



FEATURES OF DIGITAL TRANSFORMATION OF THE TRANSPORT SPHERE IN MODERN CONDITIONS

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Abstract

The article analyzes the problems of using digital technologies both in the republic and abroad. It also examines the tools of the Chinese digitalization model.

Keywords: Digital transformation, transport, innovation, investment, transport infrastructure, freight transportation, commodity markets, competitiveness, infrastructure projects.

Introduction

In the context of the formation of a new innovative model of economic development, transport is a tool for realizing the national interests of Uzbekistan, ensuring it a worthy place in the world economic system. The main areas of international integration in the field of transport are the formation and development of a common transport space of the CIS and SCO countries, Uzbekistan's participation in international transport projects, comprehensive development and interaction in the Central Asian region.

At the same time, the use of digital technologies leads to both the emergence and development of new types of business and changes in the conditions of competition in existing commodity markets. The freight transportation sector, which existed before the fourth industrial revolution, also faced the need for major changes in the context of digital transformation: the companies themselves, internal rules of work, methods of interaction between them and with regulatory authorities have changed. Economic regulation measures should take into account new trends in the development of industries and promote further development, especially in key areas



of the economy. These areas include the transport sector, which is strategically important to support in order to improve the country's investment climate.

Also, identifying general and specific industry antitrust risks in the context of digitalization will help determine whether it is necessary to create separate regulations for each industry or whether the specific risks of restricting competition are the same for the entire freight transportation sector.

On the one hand, digitalization provides additional advantages for large market players, which can create barriers to entry, but on the other hand, it provides an opportunity for competitors from other markets to enter through integrated services. The state must take into account the application of such innovations, adapt legislation to reduce the risk of regulatory errors, and apply the experience of foreign countries. The transportation sector is one of the areas that must adapt existing principles and mechanisms of operation to new digital conditions, taking into account the available technical and human resources [1].

In areas of the economy that existed before the emergence of digital technologies, rather than emerging with them, such as online trading or the IT services sector, three areas of positive influence of digitalization can be identified [1]:

1. Technical innovations that directly improve the quality of production of goods or provision of basic services. For example, in the transport sector, this is expressed in increased speed of movement, automation in management, robotic service in depots, the possibility of consolidating physical infrastructure and improving the distribution and grouping of goods.
2. Qualitative shifts in the level of service and provision of additional functions. Most often, this is associated with online services available to customers. In the transport sector, the consumer can receive information about tariffs and routes, information on the status and delivery time of their cargo, as well as buy an online ticket, arrange insurance and customs payments.
3. Transparency of the operating system, simplification of reporting and internal management scheme influences the improvement of understanding and decision-making on the part of regulatory bodies. This can have a positive effect on the competitive environment and somewhat mitigate the problem of "inhospitable tradition" in antitrust by reducing information asymmetry and better access to reporting data.



Separate issues include the problems of adopting industry standards that may arise in the context of various digital technologies, and the emergence of new risks of restricting competition. The first direction gives headlining companies a competitive advantage, expressed in internal factors: reduced costs, simplified business and reduced labor costs, improved safety and reliability, etc.

For example, airlines that have successfully implemented internal digital services for cargo transportation services demonstrate more positive financial results due to reduced production costs due to the automation of business processes and an increase in the number of customers. Robotics, sensors, wireless communications and artificial intelligence can improve safety indicators, the safety of passengers and cargo, improve logistics and affect the urgency and frequency of poisonings, which can have a beneficial effect on intermodal transportation. At the same time, even in the absence of fully autonomous transport, technological innovations in this area can improve safety indicators during transportation [2].

On the other hand, these factors can contribute to increased competition between rail transport not only with road transport, but also with air transport (due to the development of speed characteristics and safety) and even with pipelines (creation of unmanned, automatic trains in underground pipelines). However, it is the second direction, which involves improving the quality of service and providing additional functions, that is currently the main source of profit for companies. For example, in the freight transport sector, a large number of services are appearing that provide the following services online: customs clearance, warehousing and packaging.

The emergence of the possibility of outsourcing such services reduces the company's costs for cargo clearance, warehousing and packaging. At the same time, companies specializing in these services can save on scale and make additional profits. Such online services are especially valuable for small companies with small transportation volumes, as they allow them to reduce their overhead costs. Potential new market participants in the context of digitalization should not be underestimated.

For the transport sector these may be [3]:

- companies engaged in the movement of passengers and goods in underground trains in pipelines, the Hyperloop project, etc., which can significantly shift the focus in the industry, and even almost completely displace the railway we are used to in the form that exists now. However, such players need a completely new infrastructure (pipelines), which currently limits their competitiveness;



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- aggregator companies that do not have their own fleet of transport, but are able to attract users by saving on transaction costs;
 - large trading companies that, due to the effect of scale, can take control of different delivery methods.

Thus, the Alibaba and Amazon portals exercise control not only over their own businesses, but also over their partners, and also indirectly influence companies with which they do not have direct contracts. The lack of effective methods of control over these platforms by partners and competitors creates the risk of uncertainty regarding how these giants will use their power.

Digital technologies in transport affect other areas of the economy - production, metallurgy, IT, trade, public catering, advertising, etc. Cooperation with companies from other areas carries a positive effect from such symbiosis, but can also have some dangers in a competitive environment, which can have an ambiguous effect on public welfare.

Digitalization in freight transport also changes the distribution of bargaining power in the markets. Thus, digitalization strengthens the relationship with developers: for example, wagon builders, machine builders, etc., implementing new tracking and monitoring technologies.

Innovative companies in the field of robotics, developing machines for maintenance, can have an impact. Programmers who not only develop user programs, but can also help solve logistics problems with the help of artificial intelligence, are becoming an indispensable force.

In addition, information becomes a valuable resource, in particular, companies that own Big Data, which can be useful for analysis in transportation, can become influential in this market. The attachment of a transport company to a certain outsourced technology can cause a problem of “extortion”, when the technology is a highly specific resource. In addition, the replacement of human labor with machines, electronics and robotics can meet resistance from trade unions. Therefore, both the company and the regulator should pay special attention to the issue of retraining. If the interests of “low-skilled” workers who do not have the necessary level of skills are taken into account, then a policy of targeted incentive programs (financed by higher tax rates for more successful developers) may be appropriate, rather than lowering prices by increasing competition [4].



There may also be safety issues that are typical of the transition period to digitalization, which are associated with the lack of new skills among workers, with expanded earning opportunities and irregular working hours (as, for example, in the case of taxi transportation - the driver can be on call at any time of the day or night, which can negatively affect the number of accidents due to carelessness, which is also applicable in the field of freight transportation).

Thus, the introduction of digital technologies in conditions of complete transparency and accessibility of information brings only positive aspects for all parties: for consumers, the process of selection and ordering is simplified, for government agencies, the risks of regulatory errors are reduced, for manufacturers - ultimately, costs and risks of emergency situations are reduced.

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