Registered in Germany Europa Revue Journal
ISSN: 1862-6564 Vol. 6 No. 4 (2026) Published April 30, 2026

MODERN DIRECTIONS FOR IMPROVING THE EFFICIENCY OF POSTAL SERVICES: THE CASE OF "UZBEKISTAN POCHTASI" JSC

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Abstract

This article examines modern directions for improving the efficiency of postal services under the conditions of economic modernization, using the activities of "Uzbekistan Pochtasi" JSC as a case study. The study analyzes the company's revenue by type of postal service for 2021–2025 and identifies structural changes in the composition of postal services. The analysis shows that the company's total revenue increased from UZS 274.4 billion in 2021 to UZS 797.7 billion in 2025, with significant growth in hybrid postal services, service exports, and courier services. At the same time, traditional services, such as written correspondence and money transfers, demonstrated a declining trend. The study proposes a comprehensive methodology for assessing postal service efficiency, a conceptual model of digital transformation, an integrated route optimization model, and an approach to evaluating the impact of the service structure on revenue formation and forecasting development trends through 2030. The findings indicate that digitalization of postal services, optimization of logistics processes, and development of high-growth-potential services are among the key factors contributing to improved efficiency of postal operators.

Keywords

postal services, efficiency, "Uzbekistan Pochtasi" JSC, digital transformation, hybrid mail, logistics, route optimization, courier services, econometric model, forecasting, e-commerce.

INTRODUCTION

The development of the service sector is an important component of the modern economy. The widespread adoption of digital technologies, changes in consumer behavior, and the rapid development of e-commerce are creating new requirements for

service providers. These processes are also leading to significant structural changes in the postal services sector. For a long period, the core activities of traditional postal operators were based on services such as the receipt and delivery of written correspondence, money transfers, periodical subscriptions, and the collection of utility payments. However, the expansion of electronic communication technologies, digital payment systems, and Internet-based services has resulted in declining demand for certain traditional postal services. At the same time, the development of e-commerce, express delivery, and digital document management has increased demand for parcel delivery, courier, and hybrid postal services.

From this perspective, assessing the efficiency of a modern postal operator solely on the basis of revenue and costs is insufficient. In addition to economic efficiency, it is necessary to consider the level of technological development, the efficiency of postal infrastructure utilization, the organization of logistics processes, and the quality of services provided to customers. These structural changes can also be clearly observed in the activities of "Uzbekistan Pochtasi" JSC. The company's total revenue increased from UZS 274.4 billion in 2021 to UZS 797.7 billion in 2025. At the same time, revenue growth was not uniform across all types of services. While certain traditional services experienced a decline in revenue, digital and logistics-related services demonstrated substantial growth. This situation highlights the need to improve the service portfolio of "Uzbekistan Pochtasi" JSC, accelerate its digital transformation, optimize logistics processes, and develop scientific and methodological approaches for the comprehensive assessment of postal service efficiency.

RESEARCH METHODOLOGY

The empirical basis of the study consists of the revenue indicators of "Uzbekistan Pochtasi" JSC by type of service for the period 2021–2025. The study employs methods of time-series comparison, structural analysis, growth-rate analysis, service portfolio classification, econometric assessment, and forecasting.

A systematic approach was used as the basis for assessing the efficiency of postal services. In this framework, the factors determining efficiency were divided into four main groups:

– economic indicators;

– technological indicators;

– infrastructure indicators;

– service quality indicators.

The main advantage of this approach is that it enables the efficiency of the company to be assessed not only in terms of its financial performance but also in relation to other important aspects of service delivery.

In addition, an integrated route optimization approach was developed for managing trunk, interregional, and local routes as interconnected elements of a unified postal delivery system. Econometric analysis and trend models were used to assess the impact of the service structure on revenue formation.

Economic analysis of the activities of "Uzbekistan pochtasi" JSC

An analysis of the revenue indicators of "Uzbekistan Pochtasi" JSC for 2021–2025 demonstrates significant economic and structural changes in the company's activities.

Table 1. Revenue of "Uzbekistan Pochtasi" JSC by Major Types of Services, 2021–2025, million UZS

Type of service	2021	2022	2023	2024	2025
Written correspondence	47,580.3	38,893.9	41,139.8	43,460.7	42,330.9
Money transfers	14,293.8	8,060.5	4,045.0	4,031.3	3,484.4
Parcel services	23,526.6	19,995.5	19,115.1	21,649.5	26,165.1
Periodicals	20,994.4	25,399.4	17,526.9	20,563.0	21,721.2
Retail trade	1,673.6	2,531.2	2,914.1	3,672.7	3,580.0
Utility payments	13,409.4	6,414.7	3,498.0	2,536.2	15,297.7
Hybrid mail	20,052.1	50,438.5	118,553.4	256,725.8	312,659.0
Courier services	5,489.2	1,879.0	2,268.5	7,833.5	24,993.1
Payments through the Munis system	22,714.5	27,332.1	25,284.8	44,351.9	40,334.3
Service exports	96,342.0	109,304.8	139,331.8	191,881.7	302,073.0
Other services	8,362.4	8,385.8	8,226.2	6,769.3	5,032.7

Total	**274,438.3**	**298,635.4**	**381,903.6**	**603,475.6**	**797,671.3**

Source: Author's calculations based on data from "Uzbekistan Pochtasi" JSC.

The data presented in Table 1 show that the company's total revenue nearly tripled over the five-year period. Revenue increased from UZS 274.4 billion in 2021 to UZS 797.7 billion in 2025. In particular, the acceleration of revenue growth during 2023–2025 deserves special attention.

However, the increase in total revenue was not evenly distributed across all types of services. The data presented in the table indicate a gradual shift in the company's revenue structure toward new, digital, and logistics-related services.

Table 2. Changes in Selected Postal Services, 2021–2025

Type of service	**2021, UZS billion**	**2025, UZS billion**	**Change, %**
Written correspondence	47.58	42.33	-11.0
Money transfers	14.29	3.48	-75.6
Parcel services	23.53	26.17	+11.2
Retail trade	1.67	3.58	+113.9
Utility payments	13.41	15.30	+14.1
Hybrid mail	20.05	312.66	+1459.1
Courier services	5.49	24.99	+355.5
Service exports	96.34	302.07	+213.5
Total	**274.44**	**797.67**	**+190.7**

Source: Author's calculations based on the data presented in Table 1.

The highest growth was observed in hybrid mail services. Revenue from this service increased from UZS 20.1 billion in 2021 to UZS 312.7 billion in 2025, representing an approximately 15.6-fold increase.

Such rapid growth in hybrid mail represents not merely an increase in economic activity but also a transformation in the service delivery model. This service integrates the processes of receiving electronic information, centrally processing it, and delivering it in physical form. Therefore, hybrid mail serves as a connecting mechanism between digital and traditional postal services. The development of hybrid mail services can also be observed across different regions. For example, revenue from this service at the

Tashkent Post Office increased from UZS 5.66 billion in 2021 to UZS 66.7 billion in 2025. Significant growth was also recorded in the Samarkand, Fergana, and Kashkadarya regional branches.

This result indicates that the growing demand for digital services is not limited to the capital city but is also spreading across the regions.

Structural changes between traditional and modern postal services

The changes in the structure of postal services can generally be divided into two groups. The first group consists of traditional services, while the second includes digital and logistics-related services. Written correspondence is one of the most important traditional postal services. Revenue from this service amounted to UZS 47.6 billion in 2021 and declined to UZS 42.3 billion in 2025. Thus, over the five-year period, revenue from written correspondence decreased by approximately 11%. An even more significant decline was observed in money transfer services. Revenue from this service decreased from UZS 14.3 billion to UZS 3.5 billion, representing a decline of approximately 75.6%. This trend can be explained by the development of electronic banking services, mobile payment systems, and digital money transfer technologies.

At the same time, positive dynamics were observed in parcel and courier services. Revenue from parcel services increased from UZS 23.5 billion to UZS 26.2 billion, while revenue from courier services increased from UZS 5.5 billion to UZS 25.0 billion.

This process can be associated with the development of e-commerce. The expansion of electronic commerce increases demand for services that deliver purchased goods to customers. Therefore, the efficiency of last-mile logistics is becoming increasingly important for postal operators.

The increase in service exports from UZS 96.3 billion to UZS 302.1 billion also indicates the growing importance of international operations in the company's activities.

Thus, the growth in the company's revenue is being driven not by traditional postal services but primarily by new services and areas with high growth potential.

Comprehensive Methodology for Assessing Postal Service Efficiency

Financial indicators alone are insufficient for an accurate assessment of postal service efficiency. For example, a company's revenue may increase while transportation

costs, delivery times, or customer dissatisfaction may also rise. Therefore, this study proposes a comprehensive methodology for assessing the efficiency of postal services.

Table 3. Areas of Comprehensive Assessment of Postal Service Efficiency

Assessment area	Key indicators	Assessment objective
Economic efficiency	Revenue, costs, profit, profitability	Determining financial performance
Technological efficiency	Level of digitalization, automation, digital services	Assessing the level of technology utilization
Infrastructure efficiency	Branches, vehicles, logistics network	Assessing the efficiency of resource utilization
Service quality	Delivery speed, accuracy, reliability, customer satisfaction	Determining the value of services to consumers
Logistics efficiency	Distance, transportation costs, delivery time	Optimizing the delivery process
Digital efficiency	Mobile services, online tracking, platform integration	Assessing the outcomes of digital transformation

The main advantage of this methodology is that it enables postal service efficiency to be assessed comprehensively rather than reducing it to a single indicator. This makes it possible to evaluate the major factors that determine the overall efficiency of postal services simultaneously. The SERVQUAL approach can also be used to assess the service quality component. In this case, the gap between customers' expectations and their actual service experience is identified. As a result, the company can answer not only the question of "How profitable is the service?" but also "To what extent does the service meet customer needs?"

Impact of digital transformation on postal service efficiency

The future development of postal services is difficult to imagine without digital transformation. The significant growth of hybrid mail services at "Uzbekistan Pochtasi" JSC also demonstrates the economic potential of digitalization.

Hybrid mail combines electronic and physical information flows. Within this model, certain stages of document preparation, processing, and delivery can be

automated. As a result, time expenditures can be reduced, operational efficiency can be improved, service delivery can be accelerated, and errors associated with human intervention can be minimized.

Based on this approach, a conceptual model of digital transformation aimed at improving postal service efficiency can be structured around the following sequence:

Digital platforms → Automation → Logistics integration → Digital customer interaction → Data analytics → Artificial intelligence → Service efficiency.

The main practical directions of digital transformation include:

1. integrating postal services into a unified digital platform;
2. enabling real-time tracking of postal items;
3. expanding access to postal services through mobile applications;
4. using artificial intelligence for document processing;
5. strengthening integration with e-commerce platforms;
6. expanding API and platform-based integration for corporate customers.

For the further development of hybrid mail services, the expansion of API and platform-based integration, development of the corporate customer segment, and implementation of artificial intelligence-based document processing systems are identified as important strategic directions.

Optimization of postal delivery routes

Another important component of postal service efficiency is logistics management. Transportation costs and time expenditures play a significant role throughout the process, from the acceptance of postal items to their final delivery to customers.

In particular, in last-mile logistics, improperly designed routes can result in inefficient use of vehicles, redundant trips, and longer delivery times. Therefore, an integrated route optimization model was proposed for “Uzbekistan Pochtasi” JSC to enable the unified management of trunk, interregional, and local delivery routes.

Table 4. Main Components of the Integrated Route Optimization Model

Route level	**Main task**	**Optimization focus**
Trunk routes	Connecting major logistics centers	Reducing distance and transportation costs

Interregional routes	Transporting postal items between regions	Coordinating transportation flows
Local routes	Delivering items to districts and populated areas	Reducing last-mile costs
Courier routes	Direct delivery to customers	Optimizing delivery time and distance

The practical essence of the model lies in considering all routes not separately, but as an integrated logistics chain.

In this approach, factors such as vehicle utilization, volume of postal items, distance, delivery time, road conditions, and repeated trips are considered simultaneously. According to the calculations conducted within the study, the phased implementation of the model can reduce logistics costs by up to 5–7% and transportation costs in courier services by 4–6%. It can also reduce postal delivery times by approximately 8–10% and courier delivery times by 7–9%, respectively.

These indicators demonstrate that the proposed model is important not only from an economic perspective but also in terms of service quality.

Impact of service structure on revenue formation and forecasting

The appropriate formation of the service portfolio is of great importance for improving postal service efficiency. Instead of attempting to develop all services equally, the company should prioritize services that have a stronger impact on revenue and greater growth potential in the future.

For this purpose, econometric assessment of the development dynamics of different service types and forecasting for future periods are important analytical tools.

The study developed forecasts through 2030 for written correspondence, electronic money transfers, parcel services, and periodicals.

Table 5. Forecast Indicators for Selected Postal Services, 2026–2030

Type of service	**2026**	**2027**	**2028**	**2029**	**2030**
Written correspondence, thousand items	53,750	58,510	63,720	69,150	74,950

Revenue from electronic money transfers, UZS billion	56.6	50.1	44.3	39.0	34.1
Parcel services, thousand items	90.4	99.6	108.9	120.5	132.3
Periodicals, thousand copies	13,023.5	12,945.5	12,880.5	12,821.8	12,765.2

Source: Developed by the author based on the forecasting models developed within the study.

The forecast results indicate that different services demonstrate different development trends. In particular, the volume of parcel services is expected to increase from 90.4 thousand items in 2026 to 132.3 thousand items in 2030. This indicates the high development potential of this service in connection with logistics and e-commerce.

In contrast, a declining trend is forecast for electronic money transfers. This may be explained by the expected decline in demand for traditional money transfer services as digital banking services and electronic payment systems continue to develop.

Although the forecast for written correspondence indicates growth, its future development should be increasingly associated with digital and hybrid formats. Meanwhile, the declining trend in periodicals is expected to continue.

Table 6. Econometric models used for forecasting

Type of service	**Model type**	**Model**	**R^2**	**MAPE**
Written correspondence	Quadratic trend	$\hat{Y} = 53{,}736.57 + 4{,}646.86t + 164.29t^2$	1.0000	0.030%
Electronic money transfers	Exponential	$\hat{Y} = 56.801 \cdot \exp(-0.12639t)$	0.9996	0.330%
Parcel services	Exponential	$\hat{Y} = 90.385 \cdot \exp(0.09521t)$	0.9997	0.163%
Periodicals	Exponential	$\hat{Y} = 13{,}015.63 \cdot \exp(-0.004967t)$	0.9959	0.042%

The high values of R^2 and low MAPE values indicate that the selected models provide a good representation of the observed time-series dynamics.

The use of these forecasts in strategic planning will enable the company to anticipate changes in its service portfolio and direct investments and resources toward priority services.

Priority directions for improving postal service efficiency

Based on the analysis conducted, several priority directions for improving the activities of "Uzbekistan Pochtasi" JSC can be identified.

The first direction is diversification of the service portfolio. While certain traditional services are experiencing a decline, hybrid mail, courier, parcel, and export services have significant growth potential. Therefore, it is advisable to gradually redirect resources toward these areas.

The second direction is deepening digital transformation. Digitalization should not be limited to converting individual services into electronic formats. Processes such as postal acceptance, sorting, transportation, delivery, tracking, payment, and customer service should be integrated into a unified digital ecosystem.

The third direction is optimization of logistics costs. Coordinating trunk, interregional, and local routes can not only reduce transportation costs but also improve delivery speed.

The fourth direction is comprehensive assessment of service quality. Regularly identifying gaps between customer expectations and actual service quality makes it possible to detect service-related problems more quickly.

The fifth direction is data-driven management. Integrating data on service revenue, demand, customer activity, delivery times, and logistics costs into a unified system can improve the accuracy and effectiveness of managerial decisions.

The sixth direction is strengthening integration with e-commerce. Since the growth of parcel and courier services is closely associated with e-commerce, integration with e-commerce platforms can create new revenue streams for the postal operator.

Scientific and practical significance of the research results

The scientific significance of the study is determined by the development of a comprehensive approach to assessing the efficiency of postal services. The study proposes considering economic, technological, infrastructure, and service quality indicators within a unified assessment system.

In addition, the conceptual model of digital transformation enables postal services, logistics, and management processes to be interconnected through digital technologies.

The integrated route optimization model contributes to improving postal delivery processes from both economic and logistical perspectives.

The practical significance of the study is determined by the applicability of the developed approaches to the activities of "Uzbekistan Pochtasi" JSC. The comprehensive assessment methodology can be used to determine the company's efficiency level and identify problematic areas; the digital transformation model can support the improvement of digitalization processes; and the route optimization model can contribute to reducing transportation and logistics costs. The results of assessing the impact of the service structure on revenue and forecasting its development through 2030 can serve as a basis for shaping the company's service portfolio and allocating resources toward priority areas within the strategic planning process.

CONCLUSIONS AND RECOMMENDATIONS

The results of the study demonstrate that significant structural changes are taking place in the activities of "Uzbekistan Pochtasi" JSC. During 2021–2025, the company's total revenue increased from UZS 274.4 billion to UZS 797.7 billion.

However, this growth was not generated equally by all types of services. Traditional services, such as written correspondence and money transfers, experienced a decline. In contrast, substantial growth was recorded in hybrid mail, courier services, and service exports.

The increase in revenue from hybrid mail services from UZS 20.1 billion in 2021 to UZS 312.7 billion in 2025 demonstrates the growing importance of digital transformation in the formation of the company's revenues.

Based on the findings of the study, the following recommendations are proposed:

1. Introduce a comprehensive postal service efficiency assessment system at "Uzbekistan Pochtasi" JSC based on economic, technological, infrastructure, and service quality indicators.

2. Develop hybrid mail services and further expand their integration with corporate customers, government organizations, and electronic document management systems.

3. Improve sorting, tracking, and document processing processes through the use of artificial intelligence and automated systems.

4. Manage trunk, interregional, and local routes through a unified route optimization system.

5. Strengthen integration with e-commerce platforms and further develop parcel and courier delivery services.

6. Conduct regular econometric assessments of the impact of the service structure on revenue formation.

7. Allocate resources and investments toward services with high growth potential**,** taking into account the projected service dynamics through 2030.

8. Adapt traditional services experiencing declining demand to digital or hybrid formats.

Overall, the key condition for improving the efficiency of postal services is to preserve the essential functions of traditional postal operations while integrating them with digital technologies, modern logistics, and e-commerce. The recent revenue structure of "Uzbekistan Pochtasi" JSC demonstrates the economic potential of this development direction. Thus, the future competitiveness of the postal operator will depend not so much on increasing the number of services as on improving service quality, implementing digital technologies, optimizing logistics costs, and developing a service portfolio that corresponds to consumer demand.

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