# Pricing strategy for work and services of transportation company

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**Abstract.** Competitive pressures and economic turbulence increase the need to find new ways to maintain a stable financial position. This task is also faced by the railway transport and makes transport companies look for new markets for new works and services. The article considers the market of track structure maintenance services and reveals the factors that influence the volume of this market. The authors of the article consider the pricing policy for track structure maintenance services. Based on the analysis of competitors' prices and the pricing policy pursued by the infrastructure directorate, an approach to the formation of the pricing strategy in this market segment is proposed. Keywords: current track maintenance, cost method of pricing, price offers, pricing strategy

## 1 Introduction

Modern functioning of a transport company in the conditions of non-stationary economy requires the development of new solutions aimed at ensuring the stable functioning of the transport industry. Approaches to the formation of economic parameters of the transport industry differ significantly from the approaches used in other sectors of the economy due to the fact that transportation costs, including those incurred by rail transport, are included in the final price of any product and changes in transportation tariffs entail negative consequences associated not only with increased consumer spending, but also with rising inflation in the country [6]. It should be noted that the model of transport and economic development have close links with each other [7]. Thus, two factors are taken into account when choosing the model of cargo transportation - low transportation costs and the level of transportation quality [7]. The main criteria for the quality of transportation for consumers are: safety; compliance with the terms of delivery and accessibility of transportation services. In this case, despite the fact that compliance with these criteria is a factor of increasing the competitiveness of transport services, it is not a factor in reducing the added value formed by the transport company in the final price of the product [8]. To reduce the transport component in the final price of products, the approach traditionally used is related to improving the efficiency of resource utilization (fixed assets, current assets, labor resources, etc.) [9]. Improving the efficiency of their use allows optimizing the company's costs and, as a consequence, restraining the growth of transport tariffs.

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Ensuring the sustainable development of a transport company is closely linked to ensuring its economic security. It is possible to increase the level of economic security using a variety of approaches, including the competitive approach (aimed at maintaining the position in the market), resource-functional approach (aimed at improving the efficiency of resource use) and process approach (which helps ensure the safety of operation of the structural subdivisions of transport companies) [10].

Ensuring the safety of operation of the structural subdivisions of railway transport is possible through the improvement of production capacities, implementation of innovative technologies and modernization of transport infrastructure. Also an important condition for ensuring the quality of transport services and safety is to increase the level of effectiveness of managerial decisions [11].

All of the above approaches are not applied separately, but are used in combination and allow to form a set of measures aimed at ensuring the stable functioning of the transport company. But, for the most part, the above approaches consider only one of the activities of a transport company, namely transportation. Whereas a modern transport company is not limited to the provision of services for the carriage of goods and passengers, and also provides logistics services and information and others.

Thus, one of the directions of increasing the sustainability of the transport company in a non-stationary economy can be the search for new markets for new works and services. The study of the opportunities of a large transport company to enter new markets with a set of works, which may be demanded by potential customers, showed that among such works we can offer services on maintenance and overhaul of railroad tracks owned by enterprises - cargo owners. It should be noted that at present the length of non-operational tracks, i.e. those owned by industrial enterprises, is more than 30 thousand kilometers. These railroads are in need of current maintenance and repair in accordance with the Technical Operation Rules.

## 2 Materials and Methods

Considering service of track maintenance and repair as a market product, the need for which is due to GOST 21.702-2013, we note that the concept of "railway track" has an ambiguous interpretation (Table 1).

**Table 1.** The concept of "railway track" according to GOST 21.702-2013 [1].

| Name | Definition |
|---|---|
| public railways | railways on the territory of railway stations open for operations of receiving and dispatching trains, receiving and delivery of cargo, freight and luggage, passenger service and marshalling and shunting operations, as well as the railroads connecting such stations |
| private railways | railway sidings, adjoining directly or through other railway sidings to public railway sidings and designed to serve certain users of railway transport services on the terms of contracts or to meet the transportation needs of their owners |
| technological railways | railways located on the territory of industrial enterprises and organizations and designed to move cargo and perform initial and final operations with railway rolling stock for their own needs of these enterprises and organizations |
| railways in a built-up area | railways located on the territory of urban and rural settlements, industrial, agro-industrial, transport and storage and other enterprises and organizations |
| railways on undeveloped territory | railways located outside the boundaries of urban and rural settlements, industrial, agricultural, transport and warehousing and other enterprises and organizations |
| railways in the planned area | railways located on the built-up area, for which a vertical planning project has been completed or is being developed |

Routine track maintenance is the process of keeping the railroad track in a condition that allows for safe and uninterrupted movement of rolling stock at specified speeds during the time intervals between repairs.

The following factors influence the scope of track maintenance and repair work (Fig. 1):

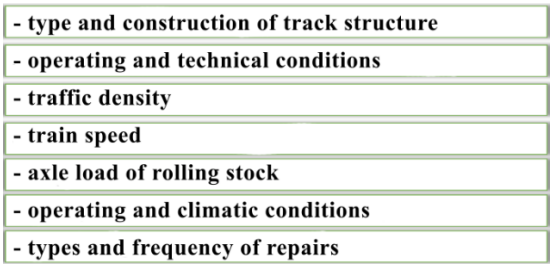


**Fig. 1.** Factors affecting the scope of work on the current maintenance and repair of railroad tracks. Source: Compiled by the author.

## 3 Results and Discussion

All work to ensure quality maintenance of public tracks (more than 145,000 km) is performed by track districts that are part of regional infrastructure directorates, i.e., these works are performed by JSC "Russian Railways". Structural subdivisions of JSC "Russian Railways" having considerable economic and technological potential, entering the market of similar work for owners of public tracks face the problem of lack of methodology of price formation taking into account market requirements. In this connection one of the major problems connected with effective positioning of a transport infrastructure company on the market of services of current maintenance and repair of railroad tracks is the problem of the choice of an effective pricing policy. Correctly constructed pricing policy gives an opportunity for an enterprise to adapt to changing market conditions and maximize profit in the short term and increase its market share in a certain market. Pricing policy should consider not only availability of competitors able to provide similar services at similar prices, but also own costs, reflecting effective management of resource potential, which can and should guarantee the leading position in terms of costs.

Adhering to its pricing policy, it is necessary to form such pricing strategy, which will ensure the effectiveness of sales and differentiation from competitors. The most common pricing strategies are shown in Table 2. The choice of pricing strategy is not the final management, but an ongoing process, which is adjusted depending on the results achieved.

**Table 2.** Basic pricing strategies [3, 4].

| Name | Characteristics |
|---|---|
| Price infiltration (low prices, price breakthrough) | Significant underpricing of goods in order to capture the mass market. If the price is too low, the goal may be to drive out competitors or prevent new competitors from entering the market ("price crowding out"). |
| Cream skimming (high prices) | Short-term opportunistic overpricing in order to maximize profits. Depending on the activity of promotion, can be fast or slow |
| The strategy of average market prices (neutral pricing) | release of new goods at average market prices in order to enter new markets and more fully utilize production capacity |
| The strategy of reflecting the reputation of the firm | Setting prices significantly higher than the industry average in order to maximize profits through brand and quality advantages of goods |

| | |
|---|---|
| in the price (strategy of image prices) | |
| The strategy of optimal price-performance ratio | Optimal price-quality ratio in order to optimize profits and take advantage of the upward trend in consumer culture |
| The strategy of "linked" pricing | The price is set at the sum of the price of the product and the cost of its operation |
| The strategy of following the leader | Copying the behavior of the price leader in order to maintain a position in the market |
| Variable price strategy | Changes in prices occur as soon as there is a change in costs of production and demand |
| The strategy of stable (unchanging) prices | Stable prices, regardless of changes in market circumstances in order to concentrate on the segment |
| Preferential pricing strategy | Giving price incentives or selling to different customers |
| Price line strategy | Using price differentiation for assortment types designed for segments with different price sensitivities |
| The strategy of price differentiation for interrelated goods | The use of a wide range of prices for substitutes, complementary products, components in order to induce purchase |
| Price strategy considering the geographical factor | Setting prices according to the geographical principle: setting prices at the place of origin of goods, setting a single price including delivery costs, setting zonal prices, setting prices in relation to the base point, setting prices with the assumption of delivery costs |

In the market of services for repair and current maintenance of railroad track it is necessary to use a strategy aimed at the optimal ratio of proposed prices for repair work and quality of work performed, guaranteeing the owner of railroad tracks safe movement of rolling stock.

When forming prices for current maintenance and repair of railroad track, track districts use the cost method of pricing.

The beginning of the use of this method on the railway transport is in the second half of the XIX century, and in the XX century it began to be actively implemented in practice (especially in the second half of the XX century). At the end of the XX - beginning of the XXI centuries in connection with the transition of the former USSR countries to the market model of economic development there was a deep crisis in the use of this approach and in the railway transport including [2].

Let's consider an example of forming a local estimate for maintenance of railroad tracks of other owners, performed by a track section, based on the method of cost pricing (Table 3).

**Table 3.** Local estimate for the maintenance of railroad tracks of the enterprise - owner of the railway infrastructure.

| Name | Unit of measurement | Value in current prices |
|---|---|---|
| Section 1 | | |
| Production costs, including: | thousand rubles | 390.113 |
| Labor costs | thousand rubles | 56.903 |
| Costs of operating machines | thousand rubles | 145.961 |
| Materials | thousand rubles | 187.249 |
| Overhead costs | thousand rubles | 63.918 |
| Estimated profit | thousand rubles | 32.434 |
| Summary for section 1 | thousand rubles | 486.465 |
| Section 2 | | |
| Production costs, including: | thousand rubles | 105.0 |

| | | |
|---|---|---|
| Type II wooden sleepers | thousand rubles | 91.667 |
| Iron spike (c/o) | thousand rubles | 5.0 |
| Gravel | thousand rubles | 8.333 |
| Summary for section 2 | thousand rubles | 105.0 |
| Total cost estimate (section 1 and section 2) | thousand rubles | 591.465 |

Costs for maintenance services (Table 3) include production costs and planned value of profit per 1 km.

Comparison of price positions for maintenance of railroad tracks owned by industrial enterprises, infrastructure directorate structural subdivisions and competitor companies is given for territories (regions) which are serviced by the infrastructure directorate.

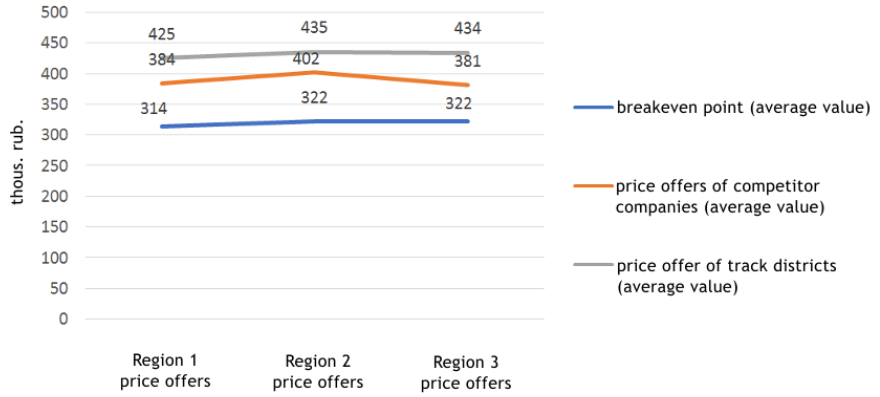


**Fig. 2.** Price offers (average price values) for the areas serviced by the infrastructure directorate. Source: Compiled by the author.

## 4 Conclusion

Effective pricing strategy should comprehensively reflect not only the requirements of customers to the price of the work performed, but also the term of these works and accident-free operation of the repaired section, i.e., the risk of violation of rolling stock traffic safety in this area [5]. In this case, the model of strategic pricing for the i-type of repair can be expressed by the formula:

$$P_i = f(e_i, t_i, r_i) \quad (1)$$

here $e_i$ determines total costs for the i-th type of repair;

$t_i$ is the standard time to perform the i-th type of repair;

$r_i$ is the risk of disruption of rolling stock traffic safety on the repaired section of track.

Thus, as part of the pricing strategy when performing maintenance and repair of tracks of non-public use it is necessary to clearly measure not only the costs to perform these works, but also to consider the optimal ratio of price and quality of maintenance and repair of the railroad track. Customers' requirements to the quality of the repair work performed are justified by the fact that railway infrastructure is a high-risk area and, in addition, the closure of track sections for a long time to perform repair work can have a negative impact on the timing of product delivery to consumers, violating contractual obligations. In this connection, taking into account such indicators as normative time of closing a line for repair works (ti) and risk of rolling stock traffic safety violation (ri) in case of low-quality works, it is

necessary to consider market indicators of competing companies providing similar services and to form competitive advantages of track sections, increasing their economic and technological potential when choosing a pricing strategy.

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