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## **BLOCKCHAIN ANALYSIS IN TOURISM INDUSTRY OF TATARSTAN, RUSSIA**

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### **Abstract**

The article considers the prospects for the development of digital technologies in tourism domain. Today it is widely discussed not only in the world of finance. There are already attempts to apply blockchain for storing and processing personal data and identification in marketing and computer games. The article presents a SWOT analysis to study the impact of blockchain and cryptocurrencies on the tourism and hospitality industry, such as travel and tourism revenues in the Republic of Tatarstan. The obtained results show that e-commerce can both attract domestic and international tourism and reduce the exchange rate barrier for foreign tourists. In addition, we have received up-to-date information concerning the world situation and the potential of Tatarstan and the Russian Federation. In terms of the financial crisis, capital control is an important macroeconomic measure that a country can use to prevent and mitigate the financial crisis. Further we need to look at blockchain and cryptocurrency trends in the travel and hospitality industry after the pandemic.

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*Keywords:* Cryptocurrencies, blockchain, tourism, hospitality, technologies, innovations



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## 1. Introduction

Digital technologies are now changing the way companies approach the consumer market. The development of the Internet and e-commerce contributed to the tremendous advancement in the field of sales, in which companies charge a fee and provide their services and products in return. Currently, many companies are targeting the digital market, which requires studying other variables (Basko, 2019).

Nowadays blockchain is the advanced technology which excites the public curiosity as well as cryptocurrencies do.

Today it is widely discussed not only in the world of finance. There are already attempts to apply blockchain for storing and processing personal data and identification in marketing and computer games.

Market penetration of cryptocurrencies is changing business models around the world. According to CoinMarketCap (2021), NASCAD and DJI, the price of bitcoin increased by more than 294 % by the beginning of 2021.

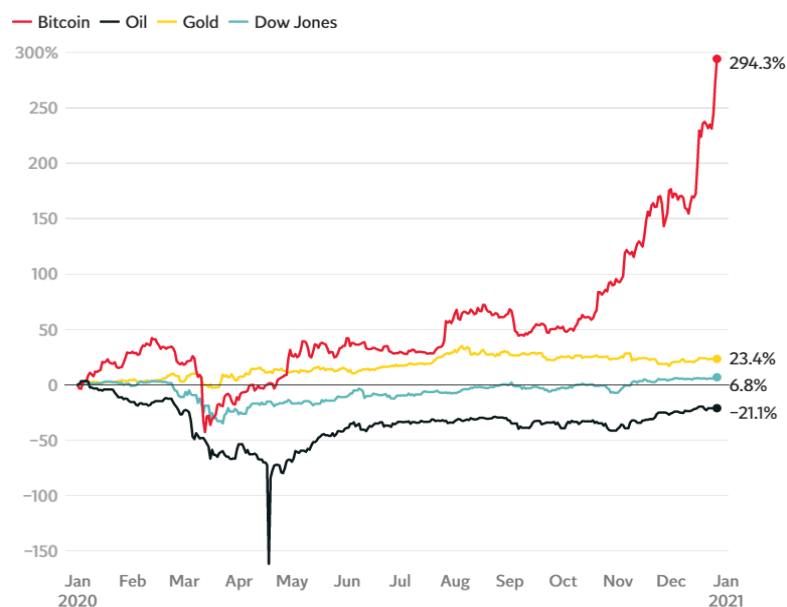
## 2. Problem Statement

The article sets the following tasks:

- 1) provide a literary and analytical overview in the following areas: problems and changes in the tourism economy, innovations and innovative models, use of new technologies;
- 2) conduct a SWOT analysis based on blockchain technologies, assess the economic efficiency of the project.

The object of the research in this framework is blockchain technologies.

Market penetration of cryptocurrencies is changing business models around the world. According to CoinMarketCap (2021), NASCAD and DJI, the price of bitcoin increased by more than 294 % (Fig. 01) by the beginning of 2021.



**Figure 1.** Bitcoin dynamics in 2020 (CoinMarketCap, 2021)

### 3. Research Questions

The article describes the basic concepts and principles of blockchain, considers the issues clarifying why companies are implementing blockchain technology. The problems and prospects for the development of this technology today are considered as well.

Tatarstan is actively implementing innovative technologies including blockchain. In 2021 the republic will increase credit cards charges to 50 %.

According to the results of the III quarter, Tatarstan is at the 39<sup>th</sup> position in the rating of the most cashless regions. The conclusion is drawn by experts from the OFD Platform and Sberbank. The percentage of non-cash payments in the republic is 47.2 % (Researchgate, 2021).

Three cities of Tatarstan were included in the top 100 of the most cashless cities in Russia in the 2020 Sberbank rating. The largest percentage of non-cash payments was recorded in Almetyevsk (50.84 %) and it occupies the 67<sup>th</sup> position in the rating. 74<sup>th</sup> position is occupied by Nizhnekamsk with a non-cash share of 50.5 %, and the 93<sup>rd</sup> position is occupied by Kazan. The share of non-cash payments here is 49.3 %. The data is provided by the press service of Sberbank reports (Sberbank, 2021).

To minimize the frequency of financial crises as well as the COVID-19 crisis, some developing countries could take measures to control capital inflows and outflows. Controlling inflows can prevent large inflows as well as reduce over-lending and short-term speculation and borrowing. Controlling capital outflows will reduce the risk of sudden capital outflows if foreign capital leaves the country due to not only financial crises but also other reasons such as political problems and risks. According to researchers, financial liberalization strengthens international capital and governments have little political control over monetary policy and the exchange rate due to delegating absolute authority to central banks. (Independent, 2021).

Bureaucrats and financiers take control over international financial institutions. On the other hand, it should be noted that exchange control can often lead to black markets aimed to exchange soft currencies for stronger currencies. This causes the situation when the foreign exchange rate is significantly higher than the rate set by the government. Therefore, a shadow foreign exchange market is generated.

Thus, it is unclear whether governments have the ability to introduce effective foreign exchange controls or not. Foreign exchange control is challenging for international companies as it hampers their trade in local currencies. These restrictions often entail additional data processing efforts for the company and increase the costs of foreign exchange transactions and cross-border payments.

Payments and fees made via the Internet are easily verifiable by state administrations and can stem the risk of tax fraud. Thus, it would be interesting to study the development of these indicators over time (Surnina & Denenberg, 2018).

In the era of e-commerce, many developing countries have foreign exchange controls and their residents are not allowed to buy international goods and services over the Internet. Countries that are under capital control are an important potential market as once they have access to online shopping, the volume of electronic transactions is changed.

Even in this dynamic list, countries with higher foreign exchange controls are as follows: Armenia, Bahamas, Cameroon, China, Cuba, Ethiopia, Ghana, India, Iran, Libya, Morocco, Myanmar,

Mozambique, Namibia, Nepal, Nigeria, North Korea, Samoa, South Korea, South Africa, Sudan, Tunisia, Ukraine, Uzbekistan and Venezuela.

This study provides an overview of the impact of the level at which companies use cryptocurrencies for business on consumer transactions and spending both inbound and outbound. To conduct consistent data analysis, we needed data over all years, and it was a key factor in determining the required time frame. In addition, since the variables used in this study were drawn from various sources, it was important to consider only those countries whose data were available in all reports.

Data on the main dependent variables were obtained from the Travel and Tourism Competitiveness Report (World Economic Forum). The World Economic Forum has been attracting travel and tourism leaders over the past 11 years to conduct in-depth analyzes of the competitiveness of travel and tourism in 136 countries around the world. The Travel and Tourism Competitiveness Index, briefly presented earlier, was developed between September 2005 and October 2006 by the World Economic Forum in close collaboration with international organizations such as the International Air Transport Association (IATA), the World Tourism Organization (UNWTO) and the World Travel and Tourism Council (WTTC).

Foreign exchange control is a set of restrictions applied by some governments to prohibit or restrict the sale or purchase of foreign currency made by citizens or residents, and the sale or purchase of local currency by foreigners or non-residents.

#### **4. Purpose of the Study**

The study objective is to analyze the admissible impact of blockchain on the economic sector and explore the opportunities it can provide for buyers and consumers.

Blockchain was created as a niche product in secondary markets. However, this technology has recently attracted a lot of attention from experts of various industries, as well as aroused heightened interest among the media.

Now cryptocurrency is officially recognized as a property and the means of store of value and investment. However, this is a property that can also make a profit. Thus, it must be registered (wallets), declared and a 13–15 % tax of its profit should be paid! Although, you need to do this if your transactions with cryptocurrency exceed 600,000 (six hundred thousand) rubles per year, while the rest of the transactions of individuals are temporarily not monitored (Strelnikov, 2016).

It is possible to own a cryptocurrency legally and not using it as a means of payment.

It is completely unclear how the movement of cryptocurrencies and their income will be tracked. The role of cryptocurrency in the tourism industry cannot be underestimated, and it is the most important driving force behind the modern information society in Russia. The role of e-commerce is to position the destination as a safe and preferred one for international tourists.

New global markets and international partnerships can be accessed, which can lead to new business models that add value to customers and increase profitability, as well as more effective segmentation, targeting and positioning strategies.

Subsequently, fast food, online travel booking and related travel services will be recognized as one of the most successful blockchain implementation to date.

## 5. Research Methods

When solving problems of different levels, it is also necessary to have an idea of whether the crucial factors can be subject to external control being one of the most common methods for evaluating the combination of internal and external factors. In this work, the research methods are represented by SWOT-analysis and literature overview.

SWOT-analysis is an important element of research and a mandatory preliminary stage in drawing up any level of strategic and marketing plans. The data obtained as a result of SWOT analysis becomes the basic elements in the development of strategic goals and objectives (Table 01).

**Table 1.** Cryptocurrency SWOT-analysis

| Strengths   | Weaknesses  |
|---|---|
| Unified global system;<br>High speed of transactions;<br>Secure transactions, network and accounting records;<br>Personal data theft/fraud prevention;<br>Visible transactions (to everyone);<br>Empowerment: everyone has their own financial system;<br>Ease of use | Virtual currencies and online platforms are not regulated by the laws of many countries;<br>Data is stored on computers and smartphones, thus, there is a risk of theft;<br>Returning electronic money in case of theft is minimal because there is no host to complain to.<br>Cryptocurrency instability |
| Threats   | Opportunities   |
| Anonymity can lead to illegal use of data;<br>Integrity risk due to unknown counterparty;<br>There is no legislation to protect consumers;<br>User balance may disappear  | High speed of operations;<br>Operations at any time (24/7);<br>Complete anonymity, no personal information required;<br>No bank account required<br>Cryptocurrencies can be used for cashless payments for goods from merchandisers who are willing to accept them  |

Social media is playing an increasingly important role as a source of information for travelers. Specifically, mobile commerce allows consumers to shop anytime and anywhere. Total sales worldwide in 2020 will be over US \$ 500 billion.

According to Eurostat (2020), more than 50 % of trips made by residents of the European Union were booked online in 2018.

In addition, online booking was slightly higher for overseas travel.

It is obvious that e-commerce is an important prerequisite for successful organizations in the emerging global networked business environment endowed with the capabilities of the Internet especially for the tourism industry (Helfert, 2003).

## 6. Findings

With the development of e-commerce, expectations have changed in recent years. Consumers can now buy an infinite number of items online and can independently organize any trip they want. Currently, we can not only compare prices on the Internet and find a restaurant or hotel using information from different sources but also book a room and even make a payment in just one quick click and with a

discount. Online payment is an effective transaction and should be integrated into any consumer marketing strategy.

With the increase in smartphone owners over the years, mobile devices influenced the way e-commerce works now. Shoppers do online research before making a purchase using a search engine and also by reading product reviews to reduce their purchase risk. Growth of sources of security for electronic payment, such as PayPal, has also changed the way consumers make payments and shop online by offering trust, security, and privacy.

In the most developed regions of the world, it is designed to facilitate consumer shopping and save money for manufacturers and merchants, while mobile payments innovation in some Asian and African countries is heavily driven by services. This is an important difference in e-commerce behavior that has not been adequately addressed.

Consequently, e-commerce giants as well as smaller companies are paying attention to the growing importance and opportunities of non-western markets, and they are moving in this direction to reap the benefits.

However, companies must adapt to different languages, currencies, online brand presentations, logistics, and seasonal trends.

## 7. Conclusion

Many significant factors hindering e-commerce introduction have been identified in the overviewed literature. Together with the internal barriers of organizations, there can be distinguished a set of obstacles arising from the infrastructural (technological and economic), political, legal, social and cultural barriers that exist in the country. Despite the fact that most of the barriers are well-known and directly related to cause-and-effect relationships, we provided a brief review of a key factor, being currency control. Citizens of foreign exchange controlled countries cannot buy, book, or pay for foreign goods online unless they have a foreign currency credit card.

The coronavirus has had a huge impact on the nascent cryptocurrency industry. In terms of the financial crisis, capital control is an important macroeconomic measure that a country can use to prevent and mitigate the financial crisis. On the other hand, the social benefits of capital inflows are unclear.

Notwithstanding all of the above, we believe that blockchain technology and cryptocurrencies are having a positive impact on the travel industry. Due to research findings, we can understand that the importance of using the Internet in 2021 plays a huge role in the travel industry. The Internet has become more accessible than ever before, even in the regions being previously underserved with this regard. As the world wide web is becoming truly global, the crypto market is expanding over new and more important markets (Leung, 2017; RBC, 2021).

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