

# STUDY OF THE DENSITY OF LOCATION OF CAR SERVICE ENTERPRISES IN NAMANGAN AND THE LIST OF SERVICES OFFERED

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## Abstract

The problem of urban transport infrastructure is considered in terms of ensuring the rational organization of vehicle maintenance and repair based on the principle of optimal placement of car service enterprises in urban areas and the list of services offered. Factors have been identified that make it possible to solve the problem of the chaotic location of such enterprises.

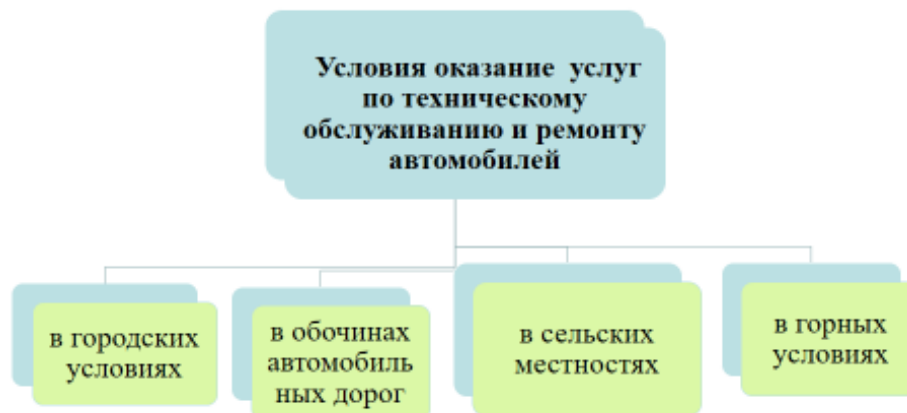
**Keywords** Vehicle maintenance and repair, auto repair services, rational placement, list of services provided, quality, factors.

## INTRODUCTION

In most cities of Uzbekistan, enterprises providing vehicle maintenance and repair services are located in different conditions (Fig. 1). And in urban areas they are located chaotically.

Among other reasons, this is aggravated by the spotty unstructured development of the city. It is known that in the city of Namangan there are problems with the master plan; today this unapproved document provides for the

development of the city of Namangan as a multifunctional administrative, industrial, transport, scientific and cultural center. The growth of industrial production is predicted mainly due to the development of the electric power industry, the construction industry and the food industry. The problem of rationalizing and improving the city's infrastructure, including transport, is relevant not only for the city of Namangan and in Uzbekistan as a whole, but also in foreign countries [1, 2].

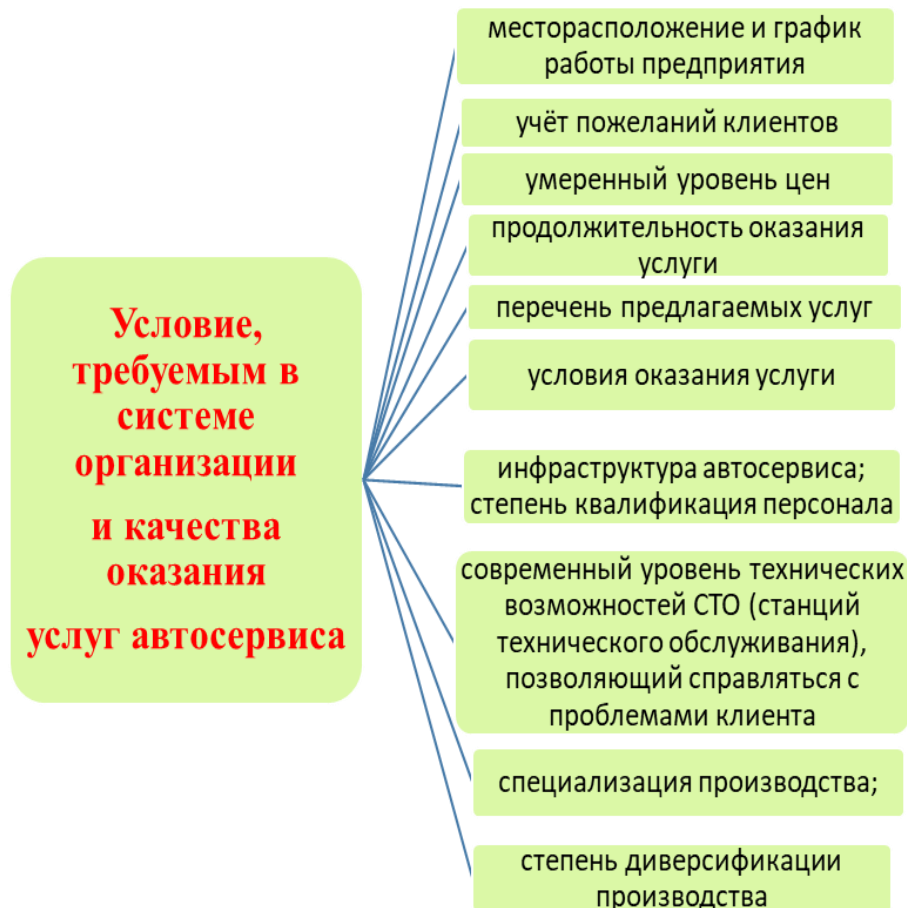


**Figure 1. Scheme of the conditions for the provision of technical service and car repair services**

Data from the territorial body of state statistics for the Namangan region indicate that [3] in 2019, 2021, in the Namangan region, car service services account for almost half of the total volume of all types of services provided in the region, which indicates the relevance of the problem under consideration specifically for this region. In practice, this figure exceeds the official figures by approximately 55%.

Most firms belong to private companies, whose car service services do not meet all the conditions required in the system of organization and quality

of car service services. The main ones of these conditions are: location and work schedule of the enterprise; taking into account the wishes of clients; moderate price level; duration of service provision; list of services offered; terms of service; car service infrastructure; degree of qualification of personnel; modern level of technical capabilities of service stations (service stations), allowing to cope with customer problems [5]; production specialization; the degree of diversification of production, allowing for the acquisition of related goods necessary for the sale of services (Fig. 2).



**Figure 2. Scheme of organization and quality of car service provision**

In Namangan, car services are partially structured thanks to existing dealership centers. Today, the demand for auto repair services tends to increase for the following reasons (Fig. 3):

1. Newly created enterprises prefer to rent cars or purchase several units of vehicles, so there is no need to organize a service in this case;
2. Medium-sized enterprises, using service principles, are exempt from MRS (mechanical repair shops) and turn to service centers for vehicle maintenance;
3. Firms with large capacities maintain repair shops, but only for first maintenance and minor repairs;
4. Owners of new and expensive automatic vehicles are often not ready for the additional costs

associated with organizing service; as a result, they do not take risks and service their cars in auto service centers;

5. Modern cars do not allow frequent car owners to carry out repairs on their own;
6. Population migration;
7. An increase in the age of the car fleet due to a crisis situation, accompanied, based on an analysis of state statistics [6], by an increase in prices not only for new cars, but also for used ones. In addition, prices for original consumables have increased and, as a result, for the maintenance and repair of cars in dealer (branded) centers, which indicates that car owners in the post-warranty period will prefer small technical stations with a more acceptable cost per person-hour of work.



**Figure 3. Reasons for the trend of increasing demand for car services**

Today, small service stations include “enterprises” that have spontaneously appeared in many garage cooperatives, which often undertake to perform and provide any work and service based on the needs of the client. These “handicraft” enterprises have a negative impact on the formation of the car service market, since due to improper organization of the production process they pose a particularly large threat to the population, namely: the questionable quality of the service provided can lead in the future to various kinds of negative consequences, such as road traffic incidents (for example, in January 2019, 453 road traffic accidents (RTA) were registered in the Namangan region, which is 6.8% more than in the corresponding period of the previous year, more than 50% of the registered accidents in the Namangan region occurred as a result malfunctions in the operation of car parts and assemblies manufactured in a handicraft manner and not certified) [7]; uncontrolled waste disposal has a detrimental effect on the environment; The local budget does not receive additional funds (in the form of tax revenues) from activities that are not registered in the manner prescribed by law.

All of the above suggests that a scientific approach is needed in solving the problem of rational density of location of vehicle maintenance and repair enterprises operating in the city and determining the optimal list of services they offer. As a practical solution to this issue, it is proposed to create an additional body in the structure of the regional transport infrastructure management of Namangan, the functioning of which will be aimed at the optimal organization of the activities of car service enterprises and is based on a scientific approach [8].

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