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Ensure citizen-oriented data for ‘co-production’ of public policy: Russian case of ‘budget for citizens’

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Abstract. The practice of citizens’ involvement in the process of formation, monitoring and evaluation of performance of the public budget has become one of the most important forms of cooperation of citizens and government. Of particular importance is acquiring in a digital form of government where the public use of data creates a solid platform for the modern type of "co-production" of public budgets. The concept of ‘co-production’ has become widely used in the study of public policy in general. Compared with the categories of "collaboration", "public involvement" this concept has expanded understanding of the cycle of public policies affecting the problem of political designs, governance of public policies, the joint formulation and implementation of public values. Modern budgeting based on cooperation transforms designs of budgetary policy, accountability systems, processes of identifying public values and others. Ensure citizen-oriented data relating to the budget gets particular importance and shared learning of citizens and government for inclusive budget process becomes main requisite for successful collaboration. There is the difference in using ‘co-production’ between democratic and mixed political regimes with statist direction. Co-production is a new stance for democratic public policy, but in statist regimes with weak civil society co-production can be used more instrumentally for legitimizing political regimes. But here, the co-production institutions have a dual effect. The paper analyzes the Russian practice of "budget for the citizens" in the mixed (hybrid) regimes, introduced in 2013 at the federal and regional levels. Imitative institutions of “budget for the citizens” inure for legitimating regimes, but also they are good factors for mutual learning for cooperation. Transparency of budgetary data, its transformation for the citizens, and budgeting, initiated by citizens, affects on the character of Russian designs for inclusive budgeting. As shown in the article, citizens-oriented data do not directly influence the participation in budgeting. They are one of the causes in a complex set of influencing conditions. To study this complexity, a configurable method of comparative analysis (QCA) was used.

Keywords: Budget for citizens, inclusive capacities, co-production, citizen-oriented data, mixed regime

1 INTRODUCTION

Today the process of political and administrative activity becomes saturated with new forms and mechanisms, which include such unusual components for older models, as a public examination and evaluation, public forums, public-private commissions, etc. There are different names for these new forms of public engagement into policy and decision-making processes. Mark Warren categorizes, for example, many of these developments as “governance-driven democratization”[28]. Some scholars use term “collaborative governance”. Paying attention to citizen engagement and participation in public governance Peter Walker and Patrick Shannon gives for this development name “participatory governance” [27]. Partly independent trend in modern theory of public governance take characteristics of new development from process of

community engagement into policy, decision-making, and public service delivery. This direction elaborates the concepts of “governance through community engagement”, “community engaging government” or “integrated public governance” [2, 9]. In general we can say that the traditional problem of the relationship between politics and governance in these new concepts has been turned in the direction of finding the relationship of citizens and the state institutions. Although questions of cost-effectiveness remained, but some new one come to the fore: the problem of sensitivity and responsibility of government, political stability and absence of violence, skillful organization (quality control), the rule of law and fighting corruption.

One of the forms of involving citizens in public policy is participatory budgeting. The first experience of such budgeting we find in the 1980s in Brazil [26]. In the future, participatory budgeting was seized by many countries and regions. The study of budgeting for citizens, as a rule, refers to the internal mechanism of citizens' participation in the development of the budget at various levels of public policy [3], the process of discussing budget data and the development of a deliberative democracy [6], and the effectiveness of spending the budget in terms of civic participation [5]. A number of researchers agree that participatory budgeting is a form of inclusive institutions [23] that contribute to raising the overall justification for budget spending and forming a new cohort of citizens interested in participating in the affairs of the municipalities, regional authorities and the government of the country.

In the study of participatory budgeting, one can find work that describes the conditions for its emergence, the contextual factors that influence its inclusion in the overall design of public policy, which determine its integrity and effectiveness [26]. Part of the work describes the specifics of the diffusion of the experience of participatory budgeting in the country, highlighting here such forms as learning, competition, pressure, and imitation [9]. In our work, we follow this line of study of the budget for citizens, drawing attention to the basic requisites that contribute to the formation of the opportunity and willingness to participate for citizens in budgeting. These opportunities and readiness are associated with the use of conditions and the construction of institutions that determine the participatory capacity of citizens.

For these purposes, the article uses a special method of qualitative comparative analysis – QCA/fs [14], which allows not only to study the complex diversity of the conditions of an event, process or object, but also to formulate certain ideas about the causal mechanism involved in order to achieve some result. As an object of research, 22 regions of Russia were taken, which received the highest ratings in the process of monitoring the openness of budget data and the formation of a "budget for citizens."

2. CO-PRODUCTION IN DEMOCRATIC AND MIXED POLITICAL REGIMES

Recently, the concepts of ‘co-creation’ and ‘co-production’ were actively used in political science, public administration, sociology as an innovation. Initially, this concept has fixed a new attitude to the provision of public services and was directed against the market-based approach to the organization of this activity [4]. New breath of this concept has acquired in the development of the movement for digital governance. In recent years, the concept of ‘co-production’ has become widely used in the study of public policy in general [14]. Compared with the categories of "collaboration", "public involvement" this concept has expanded understanding of the cycle of public policies affecting the problem of political designs, governance of public policies, the joint formulation and implementation of public values and others. Co-production is new stance for democratic public policy in the world of uncertainty and complexity. Many scholars focused on the presentation of research materials relating to ‘governance through collaboration’, ‘co-creation’, and ‘co-production’ of public policy, not only in above aspects of the theme, but also in relation to the effect of collaboration on public policy, which would have corresponded with sustainable and inclusive development [6, 12, 24]. Collaboration’s and co-production’s orientations in democratic public policy means:

- Policy design with a focus on the citizens, rather than the office;

- Collaboration in public policy process rather than making agreement; expand public arenas for collaboration;
- Pay attention to the deliberation on public values and real needs; govern rather by shared judgments than norms;
- Take into account the real context of life of the public policy stakeholders (desire, space and time);
- Contextualize public policy process instead of typing;
- Ensure transparency, citizen-generated data and Internet resources for public policy.

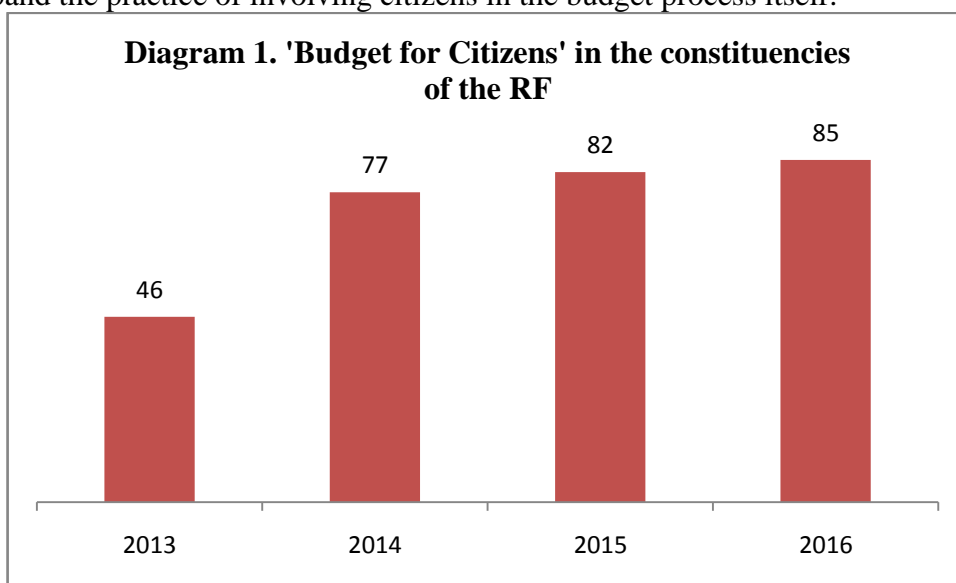
Now sustainable development based on investment social policy. What is the role of collaboration in investment social policy as for tackling the social exclusion of individuals and communities and for investment in the human capital of citizens, especially the most disadvantaged? Rather than simply replicating specific 'co-production practices' promotion co-production rests some more structural changes to policy design, budgeting, control passed down to citizens and professionals, support for civic society and mutual help, performance regimes, mutual learning, and professional training and culture.

There is the difference in using 'co-production' between democratic and mixed political regimes with statist direction. In Russia there is the same regime with some specific characteristics: (1) party system, elections with a forceful governance of electoral processes; (2) superpresidential central power with the system of governance through presidential instructions; (3) multilevel governance (central, regional, municipal) with centralization; (4) constitutional rule of law with a bureaucratic mechanism of rule by law; (5) civil society with limited and controlled involvement of citizens in policy. Co-production is a new stance for democratic public policy, but in statist regimes with weak civil society co-production can be used more instrumentally for legitimizing political regimes. But here, the co-production institutions have a dual effect. The Russian practice of "budget for the citizens" in the mixed (hybrid) regimes, introduced in 2013 at the federal and regional levels, demonstrates this dual effect if we compare regional systems of budgeting. Imitative institutions of "budget for the citizens" inure for legitimating regimes in general, but also they are good factors for mutual learning for cooperation. Some regions use "budget for citizens" formally, but some of them try to initiate citizens for discussion and co-production of regional budget in direct or indirect senses. Transparency of budgetary data, its transformation for the citizens, and budgeting, initiated by citizens, affects on the complex character of Russian designs for inclusive budgeting. In the budget system for citizens, it is very important to form a co-set of budget data, which will be the basis for interaction between citizens and the government. The data, oriented not to specialists, but to citizens, also allows increasing the level of confidence in the system of public budgeting itself.

3. ENSURE CITIZEN-ORIENTED DATA THROUGH RUSSIAN 'BUDGET FOR CITIZENS'

In Russia, the policy of involving citizens in the budget process began in 2013. In July, the Minister of Finance of the Russian Federation approved the Working Group on "Budget for Citizens". The joint order of the Ministry of Finance, the Ministry of Regional Development and the Ministry of Economic Development on August 22, 2013 approved the Methodological recommendations on the submission of budgets of the constituent entities of the Russian Federation, local budgets, and reports on their implementation in an accessible form for citizens. The Budget Message of the President of the Russian Federation on Budget Policy in 2014-2016 stated that "from 2013 onwards, at all levels of the administration, a brochure" Budget for Citizens "should be published (posted on the Internet). This will make it possible to inform the population in an accessible form about the relevant budgets, planned and achieved results of using budget funds "[5]. In October, a model of the first in the Russian Federation federal

"Budget for Citizens" was published. And in December the updated version of the "Budget for Citizens" to the Federal Law of December 2, 2013 No. 349-FZ "On the Federal Budget for 2014 and for the Planning Period of 2015 and 2016" was presented. This addition to the law was recommended by the State Duma and the Federation Council of the Federal Assembly of the Russian Federation. On the portal of the open government, a specialized website "Budget for Citizens" (<http://budget.open.gov.ru/>) was created, which became the organizing start for the dissemination of the practice of the open budget in the regions and municipalities of Russia. Currently, all 85 regions have open budgets for citizens (see: Diagram 1) and hundreds of municipalities use the practice of civil budgeting. At the same time, pilot projects on the introduction of a "budget for citizens" at the municipal level in cities such as Sosnovy Bor, Cherepovets, Mirny and others begin. In subsequent years, the concept of a "budget for citizens" developed in the direction of not only improving the presentation of budget data for citizens, but also to expand the practice of involving citizens in the budget process itself.



The budget for citizens in Russia is a simplified version of the budget document that uses informal language and accessible formats to make it easier for citizens to understand the budget, explain to them the plans and actions of the government during the budget year and show their forms of possible interaction with the government on issues of public expenditure finance.

The general requirements for reporting data for the civil budget are defined in the "Methodological Recommendations". The following sections are usually included in the budget for citizens: a glossary explaining the basic concepts used in the budget process; general description of the region; the main indicators of the socio-economic development of the region in accordance with the forecast of its socio-economic development; the main tasks and priority directions of the budgetary policy of the region for the next financial year and planning period; the main characteristics of the budget (in absolute and relative terms), including information on incomes and expenditures, intergovernmental transfers planned to be received from the federal budget (budget of the constituent entity of the Russian Federation, local budget), as well as budget deficit / surplus; basic information on the intergovernmental fiscal relations of the region, including information on transfers to be received from the federal budget (the budget of the constituent entity of the Russian Federation) sent to local budgets planned to be received from local budgets; level of debt burden on the regional budget, including the structure of its debt; information on the position of the region in the ratings of the openness of budget data, the quality of management of regional finance; information on the holding and participation of the region in the competitions of projects on the presentation of budgets for citizens, on the implementation of projects of proactive budgeting, as well as projects aimed at increasing the budget literacy of the population.

At the same time, information must correspond to a number of criteria: (1) sufficiency, (2) clarity, (3) relevance, (4) reliability, (5) accessibility, (6) timeliness. General recommendations for budgeting for citizens include the following requirements, based on the general principles outlined above. *First*, the budget prepared for citizens should be an independent and self-sufficient document. *Secondly*, he must use a simple language without specialized jargons, understandable for ordinary citizens. *Thirdly*, the document should provide quick and easy access of citizens to information on the budget. *Fourthly*, it is specially emphasized that the budget for citizens should not be drawn up taking into account the needs of representatives of legislative or executive authorities. *Fifthly*, it should be a technical and "objective" document, not biased towards any one party position and written in a neutral way. *Sixthly*, the budget should be focused on the goals and content of the budget, and not on the characteristics of the budget process. *Seventh*, the data must be accurate, reliable and trustworthy. *Eighth*, the budget for citizens should contain simple and effective schedules and diagrams, include comparative data for the previous fiscal year. *Ninthly*, the electronic budget page for citizens should not consist of a list of references to the initial budget, developed or adopted by public authorities; it must be an independent document. *In the tenth place*, it should be oriented towards the state of current knowledge of citizens about the budget. At the request of the Ministry of Communications in 2015 a study was made of the state of registration of budget data for citizens in accordance with these criteria. In the future, we will use these data to form the index of citizen-oriented data (*corient*).

The budget for citizens is targeted at certain target groups of citizens. The target group and its composition may be determined by the criteria for assigning citizens and / or organizations receiving support (or other forms of payment) from the budget to a particular target group. Such criteria can include qualitative characteristics of representatives of target groups, the number of representatives of the target group and its social significance, the amount of budgetary allocations directed to support the target group. The target group can be a group of citizens and / or organizations to which the activities of the governmental program of the subject of the Russian Federation (municipal program) are directed.

Beginning in 2015, the Research and Development Financial Institute (NIFI), commissioned by the Ministry of Finance of the Russian Federation, is rating the regions of Russia according to the criteria for open budgets. The methodology for assessing the regions establishes benchmarks for best practices on the content and accessibility of budget documents, as well as the use of mechanisms for public participation in the budget process. For our study, we used the results of ranking regions for 2015, which were compiled in the following main areas:

- characteristics of the originally approved budget,
- annual performance report,
- amendments to the law on the budget,
- interim reporting on budget execution and analytical data,
- draft budget and materials for it,
- financial control,
- public information on the activities of state institutions of the subject of the Russian Federation (planned and actual performance indicators),
- budget for citizens (the law on the budget, the annual report on the budget execution, the draft budget),
- public participation (quarterly).

4. RESEARCH HYPOSESES

In practice, the level of openness of budget data in the regions and the implementation of the "Budget for Citizens" program were to a certain extent determined by the activity of regional authorities in fulfilling the tasks assigned to them by the federal government. At the same time, it should be noted that the differentiation of regional development in its various dimensions - economic, social, and digital - did not at first sight affect the pace and intensity of introducing

new approaches to budgeting. In the rating table, regions with different degrees of social and economic development (in Table 1) fell into section 1 (regions with very high level of open budget data) and section 2 (regions with a high level of openness of budget data). Statistical analysis of the correlation between the openness of budget data and the level of socio-economic development (expressed in regional GDP per capita) shows low results (r is close to 0). What is the unifying factor of influence on citizen participation in budgeting using the regional context? In our opinion, this complex factor will be such an indicator of regional development as the *capacity for "inclusiveness"*. Under the capacity for inclusiveness we shall understand a quality of region in which citizens have the opportunities for participation, that is, public authorities are open to participation, budget data is oriented on the citizens, electronic infrastructure is well, and citizens have some practical skills for using electronic devices. *The main hypothesis of the study, therefore, is that the higher the level of inclusive capacity of the region, the higher the openness of budget data and citizen participating in budgeting.* Of course, to a certain extent, the open budget itself is a factor of inclusiveness, that is, can act as an independent variable. However, in this case, we take into account the time period when the open budget was a goal, rather than a means of achieving any result. At least, with respect to the policy of budgeting for citizens, we can say that it is still a task that needs to be addressed effectively.

Tabl. 1. 22nd high positions in the Rating of the Russian regions on open budgeting in 2015

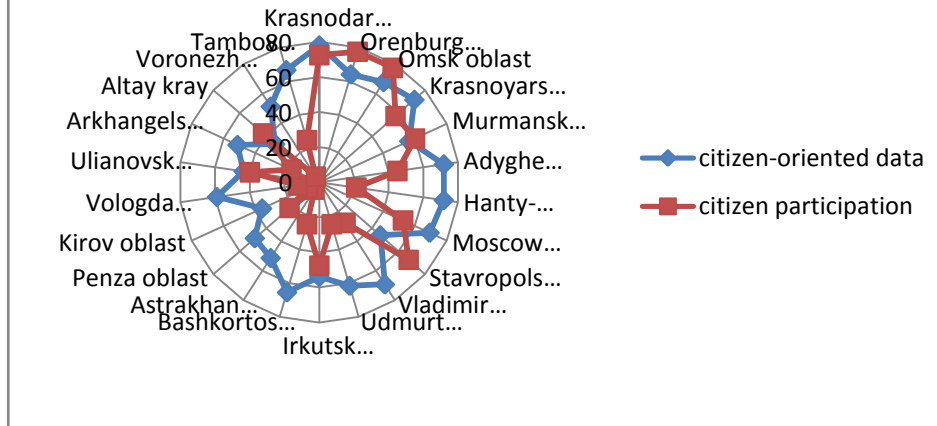
Region	Place	Total marks, including:			GRP per capita, bln rub.	The share of households with a personal computer
			Quality of data	Citizen participation		
<i>Max of possible marks</i>		<i>210,0</i>	<i>39</i>	<i>40</i>		
Krasnodar kray	1	185,00	28	29	1946,8	67,5
Orenburg oblast	2	184,00	25	31	774,9	70,1
Omsk oblast	3	182,50	26,5	31	617,2	71,7
Krasnoyarsk kray	4	178,00	28	23	1618,2	72,0
Murmansk oblast	5	164,00	22	24	390,4	88,6
Adyghe Republic (Adygea)	6	162,00	28	18	82,6	59,8
Hanty-Mansiysky autonomy okrug - Yugra	7	157,50	28	8,5	3136,8	84,6
Moscow oblast	8	154,00	27	21	3213,9	78,6
Stavropol kray	9	153,00	18	27	609,5	65,9
Vladimir oblast	10	147,00	27	11	357,9	71,5
Udmurt Republic	11	132,00	24	10	497,7	68,8
Irkutsk oblast	12	130,00	21	19	1013,5	76,0
Bashkortostan Republic	13	119,50	25,5	10	1317,4	70,6
Astrakhan oblast	14	114,00	20,0	2	320,7	77,4
Penza oblast	15	111,00	19	9	336,5	67,8
Kirov oblast	16	109,00	14	3	276,5	66,5
Vologda oblast	17	108,00	23	5	468,8	64,0
Ulyanovsk oblast	18	104,50	17	16	301,4	63,0
Arkhangelsk oblast	19	104,00	20	7	399,5	78,5

Region	Place	Total marks, including:	Quality of data	Citizen participation	GRP per capita, bln rub.	The share of households with a personal computer
Altai kray	20	102,50	13	17	492,1	67,8
Voronezh oblast	21-22	102,00	20	1,5	823,1	73,7
Tambov oblast	21-22	102,00	26	10	344,9	68,1

Four characteristics of the inclusive capacity of the region in the aspect of the topic under study are, in our opinion, significant. *First*, inclusivity implies a high level of opportunities for citizens to use information. This level is determined, on the one hand, by the development of new means of communication and information, on the other, by the prevalence and acceptance of the idea of obtaining public services through the Internet. To this end, we formulated two variables: *inf* - the level of development of the information society in the region and *serv* - share of the citizens, which are ready to use the e-services. *Secondly*, inclusive ability is provided by the state of the middle class in the region (*income*) and the quality of life (*life*). Thirdly, proceeding from the research objectives, it is interesting to look at the role of citizens -oriented data in their stimulation of participation in public budgeting. For this purpose, an indicator *corient* was developed that captures the level of compliance of regional budgets for citizens-oriented data. The operationalization of these variables, and therefore their metric values, are taken from various sources. The development of the information society (*inf*) is determined by the data of the Ministry of Communications of the Russian Federation [20]. Share of citizens registered in the Unified Register of Public Services (URPS) (*serv*) is also determined according to the data of the Ministry of Communications [20]. The state of the middle class in the region (*income*) is calculated by the median income per capita according to Rosstat. The quality of life (*life*) is measured according to the quality of life rating in the Russian regions on the Riarating portal [21]. And finally, an indicator *corient* is taken from the data of the Ministry of Communications on the correlation between requirements and practices of budget for citizens.

As dependent variables in our study we took (*open*) general rating data on the state of openness of budget data in the regions of Russia and (*cit*) general characteristics of the rating relative to the development of the "participation in budgeting". The variable "open" allowed to talk about the general state of the region regarding the implementation of the principle of openness of budget data for citizens, which was wider than the budget for citizens, but covered the basic level of the region's readiness for initiative budgeting. The variable "cit" characterized the level of development of the special program "Budget for Citizens" at the regional level concerning infrastructure and participation in budgeting.

Citizen-oriented data and participation (Russian regions, 2015)



If we try to compare the variables of citizen-oriented data and participation in budgeting, then it is difficult to unambiguously answer the character of the mutual connection. Diagram 1 shows that there are large discrepancies between the data relating to these two variables. The participation variable in many cases is not related to variable citizens-oriented data. The level of the relationship, calculated as the Pearson coefficient, is 0.33, i.e. the connection is rather weak. That is why a more complex analysis of the conditions is necessary, determining the participation of citizens in the budgeting.

There is a problem of choosing boundary criteria. The objectives of the study affect the choice and argumentation, although, of course, a well-founded theory will be here at the right time. In our case, we use the principle of relativity, subordinating the choice of criteria to situational conditions. The study assumes that the entire volume of studied cases breaks up into two relatively equal sets of developed and insufficiently or undeveloped cases, taking into account the hypothesis of a normal distribution. For analysis purposes, the metric data for the independent and dependent variables were recorded according to the QCA analysis, where one means quality, zero - no quality. The boundary criteria for the availability of quality were determined by the average values, i.e. among the values above ones characterized the presence of quality (1), below the average values indicated by the lack of quality (0). It was hypothetically assumed that there is a normal distribution of metric data. In this case, the designation of variables with a capital letter indicates the presence of quality, i.e. 1; lowercase letters indicate a lack of quality (0).

The general hypothesis of the research is expressed by the following model, if we use QCA operators - qualitative comparative analysis [18].

$$Open (cit) = Inf+Serv+Income+Life+Corient$$

The openness of budgetary data in the region is determined by a combination of four conditions: the information development of the region *or* the share of citizens registered in the URPS *or* the availability of the middle class *or* the quality of life of the population *or* citizen-oriented data.

The object of the study is the regions that received the highest scores on the openness of budget data in 2015. In 2015 there were 22 regions.

5. METHOD OF RESEARCH

To analyze the relationship between "open budgeting" and the conditions for its formation in the regions of Russia (capacities for inclusiveness), we will use a configurable qualitative analysis, proposed and developed by Charles Ragin. This approach is based on Boolean algebra. Boolean algebra began to be used as a qualitative methodology for analyzing empirical material, presented in categorical form with the help of a non-metric categorical scale. At the same time, it turned out that this methodology makes it possible to perform a number of tasks that earlier in the political study, based on statistical analysis, caused difficulties.

Boolean algebra originated as historically the first section of mathematical logic in the middle of the 19th century and was named after George Boole (1815-1864) - Irish mathematician and logic, who first introduced logic as an algebra of classes connected by the operators "and", "or" and "not". From his works the algebra of logic begins and its component part is the algebra of statements, in which algebra methods are used to study operations on statements, in respect of each of which one can assert only that its content is true or false. In political science, Boolean algebra (as a synonym for the whole algebra of logic) began to be used in the 1980s of our century, and the first to be called Charles Ragin, whose work immediately attracted the attention of researchers [Ragin]. There are other publications that reveal the essence of the use of algebra of logic in political studies [1]. Algebra of logic begins to be used in studies of various phenomena of political life, including public policy [16].

As Charles Ragin pointed out, there is no need to consider the Boolean algebra in its entirety in order to understand its possibilities in social science; Boolean principles used in qualitative analysis are very simple [18, p. 85]. The sense of using logic algebra in qualitative research is that the researcher analyzes empirical data, formalizing their qualities in statements that are judged as false (lack of quality) or true (the presence of quality). Thus, the causes and consequences of phenomena are formalized, which then are reduced to truth tables, analyzed by a special procedure for minimizing logical expressions. George Romm wrote that Boole's logic allows us to limit the subjectivity of the interpretation of the data obtained, although it does not solve this problem completely: "Qualitative analysis of, for example, interviews or documentary data intends to capture the underlying meaning and patterns embodied in the data. This kind of inductive analysis appears to address concerns for (external) validity, because by arguing from the parts to the whole the real meaning behind the data may emerge. However, it also relies to a great extent on subjective interpretation and judgment, and thus introduces a tradeoff in terms of validity. This problem can be somewhat reduced through by using doublecoding procedures and other measures to cross-check potentially subjective interpretations. Nevertheless, the reliability of measures and conclusions obtained in the qualitative analysis of social processes tends to remain subject to severe challenge" [25, 317-18].

This crisp-analysis is important for us in two aspects. First, in essence, this approach starts with the premise of maximizing causal complexity, whereas the statistical method begins with the premise of the simplicity of the relationship. Of course, the Boolean analysis, compared to the "case-study" approach, is not characterized by maximum attention to historical details, but it allows including in the consideration the maximum number of possible combinations of conditions, and it is more reliable from the point of view of obtaining theoretical generalizations. "Note, - writes Ragin, - that the Boolean approach accomplishes what case-oriented investigators attempt, but on much larger scale. In case-oriented studies, investigators analyze similarities and differences in order to identify common underlying patterns and types. ... However, the web of similarities and differences frequently gets out of hand. The Boolean truth table approach and its rules for simplifying complexity provide a basis for managing this complicated web. It allows case-oriented investigators to see and comprehend complex patterns and conjunctures" [19: p. 122]. At the same time, this technique allows (if it is necessary) to economically explain causal interdependencies. An economical explanation is achieved by determining the largest classes of conditions for which a certain result is characteristic. Secondly, the Boolean analysis technique contributes simultaneously to research in the integrity of the causes and effects of the phenomenon being studied, as well as to study the individual components of this integrity. In this

respect, it includes an orientation toward holism and inductive analysis. Ragin writes: "In Boolean analysis cases are seen as combination of parts. These combinations can be interpreted as different situations. The fundamental principle of holism provides metatheoretical basis for this way of seeing cases: to alter any single part of a whole, any element, is -potentially at least – to alter the character of the whole. This approach contrasts directly with most statistical approaches, where the goal is to estimate the average effect of each variable (the causal significance of each part) across all values of other variables " [19, p.122].

For the sake of investigation an advanced program called QCA/fs (Qualitative Comparative Analysis/fuzzy set) has been developed. The latter program is specially adapted to social data and is actively used today in comparative studies. The QCA/fs program has more possibilities and itself generates a truth table from the data matrix coming in at the input.

6. CRISP-ANALYSIS RESULTS OF RELATION BETWEEN RUSSIAN OPEN BUDGET AND ‘BUDGET FOR CITIZENS’ AND ITS REQUISITES

To conduct the Crisp-analysis, we have generated an initial truth table, which included codified indicators of the dependent and independent variables for each individual case, which are the regions of Russia. Using a special computer program QCA/fs, a basic truth table was created for 22 cases (see Table 2). It shows all the independent variables (*Life, Income, Inf, Serv, Corient*), as well as the number of cases that correspond to a particular configuration of the requisites. A separate column shows the values of the dependent variable (*Open*). In this case, all configurations of the requisites are represented by the presence of the result. This is evidenced by 1 in this column and the raw consistency parameters, which for all rows are the same 1.000000. Consistency indicates that all the cases examined fall under the corresponding configuration; there are no contradictory results. According to the table, there are ten conditional configurations that satisfy the result. This complex configuration can be simplified using qualitative comparative analysis techniques. This simplification does not deprive the conclusion of the justification, but only allows to create a picture of the regular configurations of causes.

Tabl. 2. Truth table for relations between open budget and its requisites, 22 Russian regions in 2015

<i>Life</i>	<i>Income</i>	<i>Inf</i>	<i>Serv</i>	<i>Corient</i>	<i>Number of cases</i>	<i>Open(QCA characteristic of outcomes)</i>	<i>Raw consistency</i>
1	0	1	1	1	6	1	1.000000
1	1	1	1	1	3	1	1.000000
0	0	0	1	0	2	1	1.000000
0	0	1	0	1	2	1	1.000000
1	0	0	0	1	2	1	1.000000
1	0	1	0	0	2	1	1.000000
0	0	1	1	1	1	1	1.000000
0	1	1	1	1	1	1	1.000000
1	0	1	1	0	1	1	1.000000
1	1	0	0	1	1	1	1.000000
1	1	1	0	1	1	1	1.000000

Analysis of the truth table using the Quinn-McCluskey algorithm yields the following result of the configuration of the conditions (1) that determine the presence of high openness of budget data in the regions of Russia.

$$Open = inf * serv * corient + life * \sim inc * inf * \sim corient + life * \sim inf * \sim serv * corient + \sim life * \sim inc * inf * corient + \sim life * \sim inc * \sim inf * serv * \sim corient + life * inc * \sim serv * corient + life * inc * inf * corient \quad (1)$$

As can be seen from the eleven possible configurations of reasons for the openness of budget data, six configurations are natural for 22 regions. Note that the configuration of causes should be considered in the integrity of the presence and absence of quality, although the presence of a condition indicates its generating power. Thus, from the logical proposition (1), it can be concluded that the openness of budget data (open) is the result of complex solutions which consists from different present and absent conditions. For example, first solution (inf*serv*corient) means that the openness of budget data (open) in Russian regions is dependent of information society in region, citizen readiness for using electronic public service and citizen-oriented data. As can be seen from this complex solution, citizen-oriented data is a prerequisite for five combinations of conditions.

Using the factorization of Boolean expressions, we can obtain an even more economical formula and show this result (2).

$$Open = corient * (inf * serv + life * \sim inf * \sim serv + \sim life * \sim inc * inf + life * inc * \sim serv + life * inc * inf) + \sim corient * (life * \sim inc * inf + \sim life * \sim inc * \sim inf * serv) \quad (2)$$

It (2) shows that an open budget requires some basic requisites. First, the high development of the citizen-oriented data is necessary conditionally; second, lack of these data is combined with a high level of satisfaction with life, a relatively developed information society and the willingness to use the Internet to obtain public services. True, all these requisites are necessary conditionally, but insufficient reasons, because we see their combination with other factors (their presence or absence).

The same procedure for working with the truth table for 22 regions will be conducted, using as a result the development of the "budget for citizens" program using the evaluation of citizen participation in budgeting. From the truth table (Table 3), you can see that the configuration of the conditions is the same as for the budget openness. However, there are contradictory results encoded by the letter C in the sixth column, when this configuration generates the result and does not generate it. This is also obvious when we look at the raw consistency. Contradictory results require specific work with them. Charles Ragin says that their use is determined by theoretical considerations, which should be justified. It is clear that if we take into account that all the contradictory configurations give a positive result and include them in the analysis, then we will get the same final conclusion as in the case with the study of the openness of budget data. In this respect, formulas (1) and (3) could be similar. But we must first remove those assumptions in which there is no result. Then we get the following general solution (3) for this truth table.

Tabl. 3. Truthtable for relations between participation in budgeting and its requisites, 22 Russian regions in 2015

<i>Life</i>	<i>Income</i>	<i>Inf</i>	<i>Serv</i>	<i>Corient</i>	<i>Number of cases</i>	<i>Cit(QCA characteristic of outcomes)</i>	<i>raw consistency</i>
1	0	1	1	1	6	C	0.333333
1	1	1	1	1	3	C	0.666667
1	0	1	0	0	2	C	0.500000
0	0	0	1	0	2	C	0.500000
1	0	0	0	1	2	1	1.000000
0	0	1	0	1	2	1	1.000000

1	0	1	1	0	1	1	1.000000
1	1	0	0	1	1	0	0.000000
1	1	1	0	1	1	0	0.000000
0	0	1	1	1	1	0	0.000000
0	1	1	1	1	1	0	0.000000

$$Cit = life^* \sim inc^* inf^* \sim corient + life^* \sim inf^* \sim serv^* corient + life^* inf^* serv^* corient + \sim life^* \sim inc^* \sim inf^* serv^* \sim corient + \sim life^* \sim inc^* inf^* \sim serv^* corient \quad (3)$$

The relevance of the corresponding contradictory configurations to obtain the result (participation in budgeting) is not obvious. Using the logic of experimental analysis, we can say that these configurations are not necessary and sufficient for a "participation in budgeting", so we can neglect part of them with low consistency 0.333333. Then the result of the investigation will be formula (4), which gives a definite new result: in the configuration of conditions, a significant 'Serv' variable appears as important factor of participation in budgeting.

$$Cit = life^* \sim inc^* inf^* \sim corient + life^* \sim inf^* \sim serv^* corient + \sim life^* \sim inc^* \sim inf^* serv^* \sim corient + \sim life^* \sim inc^* inf^* \sim serv^* corient + life^* inc^* inf^* serv^* corient \quad (4)$$

$$Cit = corient^* (life^* \sim inf^* \sim serv + life^* inc^* inf^* serv + \sim life^* \sim inc^* inf^* \sim serv) + life^* \sim inc^* inf^* \sim corient + \sim life^* \sim inc^* \sim inf^* serv^* \sim corient \quad (5)$$

$$Cit = serv^* (\sim life^* \sim inc^* \sim inf^* \sim corient + life^* inc^* inf^* corient) + inf^* (life^* \sim inc^* \sim corient + \sim life^* \sim inc^* \sim serv^* corient) + life^* \sim inf^* \sim serv^* corient \quad (6)$$

In formula (4), using factorization, the conditions of the information society, the inclusion of the population in the use of electronic services, the quality of life, and citizen-oriented data are significant for the "participation in budgeting", but are neither necessary nor sufficient. Where then we see the unification of the existence of conditions, somewhere presence is adjacent to the absence. In formula (5), the 'corient' variable is singled out, which along with other conditions also becomes neither necessary nor sufficient.

Using qualitative comparative analysis, we showed one or another significance of the influence of independent variables, such as information and socio-economic requisites, on the openness of budget data and participation through a "budget for citizens." However, the hypothesis of the direct influence of the co-existence of these conditions has failed. None of them is neither necessary nor sufficient reason for the result. However, the study revealed that each independent variable performs its task of stimulating the movement to open budget data or to a "budget for citizens." The question of what none of them poses separately indicates the complex structure of the configuration of variables.

7. DISCUSSION AND FURTHER PERSPECTIVES

As the study showed, citizen-oriented data are an important condition for the development of "budget for citizens". However, they are not necessary, but only sufficient requisites for the development of citizen's participation. In this regard, consideration of the factors of the development of "citizen's budgeting" should be accompanied by an analysis of the complex set of conditions defined in the paper as *a structure of inclusive capacities*. The latter includes social, economic, political, and infrastructure components that provide the opportunity and willingness to participate in budgeting. Under the capacity for inclusiveness we understand a quality of region in which citizens have the opportunities for participation, that is, public

authorities are open to participation, budget data is oriented on the citizens, electronic infrastructure is well, and citizens have some practical skills for using electronic devices. It is also necessary to add qualities that characterize the satisfaction with life and the social state of participants who have material opportunities for free time, which is an important requisite for participation.

The effectiveness and efficiency of the structure of inclusive opportunities is largely determined by the nature of the political regime. In a democracy, this structure creates additional guarantees for the realization of human rights to participate in the decision of public affairs. It creates an important impetus for the democratic search for new forms of governance based on cooperation and co-production. In mixed modes, the structure of inclusive opportunities is intended first to demonstrate the willingness of the regime to follow new requests for participation and to legitimize the existing order. That is, it has limitations imposed by the system on development. *Although the logic of the "budget for citizens" involves the search for innovations, they are implemented within the commands coming from the power agents.* It is interesting, for example, that public opinion polls about the "budget for citizens" that are regularly conducted through relevant sites in Russian regions are, as a rule, truncated by a set of questionnaires, often formal, and the questions are closed. Of course, they fix the understanding of the situation primarily by authoritative agents and are more orientational rather than search engines. So, on the site of the "budget for citizens" of the Irkutsk oblast only 6% of respondents, answering the question "For what purposes can you benefit from the Irkutsk region's open budget website?" chose the answer option "for building a dialogue with the authorities" (openbudget.gfu.ru). Only 14% of respondents in the Krasnoyarsk kray are ready to submit their proposals on the articles of spending the budget (minfin.krskstate.ru/openbudget). This is, of course, a reflection of the gap between citizens and state authorities in the region. It should also be noted that the "budget for citizens" in the federal center is limited to information goals and does not involve detailed feedback from citizens. Although there are public councils and the Public Chamber of the Russian Federation, which take part in the discussion of budgetary matters, but in comparison with the regions and municipalities, the federal budget for citizens is limited for cooperation.

Imitative institutions of "budget for the citizens" inure for legitimating regimes in general, but also they are good factors for mutual learning for cooperation. Some regions use "budget for citizens" formally, but some of them try to initiate citizens for discussion and co-production of regional budget in direct or indirect senses. Transparency of budgetary data, its transformation for the citizens, and budgeting, initiated by citizens, affects on the complex character of Russian designs for inclusive budgeting. Residents of the regions as a whole are sympathetic to the new system of participation. So, 52% of respondents in Bashkortostan are ready to participate in the implementation of projects of proactive budgeting on the territory of the republic (gas.bashkortostan.ru/budget). They are even ready to take part in co-financing regional and municipal projects. To increase financial literacy in Russia, a system of training is being created that includes lessons in schools, seminars and webinars on relevant sites, an answer system for questions organized via the Internet and mobile applications, exhibitions and forums, etc.

The Russian experience of the "budget for citizens" is not unique, although its development allows us to talk about certain features and specific qualities. Probably, comparative cross-country studies will allow to more accurately answer the question of the mechanisms of citizens' participation in governance, the complex combinations of conditions and characteristics of inclusive abilities of countries, regions, governments. The issue of citizens' willingness to participate in co-production and co-governance is today key to inclusive growth and development in general. The budget refers to the central organizing principles of government policy. The extent, to which it will be democratic and open to participation, is the key to the effectiveness of its implementation and innovation.

8. CONCLUSION

This study examined complex configurations of factors that are associated with the development of open budget data and a "budget for citizens" in the Russian regions. In paper an influence of citizen-oriented data on the participation in budgeting has been studied. However a direct influence of this variable is not obvious. The main hypothesis that these factors have a direct impact on the process of formation of participatory budgeting was corrected in the sense that each factor generated a certain configurational link with other requisites of the studied processes. In its pure form, none of the factors has shown its effectiveness. These conclusions are based on the study of the 22 most developed regions in terms of the level of openness of budgets. To analyze the dependency configuration, a qualitative comparative analysis method (QCA) was used. Of course, further studies of a greater variety of conditions and cases may lead to a refinement of these findings and the formation of new conceptual approaches.

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