

ANALYSIS OF THE MAIN USAGE INDICATORS FOR FREIGHT AND TRAIN TRANSPORTATION AT “G” STATION

Hoshimov J.G.
Bozorov R.Sh.

Tashkent state transport university (Tashkent, Uzbekistan)

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Abstract: this article also details the importance of achieving improvement in usage indicators based on improving the operation process of the precinct and the station, taking into account the fact that the “G” intermediate station is located on the Q-K single-track railway site. Based on the analyzes, it will be necessary to develop measures to improve productivity, technical use indicators. In particular, it is required to introduce advanced technological solutions to the plots and stations of “UTY” JSC in accordance with local conditions, based on the study of domestic and foreign experience in the use of train transfer facilities of stations and plots.

Key words: train, freight operations, railway transport, analyses, technical, manual, information, “UTY” JSC, disciplinary regulations.

“G” is an intermediate station where train reception and dispatch tracks are positioned transversely. The primary tasks performed are receiving, dispatching, and passing trains; carrying out shunting operations; loading and unloading various goods; conducting technical and commercial inspections of trains and wagons, performing brake tests, and processing freight documentation. Based on the volume of work, it is classified as a 4th-class station. The station is situated on the Q-K single-track railway section and is equipped with an electric centralized interlocking system (ECIS) for switches and signals.

The station performs the following technical, freight, and commercial operations: a) Technical operations: Receiving and dispatching trains, passing trains, train crossings (intersecting), overtaking, assembling train formations, attaching and detaching wagons, sorting wagons, preparing and setting wagons on the branch line, bringing them out, presenting wagons for technical and commercial inspections, rectifying identified technical and commercial deficiencies in wagons, replacing locomotives and locomotive crews in transit trains or when necessary; b) Freight operations: Loading, unloading, receiving, and delivering goods; d) Commercial operations: Receiving and delivering goods services, processing freight documentation, calculating transportation fees and provided railway services, ensuring the integrity of transported goods, conducting commercial inspections of arriving and departing wagons and formations.

Analyzing the main usage indicators for freight and train transportation at “G” station reveals deficiencies, identifies obstacles, and prevents the emergence of difficulties. During working hours, the station supervisor continuously monitors the implementation of the shift plan, adherence to the prescribed procedures for processing trains and wagons by staff, and the performance of freight and commercial operations, taking necessary measures to prevent disruptions in the technological process.

The analysis determines the completion of quantitative and qualitative indicators in practice, compares them with previous plans, standards, and similar indicators, identifies causes of deviations, and outlines measures to eliminate shortcomings in technology

improvement efforts. The station conducts the following types of analyses: operational (shift and daily), periodic, and targeted.

Shift analyses are conducted by the station chief or their deputies at the end of each shift. The analysis helps identify difficulties and establish necessary measures to prevent or eliminate them. A daily analysis evaluates the station's performance in fulfilling the daily plan and compares the work of different shifts to ensure uniform performance.

During the analysis, aspects such as train reception and dispatch, loading and unloading of oil goods, performance of shift duties, wagon idle time, train assembly and schedule adherence, reasons for schedule violations, station's inability to accept trains, other quantitative and qualitative performance indicators, reasons for train delays at approaches, adherence to technological standards, and ensuring the safety of train movements and personnel are considered. Periodic analysis encompasses all branches of economic activity, summarizing the results of shift and daily analyses, and formulating organizational and technical measures to improve the station's operations.

Based on the analysis results, the shift's performance is evaluated, necessary measures are established to prevent violations, and the results and evaluations are communicated to workers, who then analyze key performance indicators based on other accounting and documentation data. This includes:

- Train schedules for movement, reception, and dispatch;
- Volume of freight operations including oil goods loading;
- Prescribed time norms for processing trains during arrival, distribution, assembly, and dispatch;
- Downtime for local freight operations at the station and on branch lines of industrial enterprises, wagon idle time during a single freight operation;
- Utilization of technical means and shunting locomotives;
- Tasks for increasing labor productivity;
- Safety of train movements and personal safety conditions.

Targeted analysis aims to thoroughly study station operations, identify reserves to increase capacity and processing capabilities, develop measures for efficient utilization of technical means, reduce wagon dwell time at the station, ensure safety of operations and personnel, among other objectives.

Targeted analyses can be general for the station's operations or specific to its individual units or issues, such as reasons for train delays near the station, quality of information about approaching trains and goods, reasons for increased downtime during tanker filling, and others.

Employees of the railway transport sector must adhere to the requirements and fulfill the demands of the following primary regulatory documents not detailed in these technological processes:

- Law of the Republic of Uzbekistan on Railway Transport;
- Technical usage rules for the railways of the Republic of Uzbekistan;
- Manual on train movements and shunting operations on the railways;
- Manual on signaling on the railways;
- Charter of Uzbekistan Railways;
- Technical management act and its annexes, local manuals;

- Freight transport rules;
- Rules for transporting dangerous goods;
- Technical conditions for loading and securing goods on open rolling stock;
- Occupational safety instructions, personal safety rules;
- Disciplinary regulations for railway transport employees;
- Relevant current orders and instructions.

Based on these documents, the station's operations are properly organized. Additionally, an analysis of the current workforce at the station has been carried out, as shown in the following table (Table 1.1).

Table 1.1

Information at Station "G" on the mountain of personnel

No	Position, Job Title	Accountant	Staff	Actual
1.	Station Chief	1	1	1
2.	Station Duty Officer	5	5	5
3.	Train Assembler	4	4	3
4.	Senior Freight Cashier	1	1	1

Continuation of Table 1.1

5.	Freight Cashier	1	1	1
6.	Senior Freight Receiver	1	1	1
7.	Freight Receiver	1	1	1
8.	Cleaner	1	1	1
9.	Gardener	1	1	1
	Total	16	16	13

Additionally, the analysis of the main performance indicators of "G" station for the years 2022-2023, and by months for each year, has been carried out (Figures 1.1-1.4):

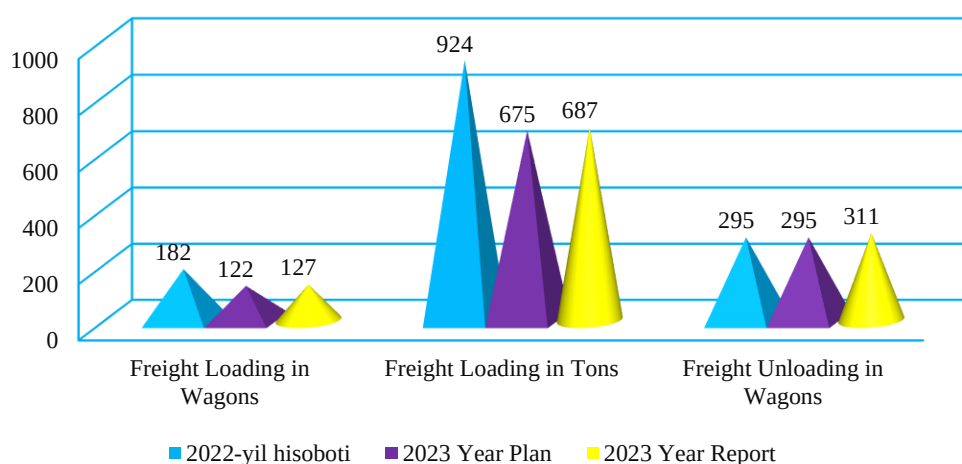


Figure 1.1. Information on the completion of freight flows at "G" station for the years 2022-2023.

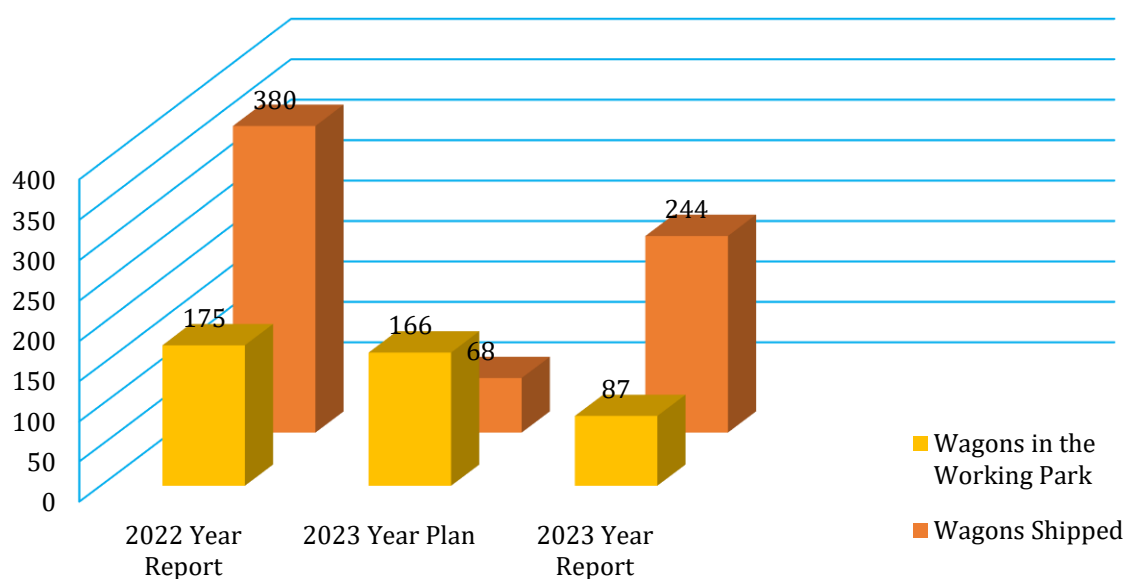


Figure 1.2. Information on the completion of indicators at “G” station in December 2023

From the figures above, it can be seen that according to the 2022 report of “G” station, the freight loading indicator was 182 wagons, the 2023 plan was 122 wagons, and the 2023 report recorded 127 wagons. The analysis of the freight loading indicators in tons showed 924 tons in the 2022 report, 675 tons according to the 2023 plan, and 687 tons in the 2023 report.

The freight unloading indicators were 295 wagons in the 2022 report, 295 wagons according to the 2023 plan, and 311 wagons in the 2023 report. Additionally, if we look at the analysis of wagons at the station, there were 175 wagons in the working park according to the 2022 report, 166 wagons according to the 2023 plan, and 87 wagons in the 2023 report. Dispatched wagons were 380 according to the 2022 report, 68 according to the 2023 plan, and 244 according to the 2023 report.

From the above indicators, we can conclude that according to the 2023 report, freight loading decreased by 55 wagons, dispatched wagons decreased by 136, and wagons in the working park decreased by 88 compared to 2022. [1-6].

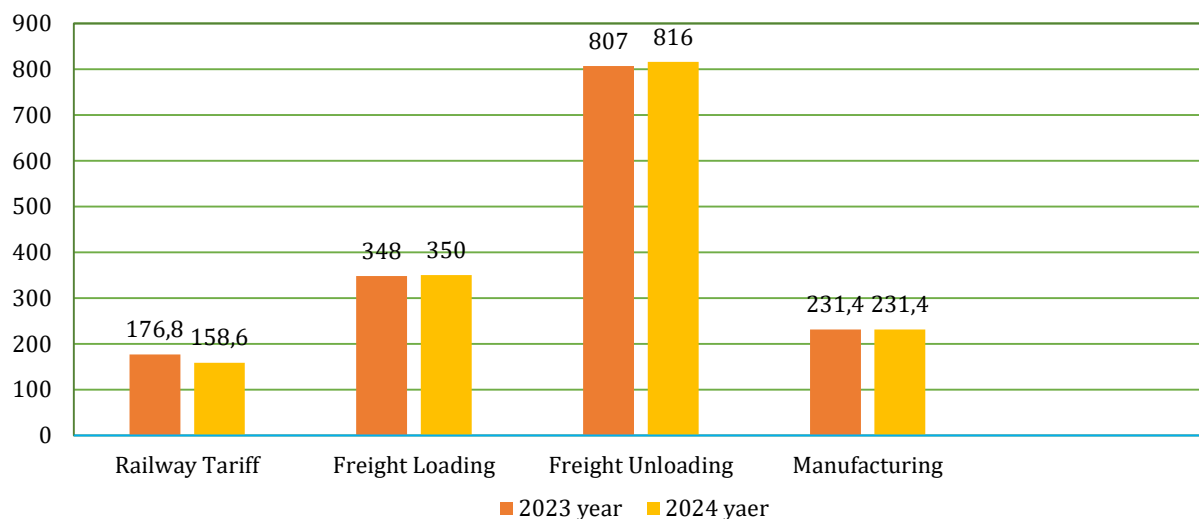


Figure 1.3. Information on the station's revenue in the first 3 months of 2024 compared to 2023

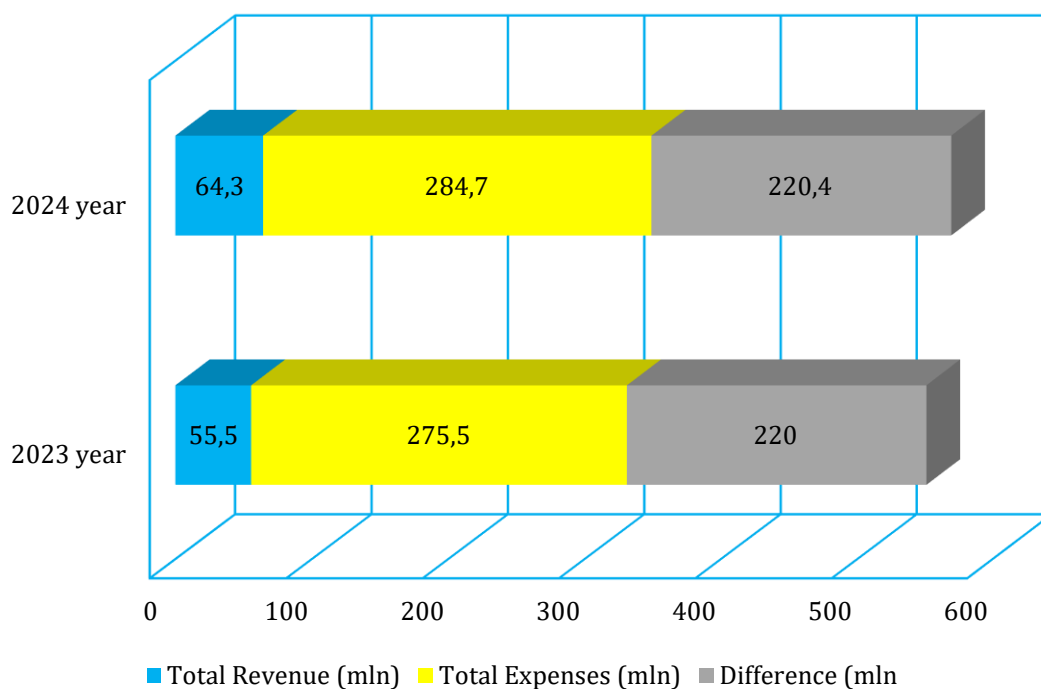


Figure 1.4. Information on the station's expenses and revenues in the first 3 months of 2024

From the figures above, we can draw the following conclusions: In 2023, the revenue from railway tariffs was 176.8 billion UZS, freight loading was 348 billion UZS, freight unloading was 807 billion UZS, and production was 231.4 billion UZS. In 2024, the revenue from railway tariffs is 158.6 billion UZS, freight loading is 350 billion UZS, freight unloading is 816 billion UZS, and production is 231.4 billion UZS. The station's total revenue and expenses were 55.5 billion UZS in revenue, 275.5 billion UZS in expenses, and a difference of 220.4 billion UZS in 2023. In 2024, total revenue is 64.3 billion UZS, total expenses are 284.7 billion UZS, and the difference is 220 billion UZS. In summary, we see that expenses in 2024 increased by 9.2 billion UZS compared to 2023, while total revenue increased by 8.8 billion

UZS. Additionally, a comparative analysis of the net freight loading for the first three months of 2024 compared to 2023 and the performance indicators for the first three months of 2024 is presented in the following tables (Tables 1.2-1.4).

Table 1.2

Comparative Analysis of the Net Freight Loading at the Station for the First 3 Months of 2024 Compared to 2023

Station Name	2023 year		2024 year		(+;-)	(%)
	Net Freight		Net Freight		Net Freight	Net Freight
	Wagon	Tons	Wagon	Tons	tons	tonna
G'	360	21385	350	19783	-1602	93

Table 1.3

Completion of Usage Indicators for the First 3 Months of 2024

Station Name	Freight Loading in Tons						
	2023 year report	2024 year report	2024 year report	%		“+” or “-”	
				Compared to Plan	Compared to 2023	Compared to Plan	Compared to 2023
G'	21412	19473	19783	102	92	310	-1629

Table 1.4

Information on the Station's Revenue in the First 3 Months of 2024 Compared to 2023

Station name	3 month 2023 year	3 month 2024 year	“+”/“-”
“G”	94	411	318

Based on the above analyses, it can be concluded that measures need to be developed to improve the productivity and technical usage indicators of the station. Specifically, it is required to adapt and implement advanced technological solutions in “UTY” JSC sections and stations by studying and incorporating local and foreign experiences in utilizing train transit capabilities of the station and sections to local conditions.

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