

Legal features of the use of big data in the financial activities of the state

Dmitriy Anatolyevich Smirnov^{1*}, Maxim Sergeevich Trofimov¹, Leila Emerbekovna Botasheva¹, Victoria Anatolievna Melnikova¹

¹North Caucasus Federal University, Stavropol, 355017, Russian Federation.

Correspondence: Dmitriy Anatolyevich Smirnov, North Caucasus Federal University, Stavropol, 355017, Russian Federation. d.a_smirnov@bk.ru

ABSTRACT

The article is devoted to determining the legal nature of Big Data technology. Some problems in the use of Big Data technology in the financial activities of the state are investigated. The theoretical and legal approaches to the regulation of Big Data technology in domestic and international law are analyzed. The development of the conceptual and terminological apparatus and the harmonization of domestic and international legislation is indicated as one of the possible directions for the formation of legislation. Active implementation in the financial activities of the state in the digital economy requires the adoption of adequate legal decisions. The thesis that legislation must be formed taking into account the legal and commercial nature of Big Data technology is considered. The use of Big Data technology must be accompanied by legal and ethical standards. The paper substantiates the conclusion that the legal regulation of Big Data technology should be carried out considering the experience of international regulation. The authors believe that the adoption of a national standard (GOST R. Information Technology. Big Data. Review and Dictionary) will contribute to the development of Russian jurisdiction. The national standard is the equivalent of the international standard ISO/IEC 20546: 2019 "Information technology – Big data – Overview and vocabulary". The compliance of the national standard with the international one will create preconditions for the mutual penetration of Russian and world studies in the field of information technology and Big Data, including in financial activities.

Keywords: Information, Personal data, Legal regime, Information security, Confidentiality

Introduction

The editor of the scientific journal Nature, Clifford Lynch, introduced the concept of Big Data over twelve years ago, noting that digital information has overtaken oil as the most valuable commodity in the world [1]. Big data is new oil; this similarity is determined not only by value. Raw data arrays are just as of little use as raw oil, and companies that “extract” data quickly become the most profitable in the world [2]. Clifford Lynch [3] who discovered the Big Data phenomenon, proposed

using this term by analogy with the metaphorical expression “big oil” that is similar in the English-speaking business environment. It is indisputable that today, data in conjunction with modern technologies for their analysis modify economic, political, and legal relations.

The active digitalization of the economy has a direct impact on the financial activities of the state, which is defined as “... the activities of the state or represented by authorized bodies to create monetary infrastructure, to ensure its proper functioning, as well as to form, distribute and organize the use of public funds [4].

The essence of public financial activity should be disclosed through the concept of “financial activity of the state”, which is used in financial and legal science. Financial scholars interpret the essence of this category almost identically, without highlighting significant differences. In the most simplified version, the financial activities of the state are defined as the activities of the state in the creation, redistribution, and use of centralized and decentralized funds (financial resources) in order to achieve its objectives.

Access this article online

Website: www.japer.in

E-ISSN: 2249-3379

How to cite this article: Smirnov DA, Trofimov MS, Botasheva LE, Melnikova VA. Legal features of the use of big data in the financial activities of the state. *J Adv Pharm Educ Res.* 2021;11(4):24-8. <https://doi.org/10.51847/91YLMa06S>

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The key to determining public financial performance is public interest. Now public financial activity reflects the relationship of the state, economy, public financial interests and needs.

In the field of the digitalization of the economy, public administration and society, it is important to determine the priorities, forms and boundaries of legal regulation, transformed and awaiting further transformation, considering the use of information technologies (IT).

Digitalization processes also have their drawbacks, primarily due to the risk of disclosing personal information, information, in addition to speed, efficiency, accessibility and a number of other advantages.

World trends in the digital transformation of the financial activities of the state are manifested in the following: open development in government departments and IT departments; open government data; machine-readable laws; websites of public authorities; development of digital administrative codes; building a community of government IT developers; involvement of CDO (Chief Data Officer) specialists - the main ones in terms of data quality, policy of their formation and implementation of data-based solutions; training and retraining [5].

Today, there is a lot of incomprehensible for lawyers in the field of new information technologies. There are more questions than answers in attempts to regulate digital relations arising, including in the financial sphere. Nevertheless, the future lies in advanced digital technologies, and therefore the need to clarify the legal essence and use Big Data in the financial activities of the state in the digital economy will only grow and become more relevant [6].

Materials and Methods

An analysis of the publications shows that today there is no comprehensive scientific study on the use of Big Data in the public activities of the state in the formation, distribution and organization of the use of public funds. In modern situations of the development of the digital economy, which creates the vulnerability of the legal regime of confidentiality of personal data, consideration of the legal protection of personal financial data is required.

The methodological basis for the development and implementation of legal instruments for regulating Big Data in the activities of bodies engaged in financial activities is a set of research methods: theoretical methods - study and analysis of regulatory acts that determine the implementation and development of Big Data technology; theoretical analysis and synthesis, analysis of the status of legal regulation of Big Data in Russia and the world, methods of inference; general scientific methods - modeling of possible options for the legal regulation of Big Data technology, analysis, synthesis, generalization, systematization, classification; empirical methods - observation, survey methods, monographic studies, methods of statistical processing and qualitative analysis of the findings of scientific investigations.

Results and Discussion

Regulation of Big Data technology in the domestic regulatory environment should be formed on the basis of a balance between technological development, and the principle of formal certainty of legal norms [7]. The definition of Big Data should be interpreted in a uniform manner to ensure predictable and consistent applications of the law, which at the moment is not reliable.

Big data requires independent consolidation in the current legislation, different from the definition of personal information. The legislator needs to develop new basic principles for the application of Big Data, based on their versatility, innovation, and commercial nature.

The digital economy is a data economy. Big data promises big socially acceptable and desirable benefits in state financial activity [8]. Digital information has overtaken oil as the most valuable product in the world. Big Data technology is fundamentally limitless and global; the study showed a lack of uniform international norms and agreements regarding which standards should govern the use of Big Data. To fill this gap, it is important to adopt unified international agreements based on international human rights law. International standards should contain legal and ethical restrictions for the global commercial use of Big Data technologies.

One of the main tasks of the "Digital Economy of the Russian Federation" national program is to ensure desirable conditions for the collection, processing, and storage of data. Humanity is at a new stage in its development, which is seen as the 4th industrial revolution; and modern statistics show that the amount of generated data is constantly growing. According to expert estimates, the global data volume can reach 163-175 zettabytes by 2025 (this figure was 33 ZB in 2018), and their analysis becomes a tool for making effective decisions in the field of public administration, improving the quality of public services provided, adjusting production and business processes [9].

Big data refers to the amount of data that traditional methods are unable to process, that is, using a conventional computer in a short time. Special software and infrastructure - data centers, a network is needed to work with them. Big Data technology solutions are equipment kits, software, and service kits.

The term "Big Data" does not have a universally accepted definition in both jurisprudence and the IT industry. Savelyev [10], Senior Research Fellow at the Higher School of Economics National Law University's Information Law Research Laboratory, defines Big Data as a set of methods and tools for processing massive and structured and unstructured information from numerous sources subject to constant updates to increase the quality of managerial decision-making, creating new products and increasing competitiveness. The above definition reflects, in our opinion, the legal nature and practical significance of Big Data.

Big Data technologies are universal and can be utilized in different fields of financial activity. The potential advantages of

using Big Data in the financial activities of the state are carried out both in imperative relations, mediating the participation of the state in the financial activities of the state; these are budgetary, tax relations, relations in the field of state insurance and state credit, as well as dispositive financial relations, which include credit, settlement, insurance, investment, stock relations [11].

Central banks see the benefits of using big data as a potentially effective forecasting tool to support analysis of macroeconomic and financial stability. An analysis of monetary policy can benefit from better and more timely forecasts of macroeconomic indicators for the near future; it may be useful for macro and microprudential policies. The development of technologies for processing and analyzing gigantic amounts of data today determines the future of tax administration. The information system of the Federal Tax Service of Russia today stores and uses information from 4.8 million legal entities and 3.6 million existing individual entrepreneurs. At the same time, the volume of the documents presented by them only on VAT returns is about 2 Tb. In addition, the Federal Tax Service of Russia aggregates and uses information received from other departments; about one billion records come to tax authorities per year [12].

The Big Data technology is most actively used in banking, as a technological tool for analyzing the solvency of a potential borrower or person providing collateral for a loan. The Big Data technology in insurance activities is necessary to analyze the probability of an insured event, to assess the insurance risks assumed, and to determine an adequate amount of insurance premiums.

However, the global problem is the lack of an independent normative act regulating Big Data. Most countries, including EU countries, regulate their personal data protection laws and are subject to the GDPR (General Data Protection Regulation). The GDPR provides for the creation of a European Data Protection Board, a European Inspector for Personal Data Protection. There is centralized control over the application of the provisions of the law, as well as uniformity of policy in the EU. In our opinion, the existence of a supervisory authority is a situation that deserves the attention of the Russian legislator, since the activities of the Federal Service for Supervision in the Sphere of Telecommunications of the Russian Federation, IT and Mass Communications, covering only personal information, leaving Big Data without legal protection mechanisms.

The lack of separate independent regulation of Big Data is compensated in the European Union by the presence of an extensive interpretation of personal data, including the definition of an IP address. It should also be noted that in addition to the general provisions of the GDPR, the rules regarding profiling apply. "Profiling" means "any form of automated data processing for the purpose of analyzing and making assumptions about various personal characteristics of an individual, in particular, his performance, creditworthiness, economic situation, location, health, taste preferences and behavior" (Article 4 (4) GDPR) [13].

The definition of Big Data as arrays of information, the source of which are various channels with a high transmission rate, are mentioned in the Big Data Policy of the European Commission. (1) Moreover, data can be either created by people or generated by computers.

Because Big Data is primarily the personal data of the user; It should be noted that the EU has a positive experience in collecting certain types of information in the provision of online services, in specific cookies. The processing of cookies by users of online services is regulated by Directive 2002/58/EC on the protection of privacy and e-privacy Directive.

The provisions and experience of the European Union should play a legal role in the regulation of Big Data since Big Data has a high potential for the economy and financial activities of the state. The next important stage in the development of technology should be the task of creating modern legal tools that meet the requirements of the existing experience of individual countries, including the European Union.

Conclusion

Now there is a process of updating financial law in order to bring its terminological and conceptual apparatus closer to the requirements of modernity and technological progress, to a certain extent this affects the concept of "financial activity of the state". Moreover, new concepts are regularly introduced in modern financial law, and some concepts are transformed into new ones. At the same time, modern financial law needs to change the direction of interests in the financial sphere, preferring to ensure the specific interests of citizens, rather than the abstract interests of the state. Financial law reflects the specifics of the dynamics of modern economic processes, however, while taking into account the conservatism of the financial and legal industry towards innovation, it should be recognized that an innovative theoretical and legislative breakthrough is simply necessary. Modern technologies provide fundamentally new opportunities, financial law also experiences their impact. On the one hand, the technological process and digitalization create opportunities for increasing the efficiency of financial and legal mechanisms, on the other hand, such innovations can be interpreted as new challenges for financial law. These challenges include the balance of public and private interest, protection of information, and personal data.

Financial activities in a digital economy that can provide high-quality communication and information infrastructure and mobilize the capabilities of communication and information technologies for the benefit of consumers, businesses and the state must undoubtedly transform and. A digital economy is a form of economic activities that arise from various examples of network interactions between processes, data, devices, enterprises, and people.

"The Strategy for the Development of the Information Society in the Russian Federation for 2017–2030" determines that the digital economy is an economic activity in which digital data is the main factor in production, processing of large a volume, and

the use of the analysis results of which, compared with traditional forms of management, can significantly increase the efficiency of different types of storage, equipment, technologies, production, sales delivery of services and goods.

Hypersensitivity is the basis of the digital economy, i.e. the growing interconnectedness of machines, organizations, and people, emerging through the information and telecommunications network internet, mobile technology, and the internet of things. The financial and legal industry will face all the consequences of digitalization, which are already generating fundamental changes in the models of economic and financial activity in leading countries. Digitalization should make the financial activities of the state more open.

Digitalization of the state's financial activities leads to the accumulation of a huge array of tax and financial data, which are used either to provide consumers with new financial services or to increase authority through automatic compliance checks. The term "digitalization" is steadily associated with Big Data. The modern policy is developing towards ensuring openness and transparency of data in the financial sector, requiring public authorities to publish "open data" on official websites. This position is unconditionally rational since the entire digital economy is a data economy, but so far, the issues of financial and tax confidentiality remain open. The right to financial and tax confidentiality continues to be illusory.

The extensive collection and use of "large" tax and financial data seriously violate data privacy and protection, especially when these data are used in smart algorithms to create digital personal profiles or to make automatic decisions that can only affect people. Ultimately, this practice of profiling tax and financial behavior creates a fertile ground for discriminatory treatment of individuals and groups [14].

The conclusion is substantiated that it is necessary to introduce a norm for mandatory publication of information on leaks, compensation payments, and large penalties to bodies carrying out financial activities as the most effective mechanism of self-regulation, in which a sense of security policy appears, i.e. motivation to comply with the social responsibility of state authorities for the security of Big Data [15].

Acknowledgments: None

Conflict of interest: None

Financial support: None

Ethics statement: None

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