

ORIENTAL JOURNAL OF ACADEMIC AND MULTIDISCIPLINARY RESEARCH

Open Access, Peer Reviewed Journal

Scientific Journal



www.innoworld.net

+998 33 0178868



UTILIZATION OF MODERN TECHNOLOGIES IN PUBLIC TRANSPORT OF ANDIJAN CITY AND IMPLEMENTATION OF BUS ROUTES BASED ON BRUTTO CONTRACT

USMONOV AZIZBEK

Andijan Machine-building Institute,
Faculty of Transport and Logistics,
3rd-year student

Email: sr4usmanov9717@gmail.com

Since gaining independence, the Republic of Uzbekistan has consistently implemented economic changes. For instance, the automotive manufacturing industry was established, road construction accelerated, and trade relations with foreign countries were significantly enhanced. Ensuring road safety has become one of the critical issues today. Urban passenger transport management, from a dispatching perspective, falls into the class of spatially distributed objects and is limited to traditional modeling and optimization mathematical methods.

All of this requires a scientifically-based methodology and modern mathematical apparatus within an integrated framework of an informed computer system, actively incorporating service components. These components facilitate the interaction of transport in making management decisions within the dispatch management system.

Local and foreign experiences show that effectively improving transport operations in large cities is an urgent issue that requires the use of mathematical models and computer simulation to automate and optimize planning processes. This issue is complicated by the multifunctionality of the transport system, the decentralization of planning and management, the dynamic and probabilistic nature of the processes being studied, and the activity of the management object, all of which necessitate consideration of numerous psychological and socio-economic factors.

The uniqueness of the problem lies in organizing management without interdependence by studying various aspects of the transport system's performance, ensuring road traffic safety, planning freight and passenger transport, designing roads, and addressing these issues through transport urban planning specialists. This leads to the establishment of independent transport disciplines and branches that can operate until various systems independently complete their tasks. Thus, planning and automating transport processes requires employing interdependent factors that characterize the performance of the entire transport system to find solutions to any given tasks.

Furthermore, there are iterations in theoretical developments related to technological diversity and experiments. In urban passenger transport, newly

designed and implemented automated management systems often operate without sufficient grounding in several instances:

1. selection of system composition;
2. demand for information;
3. technical and programming requirements.

In implementing an automated management system, modeling can be one of the comparative methods for selecting alternatives and can determine the management impact on the system under normal conditions. Modeling methods are widely used in standard management schemes.

One of the key conditions for improving the quality of meeting the demand for transporting the population of large cities and enhancing the economic indicators of urban public passenger transport operations is to increase the effectiveness of rapid dispatch management. This allows for full utilization of the potential capabilities of the urban public passenger transport network to provide comprehensive transport services to the city's population.

In recent years, extensive work has been carried out to improve automobile transport services for the population, expand the network of public transport routes, and renew the fleet with modern, environmentally friendly buses. New approaches have been developed for the public transport network in Tashkent city with the participation of foreign experts.

However, issues such as lack of compliance with frequency, safety, and quality requirements, the absence of differentiated fares, and failure to ensure the priority of public transport are diminishing its attractiveness. The existing system of financing public transport does not allow for systematic renewal of the fleet and broad attraction of private investments to the sector.

To fully meet the population's demand for high-quality and comfortable passenger transport services, to introduce market principles in the sector, and to create an attractive business environment for the private sector by improving the financing system and fare policy, as well as in accordance with the development strategy of New Uzbekistan for 2022-2026: Starting from July 2, 2022, the first bus route from Gulshan MFY to Andijan city hospital was transitioned to a brutto contract system, as reported by the Ministry of Transport.

It was noted that 20 buses were assigned to this route, with an interval of 10 minutes between departures. Therefore, it was emphasized that passengers must board and alight from buses strictly at the designated stops. According to the relevant regulations, drivers are required to pick up and drop off passengers only at stops, operate on a strict schedule, and stop at each stop regardless of passenger presence.

According to the new system, the carrier must provide services to passengers based on the quality criteria and road standards. Soon, three more city bus routes will be gradually transitioned to this system.

Brutto contracts are a model for organizing passenger transport, where all revenue is transferred to a special account of the city budget, and the city

administration pays the carrier based on the volume of work performed under the condition of quality control.

What changes have occurred with the transition of bus routes in Andijan city to the brutto contract?

Increased Efficiency: The efficiency of transport services improved, and passenger flow and costs were brought under control.

Quality Control: The quality of services increased, as specific requirements were established within the contracts, and compliance with these requirements was monitored.

Infrastructure Renewal: Transport operators began modernizing infrastructure to reduce costs and improve service quality.

Passenger Satisfaction: Passenger satisfaction increased due to more frequent services and improved convenience.

Cost Optimization: Operational costs decreased, and financial stability improved.

CONCLUSION

In conclusion, when public transport began to operate under brutto contracts, clear and reliable relationships were established between the parties involved. Urban public transport was systematically regulated. Buses started to run on time on their designated routes. As the remaining routes in Andijan city also transition to operate under brutto contracts, it is anticipated that various traffic congestions will be reduced in the coming years, and a significant portion of the population will be seamlessly connected by public transport.

References:

1. Sohibjon o'gli, S. J. (2024). O 'ZBEKISTONDA INTELLEKTUAL TRANSPORT TIZIMINI RIVOJLANTIRISH. *Лучшие интеллектуальные исследования*, 15(4), 9-14.
2. Rafiqjon o'gli, R. R., & Zakirovich, N. I. (2024). ELEKTROBUSLARNI JORIY ETISHDAGI ENERGIYANING TEJALISHI. *MODELS AND METHODS FOR INCREASING THE EFFICIENCY OF INNOVATIVE RESEARCH*, 4(39), 170-175.
3. Rafiqjon o'gli, R. R. (2024). ANDIJON VILOYATI YO 'LOVCHI TASHUVCHI AVTOTRANSPORT KORXONALARI FAOLIYATI SAMARADORLIGINI OSHIRISH YO 'LLARI. *Oriental Journal of Academic and Multidisciplinary Research*, 2(4), 20-24.
4. Shavkatjon o'g, T. U. S., & Rafiqjon o'gli, R. R. (2024). SERQATNOV KOCHALARDA TRANSPORT VOSITALARINI HARAKATINI TARTIBGA SOLISH. *Oriental Journal of Academic and Multidisciplinary Research*, 2(4), 10-19.
5. Raximov, R. R., & Dexqonov, I. S. (2024). YO 'LOVCHILAR OQIMI VA YO 'LOVCHILAR OQIMINI O 'RGANISH USULLARI. *Oriental Journal of Academic and Multidisciplinary Research*, 2(4), 4-9.
6. Rafiqjon o'gli, R. R., & Sohibjon o'gli, S. J. (2023). ANDIJON SHAHRIDA JAMOAT TRANSPORTI MUAMMOLARI. *Ta'lim innovatsiyasi va integratsiyasi*, 10(6), 153-157.
7. Sohibjon o'gli, S. J., & Rafuiqjon o'gli, R. R. (2023). TRANSPORT LOGISTIKASI TIZIMINI TASHKIL ETISHNING IQTISODIY AHAMIYATI. *TADQIQOTLAR. UZ*, 25(1), 79-83.
8. o'g'Li, R. R. R., & o'g'Li, S. J. S. (2023). *Logistika Tiziming Transport Toshqil Etuvchisi. Ta'limdagi Zamonaviy Muammolar Va Ularning Ilmiy Yechlari*, 7 (7), 27-33.