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PROSPECTS FOR THE DEVELOPMENT OF DIGITAL ECONOMY

In the context of information society and globalization, digital economy is gaining significant importance. It serves as a basis for the development of society on the platform of information and communication technologies (ICT). Moreover, the development of the digital economy is a prerequisite for the development of a digital market in Belarus. Thus, the digitalization of economic relations becomes a key issue for scientific research. Current work is aimed at studying theoretical aspects of digital economy such as its development, its components and economic relations between digital economy entities.

Digital economy is a model of interaction between participants in economic processes of information society, based on the active use of ICT, electronic communication channels and electronic document management.

N. V. Vasilenko identifies three basic components of digital economy:
- infrastructure that includes hardware, software, telecommunications, etc.;
- e-business operations that cover business processes implemented through computer networks as part of virtual interactions between virtual market entities;
- e-commerce which involves the delivery of goods via the Internet and is currently the largest segment of digital economy [1, p. 149].

The characteristic features of digital economy are:
- use of ICT in economic processes and the increasing role of ICT in society;
- automation of business processes;
- electronic document management;
- increasing value of digital skills in the labor market;
- increasing share of ICT, information products and services in GDP;
- extensive use of digital platforms in the development of business models;
- formation of a common information space for citizens, businesses and states;
- development of the global digital market.

The development of information society and the formation of digital economy result from the transition to digital interaction and the formation of an electronic environment for economic relations. Digital economy involves interaction (i.e. data exchange) between process participants in an online mode.

The development of digital technologies in the public sector of the economy is of significant importance. Digital government (or e-government) services are increasingly seen as a way to reduce costs while providing more effective services to citizens and businesses. Digital government and innovative technologies help to create an infrastructure that ensures interaction of actors in a digital space, reduce costs for business entities and citizens, increase their competitiveness and boost the economy.

Belarus keeps pace with global trends and seeks to position itself as an IT country. Much attention is paid to the development of the digital sector in the country. This is evidenced by the existence of the digital economy infrastructure which includes the High Technologies Park, National Automated Information System and Belarusian cloud technologies. Relevant changes in the Belarusian legal framework have been made to boost the development of digital economy. It should also be noted that Belarus was one of the first among the CIS member states to have adopted a corresponding government program, the 2016-2020 State Program for the Development of Digital Economy and Information Society) [2].

In the context of globalization, digital economy is reaching the level of interstate relations. The Digital Single Market (DSM) strategy is now being successfully implemented in Europe. It is among the European Commission's political priorities. The DSM opens new opportunities as it removes key differences between online and offline. It is made up of three policy pillars:

● improving access to digital goods and services by removing barriers to cross-border e-commerce and access to online content while increasing consumer protection;

● creating an environment where digital networks and services can prosper by providing high-speed, secure and trustworthy infrastructures and services supported by the right regulatory conditions;

● maximizing the growth potential of the European Digital Economy by enhancing digital skills [3].

The consequences of the development of digital economy include the promotion of globalization; reduced mobility of people; transformation of lifestyle and behavior patterns [4]. It is hard to anticipate what these changes will exactly be like, but the transformation processes are inevitable and can have various manifestations.

Digital technologies are currently being improved and combined into global networks integrated into various spheres of society. They are changing the global economy, which requires further scientific research. Today the issue of forming and implementing a strategy for the development of digital economy is an important area for public or corporate governance, as digital economy implies the digitalization of all spheres of our life.

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ALGORITHMIZATION OF STOCK MARKET STRATEGIES

Trading robots are computer systems which specialize in stock trading. Such kind of robots perform the same tasks as brokers: buy low, sell high. They account for a significant part of the trade turnover, and in certain periods, they completely dominate the market, especially in a situation of large price spikes requiring an instant reaction, which is unattainable for a person.

Nevertheless, algorithmic trading systems remain vulnerable, as people, who are prone to errors, create them. These errors are minimized by modeling the behavior of these robots, conducting various stress tests and performing checks based on historical data.

The aim of this work is to create an author's trading algorithm that meets the requirements of stability, flexibility and high profitability.

As the basis of development, Bank of America stocks were chosen as the stocks with average volatility in selected period. Such level of volatility is required because algorithmic trading does not provide sufficient margins for stock market participants during low volatility periods.

As a technical indicator for the algorithm, ADX (Average directional movement index) was chosen. This indicator does not reflect the direction of the price movement of the selected security, but reflects the strength of the trend under the influence of sellers and buyers.

ADX can be valued from 0 to 100. The decision-making method built into this algorithm is based on the method of Welles Wilder [1]. The main principal of his system is when the index takes values of more than 35, this indicates the presence of a trend in the movement of stock prices. Based on this rule, a decision-making algorithm was created.

The moving average method was used as an averaging method. That has been made to make the data more valuable. The indicators were averaged by the exponential method, which gave more weight to the stock session's data closer to the present.

The algorithm makes a decision every business day at a market close. The strategy assumes the possibility of opening one position per day and the algorithm