

Legal Framework for Digital Technologies Application in Budgetary Relations: Russian Particularities

Shorin S.A.

*Russian State University of Justice, Moscow, Russia
Email: shorinsa@bk.ru*

ABSTRACT

The relevance of research is due to the certitude of digital technologies introduction in budgetary legal relations, and therefore their legal framework is necessary. The subject of research is the legal norms governing the use of digital technologies in the public sector. The goal of the article is to develop recommendations to remove the main shortcomings of the budget and legal framework for digital technologies applications. Methodological framework of research was mainly analysis, synthesis, materialistic and technical methods. The main content of the article is the reasoning for the need to establish general rules for the digital technologies use in the public sector. The research is novel in that it consists of a predominantly critical assessment of the consequences of the digital technologies introduction in budgetary legal relations, contrasting with the more widespread positive assessment of their introduction. The results of the research were recommendations on the legal framework for the digital technologies application and the procedure for their introduction, taking into account possible malfunctions. The scope of the research results is lawmaking and further scientific development of the topic. Elements of legal relations that need a comprehensive regulation, including the organizational basis, control and responsibility, are listed at the end of the article; it is recommended to prevent the commissioning of technically unfinished digital technologies and preserve alternative ways of exchanging data.

Keywords: *digital technologies, electronic budget, budgetary legal relations, transparency, efficiency, government control*

1. INTRODUCTION

Today, a digital economy based on the digital technologies application develops in many countries of the world, including Russia. Their introduction takes place in parallel with the comprehension of new opportunities and risks associated with management processes digitalization, including in the public sector. Relevant authorities and officials have the opportunity to make managerial decisions not only faster than before but also in a mode close to real time [1, 2], as well as on the basis of new methods of processing and analyzing information. Accordingly, both individual management procedures and the stages of the management cycle are changing.

Digitalization did not pass by budgetary relations, within which the tasks of automating the activities of these relations participants have become urgent, and not only in terms of shifting their typical functions to computers, but also improving communication, data exchange between these participants. Budgetary relations objectively are at the intersection of information affluence, in interaction with the processes of formation, distribution, and redistribution of national income, political decisions, and changes in the interests of society. Therefore, it is necessary to adapt the model of government control that prevailed before the widespread introduction of digital

technologies and has not yet undergone proper transformations, in this case with regard to the public sector, for its adequate functioning in modern conditions. This predetermines the need to analyze the budget law system [3] for a possible revision of the norms governing relations that are digitally transferable.

2. METHODS

Legal framework for the budgetary relations digitalization is a relatively new object of scientific cognition, therefore it is appropriate to pay attention to the methodology of its study. According to scientific publications, when studying the legal framework of budgetary relations in the digitalization context, methods of analysis, synthesis, forecasting, comparison, systemic, dialectic, materialistic methods, and others are quite productive [4].

Thus, using the analysis method, the state of the legal framework for these relations digitalization is studied by the levels of legal force of regulatory legal acts regulating these relations, by the levels of public-law entities, within which budgetary relations with the digital element are performed, and by other possible differentiating signs.

The synthesis method summarizes the recurring problems of digitalization in the levels and areas of legal regulation allocated for research. As a result, a regular incompleteness of legal norms relating to digital technologies in the public sector as a whole is found [5].

The forecasting method, according to identified growing trend in the number of legal rules governing the digital technologies application in budgetary relations, gives reason to predict an increase in budgetary relations implemented through these technologies, as well as overcoming the problem of incomplete budget and legal framework for these technologies application in the future. Using of comparison method is advisable in assessing changes in budgetary relations effectiveness, particularly, regarding the budgetary expenditures, before and after the digital technologies introduction.

The systematic method allows to explore the body of laws relating to the budgetary relations digitalization, as a subsystem in the budget law system, taking into account the unity of functioning goals and internal relationships between elements of the system and subsystem, and other general signs of systemacity.

Using the dialectic method, a scientific search is made for the causes of deficiencies in law-making and law enforcement with regard to unity and struggle of opposites. Here, on the one hand, government and municipal bodies, by virtue of the unified focus of their activities on satisfying the interests of society, strive to introduce progressive digital technologies in the shortest possible time and settle budgetary relations actively developing under these conditions. On the other hand, at the stage of the new legal norms enforcement providing for the transition to the "digital", the same bodies try to preserve the previous organization of work processes as much as possible, that is, they are actors in the fight against digitalization, since hastily adopted norms often suffer from gaps, unproven mechanism of their implementation, redundancy of preparation requirements for the documents drawn up in the budgetary relations implementation and other shortcomings.

Application of the materialistic method allows one to take into account circumstances external to the law, for example, economic, social, technical, personnel. From an economic point of view, it is necessary to evaluate the ratio of costs and the result of digitalization introduction and its legal framework, from the social point of view - to be guided by the interests of society and contribute to their achievement. On the technical side, it must be borne in mind that "absolutely error-free programs do not exist in principle. If a project in almost any field of technology can be completed with a huge margin of reliability, then in programming such reliability is very conditional" [6]. Serious consideration should also be given to staffing, which largely determines the success of budgetary relations adaptation to the digitalization conditions.

The use of other methods of researching the state of the legal framework of budgetary relations in the context of digitalization, including formal legal, comparative legal, historical, is also relevant. At the same time, the whole

course and results of scientific work should be subject to the logical method, that is, comply with the rules of logic.

3. RESULTS

When it comes to the advantages of budgetary relations digitalization, which can be used to improve the budgetary and legal norms implementation, then there is an enhance in the transparency of budgetary activities of the state and the involvement of society representatives into the design and introduction of changes to the budgets of the budgetary system of Russia. In general, this simultaneously serves to strengthen public control over government and municipal bodies, to increase the financial awareness of citizens [7], and most importantly, to better account the interests of society.

The existing digital technologies are able to ensure transparency in the process of budgetary and legal norms implementation at a totally new level. However, this potential is used rather weak. Information regarding the budget is disclosed selectively, belatedly, rarely updated, and has a low level of detail [8]. Regulatory legal acts do not give due attention to these problems, which may be explained by the reluctance of their developers (government and municipal bodies) to constrain themselves with additional restrictions, since after these acts adoption the responsibility for their implementation is usually assigned to the same bodies due to the industry distribution of government control functions established in Russia. Another probable reason is the preservation of the non-transparency of budget procedures that reduces the risks of bringing to responsibility for violations made, as their identification becomes more complicated. Naturally, the described situation needs to be corrected. It would be prudent to establish detailed and specific requirements for maintaining official websites on the Internet containing data on budgetary relations, as well as for ensuring public access to information systems that process such data.

During digitalization, society received a useful tool for participating in the processes of distributing budget receipts and outlays - a budget calculator. It is an interactive website or a web page of a government (municipal) body, where, using the graphical interface elements, one can virtually change the volume of budget receipts and outlays for various purposes in the desired direction [9]. This tool application is for feedback to the government from society to better account its interests [10, 11] when making changes to regional and local budgets for the current year or planning budgets for next years. However, this promising element of budgetary relations digitalization has not yet received proper legal framework and has not been introduced everywhere. It is necessary to consider the issue of regulating the budget calculator application as a way of taking into account public opinion in the budgeting process. It is instructive to supplement the Budgetary Code of the Russian Federation with either the principle of taking into account the interests of society (although such questioning goes far beyond the scope of legal provision of budgetary relations digitalization and

requires a separate research), or a new element in the list of information that is the basis for drafting budgets (paragraph 2 of Article 172 of this Code), providing for the collection of citizens' proposals using a budget calculator and their use in the budgeting process. Naturally, the same approach should be applied to changing budgets.

Apparently, the existing advantages of digital technologies used in the budgetary relations implementation are fraught with certain problems. Unfortunately, the problems do not end here. Budgetary relations are often digitalized without preliminary compiling an appropriate legal framework for this, and the uncertainty of law created in this way remains for years. Here we need general requirements for digital technologies introduction, as well as special requirements in terms of separate regulatory legal acts that meet the specified general requirements and regulate the application of each specific technology in each specific budgetary relationship.

Attention should be paid to the problem of digital technology security. The point is that digitalization entails foreign technologies penetration into all spheres of society and the activities of government bodies, creating risks of harming the sovereignty of the country, increasing its vulnerability. There are threats to national cybersecurity, including in the public sector: unauthorized access to information is possible [12]. Moreover, the facts of data theft from the Internal Revenue Service of the United States of America and fraudulent claims for the reimbursement of value-added tax in several European countries, noted by the International Monetary Fund, highlighted the vulnerability of public "digital" systems [13]. Probably, the observed development of public finances digitalization will be accompanied by an increase in such risks, therefore, taking into account the political situation, it is necessary to take legal measures to replace foreign "digital" products with Russian counterparts, paying serious attention to their quality.

Another problem is the lack of legal regulation aimed at overcoming and preventing the consequences of instability and technical errors in the digital technologies operation that are not dependent on the user and the difficulties in the practical application of digitally unfinished technologies. Perhaps the solution could be the development of legal norms that do not allow the use of digital technologies in the public sector and their updated versions in a digitally unfinished form, and at the same time provide for alternative methods of data exchange [14].

There are other problems of legal framework for the budgetary relations digitalization associated with the "increased complexity and secrecy of the processes occurring in automated information systems" [6], as well as the high sensitivity of the established mechanisms for implementing these relations to innovations. The ill-considered introduction of digital technologies can lead to difficulties in the interaction between subjects of budgetary relations (which affects the efficiency and quality of achieving the goals of these interactions) and the identification of persons responsible for the violations. In addition, a characteristic feature of budget law is the deep

regulation of procedural matter, which does not make it easy to transfer the existing mechanisms of budgetary relations on a digital basis [15]. A comprehensive and careful review of the legal rules governing these mechanisms is required in order to avoid their work disorganization. It would also be appropriate to establish the obligation of organizations to provide training for workers using digital technologies in order to comply with budgetary and legal norms.

4. DISCUSSION

A person's commitment to rationalize his activities leads to the fact that new technologies, including digital ones, are increasingly being introduced into public relations. Public relations themselves, basically, retain their content that existed before the digital technologies, but after their introduction, they take on a remarkably new form. If during earlier technological revolutions, for example, when inventing a steam engine, the development of a new "locomotive law" was not required, then the digital technologies introduction directly related to the "computer revolution" is no longer possible without a serious revision of the law.

Mainly, the point is that understanding the mechanisms of digital technologies functioning is extremely difficult due to the need to possess a large array of specialized knowledge. Often, a layman is not able to master this knowledge, and he is forced to simply trust the computer and act practically "in the dark," therefore, legislation should take over the task of stronger protection of the party if it uses digital technology. Moreover, the recipient of information outgoing from a party using digital technology is not actually another party, but a computer that works with this information using algorithms that the party does not know. The legislation may well not specify the party receiving information through digital technology. That is, the party-recipient of information is hidden from the party-sender of this information. In this case, if the result of using digital technology for some reason does not suit the party-sender, it is difficult for him to find contact with the party-recipient or other responsible party who are located "on the other side of computer screen" and quickly resolve the issues that have arisen.

Apparently, digital technology forms a "black box", presenting the party the result of its work, which it cannot fully adequately assess for compliance with its actions taken in the will expression. If the result of the legal relationship implementation with application of digital technology does not satisfy the person, a trilemma arises: another party to this legal relationship did not fulfill its obligations or the computer did not work properly, and maybe the first party itself did something wrong. This is not easy to solve it and find guilty. This circumstance is capable to level the expected positive results of digital technologies introduction, the effective feedback is mandatory here. Consequently, the digital form of public relations implementation becomes a factor in changing legal norms with the aim of adapting them to

new conditions, as well as protecting the interests of parties using these technologies.

The budgetary relations digitalization merits serious attention due to the fact that the public sector, in contrast to the commercial one, is characterized by a very high degree of legalization and responsibility. A state that realizes its goals, tasks, and functions through budgetary expenditures is the largest economic entity that creates more than 60-70 percent of Russia's gross domestic product [16]. Accordingly, the actions of the state in order to avoid economic shocks should be as correct as possible. The particularity of the legal regulation of budgetary relations is the deep regulation of procedural matter. The established mechanism of interaction between organizations involved in the process of budgetary expenditures is finely set and quite sensitive to various innovations. Mechanism often loses its debugging when trying to embed a digital element into it, and restoring the previous work efficiency requires time, that is simply not available when it is necessary to solve many Russian problems in a short time, which the President of Russia repeatedly drew attention to [17]. Therefore, to prevent the risks of budgetary expenditures mechanism destabilization, the introduction of digital technologies in budgetary relations requires substantiation, caution and thoughtfulness. It needs to be consistently guided by the idea: "A computer is for a person, but not a person is for a computer" [18]. However, these requirements are not always met in practice.

Legal regulation lags far behind the pace of budgetary relations digitalization. A condition occurs when legal norms have to be adapted to the existing methods of digital technologies application, although the law must be primary, and these technologies should be an instrument for its implementation. Often in certain budgetary relations, the digital element remains completely unsettled and functions only on the basis of letters from ministries and departments that do not have the status of regulatory legal acts, and, therefore, are not binding. In this case, legal uncertainty of budgetary relations is appeared. It seems that the digitalization of each budgetary relationship should be based on two regulatory legal acts. The first of them will be the same for all cases of digital technologies application (general requirements), while the second - for each specific case separately (special requirements). In general requirements, it is necessary to establish a list of provisions that an act regulating special requirements should contain. These provisions should determine: the circle of entities obliged to use digital technology in any particular budgetary relationship, the scope of information transmitted digitally, its recipients, transfer time and purpose of use, the web-address through which the entities interact (or the name of the information system), a mandatory feedback mechanism between them, regulatory authorities, responsibility for violations. In turn, special requirements should disclose these provisions in relation to a specific budgetary relationship and digital technology.

The opposite trend in some way can be called as insufficient unlock of budgetary relations digitalization, in particular, related to ensuring their openness. In this case,

normative activity could successfully lead the digital technologies introduction, expanding the circle of relations with the digital element, thereby, apparently, it would bring a perceptible positive effect [19]. Thus, the transparency of information on budgetary relations as part of the public finance system is far from being fully achieved, which leads to a decrease in public confidence in the state apparatus and, as a consequence, there are risks that taxpayers will become less interested in paying taxes [9]. Ways of applying digital technology to ensure the transparency of this information are already available, but they are used only fragmentarily. For example, in Russia the lion's share of the stage of preparation, consideration, and approval of the draft federal budget, the budgets of state non-budgetary funds and amendments to these budgets is not transparent - this, in particular, creates the risk of negative manifestations of administrative discretion. Often, regulatory legal acts do not determine the detailed and specific requirements for the content of websites designed to ensure openness of the public sector, and their updating, the disclosed information is not sufficiently full and detailed, unsuitable for analysis of budgetary effectiveness and budgetary control efficiency. Publication of information is made rarely and takes a long time, as a result of which information becomes irrelevant, and the digitalization benefits are actually lost.

5. CONCLUSION

Digital technologies are designed to accelerate the exchange of information, simplify its processing and ensure transparency. This can improve the quality of government management and control, the effectiveness of budgetary expenditures. However, the transparency of information on budgetary relations, which is one of the main tasks facing the use of digital technologies, is not fully achieved. There are unimplemented ways to increase the transparency of the budgeting process, especially at the stage of preparing a draft federal law on the federal budget, for example, by organizing universal fact-finding access to the Electronic Budget state information system.

The technical imperfection of the digital technologies being introduced creates significant difficulties in their practical application and, consequently, the threat of non-compliance with the procedures established by the budget legislation performed using these technologies. Setting the requirement on the inadmissibility of introduction and responsibility for the operation of technically unfinished information systems seems to be one of the effective and necessary measures that will create the conditions for improving these systems. In addition, alternative ways of exchanging documents should be provided in the event of these systems malfunction, not excluding paper media.

Digital technologies are being introduced into the public sector without due legal framework. In order to align the digital technologies application, it would be appropriate to complete legislation with general rules that would define a mandatory list of issues to be reflected in regulatory legal acts regulating these methods. The list of such issues

should include provisions on the consolidation of bodies and organizations operating digital technologies, the addresses of websites (if any), the composition of information transmitted through the information system or website, and the timing of their submission. Also, this list should determine the bodies monitoring compliance with the legal norms when applying the technologies discussed, as well as appropriate measures of liability for violations. Adoption of an act with such content should be mandatory in relation to each specific case of applying the digital technologies in budgetary relations. At the same time, amendments to regulatory legal acts should be immediately taken into account by developers of digital technologies.

Implementation of the ideas presented in budget law could enhance the positive effect of digital technologies and would make it possible to further improve budgetary relations, including to identify reserves for budget savings.

REFERENCES

- [1] Tsifrovoye budushcheye gosudarstvennogo upravleniya po rezul'tatam, Ye.I. Dobrolyubova, V.N. Yuzhakov, A.A. Yefremov, Ye.N. Klochkova, E.V. Talapina, YA.YU. Startsev. M. Izdatel'skiy dom «Delo», RANKhiGS. 2019. 114 s.
- [2] M. Afonasyova, E. Panfilova, M. Galichkina, B. Ślusarczyk, Digitalization in Economy and Innovation: The Effect on Social and Economic Processes. *Polish Journal of Management Studies*, 19, 22–32, 2019, 10.17512/pjms.2019.19.2.02.
- [3] I.A. Tsindeliani, Sistema byudzhethnogo prava, Gosudarstvo i pravo. 2010. No. 5. S. 55–60.
- [4] S.A. Shorin, Metodologicheskiye osnovy pravovogo obespecheniya primeneniya elektronnykh tekhnologiy v byudzhethnom prave, Filosofskiy aspekt razvitiya prava i zakona v epokhu globalizatsii: Materialy nauchno-prakticheskoy konferentsii. M.: RGUP, 17.04.2018 g. S. 80–97.
- [5] S.A. Shorin, Pravovoye obespecheniye tsifrovyykh tekhnologiy v byudzhethnoy sfere, Uchenyye trudy Rossiyskoy akademii advokatury i notariata. 2018. No. 1. S. 113–117.
- [6] D.A. Lovtsov, Sistemologiya pravovogo regulirovaniya informatsionnykh otnosheniy v infosfere: Monografiya. M.: RGUP, 2016. 316 s.
- [7] Finansovoye pravo v usloviyakh razvitiya tsifrovoy ekonomiki: monografiya, Anisina K.T., Badmayev B.G., Bit-Shabo I.V. i dr.; pod red. Tsindeliani I.A. M.: Prospekt, 2019. 320 s.
- [8] S.A. Shorin, Vliyaniye sostoyaniya effektivnosti byudzhethnykh raskhodov na problemu zainteressovannosti nalogoplatel'shchikov v uplate nalogov, Nalogovaya sistema Rossiyskoy Federatsii v usloviyakh razvitiya tsifrovoy ekonomiki: pravovyye i ekonomicheskiye aspekty: Materialy Mezhdunarodnoy nauchno-prakticheskoy konferentsii. Moskva, 30 noyabrya – 1 dekabrya 2018 g. Pod red. I.A. Tsindeliani. M.: RGUP, 2019. S. 157–166.
- [9] S.A. Shorin, Vliyaniye effektivnosti byudzhethnykh raskhodov na sobirayemost' dokhodov byudzheta, Agrarnoye i zemel'noye pravo. 2019. No. 10. S. 11–14.
- [10] M. Touchton, B. Wampler, P. Spada, The Digital Revolution and Governance in Brazil: Evidence From Participatory Budgeting. *Journal of Information Technology & Politics*, 16:2, (2019) 154–168. 10.1080/19331681.2019.1613281.
- [11] I. Cantador, M.E. Cortés-Cediel, Towards Increasing Citizen Engagement in Participatory Budgeting Digital Tools. In Proceedings of The 19th Annual International Conference on Digital Government Research: Governance in The Data Age (dg.o '18). Association for Computing Machinery, New York, NY, USA, Article 91, (2018) 1–2. 10.1145/3209281.3209389.
- [12] O. Quirico, Legal Challenges to Cyber Security Institutions. In H. Nasu & K. Rubenstein (Eds.), *Legal Perspectives on Security Institutions (Connecting International Law with Public Law*, pp. 308–322). Cambridge: Cambridge University Press. (2015). 10.1017/CBO9781316212677.017.
- [13] S. Gupta, M. Kin, A. Shakh, ZH. Verd'ye, Byudzhethnaya sfera stanovitsya tsifrovoy, Finansy i razvitiye. 2018. No. 1. S. 12–15.
- [14] S.A. Shorin, Primeneniye tsifrovyykh tekhnologiy dlya povysheniya effektivnosti gosudarstvennykh finansov, Transformatsiya natsional'noy sotsial'no-ekonomicheskoy sistemy Rossii: Materialy I Mezhdunarodnoy nauchno-prakticheskoy konferentsii. M.: RGUP, 2019. S. 381–382.
- [15] M. Alomari, P. Woods, K. Sandhu, Predictors for E-Government Adoption in Jordan: Deployment of an Empirical Evaluation Based on a Citizen-Centric Approach. *Information Technology & People*, 25, 2, (2012) 207–234.
- [16] Doklad o sostoyanii konkurentsii za 2018 god po sostoyaniyu na 27.09.2019, FAS Rossii.URL:

<https://fas.gov.ru/attachment/259837/download?1569582054> (19.03.2020).

[17] Poslaniye Prezidenta Rossiyskoy Federatsii Federal'nomu Sobraniyu Rossiyskoy Federatsii ot 20.02.2019, Prezident Rossii. URL: <http://kremlin.ru/events/president/news/59863> (19.03.2019).

[18] L.I. Ivankina, *Sovremennaya tsivilizatsionnaya paradigma tranzitivnoy potentsial'nosti obrazovaniya: dissertatsiya ... doktora filosofskikh nauk* : 09.00.11. Tomsk, 2006. 297 s.

[19] I. Tsindeliani, O. Gorbunova, T. Vershilo, V. Kikavets, O.Palozyan, K. Pisenko, E. Matyanova, Influence of The Budgetary Law on State Management in The Conditions of The Development of The Digital Economy. *Informatologia*, 52 (1-2), (2019) 17–27. 10.32914/i.52.1-2.3.