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THE APPLICATION OF FOREIGN METHODS
OF INCREASING THE EFFICIENCY OF PUBLIC TRANSPORT
IN THE SYSTEM OF STATE GOVERNANCE
OF THE REPUBLIC OF KAZAKHSTAN

Within the framework of the public administration system effectiveness in the provision of services to the population, the authors consider topical issues of improving the quality of the work of such a social sector as public transport. It is noted that the state reform of public transport demonstrates high efficiency in implementing a set of tasks (development of digitalization of the industry, renovation of transport parks, etc.). However, in the field of transport services, there are still open meta related to the need to optimize their practical activities.

An important point in the study is the analysis of the features in assessing the degree of satisfaction with transport services consumers. These features are largely due to the quality of the driver himself, who is the subject of providing services to vehicle users, and the key role of passengers who are able to objectively assess the work of social services.

The article discusses various methods of increasing efficiency, including in the field of transport management. The Kazakhstani experience of research and application of these and other approaches to improving the efficiency of public transport management is considered.

Having considered this practice, it is proposed to introduce an assessment of the satisfaction of public transport passengers; to implement the research objectives, the authors proposed a methodology based on the results of a survey of the population in an online format. In the presence of an integrated mobile application, this methodology will make it possible to introduce an estimated indicator of passenger satisfaction with completed trips.

The result of these measures should be an improvement in the quality of services provided by public transport, which, in turn, will stimulate the abandonment of private vehicles in favor of public ones, significantly improve the environmental situation in the city, and also be able to relieve the traffic of city streets during almost all working hours.

In the context of the state program for the implementation of the "smart" urban transport project, the maximum optimization of the existing system and the achievement of the ultimate goal of ensuring comfortable and safe travel by public transport is possible.

Key words: public administration, efficiency, key performance indicators, KPI system, KPI system algorithm, customer satisfaction, efficiency assessment, quality of services to the population, social work.

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Қазақстан Республикасының мемлекеттік басқару жүйесінде
қоғамдық көліктің тиімділігін арттырудың шетелдік әдістерін қолдану

Халыққа қызмет көрсету саласындағы мемлекеттік басқару жүйесінің тиімділігі шеңберінде авторлар қоғамдық көлік сияқты әлеуметтік саланың жұмыс сапасын арттырудың өзекті мәселелерін қарастырады. Қоғамдық көліктің мемлекеттік реформасы міндеттер кешенін іске асыру бойынша жоғары тиімділікті көрсетеді (саланы цифрландыруды дамыту, көлік парктерін жаңарту және т.б.). Алайда, көлік қызметтері саласында олардың практикалық қызметін оңтайландыру қажеттілігіне байланысты әлі де ашық мета бар.

Зерттеудің маңызды сәті көлік қызметтерін тұтынушылардың қанағаттану дәрежесін бағалау кезіндегі ерекшеліктерді талдау болып табылады. Бұл ерекшеліктер көбінесе көлік құралын пайдаланушыларға қызмет көрсету субъектісі болып табылатын жүргізушінің жұмысының сапасына, сондай-ақ әлеуметтік қызметтердің жұмысын объективті бағалай алатын жолаушылардың негізгі рөліне байланысты.

Мақалада тиімділікті арттырудың әртүрлі әдістері, соның ішінде көлік менеджменті саласындағы әдістер қарастырылады. Қоғамдық көлік саласындағы басқарудың тиімділігін арттыруға осы және басқа да тәсілдерді зерттеу мен қолданудың қазақстандық тәжірибесі зерттелді.

Осы тәжірибені қарастырып, қоғамдық көлік жолаушыларының қанағаттанушылығын бағалауды енгізу ұсынылады; зерттеу міндеттерін іске асыру үшін авторлар онлайн форматта халыққа сауалнама нәтижелеріне негізделген әдістеме ұсынды. Интеграцияланған мобильді қосымша болған жағдайда, бұл әдістеме жолаушыларға жасалған сапарларға қанағаттанудың бағалау көрсеткішін енгізуге мүмкіндік береді.

Осы іс-шаралардың нәтижесі қоғамдық көлікпен көрсетілетін қызметтердің сапасын арттыру болуы тиіс, бұл өз кезегінде жеке автокөліктен қоғамдық көліктің пайдасына бас тартуды ынталандыруға, қаладағы экологиялық жағдайды едәуір жақсартуға мүмкіндік береді, сондай-ақ барлық жұмыс сағаттарында қала көшелерінің трафигін жеңілдетуге қабілетті.

«Ақылды» қалалық көлік жобасын іске асырудың мемлекеттік бағдарламасы аясында қолданыстағы жүйені барынша оңтайландыру және қоғамдық көлікте ыңғайлы және қауіпсіз сапарларды қамтамасыз етудің түпкі мақсатына қол жеткізу мүмкін болады.

Түйін сөздер: мемлекеттік басқару, тиімділік, тиімділіктің негізгі көрсеткіштері, KPI жүйесі, KPI жүйесінің алгоритмі, тұтынушылардың қанағаттануы, тиімділікті бағалау, халыққа қызмет көрсету сапасы, әлеуметтік жұмыс.

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Применение зарубежных методов повышения эффективности общественного транспорта в системе государственного управления Республики Казахстан

В рамках эффективности системы государственного управления в сфере оказания услуг населению авторами рассматриваются актуальные вопросы повышения качества работы такой социальной отрасли, как общественный транспорт. Отмечается, что государственная реформа общественного транспорта демонстрирует высокую эффективность по реализации комплекса задач (развитие цифровизации отрасли, обновления транспортных парков и др.). Однако, в сфере транспортных услуг существуют ещё открытые мета, связанные с необходимостью оптимизации в их практической деятельности.

Важным моментом в исследовании является анализ особенностей при оценке степени удовлетворенности потребителями транспортных услуг. Эти особенности в большей степени обусловлены качеством работы самого водителя, являющегося субъектом предоставления услуг пользователям транспортного средства, так и ключевой ролью пассажиров, способных объективно оценивать работу социальных служб.

В статье рассматриваются различные методики повышения эффективности, в том числе в сфере транспортного менеджмента. Рассмотрен казахстанский опыт исследования и применения этих и других подходов к повышению эффективности управления в сфере общественного транспорта.

Рассмотрев данную практику, предлагается внедрить оценку удовлетворенности пассажиров общественного транспорта; для реализации задач исследования авторами предложена методика, основанная на результатах опроса населения в онлайн-формате. При наличии интегрированного мобильного приложения данная методика позволит иметь возможность внедрения оценочного показателя удовлетворенности пассажирами совершенных поездок.

Результатом данных мероприятий должно стать повышение качества предоставляемых услуг общественным транспортом, что, в свою очередь, позволит стимулировать отказ от личного автотранспорта в пользу общественного, в значительной мере улучшить экологическую ситуацию в городе, а также разгрузить трафик городских улиц практически во все рабочие часы.

В контексте государственной программы реализации проекта «умного» городского транспорта возможна максимальная оптимизация существующей системы и достижение конечной цели по обеспечению комфортных и безопасных поездок на общественном транспорте.

Ключевые слова: государственное управление, эффективность, ключевые показатели эффективности, система KPI, алгоритм системы KPI, удовлетворенность потребителей, оценка эффективности, качество услуг населению, социальная работа.

Introduction

Key performance indicators in the public transport sector are in many countries – it is one of the important performance indicators for public transport companies. Western management science has a long history of creating and using performance indicators in management concepts - starting with the system of indicators of the French scientist J.L. Little (Tableau de bord), developed in 1932 (Malo JL, 1995) and including the famous management system by objectives Management by Objectives (MBO) by Peter Drucker (Drucker P., 2007), an integral part of which are indicators (indicators) and ending a real boom in the idea of developing indicators in the 90s of the twentieth century.

One of the earliest systems for measuring performance was the French tableaudebord system. At present, the modern concept of tableaudebord has been formed, which French authors Yves Chiapello and Michel Lebas (Chiapello E., 2001) define as a management tool used to «select, document and interpret» causally linked financial and non-financial indicators. Each indicator reflects the state of a certain part of the business that needs to be managed; thus, in the aggregate, tableaudebord is, as it were, a general model for the functioning of a business as a system.

According to the results of studies conducted in the United States and cited in the book by M. Armstrong and A. Baron (Armstrong, M. & Baron, A., 1998), internal performance parameters are critical to monitoring the implementation of the plan and the mutual integration of all components of business activities.

In the Kazakh system of public administration, this system has also been introduced using advanced experience and the work of an expert group. This tool is most effective for monitoring and improving the levels of public transport services.

In the field of public transport, government plans and strategies are in force. All of them are aimed at the implementation of a qualitative reform of the public transport system, the main among them are the following activities:

• Kazakhstan has developed a long-term Development Strategy until 2050, in which the transport sector is among key infrastructure components;

• Master plans for urban development have been developed, which include the transport sector;

• The Strategy for Sustainable Development of Public Transport for Almaty is an important step for evaluation of public transport potential as component of urban development (Strategy for Sustainable Transport, 2013);

• Focus on the introduction of differentiated tariffs;

• A new standard contract for the provision of public transport services has been developed

So, in Almaty in 2016-2019, 1,113 new buses were purchased, the country's first Bus Rapid Transit (BRT) line was launched, car sharing and bicycle rental services were introduced. The construction of two new metro stations and the implementation of the Light Rail Tram (LRT) project are ongoing.

Today the bus fleet of Almaty has already been renewed by 80%. This became possible, among other things, thanks to the implementation of the Onay card payment system, which allowed to take funds away from shadow circulation. Today, 97% of all transactions are carried out by bank transfer. The possibility of paying for travel by means of a QR code is gaining popularity among the population.

The result of the BRT implementation is an increase in passenger traffic by 40%, as well as a reduction in travel time by 15 minutes. According to the Police Department, in January-April 2019, the number of road accidents decreased by 24% (The bus fleet of Almaty, 2019).

In recent years, a number of innovations have been introduced in the public transport system of the city of Almaty: the launch of an electronic payment system, launch of public transport lanes, a differentiated fare, etc.

All this, of course, gives grounds to talk about the high-quality implementation of the public transport reform, however, moving on to performance indicators, one should pay attention to their usefulness and the involvement of the main consumers of services in quality assessments to obtain a more objective picture.

Literature review

KPI is a key performance indicator that can be quantified and is considered the most important for assessing the performance of any structural organization (Vishnyakova M.V., 2017)

In modern foreign literature, there are different formulations of this indicator, such as "metrics", "performance indicators", "key results indicators - KRIs", "key success factors "(" Critical success factors - CSF "). Different authors give different meanings to the terms. Thus, David Parmenrer, author of Key Performance Indicators: Developing, Implementing and Using (David Parameter, 2010), delineates the terms of performance indicators as follows:
- "key results indicators - KRIs" show what actions are needed commit to improve performance in the

long run, - "performance indicators" show what the daily functions are needed, - "key performance indicators (KPIs)" show what needs to be done to leapfrog efficiency.

In order to avoid any problems with understanding this concept, the wording prescribed in the ISO 9000: 2018 standard has been developed. In the existing standard, the concept of "performance" is divided into two directions. The first is performance, that is, it characterizes the organization's ability to pursue results orientation. The second is efficiency, that is, it implies a correlation between the result obtained by the organization and the costs incurred in the process of achieving the set goals, for a certain period of time (Quality management, 2018)

Another source of shaping the modern view of performance measurement is Peter Drucker's theory of management by goals. This scientist emphasized the need for a dashboard in business. In 1954, outlining his concept of Management by Objectives (MBO), he wrote: "Targets in key areas [of business] are the" dashboard "necessary for the" pilot "of a business enterprise" (Drucker P., 2007) Interestingly, in fact, already in the 50s of the 20th century, Peter Drucker formulated the main provisions of efficiency assessment systems, the boom of which will take place in the United States in the 90s of the twentieth century, and these ideas will come to Russia at the beginning of the twenty-first century in the form of the Balanced Scorecard of Norton and Kaplan (Kaplan RS, 1996).

It was this system that became the most popular in our country and thanks to it, not only the term Balanced Scorecard (BSC) came into the practice of domestic management, but also used in the West in other systems The most popular term is Key Performance Indicators (KPI) .But there is an opinion, expressed, in particular, by K. Redchenko, that if in P. Drucker's system the goals are replaced by indicators to which goals are set, then in fact you get the BSC system (Redchenko K.I., 2002).

Another well-known performance-based methodology is the Balanced Scorecard system, described in books by Robert Kaplan, David Norton, their followers, and numerous articles. The authors generalized the ideas of management by goals and combined indicators according to certain principles. But the popularity of their methodology all over the world is mainly due to the fact that they paid much attention to the applied aspects of implementing the system. This system is known as a balanced scorecard - BSC. According to the BSC, data on indicators are collected and analyzed in 4 aspects:

1. The client aspect answers the question of what organizations our clients see. The following main criterion applies here: if the requirements of clients are not fully satisfied, then they have to look for other organizations that are ready to provide them with such an opportunity. The BSC requires leaders in the organization to translate the overall customer intent into concrete metrics that reflect the factors that truly matter to customers. Decrease in the level of the organization's indicators in this direction is a clear indicator of the future decline of the enterprise, even if the current financial picture of its functioning is quite safe.

2. The aspect of internal processes answers the question of how organizations should improve. The high quality of the organization's work for clients is the result of decisions made in the company and the processes occurring within it. This aspect of the BSC allows managers to evaluate the work of their company precisely from this, internal, point of view, shows how well the procedures are performed that allow them to receive high quality products and services provided.

3. The renewal and learning aspect addresses the question of whether organizations can continue to add value and create value. An organization's ability to improve and learn helps it penetrate new markets and increase revenues and profits. Growing and developing can only be a company that is able to continually bring new products to the market, create new value for consumers and improve its efficiency.

4. The financial aspect answers the question of what kind of organization the shareholders see. Financial performance reflects the impact of the company's strategy on increasing profits. According to the authors of the BSC, the task of processing and maintaining financial data, as a rule, is given even more attention than is necessary. Therefore, they talk about the need for a balance of indicators for all 4 aspects. All of these performance assessment systems involve the creation of a hierarchy of goals, where the main thing is the implementation of the strategy, which is cascaded to departments by creating indicators. In this case, the main task is to timely verify the achievement of goals for each of the KPIs with a strategic goal. These figures are even compared to navigation instruments that indicate the location of the company (ship) on the way to the target.

Materials and methods

Key performance indicators provide and aim to:
• understanding of public transport services, modal separation and an acceptable public transport system.

• Improved travel efficiency and / or increased passenger traffic.

• Improved access to public transport for all levels of the population.

• Improving the quality of services provided.

• Increased security level.

• Ensuring the financial stability of the system.

• Improving the financial and operational management of the company.

Best practice studies of Key Performance Indicators (KPIs) have shown that there are about 400 indicators of different categories that can be applied in the public transport sector, which are currently considered in the transport industry (Ohingra, 2011), such as:

• Availability of public transport;

• Provision of services;

• The impact and contribution of public transport to society;

• Travel time;

• Security and safety;

• Maintenance and construction.

The design and definition of KPIs can be at different levels, depending on what performance is to be measured and why. Comprehensive sources of information on KPIs for public transport, such as the Transit Cooperative Research Program report, indicate that operational metrics can be derived from both transport performance assessment and transport planning (TCRP, 2010).

The authors of the study reviewed the analysis of the international bus benchmarking group, which used 35 KPIs to monitor 6 categories: service quality, asset utilization, efficiency, environmental performance, and financing. According to the benchmarking approach, the main KPIs should be grouped into the following categories:

1. Financial;

2. The level of passenger satisfaction;

3. Security level;

4. Operational efficiency (Review of the development policy of the public transport sector, 2017)

Thus, all available KPIs for public transport were considered, a short list of indicators was prepared that could be useful for analyzing and improving the state of public transport in Kazakhstan. Having studied examples of best practice KPIs, as well as familiarized with different methods, while combining these two approaches, a table with their description was prepared (see Table 1):

Table 1 – Recommended KPIs for assessing the operational performance of public transport services and contributions to the national transport statistics database *

№	Basic KPI	Operational KPIs for the level of public transport service delivery
1	Security and safety: on the roads and in the vehicle interior	1. Degree of accidents (injured, fatal, property damage only) per 10.000 km; 2. Degree of crime per 100,000 km (by category of victims: passengers, personnel of bus vehicles, owners of public transport organizations); 3. Number of formal security checks at stops / stations and inside the vehicle; 4. Perceived safety assessment.
2	Legal Indicators: Basic Requirements Vehicle Operation To Determine KPI Selection	Number and type of local government level for public transport regulation.
3	Performance indicators: to measure reliability, quantify demand for public transport use	1. Km of the vehicle; 2. Frequency of service provision; 3. Vehicle operating hours; 4. Percentage of planned vehicle for service delivery; 5. Average age of the vehicle; 6. Breakdown rate; 7. Number of days of staff training and number of courses
4	Quality services for passengers: perceived and actual comfort, availability of services and information	1. Punctuality (% of scheduled services); 2. Cleanliness and comfort at stops and inside the vehicle; 3. The level of user awareness during the operation of the vehicle following the schedule and unforeseen circumstances; 4. Professionalism of drivers / staff (knowledge, service orientation, arrival time, driving style); 5. Number of low-floor vehicles (more comfortable access for people with disabilities).

№	Basic KPI	Operational KPIs for the level of public transport service delivery
5	Economic / Financial Indicators: Public Transport Utilization and Performance	1. Passenger traffic (by age; type of tickets, route); 2. The cost of labor for a bus and / or per km (driver, mechanic, conductor, administrative staff); 3. Cost recovery ratio (travel income (ticket sales) divided by total costs; 4. Travel revenue per passenger; 5. Maintenance costs; 6. Use of human resources (cost of personnel per income / km); 7. Frequency of absenteeism of staff.
6	Environment: vehicle standard, vehicle service during business hours, emissions, noise	1. Average age of the vehicle; 2. The number of vehicles with low exhaust emissions; 3. Number of vehicles powered by dual system technology (hybrid); 4. Number of vehicles using high quality fuel standard (Euro 4; Euro 5); 5. The number of electric vehicles; 6. Total length of the electrified network (in km)

* Note: compiled on the basis of data from (Review of the development policy of the public transport sector, 2017).

The list in the table is not exhaustive and is not considered a comprehensive plan for the implementation of KPIs, but serves as the first step to consider the possibility of using a KPI system and to further discussions on its implementation.

When analyzing the efficiency of public transport in the public administration of the country, both qualitative and quantitative methods of analysis were used, during which such methods were applied as:

• marketing research - a survey of the population of the city of Almaty was carried out;

• system analysis - an overview of performance indicators was made, a specialized matrix of KPIs for a public transport driver was developed with reference to the goals of public transport, indicating the weights and calculation indicators

• comparative analysis - an analysis of Yandex Taxi performance indicators is presented, recommendations for the implementation of end-to-end accounting for one of the key efficiency factors "Passenger Satisfaction" in the KPI matrix of a public transport driver are proposed.

The online survey was conducted among Almaty residents aged 18-55 using the Google Forms platform from November 15 to December 15, 2020. The sample consisted of 1036 people, the survey consisted of 6 questions, among which were questions of both open and closed types.

The sociological research program included questions about preferences in the choice of public transport modes, the degree of satisfaction with public transport services, the assignment of an assessment to the work of public transport drivers, as well as online methods of assessing public transport services.

During the survey, the following results were obtained:

• 60.7% of respondents use bus services;

• 50% of respondents value the most affordable fare;

• 32.1% of respondents note the strongest advantage of public transport - a separate lane;

• 50% of the respondents gave the rating "3" out of "5" public transport drivers work quality, 35.7% rated it "4" out of "5".

Thus, the survey revealed preferences in the use of public transport services, in which there is an increase in loyalty, although there are drawbacks, while preferences were also determined for the methods of online platforms for assessing passenger satisfaction.

Evaluation of KPI performance takes place in special tables - "KPI Matrices". In Western companies, this form is sometimes called "Agreement on goals" + "Production contract". The table got this name because matrix analysis and comparison of many data (indicator weight and range of values) is carried out (Klochkov A.K., 2010).

When developing the KPI Matrix for a public transport driver by the authors, the following provisions were taken into account:

• All indicators are measurable.

• Used both qualitative and quantitative indicators.

• As all the goals of the lower management level are achieved, the main strategic goal in the designated period is achieved automatically.

• 5-7 key indicators (of any type) are selected to assess the results and competencies of the employee in the coming month and are recorded in a personal performance table. At the same time, competencies

are equated with the qualitative results of the employee's activity.

• Each of the selected indicators, in accordance with the priorities of the direct supervisor, is assigned a weight - from 0 to 1 (the total weight should be 1).

Below is the "KPI Matrix" of a public transport driver (see Table 2):

Table 2 – KPI matrix of public transport driver*

Goal	KPI name	KPI weight, %	KPI Bonus, %
Reduce the number of accidents involving public transport	Safety	30	S*0.3*K1
Provide optimal vehicle utilization rate	Punctuality of services on schedule	20	S*0.3*K2
Increase the number of passenger traffic	Passenger Satisfaction	30	S*0.3*K3
Improve the quality of services provided	Compliance with labor discipline	20	S*0.3*K4
Total		100	Bonus

* Note: compiled by the authors

The Bonus is calculated as follows (see Formula 1):

$$Bonus = S*0{,}3*(K1*0{,}3+К2*0{,}2+ + K3*0{,}3+K4*0{,}2), \qquad (1)$$

where: S – base salary;

0,3 – the amount of the bonus from the base official salary;

K1, К2, К3, K4 – KPI performance ratio (determined by calculation at the end of the quarter)

0,3; 0,2; 0,3; 0,2 – share of each KPI.

It is worth to note that after the organization has implemented and operates a system for assessing the effectiveness of KPIs, it is necessary to conduct regular monitoring of the implementation, maintain feedback for a possible revision of KPIs, since over time the strategy should be revised in connection with the constantly changing environment of the organization. Control is implemented for each KPI perspective, taking into account the fact that the results in terms of one perspective can be influenced by facts that took place in another perspective. Depending on the degree of discrepancy between the planned and actual results, the strategy should be adjusted and, accordingly, KPIs.

Discussion and Results

In recent years, a number of innovations have been introduced in the public transport system of the city of Almaty: the launch of an electronic payment system, launch of public transport lanes, a differentiated fare, etc.

The authors conducted an online survey to find out how consumers of services assess the reforms carried out in this area.

As it turned out, the most preferred type of public transport is bus 60.7%, 14.3% of passengers use the metro, 7.1% - trolleybus. At the same time, 17.9% do not use public transport at all (see Fig. 1).

The respondents note the following positive changes: the introduction of an electronic payment system (28%), an improvement in the technical condition of transport and the emergence of more modern buses / trolleybuses (25%), an increase in the service culture (9%). According to Almaty residents, travel time has decreased due to the introduction of dedicated lanes (8%), new routes have appeared (7%), the number of cars on the route has increased (6%).

Despite the ongoing reforms, there are still a number of problems that need to be addressed. The respondents, first of all, complain about the low level of driver culture (35%). Also, passengers are outraged by the driver's violation of traffic rules (23%), long waiting times for the bus at a bus stop (22%), non-compliance with the traffic schedule (15%). In addition, respondents note that they have to drive in a dirty (19%) and overcrowded (13%) passenger compartment. The respondents are annoyed by the driver's smoking (5%) and long travel time due to traffic jams (5%).
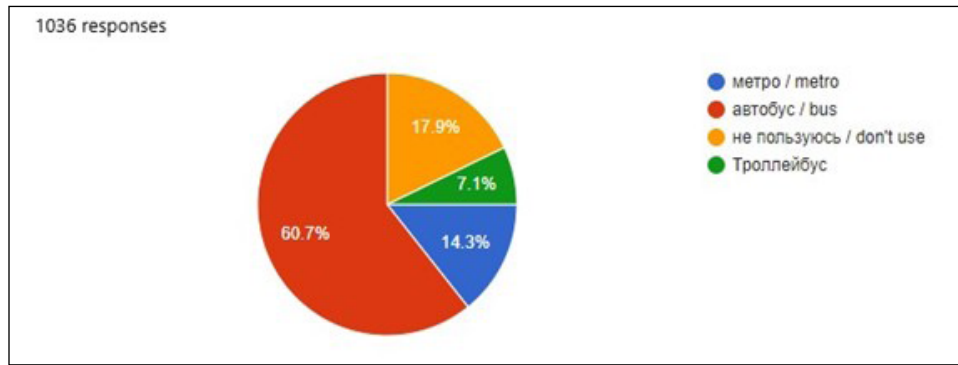
Figure 1 – Survey data on preferences in choosing the type
of public transport (compiled by the authors)

These results lead to the following conclusions:

• Reforms of the public transport system are perceived positively by consumers of services, they are effective and provide an improvement in the quality of services.

• However, the level of culture of drivers and safety, depending on the driving style of drivers today, are the factors that remain to be brought in line with the expectations of consumers of services to increase loyalty, as well as compliance and increase passenger turnover.

• The cameras implemented to date inside public transport are not always the defining incentive for the provision of quality services by drivers in compliance with the rules and regulations for the implementation of public transport services.

• An alternative assessment of the quality of the driver's work is needed, namely, an online assessment of passenger satisfaction for each trip made, which will allow this indicator to be taken into account in the driver's monthly remuneration.

Thus, referring to the KPI matrix of the public transport driver and passenger satisfaction proposed by the authors, as one of the key performance indicators, it is necessary to note the share of this indicator in 30% and the need to measure it in a qualitative way that could be measured, evaluated, compared. In this regard, it is proposed to consider the experience of Yandex Taxi in this area.

Today Yandex taxi is one of the most popular services for ordering taxi rides. To improve the quality of passenger service, this company introduced the possibility of rating drivers.

After the passenger is delivered to his destination, he has the right to rate the trip in his application with a number from 1 to 5. This allows the taxi driver to earn a certain rating, which is valid for 2 months. The overall rating of a Yandex taxi driver is made up of the number of stars that he scored in 2 months and the results of the test, which is conducted by the service itself (Evaluation and rating of the driver, 2019).

The increase in high ratings directly affects the number of orders. It is important to ensure that the overall rating does not fall below 4, as this will automatically block the taxi driver and cannot fulfill orders. It can only be unlocked after 2 months, when low marks will be replaced by new ones.

The assessment of customer satisfaction with a trip includes a large number of factors, among which the main ones are:

• Car delivery at the marked place;
• Travel speed;
• Optimality of the chosen route;
• Compliance with traffic rules;
• Vehicle condition;
• Personal qualities of the driver;
• Driver behavior, etc.

The rating includes every customer rating left after the trip. The marks for 2 months of work are summed up, and the final figure is divided by 60, the result is the driver's rating. At the same time, if the final score exceeded 4.8, the driver has the opportunity to receive the «Premium» status, which will open access to a larger number of orders.

If the taxi driver is a beginner, then he is given 30 ratings of 4.2 points. During the first month of work, these grades are replaced by those that are given to him by passengers.

If the driver has a large number of low ratings - below «4», a lock is made, which is not removed until 2 months. At this time, he cannot accept and fulfill orders. But the blocking can be removed by passing the test in the Yandex Taxi Center. Taking an exam is one way to improve your ranking. If the examinee received 4 (four) on the exam, then it is equivalent

to 20 excellent marks that he can receive for orders (Evaluation and rating of the driver, 2019).

The motivational essence of the rating also lies in the fact that if the client has given an excellent or good mark within half an hour after the trip, the driver is automatically tipped.

If this did not happen within the specified time period, the tip will be written off within 24 hours after the trip. Tips are awarded only if the client does not lower the grade. Yandex Taxi recently updated the screen in the application, adding fixed tips in rubles for the convenience of the passenger.

The Yandex taxi application system also provides a way of intangible incentives for the driver - with the help of a so-called compliment. This could be a separate grade for politeness, ride comfort, or even music. Such indicators are also taken into account in the overall rating of the driver (Evaluation and rating of the driver, 2019).

Having considered this practice, it is proposed to introduce an assessment of the satisfaction of public transport passengers for each driver according to the proposed indicators (see Table 3):

Table 3 – Indicators for assessing passenger satisfaction with the work of a public transport driver*

№	Passenger Satisfaction Indicators	Description of indicators	Passenger rating
1	Following a schedule	According to CityBus online timetable systems, metro; Stops in the right place; Stops for the prescribed amount of time	From 1 to 5, where 1 is bad, 5 is excellent
2	Driving style	Smooth safe driving; Safe embarkation and disembarkation of passengers; Safe driving, excluding people falling in the vehicle due to sudden braking, turns.	
3	Driver communication culture	Respectful communication of the driver with passengers, road users, if necessary, excluding abusive expressions, proceedings, assault.	
4	Compliance with driving rules and regulations	Traffic laws Following the traffic laws; Driver's non-smoking in the cabin; Preventing the driver from talking on the cell phone while driving	
5	Driver's appearance	Working uniform Neat look Sober state	
6	Automatic announcement of stops	Constantly turned on stop announcement system; The absence of strong distracting music during the announcement of stops.	

* Note: compiled by the authors.

At the same time, in the presented survey, it is proposed to use one of the following suggested answer options as an online platform for recording estimates (see Figure 2):
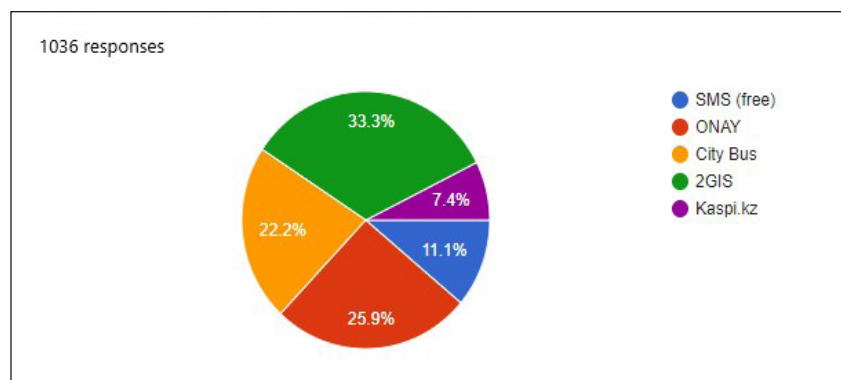
Figure 2 – Results of a survey on the preferred online platform for assessing job satisfaction for a public transport driver *
* Note: compiled by the authors

Thus, the majority of respondents (33.3%) noted 2GIS as the most convenient platform, which offers the construction of optimal public transport routes with indication of travel time. This platform has the most advanced functionality, where you can evaluate the constructed route, however, it is not integrated with the city public transport system so that it is possible to identify the numbers of vehicles and drivers.

The second place (25.9%) by the respondents was given to the ONAY system. Taking into account the fact that according to the Almaty transport holding for 2019, 97% of passengers pay for travel with the ONAY card (Investment attractiveness of the public transport sector, 2019), this survey result is not surprising. However, the ONAY system is provided to a greater extent for paying for travel, replenishing a card account, i.e. an integrated system is also not provided.

CityBus owns 22.2% of the votes, which allows tracking the movement of public transport. However, this system also lacks full functionality.

In this regard, it is advisable to mention the experience of the Smart Aqkol project within the framework of the State Program "Digital Kazakhstan" for the implementation of the concepts of "smart cities" in the country (Smart) (Smart city model Smart Aqkol, 2019). Within the framework of this project, it was planned to launch a single mobile application for all cities. In it, passengers should be able to find out the optimal route to the destination point, the actual movement of a particular bus on the map, and make a payment for the fare, i.e. combine the functionality of the top three survey leaders.

Thus, the presence of such an integrated mobile application will make it possible to implement an estimated indicator of passenger satisfaction with travel. The final goal of these events, of course, should be to improve the quality of services provided by public transport, namely: to increase the comfort and safety of public transport for passengers. This, in turn, will stimulate the abandonment of private vehicles in favor of public ones, which will significantly improve the environmental situation in the city and relieve traffic in the streets in the morning and evening hours.

Conclusion

Much attention is paid to the issues of increasing the efficiency of public transport within the framework of the state reform. The public administration system provides for an integrated approach based on effective issues of digitalization, park renewal, and an integrated approach. The launch of an electronic payment system, the introduction of dedicated lanes for the movement of public transport, a differentiated fare for travel, a complete renewal of the bus fleets in Almaty, the KPI system was introduced.

In this study, the authors considered a system of key indicators of public transport performance and proposed optimization of the assessment methodology with the inclusion of such an indicator as passenger satisfaction in the online system. It is proposed to give this indicator one of the largest weights in the KPI matrix of each driver. It is assumed that the introduction of this indicator can improve the comfort and safety of public transport passengers.

The implemented methods of viewing the passenger compartment through the installation of cameras cannot always be analyzed and digitized, and also taken into account in the KPI system that affects the motivation and remuneration of drivers.

It is proposed to evaluate the passenger satisfaction indicator within the framework of an online platform that combines the functionality of existing ones.

The implementation of the smart urban transport project in this context can optimize the existing system to the maximum and contributes to the achievement of the final goal of ensuring comfortable and safe travel by public transport.

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