

**ANALYSIS OF THE DIFFERENTIATED PAYMENT SYSTEM IN PUBLIC
TRANSPORT IN THE CITY OF ANDIJAN**

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Annotation: This article covers the significance of the differentiated payment system in public transport today and measures to ensure the priority of public transport in the existing transport networks of the city. It also defines the tasks for the full coverage of users of the differentiated payment system.

Keywords: digital economy, automated payment system, baggage, tariff policy, tariff sections, tariff stations, route taxi, ecological environment, road accidents, crowding.

Introduction

In our country, comprehensive measures are being implemented for the active development of the digital economy, the widespread introduction of modern information and communication technologies in all sectors and spheres, primarily in public administration, education, healthcare, agriculture, and transport.

In order to accelerate the development of the digital industry in the republic, increase the competitiveness of sectors of the national economy, as well as to ensure the implementation of the tasks defined in the State Program for the implementation of the Action Strategy on five priority areas of development of the Republic of Uzbekistan in 2017-2021 in the "Year of Development of Science, Enlightenment and the Digital Economy," the Decree of the President of the Republic of Uzbekistan dated October 5, 2020 No. UP-6079 "On Approving the Strategy "Digital Uzbekistan - 2030" and Measures for its Effective Implementation" was adopted.

In order to increase the attractiveness of public transport throughout the republic and reduce the share of the shadow economy in the sector, the decree provides for the introduction of an automated payment system in public urban passenger transport. When implementing the automated payment system, it is planned to implement it in the 1st stage - in the center of the republic, and in the 2nd stage - in all regions of the republic [1].

Since 2023, the Automated Payment System ATTO has been operating in the city of Andijan.

Of course, the Law of the Republic of Uzbekistan dated April 25, 1997 No. 419-I "On Urban Passenger Transport" defines the rules for the transportation of passengers and baggage in the urban transport network. Also, according to Article 15 of the Law, preferential transportation of certain categories of citizens is carried out at the expense of the state budget [2].

Based on these rules, social cards have also been introduced for making electronic payments in the city's transport network. What is the role of social cards in urban transport today?

LITERATURE ANALYSIS AND METHODS

In accordance with the Law of the Republic of Uzbekistan "On Streamlining the Free Use of Urban Passenger Transport," the right to free use of urban passenger transport (except for taxis) is granted to the following categories of citizens: military personnel from among the participants of the 1941-1945 war, disabled veterans of the 1941-1945 war and persons accompanying a

disabled veteran of the 1st group of war, persons awarded orders and medals for selfless work and impeccable military service in the rear during the 1941-1945 war, former internationalist soldiers who participated in combat operations in the territory of the Republic of Afghanistan and other countries, military personnel undergoing active military service and contract servicemen and sergeants, persons who suffered and experienced radiation sickness as a result of the Chernobyl nuclear power plant accident, blind persons with disabilities and persons accompanying a blind person with disabilities on trips [3].

At the same time, it is planned to issue preferential transport cards to pensioners, persons with disabilities, schoolchildren, and students, which give them the right to preferential travel on urban passenger transport (except for route and non-route taxis).

The structure of the tariff policy of each city reflects its unique infrastructure, demographic and social status, and political system. The advantages of implementing differentiated tariffs are determined by customer costs, ease of payment, and flexibility.

The standard tariff does not reflect different levels of services within the service and may not lead to the largest share of transit mode. To balance the attractiveness of multimodal public transport types, it is necessary to approach the establishment of the level of basic tariffs with base tariffs [4].

If a differentiated tariff is applied in public transport, the bus route is divided into tariff sections or tariff stations. The length of tariff plots can be the same or different. Smaller lengths may be on problematic sections of the route. Based on this, when forming a differentiated tariff, the passenger flow and the route network must also coincide [5].

RESULTS

According to the obtained statistical data, the number of general education institutions in the city of Andijan in 2023-2024 was 77 [6]. At the same time, the number of students in the 2023-2024 academic year increased by 3.5% compared to the 2020-2021 academic year (Fig. 1).

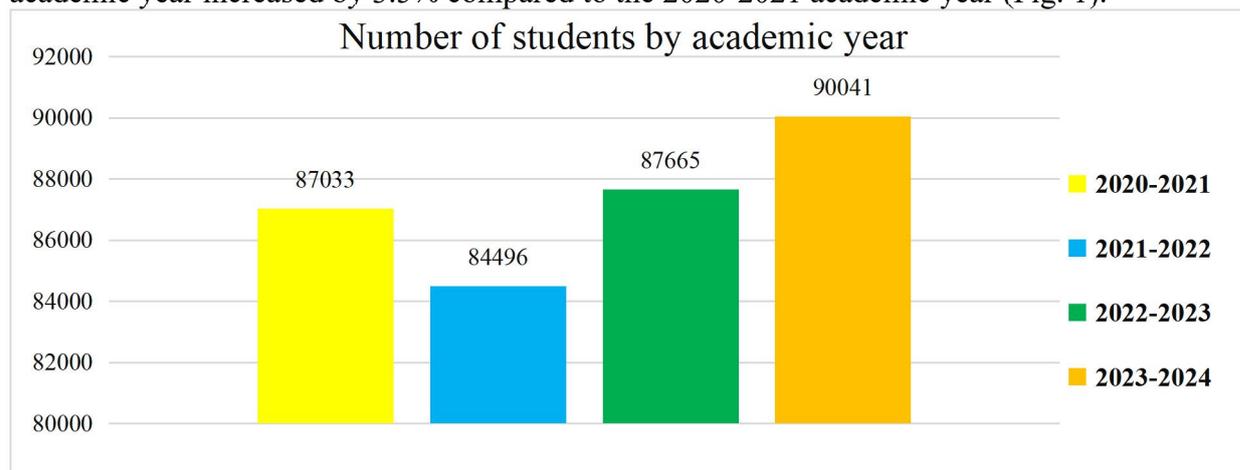


Figure 1. Change in the number of students in general education schools of the city of Andijan by academic years.

Also, due to the fact that the city of Andijan borders the Altynkul and Andijan districts, the presence of general secondary schools in these areas is relevant for transporting passengers on these routes at differentiated tariffs.

Result

As a result of the study, first of all, the routes of public transport in the city of Andijan were analyzed. Today, there are 9 public transport routes in the city of Andijan: Gulshan-Central City Hospital No. 1, Takhtakuprik-Jahon Bazaar No. 8, Eski Shahar-Buston No. 11, Mirzaev-Jahon Bazaar No. 21, Pistamozor-City Central Hospital No. 22, UZ Routes No. 35 - Chilonmozor - Old City, No. 75 - Pistamozor-36, No. 55 - Zavraq HPP - World Market, No. 94 - Munduz - Agricultural Institute (Fig. 2).



Figure 2. Andijan City Public Transport Route Network

The existing network of routes mainly passes through the central streets of the city, which reduces the possibility of full coverage of passenger traffic with a differentiated fare. Today, there are more than 35 thousand students of higher educational institutions in the city. Public transport is fully operational in the areas where the university is located. However, only 28 percent of the 77 general secondary schools located in the city are covered. There are more than 90 thousand students in general education schools in the region. Below are the locations of secondary schools on the QGIS platform (Fig. 3).

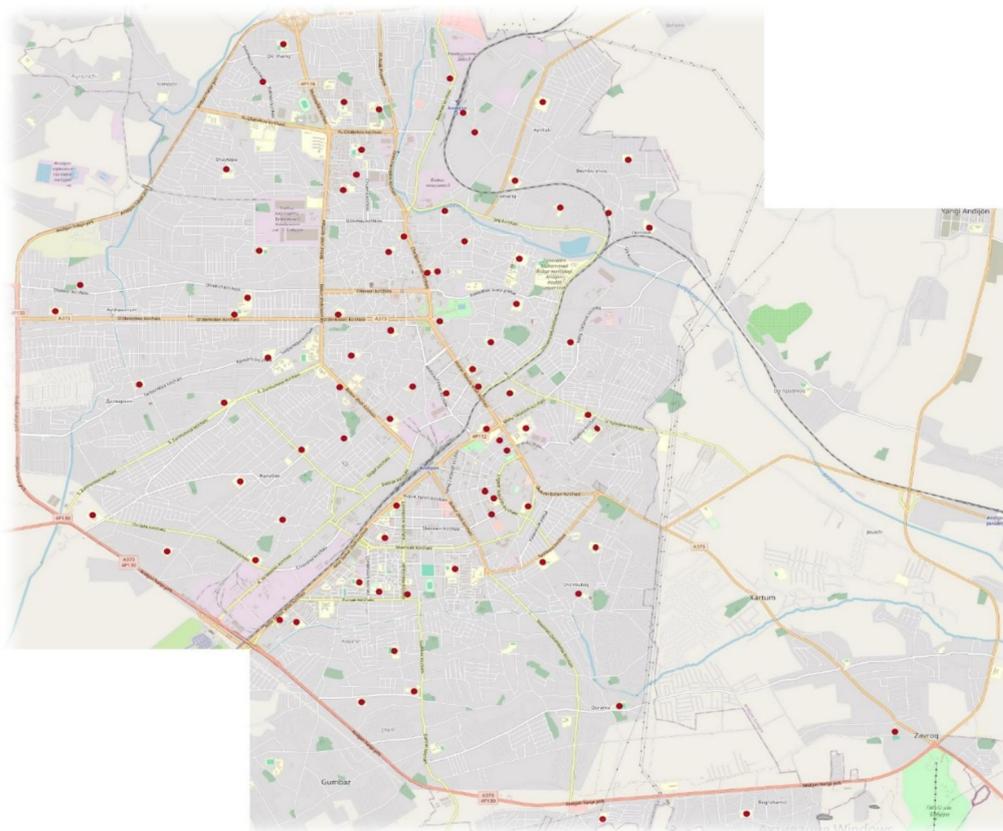


Figure 3. Geolocation of general secondary schools located in the city of Andijan and adjacent territories

By applying differentiated tariffs, it is possible to achieve traffic congestion on routes and public transport priority by involving the social stratum in public transport.

CONCLUSION

By applying a differentiated tariff in the city of Andijan, it will be possible to connect existing passenger flows in the city to public transport. The attractiveness of existing route taxis (Damas) will decrease, and the priority of public transport will increase. This, in turn, prevents the deterioration of the city's ecological environment, reduces the number of road accidents, and prevents traffic jams.

It will also optimize the activities of entrepreneurs investing in public transport and create a basis for attracting additional public transport to the region in the future.

LITERATURES

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