

# Functional Aspects of the Development of State Tax Management in the Digital Economy

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**Abstract**—Currently, under the implementation of new information technologies in the sphere of public administration – what is one of the priority tasks in the field of e-government development - the transformation of state tax management system, as well as understanding of the functional aspects of its development in digital economy, are of particular importance. Academic interest in “digital economy” is due to the appearance of different problems, also in tax management, not only in terms of budget replenishment and tax control, but also of the relationship of tax authorities and taxpayers through the implementation of new digital technologies. In the latter, the problems of the priority of fiscal component and underestimation of regulatory component of state tax management are the most pronounced. This article describes the current problems of state tax management development. The hypothesis of this study defined that the implementation of digital technologies in state tax management is interconnected with the implementation of the fiscal focus of tax policy. To prove it, the contradictions in the attitude to the functional aspects of taxation management were found, the Russian experience in implementing digital technologies was investigated, the effectiveness of such implementation was assessed, several problems were identified and ways to solve them were proposed.

**Keywords**—state tax management, fiscal and regulatory functions, digital economy, tax administration, Nalog-3 automated information data system, automated tax control system, electronic services, assessment of effectiveness.

## I. INTRODUCTION

At present, one of the priorities in the field of e-government development is the implementation of new information technologies in public administration sphere. Transformation of state tax management system is of particular importance, as well as understanding of the functional aspects of its development in digital economy. In this regard, the study is *relevant and timely*.

The key goal of this paper is to study the functional aspects of the development of state tax management in digital economy in order to develop recommendations for its improvement. The tasks are the following: establishing the functional aspects of state tax management from the perspective of attitude to them; evaluating the effectiveness of the implementation of digital technologies in the Federal Tax Service of Russia; fixing the problems of state tax

management in digital economy and finding possible solutions.

## II. RESEARCH METHODOLOGY

This study is based on theories of taxation and tax management. To achieve the goals and objectives of the study which involve quantitative comparisons, dynamic tax analysis method was used. The study of the nature and content of state tax management in digital economy caused the analysis of the attitude to its functional aspects.

Hypothesis: the implementation of digital technologies in state tax management is interrelated with the realization of the fiscal focus of tax policy.

## III. PRACTICAL SIGNIFICANCE

Practical significance of this study lies in the investigation of the best practices of implementing digital technologies in the Federal Tax Service of Russia, determining the effectiveness of their implementation, identifying the current problems of state tax management in digital economy and developing recommendations for their solution.

## IV. LITERATURE REVIEW

A number of scientific publications [3-5] were devoted to the problems of state policy [1,2], tax policy and state tax management, its essence and content. A survey of domestic and foreign academic literature, theoretical views on taxation management in digital economy (focusing on the issues of taxation of electronic services, taxation of environmental management, smoothing the boundaries of doing business, network effects, etc.) [6-18] made it possible to establish that there is no consensus between scientists about the essence and content of state tax management; insufficient attention is paid in the economic literature to the problems of the development of state tax management in digital economy and its functional aspects.

## V. RESULTS

Research results were registered in the following issues: the establishment of contradictions in attitude to the functional aspects of tax management; analysis of the implementation of digital technologies in the scope of activities of Russian tax authorities; assessment of the effectiveness of the implementation of digital technologies in tax management;

identifying the problems of state tax management development in digital economy; development of recommendations aimed at solving the problems found.

*A. Contradictions in the psychological perception of the functional aspects of state tax management*

The attitude to the functional aspects of state tax management can be conditionally characterized in two opposite ways: negative and positive. Negative image is associated with the implementation of fiscal tax function (the formation of state financial resources) – as the alienation of part of the property of taxable entities in the form of tax. Positive one is associated with regulatory function (regulation of economic relations, including tax incentives) – as an opportunity to reduce tax burden for certain groups of economic agents what results in the stimulation of economic development and tax base growth.

This study revealed that, at present, digital technologies of the state tax management of Russia are aimed at improving tax administration:

*firstly*, at increasing budget tax revenues:

- value added tax (VAT) – by reducing unreasonable tax deductions;
- corporate income tax – by reducing unreasonable, fictitious expenses calculated for tax purposes;
- excise taxes – due to the reduction in sales of counterfeit excisable goods, etc;

*secondly*, at reducing government expenditures on monitoring activities in future, i.e. when the costs of developing and implementing digital technologies pay off.

In order to confirm the fiscal focus of state tax management, the analysis of the implementation of digital technologies in the scope of activities Russian tax authorities was performed.

*B. Analysis of the implementation of digital technologies in the scope of activities of Russian tax authorities*

Currently, the technologies used by the Federal Tax Service of Russia can be divided into the following groups.

*Group 1, i.e. automated information data systems and controlling systems used by the Federal Tax Service of Russia;* it includes: Nalog 3 automated information data system

(Nalog 3 AIDS); NDS 2 automated control system (NDS 2 ACS); online data exchange between retail outlets and tax service using cash register equipment of new generation (online CRE); state information system for labeling goods and monitoring their turnover; unified state automated information data system for accounting the volume of production and turnover of ethyl alcohol, alcoholic and alcohol-containing products (USAIDS); “Unified Register of the Population of the Country” federal state information data system (URPC FSIDS).

Automated information data systems, such as NDS AIDS (NDS-2 AIDS, NDS-3 AIDS), online CRE, USAIDS, URPC FSIDS and others, are aimed at improving the effectiveness of tax control, identifying various tax evasion schemes (including using of short-lived companies), minimizing the illegal receipt of tax deductions for VAT, etc. From the functional point of view, their implementation is associated with the fiscal orientation of tax policy and the fiscal purpose of taxes.

Group 2 includes electronic services; about 50 of them are on the website of the Federal Tax Service of Russia; the main are: personal account of taxpayers (individuals, legal entities, individual entrepreneurs); VAT office of Internet companies; unified register of small and medium enterprises; state registration of legal entities and individual entrepreneurs; “Business risks: check yourself and the counterparty”; “Transparent business”, “Payment of taxes and duties”; tax calculators; reference information, etc.

Implementation of new electronic services of the Federal Tax Service is one of the stages in improving the organization of state tax management (being its part) and is aimed at improving the interaction of tax authorities with taxpayers. At the same time, the implementation of electronic services is associated to the most extent to the fiscal orientation of tax policy; the regulatory component is still underestimated.

*C. Assessment of the effectiveness of the implementation of digital technologies in taxation management*

This study made it possible to find the positive effect of the implementation of digital technologies in the Federal Tax Service of Russia: tax payments to the consolidated budget of Russia and its subjects increased significantly for a short period of active implementation of information technologies (Table 1).

TABLE I. DYNAMICS OF TAX PAYMENTS TO THE CONSOLIDATED BUDGET OF THE RUSSIAN FEDERATION AND THE KOMI REPUBLIC IN 2014-2018, MILLION RUBLES

	2014	2015	2016	2017	2018	2018 to 2014, %
<b>Total tax revenue</b>						
Russian Federation	12606342	13720353	14386061	17197016	21142045	168
Komi Republic	129015	152022	148441	178675	237986	184
<b>Corporate income tax</b>						
Russian Federation	2372843	2598848	2770153	3289992	4099996	173
Komi Republic	17359	17592	17743	24857	32870	189
<b>Value added tax on goods (works, services) sold in the Russian Federation</b>						
Russian Federation	2181420	2448348	2657395	3069928	3574614	164
Komi Republic	3121	12126	12151	10478	8932	287
<b>Taxes, fees and recurring payments for the use of natural resources</b>						
Russian Federation	2933893	3250749	2951843	4162919	6178463	211
Komi Republic	64969	78045	68344	86443	135870	209

<sup>a</sup>. Source: worked out by the authors according to the Federal Tax Service of Russia. Statistical reports for 2014–2019 URL: <https://www.nalog.ru>

Digitalization at its initial stage was mainly aimed at controlling VAT tax base. However, the legalization of sales of goods, works and services reached a cumulative effect. It resulted in increased general tax collection rate. Tax

payments to the consolidated budget of the Russian Federation increased from 2014 to 2018 (years of the most active implementation of digital tax administration technologies in Russia) by 68%, in the Komi Republic – by 84%. VAT

revenues increased significantly – by 64% and 187%, corporate income tax – by 73% and 89%, payments for the use of natural resources – by 111% and 109%.

#### *D. Problems of the development of state tax management in digital economy*

This study allowed identifying the following problems of state tax management development in digital economy:

1) *complexity and high cost of the transition to a digital model of state tax management* (high costs of the development and implementation of new expensive software);

2) *technical aspects of transferring information (data) from existing information systems to new ones* including the need to combine data from different information systems (tax authorities, state extra-budgetary funds, customs authorities, etc.);

3) *risk of the leakage of electronic tax information* (gaining access to confidential information, hacker attacks, employee errors) aggregated in automated information data systems of tax authorities in combination with the growing dependence of state authorities on digital technologies;

4) *digital exclusion of the significant part of population (taxpayers), or digital barrier* which involves:

- the lack of technical capabilities (no Internet in remote areas including the North);

- the lack of corresponding competences of individuals (i.e. knowledge, skills and abilities of working with computer equipment and programs);

- the lack of desire of some taxpayers to participate in contactless communication with authorities, in particular, tax authorities;

5) imbalance with prevailing fiscal orientation of tax management and underestimation of its regulatory component.

#### VI. SUGGESTIONS AND RESEARCH RESULTS

In order to solve the problems of taxation management, the authors propose the following *growth directions of state tax management in digital economy*:

*solution of problem 1:* reducing the investment payback period during the transition to a digital model of state tax management due to the rapid implementation of innovations, automated information data systems which can increase its effectiveness (reducing hidden economy, minimizing the level of tax evasion);

*solution of problem 2:* adaptation of different information systems of state bodies and tax authorities that allows transferring data and information with minimal loss and without distortion.

*solution of problem 3:*

- increase the level of security (cybersecurity), protection of the confidential data of taxpayers;

- informing taxpayers about possible tax risks and security measures when transferring tax information;

*solution to problem 4:*

- reduction of digital exclusion due to the development of Internet;

- increasing digital and tax culture of the population through the implementation of educational programs (Digital Economy for economists and managers and other non-IT training areas):

*solution to problem 5:*

- within the framework of e-government development, the implementation of crowdsourcing – through the development and implementation of mobile information technologies, attracting the population to the control of the tax base of natural resources management (forest use, use of wildlife, environmental pollution, etc.) [19], as well as the tax base of excise taxes (sale of excisable goods produced), transport tax, etc;

- increasing the role of regional tax management in order to develop territories (including stimulating investment, entrepreneurial activity), to develop regional economy (regional tax base) including green economy (tax stimulation of the formation of green finances).

#### VII. CONCLUSIONS

This study allowed confirming the hypothesis: the implementation of digital technologies of state tax management is interrelated with the implementation of the fiscal focus of tax policy.

In Russia, a new digital model of state tax management is being formed based on the implementation of innovations, modern information technologies, and also on the development of electronic interaction between taxpayers and tax authorities, and gradual elimination of their face-to-face communication.

Survey of the elements of state tax management made it possible to establish their non-uniform digitalization coverage. Digitalization is currently extended to the certain areas of tax authorities, namely tax accounting and tax control, as well as partly to organization processes and tax analysis that to a greater extent improves the quality of tax administration.

It can be argued that in the taxation management of Russia there is an imbalance with prevailing development of tax administration – command, not managerial, (bureaucratic) management model (with fiscal priority).

The current situation can be regarded as a positive start to the creation of new digital model of state tax management in Russia.

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