

OPEN BUDGETS: OPEN DATA AS A TOOL FOR FISCAL TRANSPARENCY¹

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Abstract. While the transparency and openness have become well established principles of good governance, including the area of public finances, open data represent more recent and less rooted phenomenon in the practice of public administration. This paper deals with concepts of budget transparency, openness and open budget data. Interrelated concepts and elaborated and distinguished and analysed in the case of Croatia. Special emphasis is on the availability of budgets in open formats. i.e. open budget data. An analysis is conducted at the local level of government in Croatia, by exploring the availability of open budgetary documents among 17 big cities. While legal requirements for publishing open budget data are in place, in practice differences in their availability among local units and different type of financial documents can be found.

Keywords: Open data; open budget data; budget transparency; budget openness; local units; Croatia.

1. Introduction

Today, the principles of government transparency and openness are inevitable components of good governance, in the meaning of the availability of information to citizens' and the possibility for individuals and legal entities to participate in the governance processes. When it comes to public finances, they are particularly emphasized because citizens' familiarization with government revenues and expenditures represents a basic mechanism for holding public authorities to account by controlling public spending, as well as for protecting taxpayers' rights, and public participation.

In the area of public finances, transparency occurs in three main forms – budget transparency, fiscal transparency, and tax transparency. Although often used interchangeably, these concepts differ in content and scope. The principle of budget transparency is one of the youngest budget principles and it is related to the public availability of budget procedures and budget documents. Informing citizens about government spending represents a mechanism for holding government accountable for its actions, which means it is an instrument for performing public oversight. It also diminishes opportunities for corruptive and other unethical behaviour and has potential to strengthen the legitimacy and public trust in political institutions. Therefore, over the years it evolved into a wider concept of fiscal transparency. Fiscal transparency has intensely been advocated by international organizations, such as International Monetary Fund, World Bank, United Nations, and others, particularly within the initiatives such as Open Government Partnership (OGP) and other anti-corruption programs. As a principle, fiscal

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transparency is more related to the (rational) management of public resources and the expenditure side of the budget. Thus, it includes standards such as comprehensiveness, clarity, reliability, timeliness, and relevance of public reporting on the past, the present, and future state of public finances (Bronić, 2013: 29). According to the International Monetary Fund's Fiscal Transparency Code basic foundations of fiscal transparency are fiscal reporting, fiscal forecasting and budgeting, fiscal risk analysis and management, resource revenue management. On the other hand, tax transparency refers to the revenue side of the public finance system. Tax transparency primarily focuses on enabling tax authorities to collect taxes in line with the worldwide principle and hence achieving the principle of equity in taxation. In sum, transparency is of major importance due to its autonomous significance and its capacity to provide an instrumental value for other principles of sustainable governance, such as the rule of law, participation and inclusiveness, accountability, effectiveness, and efficiency.

In this paper, we analyse the dimension of budget transparency and openness with a special focus on the availability of budgets in open formats, i.e. open budget data in Croatia. Therefore, the main research question is related to the level of availability of open budget data at the local level of government in Croatia. The research is conducted relying on an analysis of official websites of Croatian local units (the category of so-called 'big cities'). The structure of the paper is as follows. First, in Section 2 a theoretical contribution to the existing literature and indexes is provided by emphasizing an important conceptual distinction between transparency, openness, and open budget data. This section is followed by examples of international and national initiatives and research related to the transparency and openness of budgets (Section 3). Further the legal framework for fiscal transparency and openness and its implementation in Croatia is analysed (Section 4). In Section 5, the findings from the research on the availability of open budget data at the local level of government in Croatia are presented. The last part of the paper provides concluding remarks (Section 6).

2. Budget Transparency, Openness, and Open Data – A Conceptual Distinction

In the literature, as well as in different international benchmarks, terms of budget transparency and openness are often used as synonyms. Although interrelated, they refer to different processes in the relationship between the government and the public (see Figure 1). The principle of *transparency* is related to the visibility and availability of different types of government information to the public, i.e. it connotes a one-way process of communication from government to the public (Musa, 2017). Instruments for achieving government transparency are numerous and include publishing different catalogues, brochures, databases and other types of information available on official websites of governments organizations (proactive provision of information), but access to government information can also be achieved upon request (passive provision of information) (Musa, 2017: 35). Applied to fiscal policy area, the transparency dimension, among other things, encompasses the availability of financial documents and information to the public, usually at official websites of public authorities. This includes, for instance, budget and budgetary projections, revisions and amendments of the budget, reports on budget implementation, financial plans and other strategic documents, etc. Countries' legislations prescribe the obligation to publish budgetary documents to provide the public with insights into disposing of public funds, and at the same time, to encourage the public to take a more active part in procedures on deciding about the spending of public funds. The responsibility of public authorities for disposing of public funds is an important component of the

concept of budgetary transparency which has been complemented by the concept of fiscal responsibility – the responsibility of public officials for set fiscal goals, but also for efficient and rational disposal of public funds.

The principle of government *openness* is wider since it not only includes but also goes beyond the principle of transparency– citizens' access to information is a prerequisite for public participation and the opportunity to provide feedback information. Therefore, openness is related to the possibility of the public to provide their opinions, suggestions, and comments to the government on different aspects of its functioning (Musa, 2017; Đurman, 2016). Instruments for achieving government openness include different instruments for involving the interested public in the policy-making process, such as working groups for drafting regulations, public consultations, citizens' panels, questionnaires etc. In different countries, diverse instruments are applied, and they differ in the mode of involving the public, the level of inclusiveness and influence provided to the public, and other features of the participatory process (Đurman, 2020; Đurman et al., 2023). In the fiscal policy area, government openness refers to various opportunities for the public to deliver their opinion and suggestions about public finances, especially concerning the budgetary process. Alongside e-consultations which is a common participatory instrument in policy-making process in general – including fiscal policy area, participatory budgeting is a particularly important instrument that can ensure public influence on the allocation of local budgets.

Finally, *open data* relates to government information that is accessible in machine-readable and open formats and appropriate for re-use for different purposes. Open data is a relatively new, but rapidly evolving practical phenomenon as well as an interdisciplinary research area. It represents a distinct aspect of government transparency since open data has to be available to everyone in an open and machine-readable form, free of charge. Open data providers are largely public authorities, since they collect, produce, and distribute a large amount of data within the scope of their jurisdiction, but it is not excluded that open data is also published by the private or civil sector. Open data users (for example, individuals, NGOs, private businesses, media, academia, etc.) represent an inherent element in producing the outcome of the data (re)use (different applications, sophisticated business products, scientific research and analyses, etc.). The main reasoning behind open data is its re-use for various commercial or non-commercial purposes. In other words, open data is expected to have vast economic potential, as well as promote democratic and participatory government. These include a broad spectre of benefits – from more quality public services, more efficient public sector organizations and strengthening citizens' trust in institutions, to establishing new jobs and fostering economic growth (Đurman et al., 2022: 150; Musa et al., 2021: 275).

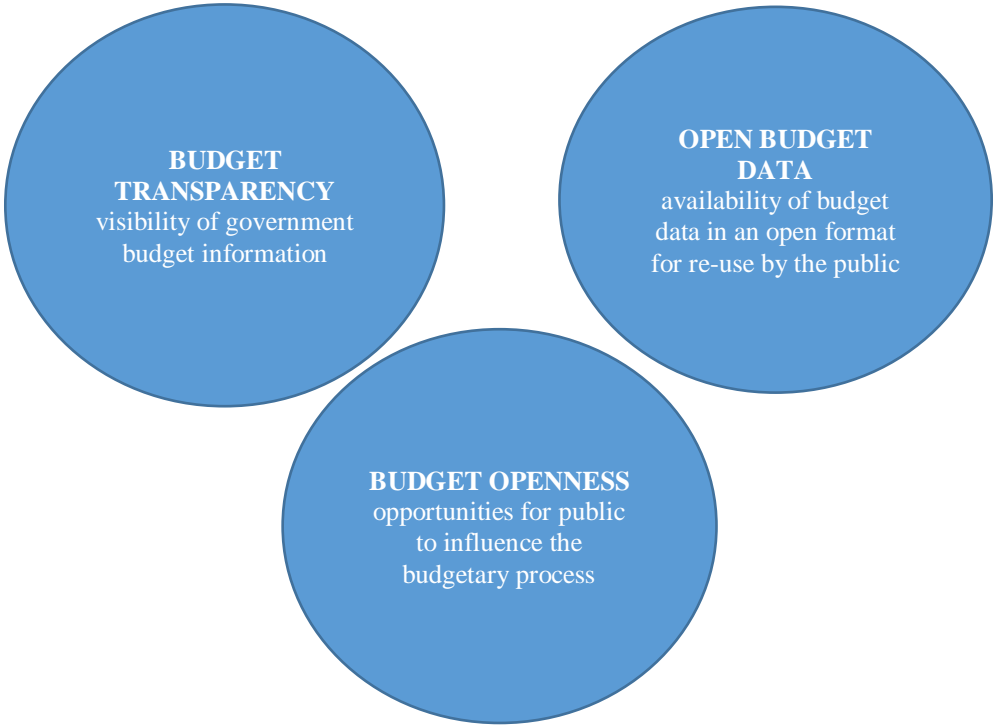
Open data can be available at open data portals as central platforms for providing government open data (at the national or local level), as well as at official government organizations' websites. Open data can be available at all levels of government and in different thematic areas. One of the first categorizations was given by Dekkers et al. (2006), including the following categories of open data: business data (e.g. data held by the chambers of commerce, business registers, etc.); geographic data (addresses and postal codes, cadastral data, topographic maps, etc.); legal data (national and international legislation, international agreements, court decisions); meteorological data (weather monitoring and weather forecasts); social data (various statistical data - economic, health, employment

data, etc.); and transport data (public transport data, driving timetables, registrations, etc.). Other categorizations also exist, but do not differ substantially (statistical, business, etc.).⁶

In relation to budget transparency, open budget data is a particularly salient category of open government data, because of its close interrelation to achieving government accountability and legitimacy. The assumption is that the general public is interested in knowing how public money is spent and to be able to access but also re-use this type of data, especially some categories of public, such as researchers, NGOs, journalists, etc. (more on different aspects of open data in: van Loenen et al., 2018; Charalabidis et al., 2018; on open data in Croatia see: Musa et al., 2021). Therefore, open data is an important tool for the budget as well as fiscal transparency.

The quality of open data mostly refers to their level of openness, i.e. formats in which the data is published. To be considered as open, data should correspond to at least a 3-star rating level, according to the Five Star Open Data scale designed by Tim Berners - Lee. According to Bernes – Lee categorization, fully unstructured, i.e. closed data sets (such as PDF files) are classified with one openness star. Two stars rating level is achieved if there is a certain structure of published data sets, but also closure in terms of branding, such as Microsoft Excel files (XLS). If the closedness of the data is removed by branding, the datasets acquire three stars openness level (for example, CSV. files). When the conditions for classification with three stars are met, and the data is additionally addressed, it is a question of classification of data sets according to four stars of openness, such as files in .XML and .JSON formats. By meeting all the conditions of classification with four stars of openness with the possibility of connecting published data, for example by describing data using the RDF framework, the highest level of data openness classified with five stars is obtained (Musa et al., 2021: 278-279).

Figure 1. Budget transparency, budget openness and open budget data – conceptual distinction



⁶ See, for instance, Open Knowledge Foundation categorization. <https://blog.okfn.org/2013/10/03/defining-open-data/>

Source: authors

The importance of budget transparency is mirrored in the international organizations' initiatives on measuring its levels and the research on the topic. Some of the initiatives and research has a more general approach, investigating various aspects of budget transparency (e.g. availability of budget information or budget documents to the public), while others focus on a specific budget transparency issue, such as the availability of information on public expenditures.

Open data initiative has been on the OECD's agenda since 2017 when it published the OECD Budget Transparency Toolkit containing standards and guidelines on budget transparency. The OECD emphasizes that the public availability of budget data in open digital form represents an important tool for analysis, evaluation and participation of citizens and civil society in public budgeting. A better understanding of the budgetary process enables more quality participation and contribution (OECD, 2017). Regarding open data, the OECD provides for policy requirements on minimum standards of open data, access to open budget data and integrating open budget data portals with existing portals.

Internationally, probably the best-known address for the issues of budget transparency is the International Budget Partnership. The research project Open Budget Survey⁷ has been conducted since 2006, providing comparative information on public engagement in the budget process. Governance and participation are measured on participation, oversight and transparency criteria. The survey is filled out by the rigorous objective methodology subject to independent peer review: the same 228 questions for each country are filled out by researchers from civil society organizations and academic institutions which focus on budget issues. Questions relate to the public availability of budget information, the opportunities for the public to participate in the budget process, the role of the legislature and the supreme audit institution, as well as background information on key budget documents and the country's public finance management. Each country's report is subject to review. The survey results in findings on opportunities for public engagement in the budget process as well as examines the stakeholders' role in the budget process. It is expressed as an Open Budget Index, rating countries on public availability of key budget documents and providing conclusions on raising, planning and spending of public resources.

Another important initiative is by Global Initiative for Fiscal Transparency (GIFT)⁸ which gathers 58 members and aims at "sustained and measurable improvements in fiscal transparency and inclusive participation by advancing global norms, peer-learning, collaborative assistance and promoting the use of digital tools". The members are ministries of finance, civil society organizations, financial institutions, etc.

3. Budget Transparency and Openness in Croatia

In Croatia, the legal framework for ensuring budget transparency includes general transparency legislation and specific budget regulation. The Law on the Right of Access to Information (2013) as a systemic regulation for ensuring government transparency postulates an obligation for all public authorities to publish different

⁷ IBP Open Budget Survey information available at <https://internationalbudget.org/open-budget-survey/>

⁸ Information on Global Initiative for Fiscal Transparency (GIFT) available on <https://fiscaltransparency.net/>

government acts, documents and information, including financial documents, plans and reports, while the Budget Law as a specific, sectoral law mandates transparency of financial documents. According to the Law on the Right of Access to Information, financial documents and information should be published in easily searchable and machine-readable form (Article 10). The principle of budgetary transparency stipulates that budget and financial plans should be enacted and executed in accordance by the principle of transparency which means accurate publishing of relevant documents, data and information in a systematic manner (Budget Law, Article 15).

However, the change of Budget Law moved the obligation to publish from listing specific budgetary information as transparent (budget and budgetary projections, revisions and amendments of the budget, decisions on temporary financing, reports on budget implementation, annual financial reports, strategic documents, financial plans, and public procurement procedure), to more vague components – relevant documents in a systematic manner. In other words, instead of applying a qualitative dimension of budgetary transparency (value use of data) current legislation focuses on a quantitative dimension allowing for discretion in its implementation and might even hinder further improvements and standardization of the practice. Namely, the actual achieving of transparency does not represent a longing for the realization of an abstract principle, but it has practical importance in several aspects of the functioning of public funding system – starting from mechanisms of supervision of spending public funds, strengthening of accountability of public officials, achieving equity in taxation, making all taxpayers paying a fair share of taxes and finally, securing sufficient funds for financing public needs of the highest standard in contemporary society.

Still, in the course of the years, a continuous and significant improvement in the level of government budget transparency has been achieved at the national, local and regional level during the last decade (Đurman et al., 2023). This can be argued based on formal national reports, such as annual reports on the implementation of the Law on the Right of Access to Information by the Information Commissioner (specialized appeal authority for the right of access to information), scientific and professional analyses (such as annual analysis of the budget transparency of local and regional units in Croatia by the Institute of Public Finance), as well as some cross-national benchmarks (for example, Open budget index and others). In sum, a more consistent government transparency and openness policy is in place in general, as well as an open data policy (introduced in 2018), which reflected the level of budget transparency albeit in terms of quantitative demands. According to the Report of the Information Commissioner (2022), the level of proactive transparency of public authorities in general is the highest for the category of financial documents – 86.5% of all public authorities published financial reports in 2021, 85.3% published financial plans/budgets and 78% published reports on budget implementation, and there has been a continuous increase in the percentage per year in all these categories. The level of local and regional transparency has also been increasing every year, with the most transparent being counties (Croatian regional units), followed by cities (urban type of local units), while municipalities (rural type of local units) proved to be the least transparent, although with greatest disparities between them.⁹

With regards to the openness dimension, online public consultations (e-consultations) represent a mandatory participatory instrument (according to Law on the Right of Access to Information, in all policy areas, including

⁹ Indicators used in the analyses by Croatian Institute of Public Finance include annual and semiannual execution of budget, budget approved and budget projections, and citizens' budget. https://www.ijf.hr/transparentnost/?params_1=transparentnost

fiscal policy), and are largely consistently applied, especially at the national, but also at the local and regional level (with some deficiencies related to the duration of e-consultations, publishing reports on conducted e-consultations, and low level of public interest to participate). The results of an analysis conducted by Đurman et al. (2023) suggested that the level of public interest in the area of fiscal policy is slightly lower when compared to social, technical and economic policy areas, but the comments are rather well-informed and largely submitted by experts and/or professional associations and organizations involved in the implementation of policy, which positively affects the level of responsiveness towards participants in the e-consultations on fiscal matters.

Additional participatory instruments are facultative and rarely applied in Croatia, such as participatory budgeting. Participatory budgeting is a participatory instrument specifically applied at the local level of government, enabling citizens to be consulted or to co-decide on local budget issues, especially in capital (investment) expenses. Although it can empower citizens and enable deliberation on issues affecting their everyday life, often a relatively low percentage of citizens gets involved, and usually participants can decide only about the small share of the local budget (see Džinić et al., 2016). Participatory budgeting has recently become a more often applied instrument in Croatian cities (i.e. urban units of local government). Around 30 cities are implementing the instrument during the budgetary process, although with some significant differences in its implementation. Džinić (2021: 235–241) finds that only a few cities conduct ‘actual’ participatory budgeting (i.e. participatory budgeting containing all the substantial elements), while other forms implemented on local units rather represent attempts for participatory budgeting. There are some examples of ‘good practice’ including educational budgetary games and ‘real’ participatory budgeting, but they could be described more as islands of excellency than as common practice. Some international benchmark scores for Croatia point in the same direction, such as the Open Budget Survey 2021.

Budget transparency has been for several years assessed by the Institute of Public Finance. Their first open budget index related to budget transparency of 33 Croatian cities¹⁰ – the disclosure of budget information by local units and the openness of local units to the public was measured. The research later progressed and included all Croatian local and regional units. The result was an open local budget index (OLBI)¹¹, based on the public availability of budget documents, providing insight into public participation and accountability. Subsequent research efforts¹² focus on the impacts/consequences of such increased local budget transparency, especially regarding election outcomes, voter turnout, deficit, debt accumulation and budget credibility.

One of the first Croatian budget transparency efforts made by a local unit was the project Pazi(n), proračun!¹³, which started in 2014 and aimed at more active citizens’ participation in the budgetary process. The citizens were able to propose funding of certain utility services, which was subsequently discussed and voted on the communal level (Croatian: *mjesni odbor*). The project’s web pages included detailed information on budget revenues and expenditures in html format. The project was continued in the subsequent budget cycles, representing an interesting example of participative budgeting.

¹⁰ See more on <https://www.ijf.hr/en/research/finished-research/?tid=348>

¹¹ See more details on <https://www.ijf.hr/en/research/finished-research/?tid=443>

¹² More information on <https://www.ijf.hr/en/research/current-research/?tid=440>

¹³ Information about the project available at <https://proracun.pazin.hr/o-projektu-pazin-proracun/>

Another initiative worth mentioning was started by the City of Bjelovar¹⁴, which provided its citizens with an application listing all payments from the city budget, including all payments to legal and natural persons. The aim is to allow citizens insight into every expenditure hence achieving the highest level of transparency and preventing corruption. Similar initiatives, such as budget applications and efforts to achieve ‘complete’ budget transparency i.e. public availability of all local units' public expenditures were undertaken by the City of Split¹⁵, City of Trogir¹⁶, as well as municipalities of Omišalj¹⁷ and Primošten¹⁸.

4. Open Budget Data in Croatia

4.1. Open data in Croatia

In Croatia, a formal open data policy was adopted in July 2018 by the Croatian Government.¹⁹ However, open data existed earlier in sectoral areas such as geospatial data, while as a part of systemic regulation they were introduced in 2013 with the Law on the Right of Access to Information which transposed the Public Sector Directive Directive (see Musa. 2019). The Law requires all public sector authorities to make information and data available to the public on the official web site whenever possible, in open and machine-readable formats. Government organizations included in the coordination of the open data policy are the Central Government Office for the Development of Digital Society, the Coordination for Open Data Policy, and the Information Commissioner (Musa and Đurman, 2023: 1723).

Sources of open data include the Open Data Portal of the Republic of Croatia as a central platform for assembling and (re)use of public sector open data.²⁰ The Portal currently contains 2.365 datasets.²¹ The portal collects data from different public authorities - ministries and state administrative organizations, central state offices, agencies, local and regional units that publish data in open formats, and other public authorities. Datasets can be searched by the topic (13 topics, such as economy and finance, population and society, environment, etc.), publisher (50 public authorities), format and openness according to the Tim Berners-Lee scale, and data refresh frequency. Open data is also available on some specialized portals (such as environment, geodata, statistics, etc.) and local open data portals. Several cities (such as Zagreb, Rijeka, Virovitica, Varaždin) established their open data portals, while some other local units offer registers or other information in open formats. Local portals include open data in areas of education and health, business and tourism, environment, energy, transport, public finances, infrastructure, institutional and statistical data, etc. (see Musa and Đurman, 2023).

¹⁴ More information on City of Bjelovar's budget transparency available on <https://www.bjelovar.hr/grad-bjelovar-najtransparentniji-grad-u-hrvatskoj/>

¹⁵ <https://transparentno.moj.split.hr/>

¹⁶ <https://trogir.hr/trogir-uveo-aplikaciju-za-otvoreni-proracun-svaka-gradska-kuna-mora-bit-transparentna-i-ovo-gradanima-vise-nitko-nikad-ne-smije-oduzeti/>

¹⁷ <https://omisalj.transparentor.org/>

¹⁸ <https://primosten.transparentor.org/>

¹⁹ Other strategic acts, including Action plan which has been foreseen by the Policy, have not been issued yet (Action plan is in the process of drafting).

²⁰ The Portal was established in 2015 by the Ministry of Public Administration.

²¹ <https://data.gov.hr/>

4.2. Research design and methodology

Different national and cross-national comparisons show limited, but useful insights, mostly on the transparency aspect of budgets. The aim of the paper, therefore, is to investigate the availability of open budget data in Croatia, where open data is largely still an emerging research area and most of the specific categories of open data and their effects have not been assessed yet (Đurman and Musa, 2023: 1724). Therefore, the main research question of the paper is formulated as follows: *what is the level of availability of local budgets in open formats, i.e. as open data (open budget data) in Croatia?* The analysis is conducted at the local level of government in Croatia, within the category of so-called 'big cities'. The category of 'big cities' has been legally introduced in 2005 with the Law on the local and regional self-government, referring to those cities in Croatia with a population above 35,000 inhabitants and with a slightly broader scope of affairs in relation to 'regular' cities. Currently, the category encompasses 17 Croatian cities. Therefore, with a limited sample, this analysis is envisaged as the first phase of a research study on open budget data in Croatia.

Theoretically, we can assume greater citizens' interest in engagement at the level of government 'closest' to them. In addition, one of the main purposes of local government is to serve the needs and preferences of local citizens.²² However, since open data is largely a new phenomenon, not only as a research area but also in practice, it can be assumed that local units with greater financial and personal capacities will be more advanced in embracing the new development related to open budgets. As mentioned above, there is a legal obligation to publish budget data in open formats according to systemic law (Law on the Right of Access to Information) as well as sectoral regulation (Budget Law). However, local and regional self-government in Croatia has often been lagging behind with respect to the adoption of various administrative reforms.²³ Therefore, we limit our analysis to the category of 'big cities', while a more comprehensive analysis will be conducted after obtaining preliminary results from this analysis.

To answer our research question, the official websites of 17 Croatian 'big' cities (urban type of local units), were analysed. According to the Law on the Right of Access to Information and the Budget law, cities are required to publish financial acts and documents in open and machine-readable forms. The analysis of the content of cities' websites was conducted during May and June 2023. Five categories of financial acts and documents were analysed - report on the annual execution of the budget in 2020, report on the half-year execution of the budget in 2021, budget proposal for 2022, budget for 2022, and budget guide for citizens for 2022. For each category it was analysed whether it was published and in which formats. If published in formats such as xml, csv or excel, budgets were assigned as open, while those available in pdf or jpg were not categorized as available in open formats.

²² In administrative science, it is generally accepted that one of the basic roles of local self-government is political, i.e. "expressing and aggregating the interests of the local citizens, and participating in political decisions about these interests, as well as their implementation" (Koprić, 2012: 8; Koprić et al., 2014: 255). Local level is considered to be more suitable for different forms of citizen participation than the central level of government. Issues within the jurisdiction of local politico-administrative bodies concern their everyday interests. Therefore, providing instruments for enabling citizens to express their 'voices' and receive feedback is the main purpose of local government. Local government also more relies on instruments of direct citizen involvement than national or regional (Gaster, 1999: 132; Peters, 1996: 58).

²³ More on local self-government in Croatia see, for instance: Koprić (2018; 2015; 2014),

4.3. Findings and discussion

As presented in Table 1, almost one-third of analysed cities (6 out of 17, 35,29%) do not publish reports on budget execution (both annual and half-annual) in open formats. Best scores cities achieved in the category of published budget for 2022, where 13 cities used open formats (17,47%), 3 cities published budgets in closed formats (17,65%) and 1 city did not publish the document (5,88%). Budget proposals are not published as a separate document from final budget in the case of 6 cities (35,29%), while 4 of them published proposals in non-machine-readable formats (23,53%), and only 6 cities published budget proposals in open formats (35,29%). Except for one city, budget guides for citizens are available, but mostly not in open formats (PDF). Open formats used by analysed cities include Excel and Word (see Table 1, often combined, also with PDF).

Table 1. The analysis of open budget data availability in Croatian big cities

CITY OF	Report on the annual execution of the budget in 2020	Report on the half-year execution of the budget in 2021	Budget proposal for 2022	Budget for 2022	Budget guide for citizens for 2022
	open format				
Bjelovar	No (PDF)	No (PDF)	-	Yes (Excel, PDF)	No (PDF)
Dubrovnik	Yes (Excel, Word)	Yes (Word, PDF)	-	Yes (Word, PDF)	No (PDF)
Karlovac	Yes (Excel, PDF)	Yes (Excel)	-	Yes (Excel)	Yes (Word)
Kaštela	Yes (Excel)	No (PDF)	Yes (Word)	Yes (Excel)	No (PDF)
Osijek	Yes (Word)	Yes (Word)	Yes (Word)	Yes (Word)	-
Pula	Yes (Excel, Word, PDF)	Yes (Excel, Word, PDF)	-	Yes (Excel, Word, PDF)	No (PDF)
Rijeka	Yes (Excel, PDF)	Yes (Excel, PDF)	No (PDF)	Yes (Excel, PDF)	No (PDF)
Samobor	Yes (Excel, Word)	Yes (Excel, Word)	Yes (Excel)	Yes (Excel)	No (PDF)
Sisak	No (PDF)	No (PDF)	No (PDF)	No (PDF)	No (PDF)
Slavonski Brod	No (PDF)	No (PDF)	Yes (Excel, Word)	Yes (Excel, Word)	Yes (html)
Split	No (PDF)	-	-	Yes (Excel, Word, PDF)	Yes (html)
Šibenik	Yes (Excel, Word, PDF)	Yes (Excel, Word, PDF)	Yes (Word)	Yes (Word)	No (PDF)
Varaždin	Yes (Excel)	Yes (Excel)	-	Yes (Excel)	No (PDF)
Velika Gorica	Yes (Excel)	Yes (Excel)	Yes (Excel)	-	No (PDF)
Vinkovci	No (PDF)	No (PDF)	No (PDF)	No (PDF)	No (PDF)
Zadar	No (PDF)	No (PDF)	-	No (PDF)	No (PDF)
Zagreb	Yes (Excel)	Yes (Excel)	No (PDF)	Yes (Excel, Word, PDF)	No (PDF)

Source: authors

The analysis conducted within the category of Croatian ‘big cities’ points to significant differences with regard to the availability of budgets as open data. Financial documents are published by local units although – as this

preliminary analysis suggests – not always in open formats. However, the results are not discouraging – a large majority of analysed cities have made final, voted versions of their budgets available in open formats on their official websites, and two thirds of cities have done so for the reports on the execution of the budget for the previous year. Budget proposals are not always published as a separate document (probably in the cases the final, voted version of the budget did not undergo modifications).

Since analysed category of local units - which in general possess greater personal and financial capacities than other, 'regular' cities, and even more so compared to municipalities (rural type of Croatian local units) – points at certain deficiencies in publishing open budget data, it could be assumed that a more comprehensive analysis encompassing all local units in Croatia (555 in sum, 127 cities and 428 municipalities) would discover more diverse, but probably much poorer state of open budget data. Such an analysis is planned as the next stage of the research.

5. Conclusion

Since open data is a rather new phenomenon in the practice of public administration, and particularly so in the case of Croatia, the research question of the paper was formulated in an explorative way – what is the level of availability of open budget data at the level of local units in Croatia. The analysis, envisaged as a first phase of the research, was conducted within the category of 'big cities' in Croatia. Our preliminary analysis of state of open budget data in Croatia has shown that while legal requirements for publishing open budget data are in place, in practice differences in their availability can be found, not only between particular cities, but also within a particular city (between different categories of analysed documents). The majority of Croatian big cities is familiar with the requirements about availability of financial documents in open formats, although almost one fifth fails to publish all analysed categories of financial documents in open formats, and one-third of them failed to publish at least one of the analysed categories of financial documents.

The methodological shortcoming of this analysis is related to a small sample of analysed local units, suggesting a need for more comprehensive analysis, which would encompass all 555 local units in Croatia (both cities and municipalities). However, the analysis is useful because it was conducted within the category of big cities, i.e. local units with better administrative capacities, for which better scores in publishing open data could be assumed. Second, although this analysis provides insights on the availability of open budget data (and not only on the transparency and the openness aspects), another limitation of the paper is a focus on quantitative (which document) and technical (which format of the document) aspects of financial documents. In other words, the analysis does not provide insights into the quality of published budgetary documents, even when available in open formats. The qualitative aspect of open budget data is another interesting topic which should be explored in future research endeavours.

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