BLOCKCHAIN TECHNOLOGIES: OPTIMIZATION OF BUSINESS PROCESSES IN THE SPHERE OF TOURISM

Akabirova Diloro Nigmatovna
PhD, Associate Professor of Department of Agroeconomics and Turism of the Tashkent State Agrarian University, Branch of Astrakhan State Technical University in the Republic of Uzbekistan
E-mail: akabirova.dilyara73@gmail.com

Abstract
This article is devoted to the use of blockchain technologies for the development and optimization of business processes in the tourism sector. In particular, the author has identified the potential and possibilities of using blockchain technology in tourism, analyzes the use of blockchain in different segments of tourism in foreign countries. In conclusion, the author deduces the definition of blockchain and suggests the introduction of decentralized business models based on blockchain in the tourism sector.

Keywords: blockchain technologies, blockchain applications, business process, tourism, route planning, automatic booking, smart contracts.

The first widespread use of blockchain technology was the creation of the bitcoin cryptocurrency, the algorithm of which was published in 2008 by Satoshi Nakamoto. Today, the word "blockchain" is no longer perceived as something exotic, and many companies have already started using this technology in their activities.
The potential and possibilities of using blockchain technology in tourism can be considered at every stage of creating a tourist value system:
1. The first stage of the journey, associated with route planning, automation and improved search algorithms. Blockchain creates an opportunity to develop an effective and cheap way of automated assistance in informing, planning and booking a trip. This is especially true for fragmented data with information about ratings, ratings, or travel data that is rarely available to travelers. The introduction of blockchain will allow you to get open access to this information, as well as ensure optimal trip planning using this data. Blockchain applications that show the availability of rooms or flights in real time and provide automatic booking can increase value at this stage.
2. The second stage is booking. According to analysts, it is expected that the booking process will be significantly changed with the introduction of blockchain technology, since many modern problems, for example, the monopoly of individual players in the booking market or the use of outdated technologies, will be solved.

Thanks to the use of smart contracts, process automation can provide fast and secure booking. The use of a distributed database can have a significant impact, as it reduces the monopoly of modern GDS as intermediaries, allowing for a direct relationship between the traveler and the service provider. Booking of air tickets, hotel rooms or package tours related to currency exchange operations can be simplified using cryptocurrencies.

3. Nutrition and restaurant service for travelers. It is assumed that the blockchain will provide an opportunity to collect information such as the quality of products, the timing of shipment and delivery at each stage of the value chain. This will allow restaurants to optimize the entire supply chain, ensure the environmental friendliness of food and increase consumer value. Currently, pilot projects are being created in this area, whose activities address issues of international cooperation and consistent regulation in the food industry.

4. Identification. Identification and registration processes are necessary when booking and performing flights, staying in hotels and cross-border trips. The main disadvantage of the processes is that they take a lot of time and are necessary at every stage of the client's journey. It is assumed that travelers' data stored once in the blockchain system will make it unnecessary to pass through subsequent numerous registrations.

The blockchain can store biometric data, as well as all information about bookings and trips of travelers. The introduction of automated identification will affect the internal processes of service providers. For example, there will no longer be a need to stop and register at each point of travel.

5. Transactions and payments. As many analysts note, transaction optimization is the strongest side of blockchain in tourism. Blockchain creates an opportunity to optimize financial flows and reduce the risk of fraud. By anonymously storing all transactions and information, blockchain can provide customers with faster payments and cost-effective and traceable transactions.

According to SITA, almost 60% of international airlines and 34% of airports are conducting pilot developments and implementing research projects to integrate blockchain into internal processes by 2021. The largest Russian airline S7 Airlines, together with Alfa Bank, has developed a blockchain platform based on the Ethereum protocol. The platform allows you to organize the booking and sale of air tickets, as well as mutual settlements with airline agents through smart contracts, which significantly increases the speed of payment processing, while ensuring the security of operations. The monthly volume of transactions processed by the blockchain platform, according to the airline, has already exceeded $ 1 million per month.

The French insurance company AXA has developed the "Fizzy" platform, which allows automating the process of paying compensation to passengers in the event of a delay in their flight. Built on the secure Ethereum blockchain, the platform is linked to global air transportation databases and, using a smart contract, automatically launches the compensation procedure for the company's customers in case of flight delays of more than two hours.

One of the illustrative examples of the use of blockchain technology is the Dubai 10X initiative, aimed at ensuring that Dubai's government structures are 10 years ahead of the world's cities in various sectors of public administration.

As part of this initiative, the Dubai Department of Tourism and Commercial Marketing (DTCM) is launching the Dubai Tourism Blockchain Marketplace, a blockchain–based marketplace that is a virtual b2b platform that unites all players of the tourism market into a single ecosystem. As noted in DTCM, the purpose of creating a blockchain platform is primarily to increase the number of tourists by offering them great opportunities at favorable prices in real time.

The platform will provide a comprehensive solution based on smart contracts for both large players and small companies working in the tourism sector, which will provide employment and an additional increase in jobs. The General Directorate for Residents and Foreigners of Dubai (GDRFA) has signed a contract with the British startup Object Tech for the installation of special biometric tunnels designed to reduce the time of registration of tourists arriving at Dubai International Airport. Registration will take place using a digital passport based on a blockchain, in which biometric data of the tourist will be stored. The Green Track blockchain system is a decentralized network of a new type – the blockchain market of the digital economy, which is an aggregator of the market of offers of travel service providers in the region.

The blockchain ecosystem of the tourism market provides direct interaction between travel companies and their clients based on a decentralized business model. The main advantages of implementing such a system in the regional market are: cost reduction, simplification of identification procedures, transparency and guarantee of transactions within the system, security of personal data of customers.

Thus, blockchain is an innovative technology that is not limited to its application only in the field of finance. A large number of projects are beginning to use the potential of blockchain in various fields of tourism: identity management, data exchange, loyalty programs, insurance, simplification of booking, supply chain optimization, etc.

Decentralized blockchain-based business models seem to be an inexpensive alternative to traditional systems, one of the key advantages of which is speed and the absence of intermediaries. In the conditions of economic crisis, this will optimize business processes, reduce the costs of travel companies, improve the quality of service and further stimulate tourist traffic.

Literature

1. Blockchain emerges as a priority technology for research among airlines and airports in 2018 [Electronic resource] // Официальный сайт SITA. – URL: https://www. sita.aero//globalassets/docs/surveys--reports/ it-insights-2018.pdf (дата обращения: 10.02.2021).
2. Dubai launches Tourism 2 blockchain marketplace. [Electronic resource] // Arabian Business. – URL: https://www.arabianbusiness. com/travel-hospitality/394502-dubai-launches tourism-20-blockchain-marketplace (дата обращения: 20.04.2021).
3. Blockchain Startup to Build Passport-Free Arrivals at Dubai Airport. [Электронный ресурс] // Cointelegraph. – URL: https:// cointelegraph.com/ news/blockchain-startup-tobuild- passport-free arrivals-at-dubai-airport (дата обращения: 20.04.2021).
4. Dubai launches Tourism 2 blockchain marketplace. [Electronic resource] / / Arabian Business. – URL: https://www.arabianbusiness. com/travel hospitality/394502-dubai-launchestourism-20-blockchain-marketplace (accessed: 20.04.2021).
5. Blockchain Startup to Build Passport-Free Arrivals at Dubai Airport. [Electronic resource] // Cointelegraph. – URL: https://cointelegraph. com/ news/blockchain-startup-to-buildpassport-free-arrivals-at-dubai-airport (accessed: 20.04.2021).