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SUCCESS ANALYSIS OF PUBLIC-PRIVATE PARTNERSHIP INFRASTRUCTURE PROJECT IN KAZAKHSTAN: A CASE OF THE BIG ALMATY RING ROAD (BAKAD)

Abstract

Public-Private Project (PPP) projects in highway infrastructure development are gaining popularity in emerging economies, optimizing public budgets through private investments, sharing risks between the public and private sectors, and benefiting from the multiplier effect. The goal of this study is to investigate the success of the first mega concession toll road project in Central Asia, the Big Almaty Ring Road (BARR/BAKAD). The project was analyzed from three perspectives, demonstrating the BAKAD project's overall soundness. Both qualitative and quantitative analyses were conducted based on the publicly available data extracted from various studies and official reports. The methodology included valuation questions grouped into different key performance indicators' groups and the scoring system. The results show that the weak point in the project is the payback period for the government due to low toll incomes, while the strong point is the traffic offloading and travel time reduction. The proposed evaluation system allows in future studies both scholars and practitioners to comprehensively assess the success of PPP projects in Central Asian countries.

Key words: Big Almaty Ring Road (BARR/BAKAD), Case study, public infrastructure, Public-Private Partnership (PPP) projects, success evaluation, toll road.

Introduction

Public-private partnerships (PPPs) might be a salvation for emerging economies experiencing a fast-growing population and economy, budget deficits, and the urgent need for infrastructure development. Efficient and well-developed public infrastructure has become a core of economic growth, urban connectivity, and social well-being [1]. The objectives of PPP projects should include mutual interest for both the government and end users of the PPP product or service provided and private businesses, which can invest in large infrastructure projects and capitalize on them [2]. The PPP approach offers an alternative funding method compared to the traditional one by utilizing the investments and expertise of the private sector [3]. Despite all the pros mentioned, the successful evaluation of the PPPs is still uncertain and creates many doubts since no established PPP evaluation framework techniques exist.

Kazakhstan also actively implies the PPP contracting approach in developing infrastructure as one of the steadily growing economies. There are several PPP transportation projects in Kazakhstan, one unique – Big Almaty Ring Road (BARR/in Russian BAKAD). Airports and railroads represent other projects. Regarding the number of PPP initiatives, PPPs cover various economic sectors. There are projects in health care, education, catering, and sustainable energy [4]. The construction of the BAKAD was dedicated to reducing congestion in Almaty, enhancing regional connectivity, and developing logistical connections [5].

BAKAD is a 20-year concession agreement concluded in 2018 between a public authority and a consortium of 4 private partners who had to build the road within 5 years and manage and maintain it for the next 15 years. Thus, being the first large toll road project in the Central Asian region constructed under a long-term concession agreement, evaluating its success in the international context is essential.

Previous studies have shown that the success of PPP transport projects depends on many factors like financial sustainability, demand forecasting, risk allocation, and regulation [6, 7]. Lessons on best practices and challenges have emerged globally from comparative studies of toll roads, focusing on the importance of the long-term viability of projects beyond initial financing [7]. Following the methodology introduced in the research of Liyanage & Villalba-Romero [8], where the author employed Qualitative Comparative Analysis (QCA), this study evaluates the overall success of the BAKAD project.

Although PPPs are widely used in Kazakhstan, there is limited knowledge of their long-term effects. This study focuses on investigating the financial sustainability, traffic demand, and economic benefits of BAKAD compared to similar international toll roads. It also aims to extract lessons from international cases for "how future PPP road projects in Kazakhstan can be improved". The outcome will be helpful for policymakers, investors, and transport planners in forming infrastructure development strategies.

The research employs a comparative and systematized basis to evaluate financial performance, operational statistics, and economic exhibitions to accomplish these aims. Data has been sourced from official reports, feasibility studies, and other secondary sources.

The paper is structured in logical ideas that discuss necessary points. A literature review in the next chapter summarizes the relevant studies conducted on PPP projects, presenting the most non-trivial findings among the findings – risk management and financial sustainability, emphasizing success factors highlighted by other authors. The methodology chapter outlines the research approach, data sources, and comparative framework. The approach development logic and bases are explained in the same chapter. The results and discussion chapter critically evaluates the BAKAD project concerning international toll roads, highlighting key trends and challenges. The key conclusions are discussed, along with their derivations and possible consequences. Finally, the conclusion chapter summarizes the main findings, examines policy implications and offers recommendations for future infrastructure projects and areas of development for this study.

Research on PPPs continues to be a hot topic among scholars in developed and developing nations [9, 10]. The literature on infrastructure projects covers many topics, particularly in the context of Public-Private Partnerships (PPP) and transportation infrastructure development. The reviewed studies on PPPs explore critical success factors [11, 12], risk factors [13, 14], the effectiveness of ring roads in traffic reduction [5], case studies of toll roads [8], and the impact of transportation projects on urban development [15]. One of the most prevalent research topics of interest to many PPP stakeholders is how to measure the success of a PPP project and whether there are universal frameworks for this.

The concession period is one of the most important factors affecting the project's success for the private partner [16]. Due to the long-term nature of the project, there is uncertainty and an increased probability of risk factors appearing [6]. For instance, using computer simulation, Castelblanco et al. [17] evaluated the optimal concession period as a success criterion for PPP projects by examining the mutual influence of the major risks and the project's financial viability. The different scenarios showed that the interest rate, annual inflation, and operating costs greatly affect the concession time.

The research of Liyanage & Villalba-Romero [8] investigates the effectiveness of PPP transport initiatives, with a particular focus on toll roads. This analysis employed a Qualitative Comparative Analysis (QCA) methodology across four distinct toll road case studies from various EU nations (UK, Spain, Portugal, and Greece). The authors introduce a framework that might evaluate project success through three lenses: project management (time, cost, quality), stakeholder engagement (public, private, user), and contract management (contractual terms, processes, outcomes), to mitigate biases both qualitative and quantitative methods were pursued to create a robust framework.

Proper risk allocation among all project participants predisposes to the successful delivery of the project and the satisfaction of all stakeholders [18]. Samoilov et al. [14] investigated the risk factors of the PPP toll road project BAKAD project, which might be if the payment mechanism would be "hard tolls", using system dynamics simulation. The results of the studies conducted showed high risks for the private consortium under this payment mechanism, where the main risk factors in this long-term project are the risk of exchange rate fluctuations and the risk of low user demand. Both risks would threaten not to return on private investment. High risks associated with low demand are typical for many tolling PPPs and often lead to project failure [19].

The evaluation of PPP project efficiency for the private sector focuses on the financial performance of return on investment [20] and concession period [17]. In contrast, long-term objectives play an important role for the public sector, such as reducing the transportation loads on the infrastructure, improving the environment, and sparing resources [6]. Thus, Nugmanova et al. [5] interviewed experts involved in different tasks in one area – transportation – and assessed the effectiveness of the BAKAD project in improving traffic distribution in Almaty. The research results showed that the construction of ring roads alone cannot solve the problem of growing traffic load. It is necessary to develop the urban infrastructure comprehensively, especially in creating modes of public transportation.

Kozhakhmetova et al. [21] investigated critical success factors in green energy projects in Kazakhstan by conducting a survey among project managers followed by multiple linear regression, which showed that green energy projects face two main issues: cost and time overruns; therefore, careful planning, cost and scope management, as well as team management and communication can significantly improve project performance.

The literature review has identified significant trends regarding PPP infrastructure research, namely success factors, risk management strategies, and economic and social consequences of toll roads, focusing on emerging countries like Kazakhstan. Despite the multitude of academic research analyzing the effectiveness of such transport infrastructure projects facilitated by the PPP approach, significant gaps still exist regarding understanding PPP transport projects in Kazakhstan – including projects like BAKAD – and how they compare against international best practices.

This paper attempts to fill those gaps by introducing a better analytical framework for toll road projects, expanding its potential insights into a comprehensive understanding of its feasibility and consequences on Kazakhstan's infrastructure sector.

This study will contribute to both: it will inform the academic community of new findings from research on international case studies whilst providing policy recommendations on how to improve PPP transport projects in emerging economies based on the findings from the BAKAD evaluation.

Materials and Methods

The evaluation of the BAKAD project is achieved by developing and applying an extensive methodology to evaluate the projects at hand and expand the proposed synergistic framework introduced in previous studies. A multi-stage approach incorporating Key Performance Indicators (KPIs), stakeholder viewpoints, and other analytical frameworks were applied to make the evaluation process sounder. This method was initially developed by a group of researchers from the University of Lancashire [8] and is being used as a basis for further development in the current study. The methodology is further enhanced such that supplemental analyses may be performed where project success is unclear, resulting in more affluent, multidimensional assessments.

KPI & Performance Measures Development

In this study, establishing key performance indicators (KPIs) and metrics follows Liyanage & Villalba-Romero's approach [7].

Specific steps in KPI development:

- KPI management by expectation consideration was key to the model.
- Intensive focus on what matters.
- Systematic application.
- Stakeholder acceptance.

However, the quantitative aspect of their study came from the qualitative data extracted from the case studies, which were then coded and structured according to Likert scales. This technique allowed for a balanced assessment of project efficacy and adaptability in KPI formatting.

Table 1 – Sample of 19 evaluation questions (source: the study of Liyanage & Villalba-Romero [8])

KPIs	Performance Measure	Scale
Objectives	1. Are the objectives specified in the contract SMART?	1 to 5
	2. To what extent have the objectives been achieved?	1 to 5
	3. Have user benefits been monitored?	1 to 5
	4. Have user benefits been as significant as expected?	-2 to 2
Risks	5. How much risk has been transferred to the private sector?	1 to 5
	6. Was risk allocation agreed quickly?	1 to 5
Contract Project Specifications	7. Have the deliverables been specified clearly in the contract?	1 to 5
	8. Are the roles and responsibilities of different parties involved in the contract clearly defined?	1 to 5
	9. Are minimum standards for the condition of infrastructure and equipment specified in the contract?	1 to 5
	10. Are there any performance targets?	1 to 5
	11. Is the method of measuring performance targets clearly defined?	1 to 5
	12. Are there penalties for non-compliance?	1 to 5
	13. Does the contract have amendments, dispute resolution, or termination procedures?	Yes or No
	14. Has the contract proceeded without renegotiations?	Yes or No
	15. Are there any guarantees specified in the contract?	Yes or No
Tendering Process	16. Number of bidders (negotiation vs. final)	1 to 3
	17. Time from tender notice to financial close (less than 3 years)	Yes or No
	18. Legal challenges faced during the tendering process	Yes or No
Construction Phase	19. Was the project completed on time?	Yes or No

From the initial 32 questions [8], only 19 were left for this study after the review. The final question sample is shown in Table 1. Performance measures are the evaluation questions sorted under different KPIs for further analysis.

Performance Indicators: These are markers or proxies for aspects that are challenging to measure directly, providing indirect insights into project success.

Key Performance Indicators (KPIs): These are critical, overarching performance measures focusing on essential project outcomes.

Data from relevant case studies, industry reports, and official traffic and financial documentation will be sorted and classified with qualitative data analysis packages for this research. Such categorization would be based on key dimensions of PPP road project assessment, such as:

- Financial performance.
- Traffic volume and toll revenue.
- Time and cost efficiency.
- Stakeholder satisfaction.
- Wellness impact and social impact.
- Environmental impact.

Assigned codes will be scored along a Likert scale to enable the quantification of qualitative insights. These KPIs and performance indicators were finalized only after consultation with industry experts to ensure the measures come from accurate and relevant data from previous studies.

Defining Project Success

The success of BAKAD was evaluated from the perspective of three streams:

- Project Management Perspective compares performance in terms of time, cost, and quality with planned benchmarks. The Stakeholder Perspective evaluates the satisfaction and value provided for major stakeholders, including:
- Private sector (private).
- Road users (users).
- Government and regulatory bodies (public).

Contract management Perspective: Assess compliance with contracts, the effectiveness of risk allocation in the contract, and the project's long-term sustainability. So, for this scope, groups were identified as contract, process, and result. These aspects will be examined collectively, deriving a multi-criteria evaluation of the BAKAD performance.

The researchers sorted the evaluation questions into groups represented in each perspective for each perspective. For instance, all the questions were sorted into cost, time, and quality groups during project management analysis. Similarly, from the stakeholder perspective, questions were sorted into public, private, and user groups. The example of question distribution for project management scope is shown in Table 2.

After groups of questions are formed for each perspective, they are answered by assigning Likert scale values to each of them, where the next stage starts.

Holistic Assessment and Success Metrics

Before the final holistic evaluation stage of the project takes place, it is important to count the answers. It is important to count only the answers to the questions of success and failure for each perspective. For example, if the Likert scale for definite questions were identified as a 1 to 5, 1 and 2 would be counted as failure, 4 and 5 as success, and three would be ignored. Following this logic, in the end, we will have several successful answers and failed answers.

Table 2 – Perspective sorted questions example

		Perspective		
KPIs	Evaluation question	Project management	Stakeholder	Contract management
Objectives	1. Are the objectives specified in the contract "smart"?	Quality	Public	Contract
	2. To what extent have the objectives been achieved?	Quality	Public	Results
	3. Have user benefits been monitored?	Quality	User	Result
Construction Phase	19. Was the project completed on time?	Time	Public	Result

Finally, rates of success will be determined for each KPI and category utilizing the following equation:

$$Success\ Rate = \frac{\sum KPI_{successful}}{\sum KPI_{total}} \times 100\%$$

Qualitative findings will complement these numerical outcomes to ensure that the evaluation reflects measurable outcomes and context. According to the final percentage of the successful questions, overall project success will be defined according to one more scale, which shows success criteria in percentages. This scale is shown in Figure 1.

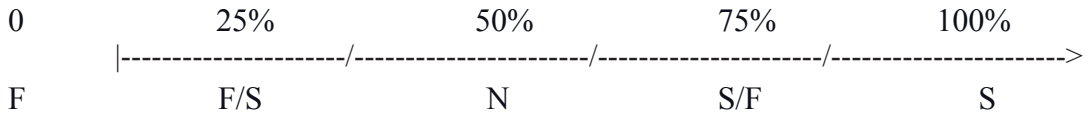

Figure 1 – Success scale

Further Analysis to Improve Project Assessment

At this stage, further analysis occurs when all the previously described methodologies result in an uncertain evaluation. That may happen when the success level is around 50%, and it is not so clear to confidently state whether the project is successful or failed.

We analyzed the BAKAD's financial and operational efficiency to validate the entire methodology. These include:

Cost Efficiency Analysis

The researchers calculated the monetary efficiency of the BAKAD with the cost efficiency ratio equation (CER) represented in the equation:

$$CER = \frac{Total\ Construction\ Cost}{\sum_{t=1}^{n} \frac{Annual\ Toll\ Revenue_t}{(1+r)^t}}$$

Where:

- Total Construction Cost represents the total expenditure on BAKAD.
- Is the revenue generated in year t.
- r is the discount rate (5% assumed for infrastructure projects).
- n is the project's concession period (e.g., 20 years).

Break-Even Analysis

To assess the duration that will allow BAKAD to recover its costs, the break-even point will be calculated using the equation for the break-even year:

$$BEY = \frac{Total\ Construction\ Cost}{Annual\ Toll\ Revenue}$$

Where:

- Total Construction Cost is the total project cost.
- Annual Toll Revenue is calculated from traffic and toll rates.

Revenue Impact of Toll Compliance

Only 50% of users currently pay the toll, according to the Public Relations Specialist at Special Purpose Vehicle (SPV) BAKAD Investments and Operations LLP Ekaterina Zhirova [22], and the researchers adjusted the revenue projections for various compliance rates according to the equation:

$$Adjusted\ Revenue = Total\ Vehicles \times Toll\ Rate \times Compliance\ Rate \times 365$$

To understand whether the company should consider a barely compliant low revenue scenario (50%, 75%, 100% compliance) versus a fully compliant opportunity.

Savings of Time and Economic Benefit

BAKAD reduces congestion, leading to time savings on the road, which can be calculated according to the following equation:

$$TTSV = \#of\ vehicles \times t\ Saved\ per\ Vehicle \times Value\ of\ time\ per\ Hour$$

Where:

- t (time) Saved per Vehicle is estimated from speed improvements.
- The value of Time per Hour is derived from wage rates.

Combining standard performance indicators with advanced financial and operational analyses provides a holistic and systematic evaluation of BAKAD's success. The use of additional assessments in this study enables further assessment of project outcomes, especially when there are ambiguous initial evaluation results. This more detailed consideration addresses the shortcomings in project success measurement and improves the quality of knowledge about transport PPP infrastructure performance.

Results and Discussion

The study offered an organized basis for assessing PPP toll road projects through key performance indicators and qualitative assessment. This assessment categorized the project as S/F (Successful/ Failure), meaning that BAKAD is more likely than not to be deemed a success, but the evaluation is ambiguous. The summary results are shown in Table 3. Due to this uncertainty, further quantitative analyses were performed to investigate the project's financial viability, economic effect, and overall feasibility.

Table 3 – BAKAD evaluation results summary

Perspectives/Categories and KPIs	# of Performance measures (PM)	Score (S-F)	Success	Final grade
1. Initial evaluation	19	15-0	15	S
2. Project Management Perspective				
Time	4	3-0	3	S/F
Cost	3	2-0	2	S/F
Quality	12	10-0	10	S
Final grade				S/F
3. Stakegolder Perspective				
Public	10	7-0	7	S/F
Private	7	7-0	7	S
User	2	1-0	1	N
Final grade				S/F

Continuation of table 3

4. Contract Management Perspective				
Contract	9	9-0	9	S
Process	6	4-0	4	S/F
Results	4	2-0	2	N
Final grade				S/F

As mentioned before in the report, most of the calculations were based on publicly available and easy-access information such as official media reports, government reports, and bank websites. The summary of the core metrics is shown in Table 4.

Table 4 – Core metrics of BAKAD are available in the summary of public sources

Metric	Value	Description & Source
Total Construction Cost	~$743 million	Based on public reports on BAKAD investment costs (official documents, news).
Annual Traffic Volume	~45,928 vehicles/day	Estimated from government and BAKAD operator data (6-month average).
Toll Price (average per vehicle)	~275 KZT	Based on official toll rates for vehicle types (BAKAD website).
Toll Collection Compliance Rate	50% (as of now)	Public sources indicate ~50% toll compliance (media, government reports).
Operational and Maintenance Costs	Estimated at 5-10% of CapEx	Industry estimate, as exact maintenance costs are undisclosed (PPP benchmarks).
Time Savings Per Vehicle	~20–30 min per trip	Derived from the 2022 “Almaty Development Plan” (government source).
Total number of vehicles in Almaty	≈700 thousand units	Total registered vehicles in the city
Number of vehicles on main roads before BAKAD	≈230 thousand units per day	Daily traffic flow on major city highways
Of which freight vehicles	≈15 thousand units per day	Share of freight transport in total traffic
BAKAD capacity	38 thousand vehicles per day	The maximum number of vehicles BAKAD can accommodate
Expected traffic redistribution	≈60% of transit freight transport	Share of freight transport redirected to BAKAD
Reduction in city road congestion	Up to 15–20%	Expected decrease in urban traffic due to BAKAD
Freight volume in the BAKAD region (2023)	≈19.2 million tons	Annual freight traffic in the region before the project launch
Projected volume by 2038	≈35.9 million tons (+87%)	Expected freight traffic growth over 15 years
The average speed of freight transport in Almaty (before BAKAD)	25–30 km/h	The average speed of trucks within the city
Average speed on BAKAD	80–110 km/h	Expected vehicle speed on the new road

The future traffic growth projections pose a major uncertainty for this analysis. Although a conservative assumption accounts for this, factors external to the analysis—population growth, economic activity in the region, and the condition of diversion routes–will ultimately affect traffic volumes. Furthermore, macroeconomic conditions like inflation and currency volatility can also alter costs and revenue, thus changing the break-even timeline.

Currently, only half of users pay the toll, limiting revenue generation. At 100% compliance, annual toll revenues could be twice and thus would also bring financial sustainability. However, full compliance will depend upon enforcement mechanisms, driver behavior, and public acceptance.

The big unknown in this assessment is the behavioral one: Will users be willing to pay a toll? And will they comply, mainly if enforcement is lax? Should anyone underpaid notice that their compliance is even lower than expected, this would financially strain the project and eventually present a point of unsustainability–requiring either more government intervention or tariffs to function.

One of BAKAD's expected benefits is the alleviation of traffic jams [5], which will have an economic effect in terms of saved time. The quantitative economic benefits were estimated at approximately $26.7 million annually (annualized time savings). This means that, while the direct toll revenues will not be able to justify the project, an overall efficiency gain, fuel savings, and logistics improvement are additional value propositions that they claim are essential metrics to their success. The summary of the further analysis is shown in Table 5.

However, all the figures they derived are bogged down in uncertainties, such as assumptions about average wage rates, congestion conditions, and how many users will experience an actual drop in travel times. Outside factors, such as future urban growth and congestion level changes, might also change the size of these benefits.

Table 5 – Summary results of the additional analysis

Analysis Type	Metric	Value
Cost Efficiency Analysis	Annual Toll Revenue	4.6 billion KZT
	Present Value of Total Toll Revenue over 20 Years	9.8 million USD
	Cost Efficiency Ratio (CER)	6.1
Break-Even Analysis	Break-Even Year	~ 76.4 years
Toll Compliance Impact on Revenue	Current Annual Revenue (50% Compliance)	4.9 million USD
	Projected Annual Revenue (75% Compliance)	7.4 million USD
	Projected Annual Revenue (100% Compliance)	9.8 million USD
Time Savings and Economic Benefits	Daily Time Savings Value	34.4 million KZT
	Annual Time Savings Value	26.7 billion USD

Confirming the initial qualitative assessment, additional analyses (due to uncertainty in the qualitative results) reiterate that BAKAD offers undeniable economic benefits but also upfront costs and has a high degree of financial sustainability issues. Toll revenue alone is inadequate to recoup the investment under those circumstances, necessitating better compliance, increased tolls, or other forms of financing.

Uncertainties in traffic forecasts, enforcement effectiveness, and behavioral responses introduce risks that may affect longer-term projections. Thus, continued monitoring and adaptive management practices will be essential for the project's overall success. Therefore, despite the initial S/F classification of BAKAD being still applicable, the broader economic contributions affirm that BAKAD value is a value in which metrics other than traditional financial metrics are essential, supporting the implementation of a holistic way of evaluation.

Conclusion

This study aimed to determine whether the BAKAD toll road project was a success, using an adaptation of the methodology put forth by C. Liyanage and F. Villalba-Romero [8].

The preliminary qualitative assessment of BAKAD received an S/F (Successful/Failure) stamp, meaning that it is more likely successful than not but with important qualifiers. More quantitative analyses were performed regarding financial sustainability, toll compliance, and economic benefits to mitigate these uncertainties.

The findings showed that the costs were much higher than the revenues and that the break-even point (considering toll compliance) surpassed the proposed project completion date by more than 76.4 years. Nonetheless, the project offers considerable economic benefits, primarily through time savings and decreased congestion, which can lead to regional development and improved efficiency.

A necessary redaction for future studies would be to introduce weighted KPIs, which would have enabled a more objective and decision-relevant measure of success. This way, the evaluation is closer to the real impact of financial, operational, and stakeholder-related indicators on project outputs by assigning different weights to indicators in the assessment. Moreover, the evaluation questions applied in the methodology can be improved and be more comprehensive. Restructuring some questions and introducing new ones could reward such an effort with clearer insight based on data available but not used in this study. This would enable more accurate project assessments and limit uncertainties in project classification.

Extending case studies is another significant aspect of future exploration. Although this study was limited to BAKAD, assessing more PPP toll roads adopting a greater variety of PPP capital structures earmarked in developing economies may augment the evaluation structure and widen its applicability across studies addressing the issue. More such case studies would also give opportunities for comparative analyses and the identification of best practices and common failure points in PPP transport infrastructure projects.

The paper contributes to the existing literature by providing recommendations for improving the methodology about weighted KPIs, further determining evaluation criteria, and expanding the dataset to achieve a broader and more accurate assessment of PPP toll road success. The enhancements will help provide a stronger and more reliable framework for evaluating transport infrastructure projects worldwide.

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ҚАЗАҚСТАНДАҒЫ МЕМЛЕКЕТТІК-ЖЕКЕ СЕРІКТЕСТІК ИНФРАҚҰРЫЛЫМДЫҚ ЖОБАСЫНЫҢ ТИІМДІЛІГІН ТАЛДАУ: ҮЛКЕН АЛМАТЫ АЙНАЛМА ЖОЛЫНЫҢ (ҮААААЖ) МЫСАЛЫ

Аңдатпа

Автомобиль жолдары инфрақұрылымын дамытудағы мемлекеттік-жекеменшік әріптестік (МЖӘ) жобалары қарқынды дамып келе жатқан елдерде кеңінен танымал болуда. Бұл модель мемлекеттік бюджетке түсетін жүктемені азайтып, жеке инвестицияларды тартуға, мемлекеттік және жеке сектор арасындағы тәуекелдерді тиімді бөлуге, сондай-ақ мультипликативті экономикалық әсерді қамтамасыз етуге мүмкіндік

береді. Бұл зерттеудің мақсаты – Орталық Азиядағы алғашқы ірі ақылы автожол концессиялық жобасы болып табылатын Үлкен Алматы айналма жолының (ҮААЖ) табыстылығын талдау. Жоба негізділігі үш негізгі аспект бойынша қарастырылды. Сапалық және сандық талдау әртүрлі зерттеулер мен ресми есептерден алынған ашық қолжетімді деректер негізінде жүргізілді. Зерттеу әдістемесі тиімділіктің негізгі көрсеткіштері бойынша бағалау сұрақтарын қамтып, балдық жүйеге негізделді. Зерттеу нәтижелері көрсеткендей, жобаның негізгі осал тұсы – жол ақысынан түсетін кірістердің төмендігіне байланысты мемлекеттік шығындардың өтелу мерзімінің ұзақтығы. Ал басты артықшылықтары – көлік ағынын оңтайландыру және жол жүру уақытының қысқаруы. Ұсынылған бағалау әдістемесі болашақ зерттеулерде Орталық Азия елдеріндегі МЖӘ жобаларының тиімділігін жан-жақты бағалауға мүмкіндік береді.

Тірек сөздер: Үлкен Алматы айналма жолы (ҮААЖ), жағдайды зерттеу, мемлекеттік инфрақұрылым, мемлекеттік-жекешелік әріптестік (МЖӘ) жобалары, табысты бағалау, ақылы жол.

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АНАЛИЗ УСПЕШНОСТИ ИНФРАСТРУКТУРНОГО ПРОЕКТА ГОСУДАРСТВЕННО-ЧАСТНОГО ПАРТНЕРСТВА В КАЗАХСТАНЕ: НА ПРИМЕРЕ БОЛЬШОЙ АЛМАТИНСКОЙ КОЛЬЦЕВОЙ АВТОДОРОГИ (БАКАД)

Аннотация

Проекты государственно-частного партнерства (ГЧП) в сфере развития инфраструктуры автомобильных дорог набирают популярность в странах с быстроразвивающейся экономикой, позволяя оптимизировать государственные бюджеты за счет частных инвестиций, разделить риски между государственным и частным секторами и получить преимущества от мультипликативного эффекта. Цель данного исследования – изучить успешность первого мегапроекта концессии платной автодороги в Центральной Азии, Большой Алматинской кольцевой автодороги (БАКАД). Проект был изучен с трех перспектив, показана общая обоснованность проекта БАКАД. Качественный и количественный анализ проводился на основе общедоступных данных, взятых из различных исследований и официальных отчетов. Методология включала оценочные вопросы, сгруппированные в различные группы ключевых показателей эффективности, и систему баллов. Результаты показывают, что слабым местом проекта является срок окупаемости для государства из-за низких доходов от платы за проезд, а сильным – разгрузка трафика и сокращение времени в пути. Предложенная система оценки позволяет в будущих исследованиях как ученым, так и практикам всесторонне оценить успешность проектов ГЧП в странах Центральной Азии.

Ключевые слова: Большая Алматинская кольцевая автодорога (БАКАД), исследование конкретных примеров, государственная инфраструктура, проекты государственно-частного партнерства (ГЧП), оценка успеха, платная дорога.

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