Developing a diversification strategy logistics services

Natalia Guzenko1* and Dina Bekbergeneva2

1Rostov State University of Economics, 69 B. Sadovaya St., Rostov-on-Don, 344002, Russian Federation
2Yugra State University, 16 Chekhov St., Khanty-Mansiysk, 628012, Russian Federation

Abstract. In the context of global economic instability, the effects of pandemic constraints and current geopolitical challenges, the competitiveness of transport companies, especially in the rail transport sector, is imbalanced. The search for new solutions in response to the transformation of the transport market, shaped by the trend of general economic and geopolitical processes, lies in the implementation of a diversification strategy. This fact makes it relevant to review the strategic and integrated solutions of domestic freight transport operators, and in particular the need to adapt to current market realities, logistics services, the possibility of using resource spillover tools by optimising structural transformations in the service sector. These factors have had a predetermining influence on the essence of diversification for a concentrated division of logistics and transport services, the identification of customer demand levels and the development of a comprehensive marketing strategy to market specific transport products. The main purpose of this article is to identify a set of factors that have identifying the range of logistics tools and elements of marketing communications in the expansion of transport services, identifying the level of their quantitative and qualitative indicators, while based on modern tools of digital technology and modern advances in technology and innovation.

1 Introduction

Russia has an enormous transport complex potential, primarily dependent on the disparate scale of its territories compared to other countries. Railway transport plays a global role in the transport complex, providing high throughput and carrying capacity, independence from weather conditions, a high level of safety, and the movement of material flows over long distances without losses. It should be noted, however, that the strategic objective of developing the railways has been a sufficient basis for continuously enhancing the competitive advantage over other modes of transport. On the other hand, the development of railways has always been a national priority, since the infrastructure framework for railway construction has often had a strategic and geopolitical significance, as well as helping to speed up the development of new territories. Railway should now be seen not

* Corresponding author: musamav@mail.ru

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only as a strategic priority, but also as a global business investment, providing transport links across vast areas, which are being developed also on the basis of modern digital technology, ensuring that the impact of quality indicators on transport efficiency is amplified. The efficiency of the railway sector has a significant impact on the economic development of individual territories and the country as a whole, ensuring the implementation of the strategic priorities of the sector's development. The current economic and geopolitical situation in Russia in particular, and in the world in general, calls for the structuring and optimisation of rail transport services, which will take into account customer requirements for the quality of transport, taking into account the rational use of available resources Point, the development of logistics services continues to play a key role. Diversification is also arguably the main driver of structural change in transport companies' logistics services.

The desire of transport operators to reach a higher provider level can be explained on the one hand by market demand, and on the other hand by the internal need of the company to strive to focus on key business processes, while making use of all modern digitalisation technologies and interoperability between logistics operators, including outsourcing possibilities [1]. The category of "diversification" has been considered by various authors for quite a long time in the economic literature. For example, I. Ansoff sees diversification as a change in the characteristics of a company's product line or overall market, as opposed to market penetration, market development, and product development, which are other types of changes in the structure of product-market interaction [2]. Chemirbaeva, Malgaraeva & Azamatova [3] analyse the economic strategy of enterprise diversification through the introduction of innovative management approaches, including management of organisational design projects, costs and human capital. Spillan, Parnell, Panibratov & Yukhanaev [4] investigate the impact of organisational capacity on enterprise development strategy.

It is worth mentioning that the issues of finding directions for diversification have been considered both for production systems in general and for individual groups of services. In particular, of the large number of studies, we note the research Spillan, J. E., Parnell, J. A., Panibratov, A., & Yukhanaev, A [4], Rey, A., Panetti, E., Maglio, R., Ferretti, M [5], Fertier, A.; Martin, G.; Barthe-Delanoë, A.M.; Lesbegueries, J.; Montarnal, A.; Truptil, S.; Bénaben, F.; Salatgé, N. [6], Wong, C.Y.; Grant, D.B.; Allan, B.; Jasiuvian, I. [7].

In order to stabilise the financial situation of commercial organisations and improve strategic policy at this stage, we consider it necessary to develop an individual group of indicators filtering through the components of transport, logistics and communication services, which will streamline the process of implementing a diversification approach.

In the opinion of the authors, all the above components can be realised in a complex diversified development of freight operator logistics services, which includes the full involvement of logistics tools and marketing communication elements in expanding the range of services rendered in terms of quantity and quality, while mainstreaming new information digital technologies and methods of marketing promotion of integrated logistics services in the strongly competitive transport market.

2 Materials and methods

The research methods and techniques chosen and applied within the framework of the tasks set, and taking into account the specificities of the objects under study, are as follows: with respect to the level of knowledge (abstraction), the work mainly uses theoretical methods resulting from generalisation, abstraction (for example, the method of analogy).

The research uses the method of an analytical study of special literature and comparing the views of researchers on the understanding of the diversified development of logistics
services in modern conditions with the formulation of the authors' position. Analysis of the transport and logistics services provided by logistics companies within the main material flow and related information and service flow, with service flow as the main flow in the case of a diversified service framework. We have systematised the authors' proposals on the need to distinguish levels of diversification strategy depending on customer demand for transport services and the possibility of providing them from the position of the operator company, which in our opinion will increase the competition of railway transport logistics operators.

3 Results

The competitive environment of the market places certain requirements on the companies that operate within it. It is these requirements that are driving the development of a wide range of services, increasing the importance of integrated services. In this context, diversification acts as a catalyst to develop the logistics services of rail freight operators and to reach a level of provider that meets market demands [8-9]. The diversification development of transport logistics services can be considered in terms of the classical classifications strategies of diversification:

1. Horizontal - using existing infrastructure and rolling stock in a format similar to their main purpose (renting out premises and warehouses, leasing wagons, etc.);
2. Concentric - provision of transport advisory services, planning and implementation of intermodal and inter- and multimodal transport schemes;
3. Vertical - provision of integrated transport logistics services; recruitment of reliable and qualified freight operators 3 PL; business process management.

To be successful in the freight transport market, rolling stock operators need to take into account customer needs for information on the status of freight movements, direct support of the transport process and planning of logistics operations. An advanced level therefore implies taking these needs into account and taking the logistics operator to a more advanced level.

It may be noted that the market for transport services must be able to meet demands for a certain quantity and quality of service provided and must meet certain requirements [10, 11].

We consider that the formation of an integrated logistics service system lies at the heart of a successful strategy to diversify the logistics services of transport operators [12-13]. His is shown schematically in the Fig. 1.
The following order of construction should be defined:

1. It is necessary to analyse the market for transport logistics services on the railway transport using methods of multidimensional classification of customers' needs for a certain type of transport and logistics services with the identification of basic, extended, complex customer needs for different services, as well as using the double segmentation method, providing the comparison of identified needs for logistics services for different functional, technical, information, economic factors, dentifying for each level its own logistics service selection options.

2. Identification of the required quantity and quality of logistics services to provide the right level of logistics service at each of the defined stages. In this context, it is essential to create tiered sets of services for each customer segment as well as to establish quality of service and basic parameters of logistics service provision related to ensuring standardised delivery times, to improve reliability and safety of transport, to inform customers on the status of cargo movement in time, and to develop and implement a higher level of service provision through marketing tools and digital technologies.

3. The application of it-technology, digitalisation and virtualisation of the logistics process and the common information space of transport providers should enable accelerated communication in transport company-customer (supplier, partner, intermediary) format through the introduction of integrated logistics concept, as well as the application of outsourcing tools and consolidation of all participants of the transport process.

4. Development of a comprehensive toolkit for the promotion of logistics services using both traditional and innovative marketing technologies.

For each stage, a set of parameters should be defined against which the logistics service will be evaluated. When it comes to segmentation by product, the traditional logistics-driven parameters should be considered. This concerns the delivery of goods on time, at the right level of security, just in time, from the customer's point of view, services need to be structured on the demand for quality parameters of transport logistics service provision, on which the delivery tariff will also depend. The provision of additional services related to information, expedited delivery, various customs forwarding and security procedures, as well as flexible tariff options for regular customers should also be taken into account.

Regarding the structuring of the logistics service mix in terms of diversification, it is necessary to distinguish four levels of diversification strategy, defining the service mix from a logistics operator and customer perspective and linking the clear implementation of
this range of services at each stage. Schematically, this structuring can be represented as follows (Fig. 2).

![Diagram showing the structuring of logistics services](image)

**Fig. 2.** Structuring the logistics service mix in terms of diversification and customer demand.

If we consider a formalized model of the market development of logistics services, taking into account the above factors of diversification, we can consider the following elements in its composition:

If \( \lim_{n \to 0} \sum_{i=1}^{5} f(t) \), then

\[
\sum_{i=1}^{5} f_i = f_1 + f_2 + f_3 + f_4 + f_5
\]
where

The first para indicator meter $f_1$ is the development of market infrastructure and the rate of change in the service market.

$$f_1 = \frac{k}{t} \Rightarrow 1$$

In the network there are points K (points) of concentration of cargo turnover, which form the movement of material flow. In this case, there is a general indicator $T$, which reflects the total freight turnover of the transport market.

The second indicator $f_2$ is the demand from the market for transport and logistics services.

$$f_2 = \frac{i}{t} \Rightarrow 1$$

Within the system, there are $i$ number of offers from market players for comprehensive logistics services.

The third indicator $f_3$ is the technical equipment of the process of providing services.

It is the sum of the parameters $D$ - digitalization of workplaces, modern technological solutions of digitalization, $R$ - the level of implementation of CRM-systems, $B$ - databases on objects and processes, $M$ - methods and technologies of data processing.

The tuples of the form $< D, R, B, M >$, formed from the above sets, determine the level of technical equipment and digitalization in the development of transport business and logistics services.

The fourth indicator $f_4$ is the technical equipment of the process of providing services.

In the transport and logistics services market, which consists of $n$ providers of logistics services, it is necessary to allocate the parameter $g$ - cargo turnover 5-PL providers given the total parameter $y$ - the total number of services rendered and the indicator $T$, which reflects the total cargo turnover of the transport market.

The fifth indicator $f_5$ is the level of service quality on the basis of market needs.

$$f_5 = \frac{j}{t} \Rightarrow 1$$

It consists of the index $j$, which reflects the turnover of 4-PL providers, and the indicator $T$, which reflects the total turnover of the transport market.

In the market of transport and logistics services, which consists of $n$ providers of logistics services, it is necessary to allocate the parameter $g$ - cargo turnover 5-PL providers, taking into account the general parameter $y$ - the total number of services rendered and the indicator $T$, which reflects the total cargo turnover of the transport market.

In terms of the set of logistics services, a defined portfolio of transport and logistics services needs to be established: - provision of transport services; - leasing of rolling stock; - documentation; - provision of consulting services; - informing the client about the status of the order; - planning and implementation of mixed and inter- and multimodal transport schemes; - direct transport; - information system design; - freight forwarding; - rolling stock management; - integrated transport logistics services; - supply chain design and planning. It is important for a transport company to develop core competencies - internal environment parameters that are difficult for competitors to imitate - based on the effective interaction of human and organisational capacity elements.

The current speed of digitalisation of logistics processes allows for a higher skilled workforce, the use of modern logistics information technology and new software products,
enabling an accelerated flow of information from the logistics operator to the customer and to all stakeholders, as well as the virtualisation of the integration of different provider levels into a unified transport chain.

The positioning of transport and logistics services is a very important step in the promotion of transport and logistics services. It is necessary to create a certain image in the consumer's mind regarding the logistics services offered in relation to the competitors. This positioning involves creating unique opportunities for the services offered, as well as aligning the chosen positioning with other marketing factors such as the cost of the service, the ability to sell it, and the information interaction. The promotion package covers both traditional (advertising; public relations; sales promotion; personal selling) and innovative marketing technologies [14]: - integrated marketing communications combining all below the line (BTL), above the line (ATL), direct marketing, as well as technologies for building interpersonal relationships with the right people; - event marketing; - internet marketing; - email marketing ("opt-in" and "opt-out" strategies) - Ambient Media; - customer loyalty management; - e-commerce.

4 Discussion

Examining the essence of the diversification strategy in the context of the sustainable development of transport and logistics operators, it can be concluded that it is mainly a question of updating the existing range of transport and logistics services, taking into account current trends of digitalisation and accelerated technological development, as well as customer needs for a quality service at the lowest possible cost [15]. From the point of view of transport companies, diversification is seen as an opportunity to develop new, integrated logistics services, achieving financial sustainability through risk sharing. Diversification in transport allows the range of services to be expanded, ensuring the most efficient distribution of efforts across different areas of activity. With a diversified business portfolio, any transport logistics company can ensure increased business resilience by balancing the need for higher profits with increasing risks in today's unstable economic environment.

The main triggers for applying the diversification strategy:
1. The need to increase market share.
2. Reduction of the transport company's competitive share.
3. Structural changes in the transport industry.
4. Geopolitical and macroeconomic changes.
5. Global digitalisation of the transport industry.
6. The desire to expand the range of logistics services provided.
7. Changing the structure of logistics services.
8. The need for a more flexible approach to supply chain design.
10. The development of e-commerce.
11. The expansion of marketing communication technologies.

In addition, modern strategies for the sustainable development of socially and economically significant industries need to be taken into account. This means separating out the composition of the main factors influencing the application of a diversification strategy in the transport sector and identifying the key objectives of their impact. This is illustrated in more detail in Table 1.
Table 1. Functional features of the influence of factors on the implementation of a diversification strategy in the activities of transport companies.

<table>
<thead>
<tr>
<th>Digitalisation and innovation</th>
<th>Economics</th>
<th>Environmental</th>
<th>Social</th>
<th>Strategic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of new software products into transport companies' operations</td>
<td>Search for new transport market niches</td>
<td>Reduced environmental impact</td>
<td>Preserving jobs</td>
<td>The geopolitical environment and the emergence of new supply chains</td>
</tr>
<tr>
<td>Opportunities to globalise virtual platforms</td>
<td>Synergy effect</td>
<td>Portability in the use of all resources with maximum efficiency</td>
<td>Ensuring the transportation of socially and nationally important goods</td>
<td>Changing transport market conditions</td>
</tr>
<tr>
<td></td>
<td>Financial stability</td>
<td>Savings in labour and financial resources</td>
<td>Lower cost of resources</td>
<td>Development of new technologies</td>
</tr>
<tr>
<td></td>
<td>Savings in labour and financial resources</td>
<td>Lower cost of resources</td>
<td>Preservation of jobs</td>
<td>Social stability</td>
</tr>
<tr>
<td></td>
<td>Possibility to maximise virtualisation and integration of logistics services and transport activities</td>
<td>Delivering a high level of performance with lower resource consumption</td>
<td>Social stability</td>
<td>Increased competitiveness of logistics services through an integrated approach</td>
</tr>
</tbody>
</table>

It should be noted that a number of authors see transport diversification only as finding alternative ways to use the available railway transport infrastructure, with no reference to the development of the quality component of logistics services [4, 6, 16]. The differentiation of logistics service levels by type of logistics operator is also left out, which is the wrong approach due to the fact that each level of operator needs to apply a certain set of services and necessarily focus on improving the quality of these services.

It should be pointed out, however, that nowadays, given the focus of modern business on sustainable development and transport security, the demand for integrated transport logistics services is clearly shaped by the distinction between the quantity and quality of services provided, depending on the level of the operator. This issue remains relevant in terms of cost-effectiveness and requires further analysis in the framework of current research.

5 Conclusion

To conclude the above, the general conclusion is that there is a high potential and potential for a logistics services diversification strategy to be used by rail transport operators. Transport providers will feel more confident in entering the market with a well-designed logistics service package which is not only strategically focused on the customer, but also distances itself from the service provided by competitors through digital and marketing communications capabilities. Innovative marketing techniques, covering tools such as direct promotion of services offered and public relations, direct marketing, as well as
various customer loyalty management methods, including internet communication, internet marketing, direct sales and the promotion of customer activity through digital interaction and the application of e-commerce technologies ensures constant customer awareness, the creation of an overall concept for the promotion of own services and constant interaction with the customer towards improving the quality performance of the logistics service. Strategies to diversification the logistics services of freight operators will provide the best competitive advantage through the flexibility of the portfolio of logistics services that can be offered to the customer, while taking into account the needs of the specific customer, which their competitors do not provide. A successful diversification strategy can also ensure effective business development, which has a direct impact on economic performance. Diversification can be a backbone in the storm of economic and geopolitical events. Since a company can ensure constant flexibility in its logistics products and services not only by providing exactly what the customer currently expects from them, but also by taking into account competitors’ vulnerabilities or by providing combined logistics services. The importance of diversification in shaping a company's positive image should not be underestimated either, since such a strategy allows selecting not only the most economically advantageous services but also the socially relevant transport services that the customer needs at the moment. Diversification also provides the ability to respond flexibly to changes in the industry and optimise company resources, providing the best use of existing infrastructure or decision-making at a qualitatively synergistic level.

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