development of transport as well as trade and economic activities between the Russian Federation and China under the control of a single dispatch center (specifically, Unified Customer Responsibility Center).

The Center will provide shippers with full information about the activities of Russian Railways and its subsidiaries, increase the attractiveness and improve the image of the railways, and also provide the opportunity to implement joint transport solutions with the China Railways.

When the center is fully operational, the entire transport service chain starting with the interaction with partners in
China to monitoring the performance of contractual obligations, will be organized by Russian Railways. Thus, the company will be able to increase the attractiveness and accessibility of rail transportation by the transport market players from both countries. In addition, this center will contribute to the promotion of such transport solutions as the transportation of perishable, dangerous and oversized cargo as well as short lots.

The main tasks of the center include:
- to coordinate interaction between the involved units and subsidiaries and affiliates;
- to develop the market for potential services;
- to improve the quality of rail services;
- to reduce lay-over of import shipment by posing control through automated control systems;
- to increase the transit potential of the border crossing.

The main functions of the center are:
- to control empty rolling stock;
- to monitor and inform customers on their cargo way;
- to develop not specified drawings and diagrams;
- to inform and consult customer service;
- to provide customers with additional services;
- to provide customs with clearance services rendered by Russian Railways.

One of the main problems regularly arising at the railway station Zabaykalskaya is the absence of the required amount of empty rolling stock of 1520 mm gauge, which causes a congestion of 1435 mm gauge loaded cars on the station tracks and transshipment places and leads to an increase in the cost of downtime for narrow gauge cars paid to the Chinese side, and also results in a delayed delivery of imported cargo.

One of the main functions of the center teaming up with the involved units and subsidiaries and affiliates will be planning and controlling this process.

The center staff will plan the number of empty vehicles needed to provide overload seats basing on preliminary information from China Railway about the planned arrival of imported cargo as well as the planned provision of empty cars by a single provider (The Federal Freight) announced at the negotiations between the heads of Manchuria and Zabaykalskaya stations.

Next, control will be exercised over the timely supply of cars to transshipment platforms, their overloading, cleaning and departure from the station. This will enable to reduce the cars detention at 1435 mm gauge and reduce expenses of Russian Railways and time of imported cargo transit through the border crossing, and also to attract an additional volume of imported cargo for rail transport.

Moreover, the development of cargo loading schemes will be one of the promising services provided by the center. Presently, one of the problems for customers with regards to imported cargo transshipment at railway station Zabaikalskaya is independent development of a loading scheme or contacting the third parties. At the same time, China Railway shippers do not always receive reliable information about cargo properties and its overall dimensions, which ultimately leads to cars detention as a result of loading schemes provision.

It is planned to solve this problem by organizing a paid service of a DM employee to come to Manchuria station and take measurements and photograph imported equipment with the subsequent development of a loading scheme. A method of securing the cargo on a rolling stock of 1520 mm gauge will already be developed upon influx of this cargo on the territory of the Russian Federation, which will allow overloading of this cargo without additional detention.

The range of additional services that can be implemented after setting up the center can also include:
- Information services related to the carriage of goods through railway station Zabaikalskaya;
- Organization of services for the return of empty cars;
- Providing forwarding services;
- Dispatch support for the Cargo Express service.
Fig 4    Additional services implemented by center of amodal transportation

At the first stage, it is planned to increase the additional income from services to 69 million rubles per year by creating Unified Customer Responsibility Center.

In the future, the second stage can include the development of customs clearance services and perishable goods with an additional income of more than 180 million per year on the basis of the center.

In the long view, the further development of electronic services and the possibility of forming a “through rate” over the network with the calculation for services with a single supplier being Russian Railways will enable the holding company Russian Railways to provide a quality product by optimizing the time and material resources of the company.

It is necessary to consider a number of following issues with the objective to organize work in conjunction with the provision of a full package of services at the Zabaykalsk station (with an office in Manchuria):

- to provide comprehensive services to customers ordering交通运输 from China, it is necessary to establish a procedure for squaring accounts with them using foreign exchange transactions and the presence of authority to conclude agreements with non-residents;
- to develop contractual conditions taking into account the financial and reputational risks of the holding;
- to create a common electronic information resource, together with China Railways with the objective to make it possible to request a comprehensive rate for the transportation of goods from China to Russia.

At the same time, the following obstacles arise in the process of organizing the work of the center at Zabaykalsk station: lack of the full-time staff specializing in selling transport and logistics services; lack of necessary staff specializing in development of not specified conditions, measurements of cargo and its photographing in China; lack of the possibility of forming an integrated end-to-end rate for transportation from China to Russia; need for additional staff to deliver customs brokerage services by JSC Russian Railways; determining the responsible person for managing the center operation at the station.

It is proposed to eliminate the aforementioned issues by the following measures: transfer the staffing strength of Center of Premium Transport Service agents from Road Center for Corporate Transport Services to Territory Center for Corporate Transport Services and assign responsibilities to Center of Premium Transport Service agents from Road personnel; increase the staff of draftsmen DM; organize sale of services in China through JSC RZD Logistics on the basis of cross sales agreement.
IV. CONCLUSION

Based on the foregoing, the Unified Customer Responsibility Center at Zabaykalsk Station should become a single platform for organizing the transport and logistics business unit with the provision of comprehensive services and attraction of freight traffic for rail transport. Indisputably, this center must follow the solution of transport requests of customers and foreign cargo owners of the Asia-Pacific region, who, in addition to price conditions of transportation, are concerned about the goods delivery time, transport safety and high quality of service.

Conversely, this center will contribute to the development of a regional transport and logistics cluster on the Trans-Baikal Territory, which will increase the attractiveness of not only the transport services but also the region as a whole.

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