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Foreign Experience in the Public Administration and Support for the Development of the Urban Transport Complex

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ABSTRACT

The relevance of research. The article examines the foreign experience of public administration and support for the development of the urban transport complex, aimed at solving the problems of mobility, environmental sustainability and integration of transport infrastructure with the urban environment. *The purpose of the study is* to study the foreign experience of public administration and support for the development of the urban transport complex, analyze its key components and mechanisms, as well as develop recommendations for the use of effective solutions to improve mobility, sustainability and competitiveness of transport systems in the EAEU countries, including Kazakhstan. *The results of the study* showed that the effectiveness of urban bus transport in the EAEU countries largely depends on the development of logistics infrastructure and coordination with the general urban transport complex. Differences in standards, levels of digitalization, and transport planning policies complicate the integration of transport systems, emphasizing the need to unify approaches and create joint development programs at the state level. These results highlight the importance of regional coordination and the adoption of the best international practices for the modernization of the transport systems of the EAEU and Kazakhstan, in particular. *Conclusions.* Based on the analysis, recommendations are proposed to increase the stability of transport systems in countries with a high coefficient of variation through infrastructure modernization and regulatory measures, to maintain stable transport development by improving technology and logistics, and to strengthen transport integration within the EAEU to increase the overall stability and competitiveness of road transport.

INTRODUCTION

Modern cities face a number of complex challenges related to the development of transport systems that ensure the livelihoods, mobility and economic activity of the population. Rapid urban development, population growth and increasing requirements for environmental sustainability require the introduction of effective solutions in the management of the urban transport complex. Urban transport is becoming not only an important element of infrastructure, but also a factor determining the quality of life, the level of economic activity and environmental well-being (Sarlab et al., 2023; Suhany et al., 2024). Examples of successful transport strategies from countries such as Germany, Singapore, and the Scandinavian countries show that effective transport policies are possible through the integration of technology, greening, and sound public administration. At the same time, the EAEU countries face challenges in coordinating efforts and infrastructural harmonization, slowing down the pace of their transport development.

Foreign experience in managing and supporting the development of transport systems is a valuable source of practical solutions and innovative approaches. The relevance of the study of foreign experience in public administration and support for the development of the urban transport complex is due to a number of factors. In the context of urbanization and urban population growth, the need to provide affordable, environmentally sustainable and efficient transport is becoming one of the key priorities of urban planning.

Modern cities face many challenges, including overloaded transport systems, environmental degradation due to transport emissions, social inequality in access to public transport services, and limited resources for its modernization. Foreign experience demonstrates successful approaches to solving these tasks: from the integration of various modes of transport to the introduction of smart traffic management technologies, allowing not only to increase the mobility of the population, but also to reduce the negative impact on the environment.

The study of international practice and the use of artificial intelligence technologies in traffic management provides an opportunity to adapt the best solutions for implementation in Kazakhstan. This is especially important in the context of the digitalization of the economy and the pursuit of sustainable development, where the transport sector plays a key role. Effective management and support of the urban transport complex based on the adaptation of foreign experience (for example, the introduction of smart technologies, environmental initiatives and the integration of transport systems) contribute to increasing the sustainability, mobility and competitiveness of transport systems in the EAEU countries. This can be achieved through inter-regional coordination, modernization of infrastructure and optimization of logistics, which will lead to an improvement in the quality of transport services and a reduction in the environmental burden.

Thus, the study of foreign experience makes it possible to form effective state support mechanisms that contribute to the creation of a modern and sustainable transport infrastructure that takes into account economic, social and environmental aspects.

1. RESEARCH METHODS

The following methods were used in the research process and are reflected in Table 1.

Table 1. Applied Research methods

№	Method	Characteristic
1	Analysis of literary sources	study of foreign experience in the management and support of urban transport systems, as well as the regulatory framework of the EAEU countries related to the transport sector
2	Economic and mathematical modeling	calculation of the coefficient of variation, analysis of growth rates/increase in transportation volumes and passenger turnover to assess the sustainability of transport systems
3	Comparative analysis	study of differences and similarities in approaches to managing urban transport complex in the EAEU countries and leading world countries
5	Methods of statistical analysis	the use of average dynamics indicators, trend analysis and correlation analysis to identify relationships between the parameters of transport systems

6	Cartographic method	visualization and analysis of the spatial arrangement of transport infrastructure and its impact on logistics integration
7	Modeling development scenarios	forecasting possible changes in the urban transport complex of the EAEU countries when implementing innovative solutions and management strategies

Source: compiled by the authors

The study is of a combined nature, including elements of quantitative and qualitative approaches. The combination of statistical data analysis, sociological survey and modeling methods will provide a comprehensive approach to the study and assessment of problems and solutions in the field of urban transport complex (UTC) in the EAEU countries.

2. RESEARCH BACKGROUND

Urban transport is a major issue in all countries due to its close relationship with virtually every aspect of the urban environment. As urban populations continue to grow and building density increases, traffic problems become increasingly problematic (Table 2).

Table 2. Approaches related to urban transport management

№	*Author*	*Goal*	*Approach*
1	Anin E., Annan J., Alexander O. (2013)	Assessment of urban transport problems	Questionnaire
2	Kant G., Quak H, Peeters R, van Woensel T. (2016)	Evaluation of problems and achievements of urban transport	Market research reports, stakeholder opinions, literature
3	Ogunbodede E (2008)	Discussion of related issues of the automobile transportation system	Research method
4	Schünemann J, Finke S, Severengiz S, Schelte N, Gandhi S (2022)	Environmental Impact Assessment of Urban Freight Transport	Life Cycle Assessment Method
5	Solanke M (2013)	Identifying urban transport problems	Consideration of problems
6	Ecer F, Küçükönder H, Kayapınar Kaya S, Faruk GÖ (2023)	Challenges and Benefits of Evaluating Public Transport	Narratives based on historical sources
7	Hajduk S (2021)	Choosing a Smart City	TOPSIS, entropy
8	Deveci M (2022)	Evaluation of urban transport	Based on the effects of removing criteria
9	Simic V, Gokasar I, Deveci M, Švadlenka L (2022)	The Impact of Urban Transport on Climate Change	Measuring alternatives and ranking according to the solution
10	Bouraima, M.B., Ayyildiz, E., Ozcelik, G. et al. (2024)	Sustainable development of urban transport	Identification and categorization of problems related to sustainable development of urban transport

Source: compiled by the authors

Over the past few years, all the cities studied have improved their transport systems in all major aspects. This has had a positive impact on the impressions of citizens from using transport systems. Foreign experience in managing and supporting the development of the urban transport complex demonstrates a variety of approaches that depend on the level of motorization, urbanization and transport policy priorities in specific countries (Figure 1).

Studying foreign experience allows adapting effective management and support tools for urban transport systems to improve mobility and environmental sustainability in other countries, including Kazakhstan:

- Integration of transport modes. In cities such as Singapore and Berlin, developed transport hubs combine different modes of transport, which increases mobility and reduces the load on roads.
- Smart technologies. Traffic management systems based on artificial intelligence (for example, in Seoul) help optimize traffic flows and reduce traffic jams.

– Eco-transport. In the Scandinavian countries and Germany, bicycle infrastructure and electric transport are widely developed to reduce the environmental burden.

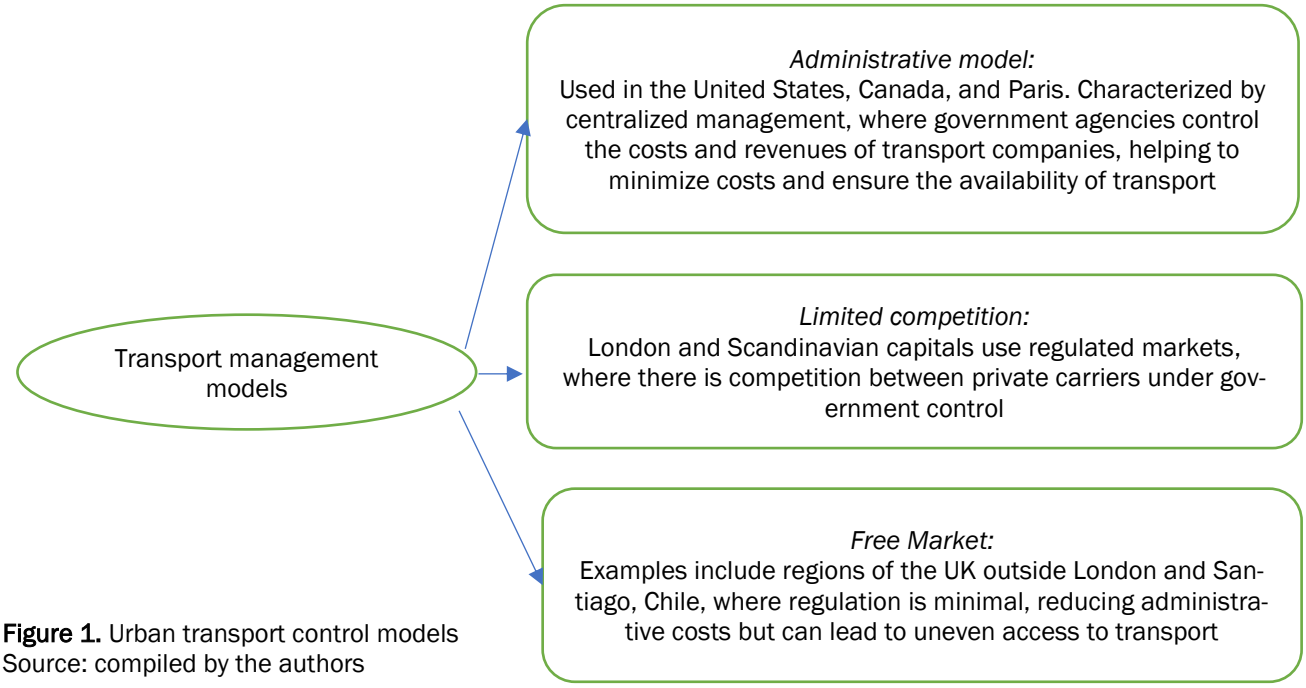


Figure 1. Urban transport control models
Source: compiled by the authors

Urban transport (hereinafter referred to as UT) is a complex problem, since it is closely related to key aspects of urban life, including the economy, ecology, social infrastructure and quality of life of the population. The relevance of the problem is due to several factors (Figure 2).

Addressing these challenges requires an integrated approach that includes the implementation of smart technologies, the development of public transport, the greening of transport systems and integration with urban planning strategies. Successful examples such as the development of the metro in Singapore or the use of electric vehicles in Copenhagen highlight the importance of planning and management to create efficient transport systems.

Transport systems play a vital role in modern cities, inextricably linked to essential services such as health, education and public utilities. Their efficiency is referred to as a “subsystem” rather than an isolated entity, and its effectiveness is of paramount importance for the overall functioning of the urban ecosystem. Current challenges, including increasing road traffic, highlight the need for sustainable solutions in urban transport (Salcedo-Sanz, S. et.al., 2024). The use of technologies and predictive methods is becoming essential for effective policy planning in an ever-changing urban landscape (Grotto, Andrea et.al., 2024). Public transport systems are the arteries of cities, transporting millions of people daily, yet their planning and optimization are complex tasks, as planning involves making trade-offs between objectives within limited resources and varying stakeholder interests (Hrelja et al., 2024).

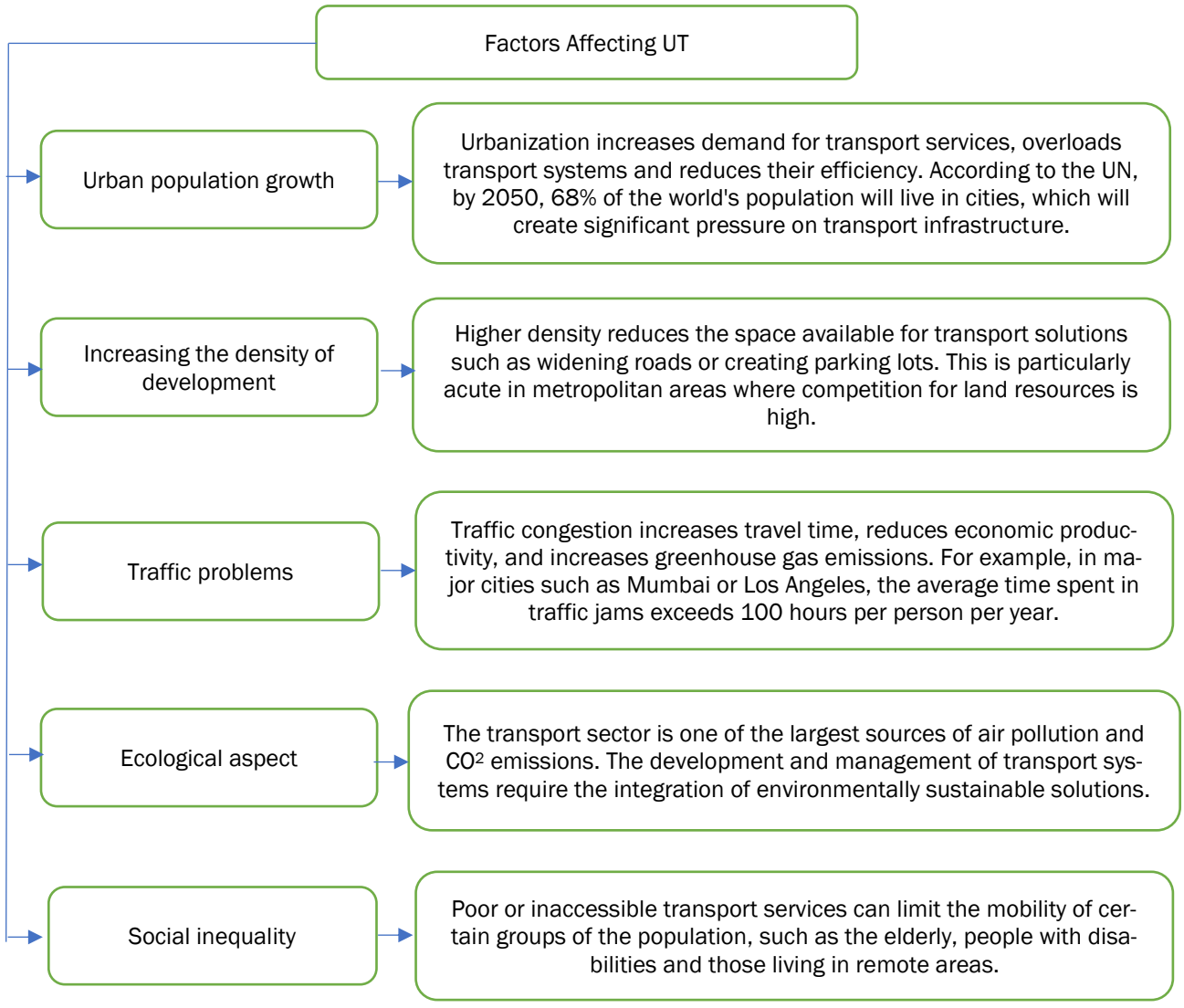


Figure 2. Factors influencing the development of UT
Source: compiled by the authors

Decisions regarding the design of public transport systems involve complex trade-offs, such as area coverage versus service frequency, service speed versus number of stops, operating hours, and frequency, which directly impact users (Ceder, 2016; Murray and Wu, 2003; Walker, 2008). In traditional public transport planning practice, the process of balancing system design objectives and options typically focuses on planning systems to achieve:

- Efficiency - traditional public transport planning focuses on the efficiency of resource allocation, seeking to maximize the use of existing infrastructure and services. The focus is on optimizing routes and schedules to minimize costs while meeting demand.
- Cost Minimization (Operating and Capital) - often includes decisions related to service frequency, route length, and fleet management to ensure cost-effective operations.
- Service Quality - includes factors such as punctuality, reliability, and passenger comfort aimed at attracting and retaining passengers (McLeod, 2017; Grise, 2021; Mulley, 2021; Khan, 2021).

Thus, a study of foreign experience in managing and supporting urban transport systems demonstrates the need for an integrated approach to solving current transport problems. These systems play a

key role in increasing mobility, ensuring environmental sustainability, and improving the quality of life in modern cities.

The experience of cities such as Singapore and Berlin shows that the creation of integrated transport hubs connecting different modes of transport effectively reduces the load on the road network and increases convenience for passengers. The use of AI-based transport management systems, such as in Seoul, helps to optimize traffic flows, reduce congestion and increase road capacity. The example of Scandinavian countries and Germany confirms that the development of bicycle infrastructure and the use of environmentally friendly electric transport can significantly reduce air pollution and noise. Effective management of the transport system requires taking into account the interests of all stakeholders and trade-offs between economic efficiency, environmental safety and the quality of services provided.

The results of reforms and the introduction of innovative approaches in such countries demonstrate that planning and public administration of transport infrastructure should take into account not only the current state of the transport network, but also the long-term needs of the population, including demographic changes, building density and the development of urban areas.

For Kazakhstan, an important area is the adaptation of the best world practices, including:

- development of an integrated and sustainable transport system in large cities such as Almaty and Astana;
- the use of digital technologies to forecast and manage traffic flows;
- attracting investment in environmentally friendly modes of transport and developing infrastructure for their use;
- continuous improvement of the urban transport system will increase its sustainability, accessibility and efficiency, as well as strengthen the connection of transport infrastructure with other elements of the urban environment.

3. ANALYSIS AND RESULTS

The urban transport complex has a multiplier effect on the development of freight and passenger transportation. Integration of modern technologies, improvement of infrastructure and competent flow management can significantly increase the efficiency of the transport system, reducing costs for businesses and improving the quality of life of the population. In most cities, transport systems are progressing towards sustainable development. There is a clear correlation between the sustainable development index of some cities and how developed their transport systems are in these cities, including public transport and infrastructure for individual mobility (Figure 3).

The urban transport complex significantly influences the use of bus transport as the main means of transport for the population. It provides wide coverage of the urban area, including remote areas where other modes of transport, such as metro or trams, may not be economically feasible. Bus transport is often more accessible to various social groups, including older people and people with disabilities.

We examined the factors influencing the passenger turnover of bus transport (Figure 4). The urban transport complex significantly influences the use of bus transport as the main means of transport for the population. It provides wide coverage of the urban area, including remote areas where other modes of transport, such as metro or trams, may not be economically feasible. Bus transport is often more accessible to various social groups, including older people and people with disabilities.

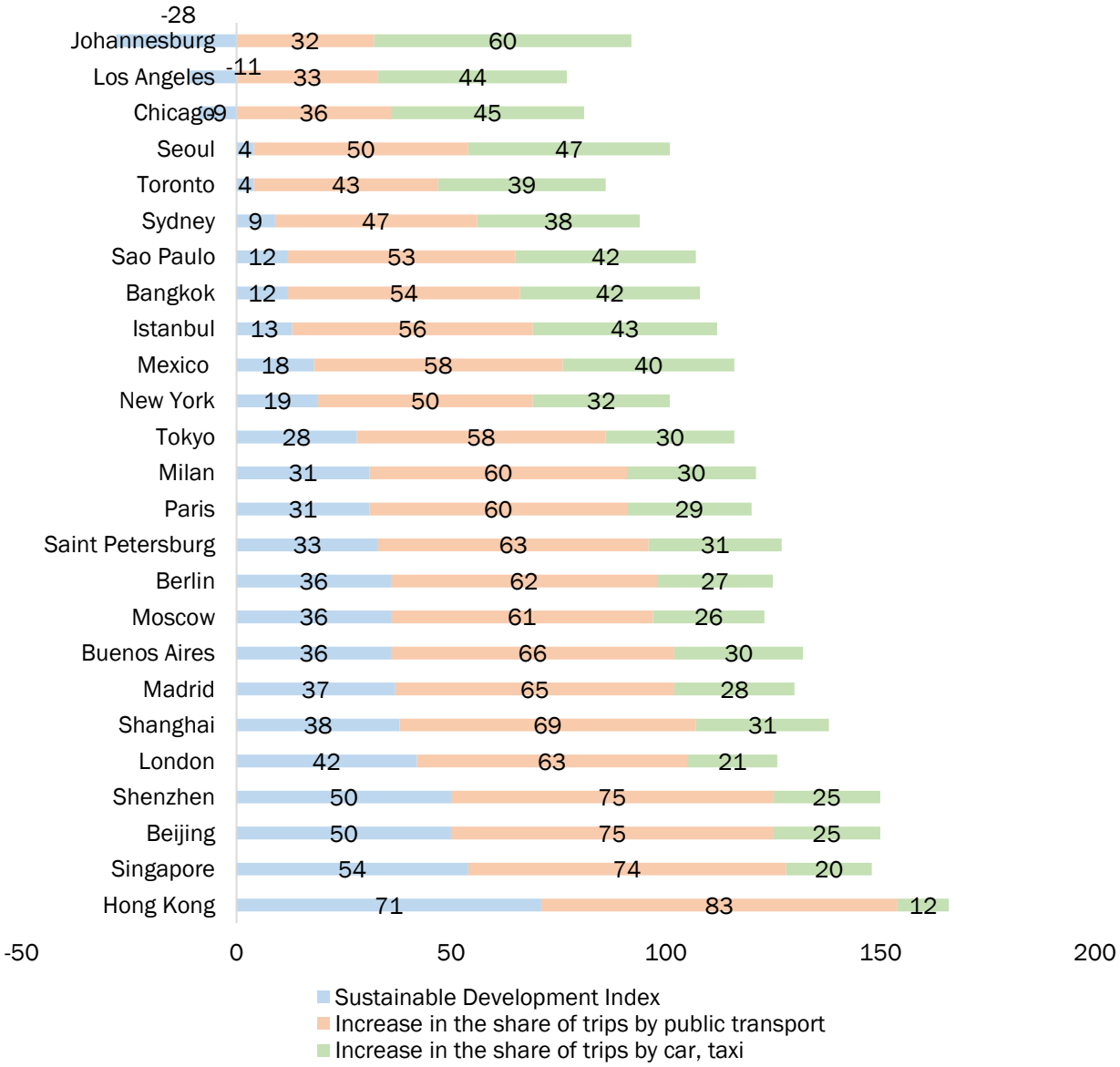


Figure 3. Components of Sustainable Development of UT
Source: compiled by the authors according to https://www.mckinsey.com

We examined the factors influencing the passenger turnover of bus transport (Figure 4).

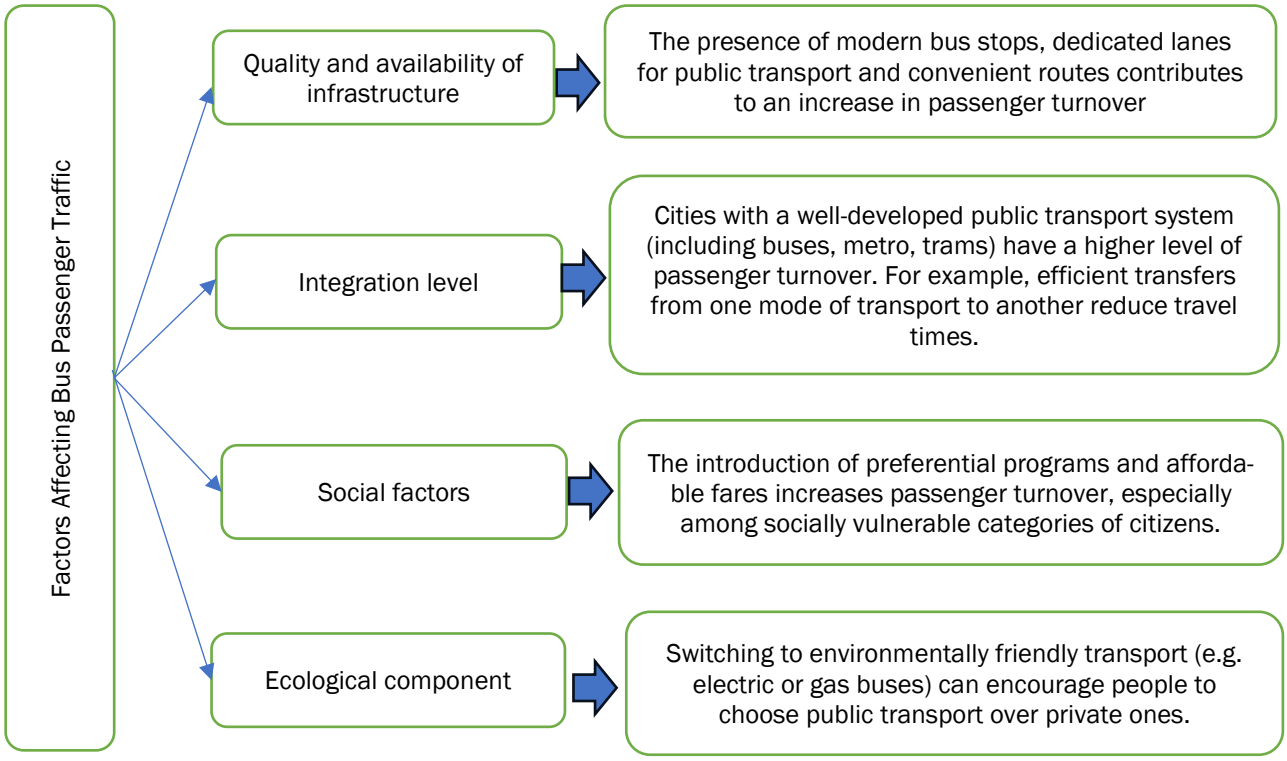


Figure 4. Factors Affecting Bus Passenger Turnover
Source: compiled by the authors

The relationship between urban bus transport, logistics infrastructure and the State Customs Service in the EAEU member states is a complex mechanism that requires coordination of efforts between states to ensure the efficiency and convenience of transport systems in the region. The author conducted a comparative analysis of automobile transport and presented data on passenger turnover of bus transport (Table 3,4).

Table 3. Cargo transportation by road, million tons

Countries	*2014*	*2015*	*2016*	*2017*	*2018*
EAEU	8 767,4	8 429,9	8 540,2	8 965,5	9 192,6
Armenia	4,4	6,9	16,2	23,6	24,5
Belarus	191,7	180,0	175,3	166,7	170,9
Kazakhstan	3 127,4	3 174,3	3 181,1	3 300,8	3 422,3
Kyrgyzstan	27,2	28,2	29,3	29,8	30,5
Russia	5 416,7	5 040,6	5 138,2	5 444,6	5 544,4
EAEU	9 488,7	8 881,3	8 997,8	9123,0	9250,0
Armenia	9,7	9,7	12,1	13,5	13,3
Belarus	161,7	159,8	154,8	150,0	145,0
Kazakhstan	3 550,3	3 288,7	3 314,2	...	262,1
Kyrgyzstan	31,7	24,5	26,2	35,9	37,1
Russia	5 735,3	5 398,6	5 490,5	5673,6	5 771,4

Source: compiled by the authors according to https://eec.eaeunion.org/

Table 4. Passenger turnover of bus transport, million pkm

Year	EAEU	Armenia	Belarus	Kazakhstan	Kyrgyzstan	Russia
2014	356192,7	2 535,6	9 946,0	214853,1	8 471,4	120 386,6
2015	359898,2	2 395,9	9 889,3	220869,0	8 910,0	117 834,0
2016	373625,8	2 436,5	9 825,4	235348,1	9 385,2	116 630,6
2017	378497,0	2 403,4	10405,5	239973,6	9 500,1	116 214,4
2018	383993,7	2 227,5	10650,8	246349,5	9 948,0	114 817,9
2019	397884,4	2 349,8	10881,8	260051,5	11242,2	113 359,1
2020	153159,1	685,2	8 264,6	58033,4	5 795,4	80 380,5
2021	148401,7	1 050,2	7 942,0	44549,2	7 066,6	87 793,7
2022	158 350,0	1609,7	8 500,0	35 200,0	8217,0	87 799,6
2023	162 400,0	1 836,9	8 900,0	27385,5	8 116,9	85 600,1
In the Republic of Kazakhstan, the data is presented taking into account the assessment of the volume of transportation by individual entrepreneurs engaged in commercial transportation.						

Source*:* compiled by the authors according to https://eec.eaeunion.org/

Differences in the dynamics of transportation volumes among the EAEU countries show different degrees of dependence on foreign trade, economic policy and transport infrastructure. An assessment of the sustainability of the transport system can be made based on the analysis of changes in data over the period under study. Trend changes in freight transportation show that the analysis of transportation volumes is characterized by a steady increase, as well as a decrease in the share of individual countries in the total volume. For example, the share of Kazakhstan remains stable during 2014–2023, while the share of Belarus shows a decrease, indicating changes in economic activity and the role of each country in the transport system. Kazakhstan's share in passenger turnover maintains its leading position, but with a decrease after 2020, which is associated with the impact of the COVID-19 pandemic on population mobility. To calculate the share of each country in the total volume of transportation (freight and passenger turnover), the ratio of each country's indicator to the total volume for the corresponding year was calculated, multiplied by 100 for presentation as a percentage (Table 5,6).

Table 5. Shares of countries in the total volume of freight transport by road (%)

Year	Armenia	Belarus	Kazakhstan	Kyrgyzstan	Russia
2014	0,05	2,19	35,67	0,31	61,78
2015	0,08	2,14	37,66	0,33	59,79
2016	0,19	2,05	37,25	0,34	60,16
2017	0,26	1,86	36,82	0,33	60,73
2018	0,27	1,86	37,23	0,33	60,31
2019	0,10	1,70	37,42	0,33	60,44
2020	0,11	1,80	37,03	0,28	60,79
2021	0,13	1,72	36,83	0,29	61,02
2022	0,15	1,64		0,39	62,19
2023	0,14	1,57	2,83	0,40	62,39

Source: Compiled and calculated by the authors

Table 6. Shares of countries in passenger turnover of bus transport (%)

Year	Armenia	Belarus	Kazakhstan	Kyrgyzstan	Russia
2014	0,71	2,79	60,32	2,38	33,80
2015	0,67	2,75	61,37	2,48	32,74
2016	0,65	2,63	62,99	2,51	31,22
2017	0,63	2,75	63,40	2,51	30,70
2018	0,58	2,77	64,15	2,59	29,90
2019	0,59	2,73	65,36	2,83	28,49
2020	0,45	5,40	37,89	3,78	52,48
2021	0,71	5,35	30,02	4,76	59,16
2022	1,02	5,37	22,23	5,19	55,45
2023	1,13	5,48	16,86	5,00	52,71

Source: Compiled and calculated by the authors

4. EXPERIMENTS

Looking at the coefficient of variation for countries allows you to:

- Assess the stability of indicators - the coefficient of variation (CV) measures the relative fluctuation of data. A high CV indicates significant fluctuations in transport indicators, indicating instability in the development of the country's transport system.
- Compare the degree of variability between countries - comparing the CV of different countries helps to identify which countries have the most stable development of the transport sector, and where there are significant fluctuations due to economic, social or political factors.
- Identify risks and vulnerabilities - countries with a high coefficient of variation (for example, Kazakhstan and Armenia) may face risks associated with unpredictable transport volumes, making it difficult to plan and finance infrastructure projects.
- Support management decision-making - CV analysis helps develop strategic measures to align the level of transport services, minimize risks and increase the sustainability of the transport system.
- Monitoring the effectiveness of policies - studying CV in dynamics allows us to assess the impact of government policy and regulation measures on the stability of the transport system, identify the need to adjust approaches or introduce new management tools (Figure 5).

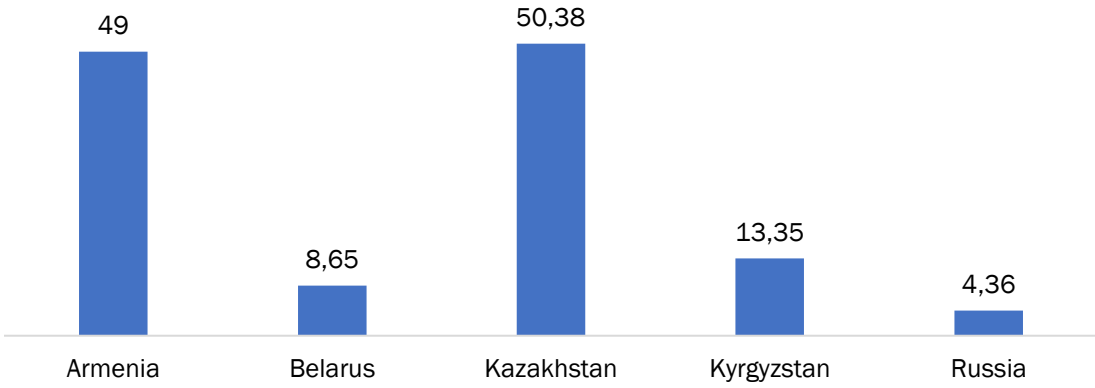
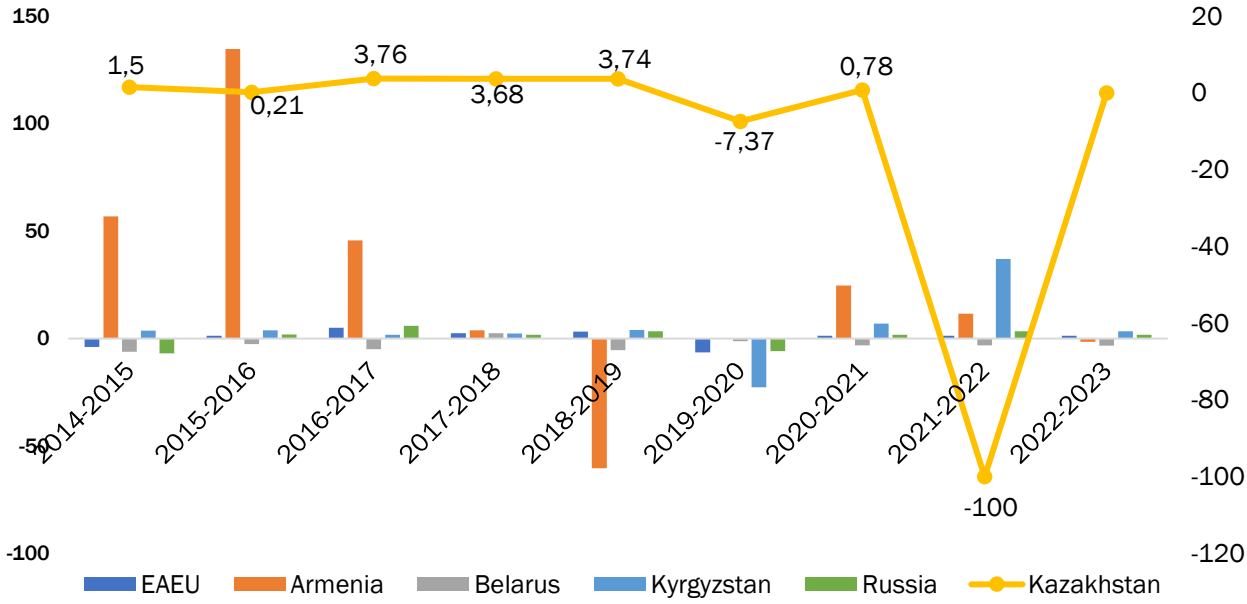


Figure 5. Variation coefficient for countries, %
Source: Compiled and calculated by the authors

The analysis of the results of calculating the variation coefficient shows that:

- high variation coefficients in Armenia and Kyrgyzstan indicate significant fluctuations in transportation volumes, associating this with economic instability, infrastructure limitations or dependence on foreign trade;
- low variation coefficients in Belarus and Russia indicate stability and predictability of transportation volumes, indicating developed infrastructure and stable demand;
- the average level of variation in Kazakhstan reflects moderate fluctuations associated with changes in the economy and logistics activity.

The analysis of the results of calculating the growth rates/increase in freight transportation by road transport allows us to assess the stability of freight transportation indicators for each EAEU country in dynamics over the period under study (Figure 6).



Year	*EAEU*	*Armenia*	*Belarus*	*Kazakhstan*	*Kyrgyzstan*	*Russia*
2014-2015	-3,85	56,82	-6,1	1,5	3,68	-6,94
2015-2016	1,31	134,78	-2,61	0,21	3,9	1,94
2016-2017	4,98	45,68	-4,91	3,76	1,71	5,96
2017-2018	2,53	3,81	2,52	3,68	2,35	1,83
2018-2019	3,22	-60,41	-5,38	3,74	3,93	3,44
2019-2020	-6,4	0	-1,18	-7,37	-22,71	-5,87
2020-2021	1,31	24,74	-3,13	0,78	6,94	1,7
2021-2022	1,39	11,57	-3,1	-100	37,02	3,33
2022-2023	1,39	-1,48	-3,33		3,34	1,72

Figure 6. Growth rates/increase in freight transportation by road transport by year
Source: Compiled and calculated by the authors

An analysis of the calculations performed shows that:

- from 2014 to 2019, there was a moderate increase in transportation volumes in most EAEU countries, attributing this to economic recovery and increased interregional trade;
- the increase in Kazakhstan and Russia is explained by their key position in the region's transport and logistics chains;
- a sharp decline in growth rates in 2020 is associated with the COVID-19 pandemic, which caused a decline in economic activity, a decrease in production and restrictions on movement;
- some countries (for example, Belarus) have seen a decrease in transportation volumes in recent years, attributing this to internal and external economic factors, including sanctions or trade restrictions;
- in 2021–2023, positive dynamics are visible in most countries, especially Kyrgyzstan and Armenia, indicating the recovery of the transport sector.

Thus, fluctuations in growth rates indicate a significant impact of the external economic environment, including global crises, trade restrictions and changes in demand for transport services. Positive growth rates in recent years indicate potential for further development of the sector, subject to investment in infrastructure, digitalization and logistics.

Using the trend model, the indicator "Cargo transportation by road to the EAEU countries, million tons" was forecasted. Initially, the time series was checked for the presence of anomalous observations, for this purpose the Irwin criterion was used (Table 7).

Table 7. Checking for the presence of anomalous observations in a time series

Year	*Cargo transportation by road to the EAEU countries, million tons*	*Observed value of Irwin's criterion*	*Calculation formulas*
2014	8 767,4		Observed value of Irwin's criterion $\lambda_t = \frac{\lvert y_t - y_{t-1} \rvert}{\sigma_y}, \quad t = \overline{2,\ 10}$ Critical value of Irwin's criterion $\lambda_{0,05} = 1{,}5$
2015	8 429,9	1,041	
2016	8 540,2	0,340	
2017	8 965,5	1,312	
2018	9 192,6	0,700	
2019	9 488,7	0,913	
2020	8 881,3	1,873	
2021	8 997,8	0,359	
2022	9 123,0	0,386	
2023	9 250,0	0,392	

Source: compiled by the authors according to https://eec.eaeunion.org/

The obtained results showed that the time series contains an abnormal value corresponding to 2020. This is due to the restrictions introduced in connection with the coronavirus pandemic. To obtain adequate modeling results, this level was smoothed using a three-term average. Next, a hypothesis was put forward about the presence of a trend in the analyzed time series, which was confirmed using the criterion of "ascending" and "descending" series (Table 8).

Table 8. Checking for a trend

General form of the criterion of "ascending" and "descending" series (for the presence of a trend, it is sufficient for at least one inequality to be violated)	Calculated values with error probability $0{,}05 < \alpha < 0{,}0975$
$\nu(n) > \left[\frac{2n-1}{3} - 1{,}96\sqrt{\frac{16n-29}{90}} \right]$	4 < 3
$K_{\max} < [K_0(n)]$	4=4

Source: compiled by the authors

To approximate the initial data, a first-degree polynomial was chosen as the growth curve:

$$y_t = a_0 + a_1 t + \varepsilon_t,$$

As a result of calculations using the least squares method, the following trend model was obtained:

$$y_t = 8579{,}420 + 74{,}245t$$

Next, the quality of the obtained model was assessed in two directions: adequacy testing and model accuracy assessment. To test the adequacy of the model, a number of residuals were examined, i.e. the discrepancy between the levels calculated by the model and actual observations. The most important properties of the residual component are: equality of the mathematical expectation to zero, randomness of the residuals and their compliance with the normal distribution law.

To test the hypothesis that the mathematical expectation is equal to zero, *t*-Statistic $t_{observ.} = 0$, which turned out to be less than the critical value $t_{crit.} = 2{,}31$, which confirms the hypothesis with 95% probability.

The randomness of the levels of the residual series was tested using the turning point criterion.

$$p = 3 > \left[\frac{2}{3}(n-2) - 1{,}96\sqrt{\frac{16n-29}{90}}\right] = 2$$

The inequality is confirmed by calculations, therefore the model is adequate according to this criterion.

The correspondence of a number of residuals to the normal distribution law was determined using the RS-criterion.

$$RS = \frac{e_{max} - e_{min}}{S} = 3{,}04$$

The calculated value fell within the range of the criterion's boundary values (2.67-3.69), which confirmed the normality of the distribution with a probability of 95%. To assess the accuracy of the model, the average relative approximation error was calculated:

$$E_{rel.} = \frac{1}{n}\sum_{i=1}^{n}\frac{|e_t|}{y_t}\cdot 100\% = 2{,}08\%,$$

value, which indicates a good level of accuracy of the model.

Thus, the model is of high quality and can be used for forecasting.

To calculate the point forecast, the corresponding values of the time factor were substituted into the constructed model $t = n + k$. To construct an interval forecast, a confidence interval was determined at the significance level $\alpha = 0{,}05$. The width of the confidence interval was calculated using the formula:

$$U(k) = S_e t_\alpha \sqrt{1 + \frac{1}{n} + \frac{\left(n + k - \bar{t}\right)^2}{\sum_{t=1}^{n}\left(t - \bar{t}\right)^2}},$$

The results of constructing point and interval forecasts of the volume of cargo transportation by road to the EAEU countries for 2025-2027 are presented in Table 9.

Table 9. Point and interval forecasts for 2025-2027

Year	$n+k$	$U(k)$	*Point forecast, million tons*	*Interval forecast, million tons*	
				Max	*Min*
2025	16	734,93	9 470,37	8 735,43	10 205,30
2026	17	772,65	9 544,61	8 771,97	10 317,26
2027	18	813,61	9 618,86	8 805,25	10 432,46

Source: compiled by the authors

Based on the analysis, the author made the following recommendations:

- For countries with a high coefficient of variation (Armenia, Kyrgyzstan), develop measures to improve the sustainability of the transport system, including infrastructure modernization and simplification of regulatory barriers.
- For countries with stable indicators (Russia, Belarus), maintain the current level of development through further improvement of logistics and technological solutions.
- For the entire EAEU, strengthen interregional transport integration to improve the overall stability and competitiveness of road transport.

CONCLUSION

The study of public administration of urban transport infrastructure and logistics in the EAEU countries allows us to identify key aspects that influence the development and sustainability of transport systems. The relationship between bus transport, logistics infrastructure and the state transport complex in the region requires coordination of efforts between states to improve mobility and environmental sustainability. Based on foreign public administration experience, such as the integration of various modes of transport in Singapore and the use of smart technologies in Seoul, effective practices can be adapted in the EAEU countries to improve the operation of transport systems. The use of forecasting and optimization methods, as well as the introduction of innovative technologies such as electric vehicles and traffic management systems, can significantly improve the efficiency of transport services and reduce the environmental burden.

As a result of the analysis, the author proposed the following recommendations:

A) For countries with a high coefficient of variation (e.g. Armenia and Kyrgyzstan):

- it is necessary to strengthen support for the sustainability of transport systems;
- it is recommended to modernize the transport infrastructure and simplify regulatory barriers, allowing for increased mobility and reduced traffic jams.

B) For countries with more stable indicators (Russia, Belarus):

- continue to develop and improve logistics solutions;
- maintain existing transport infrastructures and introduce innovative technologies to improve services.

C) For the entire EAEU:

- strengthen interregional transport integration, improving the overall stability and competitiveness of road transport. Investments in infrastructure and more active implementation of environmentally friendly modes of transport will help to increase sustainability and reduce dependence on traditional energy sources.

D) Use of technologies:

- actively develop technologies such as intelligent traffic management systems that will facilitate more efficient use of existing transport capacity and reduce travel times for passengers and cargo.

These recommendations will contribute to the creation of more efficient and sustainable transport systems in the EAEU countries, which in turn will improve the quality of life of the population and improve economic indicators in the region.

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