

## SMARTLY INVESTIGATING THE REASONS BEHIND TECHNICAL MALFUNCTIONS

*Masharipov Masudjon Numonjonovich*  
*PhD, dean of the faculty of "Economic" TSTU*

**Abstract:** The purpose of this article is to explore the underlying factors responsible for technical equipment malfunctions.

In order to enhance the efficacy of processes governing traffic safety, an analysis was conducted on the impact of technical equipment failures on traffic safety, as well as the methods to mitigate such incidents. Due to the factors that contribute to their formation, failures can manifest at every stage of the life cycle of technical systems. The most perilous forms of malfunctions are characterized by their abruptness, as their prevention proves to be a challenging task. In the event that such hazardous failures are also interdependent, there is a high likelihood of a cascading sequence of interconnected failures. (Note: As an AI language model, it is not within my capacity to determine the appropriate academic style for a particular discipline or field. The level of formality, tone, and vocabulary used may vary depending on the context and purpose of the writing.) It is imperative that each instance of refusal yields outcomes that are at minimum non-critical, in order to ensure an appropriate level of vehicular safety. Furthermore, it is imperative to design a comprehensive set of measures for analyzing technical equipment and rolling stock failures at all stages of their life cycle within railway transportation [1].

The implementation of a failure analysis system across various stages of a product's life cycle can facilitate the early detection of potential critical failures. This system can effectively identify high-risk failures while minimizing their impact on operations. Automated processing can continuously perform statistical analysis with subsequent modeling of situations to prevent critical consequences arising from occurrences of traffic safety violations.

Insufficient strength reserve of technical equipment's elements due to errors is one of the reasons for the occurrence of dangerous failures. When determining measures to ensure the necessary initial strength reserve of elements, it is important to involve developers and designers. When selecting manufacturing technologies and materials, manufacturers must make a choice.

Due to defects in the manufacturing process.

The list also comprises of deviations in operating technology of technical tools, resulting in premature depletion of reliable performance resources, and deviations in technical maintenance and repair technologies, leading to incomplete and delayed restoration of strength reserve. The reasons behind hazardous errors made by railway

personnel include: Errors in professional selection and inadequate training of specialists. Insufficient technological discipline and inadequate level of professional expertise. The deterioration of physiological or psychological condition, including the impact of external environment. Various methods should be applied throughout the entire life cycle to prevent the impact of technical failures and personnel and software errors on traffic safety.

#### References:

1. Gulamov, A. A., Ozatbekov, Y. F., & Ozatbekova, O. N. (2022). INNOVATION-ORIENTED WAY OF DEVELOPMENT OF A MODERN UNIVERSITY. *Journal of new century innovations*, 15(3), 53-59.
2. Ozatbekova, O., Ozatbekov, Y., & Gulamov, A. (2022). DISTINCTIVE FEATURES OF THE TURKISH INVESTMENT POLICY. *Current approaches and new research in modern sciences*, 1(1), 4-8.
3. Ozatbekova, O., Ozatbekov, Y., & Gulamov, A. (2022). ТЕОРЕТИЧЕСКИЕ ОСНОВЫ ИПОТЕЧНОГО КРЕДИТОВАНИЯ В ЭКОНОМИКЕ. *Solution of social problems in management and economy*, 1(1), 4-6.
4. Ozatbekova, O., Ozatbekov, Y., & Gulamov, A. (2022). THE IMPORTANCE OF THE DEVELOPMENT OF FINANCIAL MARKETS IN THE ECONOMY OF UZBEKISTAN. *Zamonaviy dunyoda ijtimoiy fanlar: Nazariy va amaliy izlanishlar*, 1(20), 40-45.
5. Abdullayevich, G. A., & Qizi, R. S. S. (2022). ИҚТИСОДИЁТНИ РАҚАМЛАШТИРИШ ШАРОИТИДА РАҚАМЛИ МАРКЕТИНГНИНГ ЎРНИ. *Трансформация моделей корпоративного управления в условиях цифровой экономики*, 1(1), 149-154.
6. Abdurakhmanov, O., Gulamov, A., & Shjaumarov, S. (2021). Improving the needs of economic sectors for transport services on the basis of national standards.
7. Abdullaevich, G. A., & Khikmatullaevna, S. M. (2021). A study of increasing the economic efficiency of transport services. *South Asian Journal of Marketing & Management Research*, 11(9), 34-40.
8. Abdurakhmanov, O. K., Gulamov, A. A., Shaumarov, S. S., & Kandakhorov, S. I. (2021). ON THE RETURN ON INVESTMENT FOR THERMAL RENOVATION OF CIVIL BUILDINGS. *ТЕМИР ЙЎЛ ТРАНСПОРТИ*, (3), 99.
9. Gulamov, A., Abdurakhmanov, O., & Shjaumarov, S. (2021). Improving Methodological Approaches to Assessing the Effectiveness of Using Fixed Capital in Railway Transport. *International Journal on Orange Technologies*, 3(10), 1-12.
10. Abdullaevich, G. A. (2020). ECONOMIC VALUATION OF THE SHARE CAPITAL OF THE JOINT STOCK COMPANY" UZBEKISTAN RAILWAYS. *Science and Education*, 2, 3.

11. Гуламов, А. А., & Дадабоева, З. С. К. (2020). Проблемы развития железнодорожного транзитного потенциала Республики Узбекистан. *Universum: технические науки*, (5-1 (74)), 64-67.
12. Abdullaevich, G. A. (2020). ECONOMIC VALUATION OF THE SHARE CAPITAL OF THE JOINT STOCK COMPANY" UZBEKISTAN RAILWAYS. *Science and Education*, 2, 3.
13. Abdullayevich, G. A. (2019). Management of the Reproduction Process of the Main Capital of the Railway Company. *Asian Journal of Technology and Management Research (AJTMR) Volume*, 8(02).
14. Abdullayevich, G. A. (2019). Depreciacion en el aspecto de la estrategia de modelado de inversion y analisis de los procesos de reproduccion del capital fijo del transporte ferroviario. *Religación. Revista de Ciencias Sociales y Humanidades*, 4(14), 319-331.
15. Abdullaevich, G. A. (2019). IMPROVEMENT OF ECONOMIC METHODS OF DEPRECIATION IN THE JOINT-STOCK COMPANY “UZBEKISTAN RAILWAYS”. *Methods and problems of practical application*, 143.
16. Гуламов, А. А. (2019). ЎЗБЕКИСТОН РЕСПУБЛИКАСИДА ТЕМИР ЙЎЛ ТРАНСПОРТИНИНГ ЗАМОНАВИЙ РИВОЖЛАНИШ ҲОЛАТИНИНГ ТАҲЛИЛИ. *Ресурсосберегающие технологии на транспорте*, 20(1), 297-305.
17. Abdullayevich, G. A. (2019). Depreciation in the aspect of modeling strategy of investment and analysis of reproduction processes of fixed capital of railway transport. *Religación: Revista de Ciencias Sociales y Humanidades*, 4(14), 319-330.
18. Гуламов, А. (2019). Экономическая оценка основного капитала акционерного общества Узбекистон темир йуллари. *Экономика и инновационные технологии*, (2), 1543-163.
19. Гуламов, А. А. (2019). МОДЕЛЬ ОЦЕНКИ ЭФФЕКТИВНОСТИ ВОСПРОИЗВОДСТВА ОСНОВНЫХ ФОНДОВ В ЖЕЛЕЗНОДОРОЖНОМ ТРАНСПОРТЕ. *Транспорт шелкового пути*, (1-2), 82-91.
20. Abdulaziz, G. (2019). Retrospective analysis of reproduction processes of fixed capital of railway transport. *Бюллетень науки и практики*, 5(2), 235-244.
21. Гуламов, А. А., Мерганов, А. М., & Рахматов, З. Н. (2017). Тариф как фактор повышения конкурентоспособности национальной экономики. *Міжнародний науковий журнал Інтернаука*, (5), 115-19.
22. Расулов, М. Х., Ризаев, А. Н., & Гуламов, А. А. (2016). К вопросу управления кадрами в инновационной среде железнодорожного транспорта акционерного общества" Узбекистон темир йуллари". *Инновационный транспорт*, (3), 13-16.

23. Гуламов, А. А. (2016). Совершенствование методов целевого использования амортизации в воспроизводственном процессе основных фондов железнодорожной компании. *Міжнародний науковий журнал*, (9), 103-105.
24. Гуламов, А. А. (2011). Методика оценки воспроизводства основных производственных фондов железнодорожной компании. *Известия Петербургского университета путей сообщения*, (1), 257-266.
25. Гуламов, А. А. (2011). *Экономическая оценка воспроизводства основных фондов железнодорожной компании* (Doctoral dissertation, Петербургский государственный университет путей сообщения).
26. Гуламов, А. А. (2010). Обоснование рационального метода начисления амортизации в условиях оптимизации воспроизводства грузового вагонного парка транспортной компании. *Известия Петербургского университета путей сообщения*, (2), 163-176.
27. Гуламов, А. А. (2010). Прогнозирование объёмов перевозок грузов на узбекской железной дороге. *Известия Петербургского университета путей сообщения*, (1), 82-93.
28. Gulamov, A. MODEL FOR ASSESSING THE EFFICIENCY OF REPRODUCTION OF FIXED ASSETS IN RAILWAY TRANSPORT.