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### FORMATION OF STRATEGIC PRIORITIES FOR THE DEVELOPMENT OF RAILWAY TRANSPORT ENTERPRISES ON THE **BASIS OF DIGITALIZATION @ ⊕ ⊕**

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The article establishes that in order to ensure the economic growth of railway transport enterprises of Ukraine, it is advisable to implement a system of strategic measures that will contribute to the maximum use of the advantages of digitalization and minimize the negative phenomena associated with the development of the information society. It has been proven that in order to ensure the process of digitization of railway transport enterprises of

Ukraine and preserve their competitiveness both in the domestic market and in the international arena, it is necessary to focus first of all on the development of the ecosystem system of railway transport enterprises. As priority directions activities of railway enterprises transport, which will become the basis for economic growth at the expense of use of digital technologies, should consider. Development of customer service on based on the use of digital communication channels (tools analytics, scoring, variability, adaptability, forecast) to attract and customer retention, formation positive image. Strengthening partnership relations on the basis of digital platforms – applications techniques of non-standard solutions in transport business, holding applied research and the search for new ones business solutions based on collaboration. Consideration of partnership relations as a basis scaling of transport business. Building forecasts based on Big Data - search and testing of new directions development of transport business at the expense of data enrichment and implementation innovative technologies, modeling consumer behavior and processes. Implementation of personnel strategies, which consist in a constant increase qualifications of employees regarding formation competencies for digital needs railway transport. Summarizing all of the above, it must be borne in mind that from the point of view development of railway enterprises digitalization of transport is quite important, however, it is necessary to assess the shortcomings and threats, i.e. constantly develop systems of appropriate strategic measures should be constantly developed, taking into account the peculiarities of the state donation of railway transport enterprises.

Key words: railway transport enterprises, development priorities, development strategy, digitalization, digital platforms, eco-environment, economic development.

# ФОРМУВАННЯ СТРАТЕГІЧНИХ ПРІОРИТЕТІВ РОЗВИТКУ ПІДПРИЄМСТВ ЗАЛІЗНИЧНОГО ТРАНСПОРТУ НА ЗАСАДАХ ЦИФРОВІЗАЦІЇ

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У статті встановлено, що для забезпечення економічного зростання підприємств залізничного транспорту України доцільно впроваджувати систему стратегічних заходів, що будуть сприяти максимальному використанню переваг цифровізації і мінімізувати негативні явища, пов'язані з розвитком інформаційного суспільства. Доведено, що для забезпечення процесу цифровізації підприємств залізничного транспорту України та збереження їх конкурентоспроможності як на внутрішньому ринку, так і на міжнародній арені належить, перш за все сконцентрувати увагу на розбудові системи екосередовища підприємств залізничного транспорту.

Ключові слова: підприємства залізничного транспорту, пріоритети розвитку, стратегія розвитку, цифровізація, цифрові платформи, екосередовище, економічний розвиток.

Statement of the problem. Currently, transformations that generate large-scale flows of information are defined as a new type of economy - the digital economy. The digital transformation of the world economy is due to sustainable

technological changes, which include achievements in the field of analytics, artificial intelligence, cloud computing, and mobile devices. However, the issue concerns not only the transfer, storage, and processing of information, but the emergence of a

fundamentally new economic order, where the entire system of social, economic, and institutional relations between various economic entities included in the digital environment is significantly changed. relationships not only Moreover, changing among business entities involved in digitalization, the system of their interests subject to and needs is significant transformation. All of this fully applies to railway transport enterprises, which must work "in advance", because enterprises that will fall out of the digital transformation process in the near future will themselves on the periphery of the domestic and global transport market. In this regard, railway transport enterprises face a number of important challenges, and this determined the need to integrate digital transformation tools into the traditional model of railway enterprise management.

**Analysis**  $\mathbf{of}$ research and publications. Today, the topic of research into the theoretical foundations of the development of railway transport in Ukraine is quite popular, a number of works are devoted to it by V. Dykan, V. Kuznetsov, O. Skrypinskyi, H. Obruch, I. Dmytriiev, V. Ovchynnikova, L. Marienko, O. Vatsenko. and others [1-3]. However, their achievements do not reveal the peculiarities of the process of digitalization of railway transport enterprises. In economic circles, there are scientific achievements regarding the definition of the features of the digital transformation of the world economy. There are different opinions about the advantages and disadvantages of digitalization.

So, for example, Nobel laureate K. Pissarides says that "the main threats to the economy in the future will be robotics and the development of digital technologies, which will lead to an increase in inequality between countries, and digital technologies and computerization now emphasize inequality even more.... » [4]. Kraus N. noted that "in the knowledge economy, any job, whether in the processing industry or the service sector, contains a growing share of

knowledge. Digitization has increased the price of the most valuable and irreplaceable thing that cannot be formalized - knowledge. Knowledge based on experience, prudence, ability to coordinate, self-organize and find a common language is increasingly in demand" [5].

This direction of scientific achievements was also highlighted in the works of: V. Dykan, Gontareva I., Gontareva I., Babenko V., Shmatko N., Litvinov O., H.Obruch, M. Korin [5-7] and others. As for the conceptual provisions of digitalization of railway transport, they were reflected in the works of: V. Danilyan, V. Masan, D. Sydorets, O. Mnykh, N. Kalycheva, V. Masan, V. Toropova [8-11] etc.

These works cover the general provisions of digitalization of railway transport enterprises. At the same time, new basic proposals are needed that will determine the directions of digitalization of railway transport, which will become the primary basis for ensuring the efficiency of its management.

**Purpose of the article.** Therefore, the purpose of the article is to study the features of the digitalization of railway transport and to substantiate the basic areas of digital transformation of railway transport enterprises of Ukraine in the given economic conditions.

Main material. **Digital** transformations in the development of railway transport in the world are gaining more and more momentum. More than one successfully implementing railway is "digital" and getting positive results from it. For example, the Italian railway "Trenitalia" saves 100 million euros per year, using intelligent analytics in its operations [2], and IoT - to manage building repairs [4]. The Dutch company "ProRail" uses drones to inspect railway tracks. The integration of a video surveillance system with a face recognition system is no longer surprising. This technology is currently used on the railways of the world (Japan, China, Singapore, etc.), in the subway and large

airports. The possibilities of using the system of recognition of persons at railway stations are enormous - it allows to prevent offenses and crimes, to search for missing persons, to timely identify outsiders in the defined territories, etc.

Another high-tech achievement, based on digital technologies, is a mobile application for passengers, thanks to which a passenger makes a trip in an electric train, while a system built on the basis of geotargeting fixes the place of his landing and exit and automatically calculates the cost of the trip. To make a payment, it is enough to use a mobile device. In long-distance trains, it is much more convenient for a passenger to use the carrier's services - to buy a sandwich with coffee without waiting for a steward with a cart, or to order a movie from the video library to watch.

A vivid example of digitization is the constant use of Big Data, because the use of big data analysis tools will allow subjects of economic activity to make more effective management decisions, build the most personalized communication with customers, forming relevant offers.

Investments in digital technologies on railways will increase transportation safety, improve logistics, reduce maintenance and repair costs, and optimize traffic schedules. However, these projects require large costs, but these investments are justified and usually pay off in a few years. JSC "Ukrzaliznytsia" still lags behind the level of digitalization in general compared to the railways of the world, which started the processes of transition to digital technologies earlier.

The level of penetration and use of digital innovations is growing rapidly and is likely to remain the same in the coming years. It is about making domestic vehicles autonomous and combined into a single system, this will contribute to the emergence of "smart railways", which will allow to increase the efficiency of transportation and reduce energy consumption.

Therefore, the value of digitization and innovation has a significant investment potential, is of interest as an additional source of income, primarily for domestic railways.

As a new business model, it is necessary to highlight digital platforms that have determined the success of many of the largest competitive companies, and also affect other economic and social spheres: from health care and education to energy and public administration.

A promising direction of automation and optimization of business processes of railway transport enterprises is the creation of a "digital double of the process of providing logistics services". transport and implementation of such an approach involves the digitalization of the process of providing transport and logistics services, i.e. the creation of a virtual duplicate of units taking into account the rolling stock used, its location, taking into account the peculiarities of operations, etc. The active use of Internet technologies determines new opportunities for studying consumer preferences and promoting transport and logistics services.

Thus, the advantages of digitalization of enterprise activities are also automation of internal and external business processes, application of new methods of customer attraction, reduction of decision-making time and increase of their adequacy, which helps to reduce production risks and increase the efficiency of management and implementation of transport and logistics services.

Along with the prospects and advantages of the widespread use of digital technologies in the operational activities of railway transport, it is necessary to highlight a number of problems and threats.

First of all, this is due to the fact that the ratio between the natural intelligence of employees and the growing expansion of artificial intelligence does not always contribute to the preservation and increase of the first and an adequate assessment of the limits of the application of the second. That is why there is a need for the formation of a

new type of professional competences in the field of digitalization of transport, which are associated with the skills and abilities to create appropriate conceptual models, to use existing digital platforms as effectively as possible, and to ensure the formation of new ones.

In a generalized form, the lack of competent personnel in the railway transport of Ukraine, who are oriented towards the digital transformation of the transport business, as a rule, the limitation of the terms of transformation and conservatism, redistribution of capital - these are the main priority problems facing modern railway transport enterprises, which are oriented towards the general digitalization of the industry.

Informatization has also increased the value of "digital" knowledge. The number of workers who need knowledge not only in their professional field, but also in related fields is increasing. The above brings to the fore the concept of mobile education, only of improvement the constant the competencies (including digital and professional) of railway transport workers will allow, with all the possibilities provided by digitalization, to neutralize the main problem - the differentiation of incomes.

Summarizing all of the above, it should be borne in mind that from the point of view of the development of railway transport enterprises, digitalization has quite a lot of positive aspects. At the same time, the shortcomings and threats should not be underestimated. It is the balance of positive and negative phenomena of digitalization that become the basis of sustainable development of railway transport enterprises. The following should be considered as the priority areas of activity of railway transport enterprises, which will become the basis for economic growth due to the use of digital technologies:

1. Development of customer service based on the use of digital communication channels (analytics tools, scoring, variability, adaptability, forecast) for attracting and retaining customers, forming a positive image.

- 2. Strengthening partnership relations on the basis of digital platforms application of the technique of non-standard solutions in the transport business, conducting applied research and finding new business solutions based on collaboration. Consideration of partnership relations as a basis for scaling the transport business.
- 3. Building forecasts based on Big Data finding and testing new directions for the development of the transport business due to the enrichment of data and the introduction of innovative technologies, modeling of consumer behavior and processes.
- 4. Implementation of personnel strategies, which consist in the constant improvement of the qualifications of employees with regard to the formation of competencies for the needs of digital railway transport.

Conclusion. In general, summarizing what has been said, it should be concluded that in order to ensure the economic growth of railway transport enterprises of Ukraine, it is advisable to implement measures that contribute to the maximum use of the advantages of digitalization and minimize the negative phenomena associated with the development of the information society. However, in order to ensure the process of digitalization of railway transport enterprises Ukraine and to preserve competitiveness both in the domestic market and in the international arena, there is still a lot to be done, first of all: the creation of unified digital platforms in the field of freight and passenger transportation/services and infrastructure operation; robotization routine processes and ensuring the transition to paperless tickets and contactless travel control systems, including biometrics-based; creation of systems for monitoring wagons based on satellite communication, systems for non-contact inspection and control of the condition of rolling stock and tracks, train management systems, digital means communication and automation, multimedia and video surveillance systems, intelligent climate control and lighting control for trains, systems driver vigilance control; implementation of BIM technologies for infrastructure design and maintenance, etc.

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