COVID-19 as a driver for e-participation: insights from participatory budgeting in Poland

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Abstract

Purpose – This paper explores how COVID-19 has impacted the shift from public participation by conventional means to e-participation. Specifically, we investigated to what extent COVID-19 has been a driver for electronic participation in community participatory budgeting, which is a kind of residents' consultation on how to spend part of a budget on local projects. We expounded on the concept of e-participation and its sub-concepts and investigated how these were applicable to participatory budgeting.

Design/methodology/approach – We interviewed 34 leading managers in five City Halls in Poland regarding their views and experiences with moving public interactions related to participatory budgeting online during COVID-19.

Findings – The findings indicated that COVID-19 has accelerated the digitalization of the participatory budgeting processes and, to some extent, may have increased community participation in general. We observed increased e-participation in the forms of e-consultation, e-deliberation, e-lobbying and e-voting.

Originality/value – Mainly, this study contributed to the field by providing empirical evidence that COVID-19 increased various forms of e-participation as related to participatory budgeting. Moreover, we delineated various forms of e-participation and mapped them to activities in participatory budgeting.

Keywords COVID-19, E-consultation, E-deliberation, E-lobbying, E-participation, E-referendum, E-voting, Participatory budgeting

Paper type Research paper

Introduction

Involvement or participation in policy and decision-making activities by the general populace constitutes an important aspect of democracy. In fact, the word "democracy" with its origin in Greek, basically means a system of governance ("kratos") by the people ("demos"). Meanwhile, e-democracy refers to the utilization of information and communication technologies (ICT) in implementing democratic decision-making processes (Roztocki, Strzelczyk, & Weistroffer, 2022a). As citizen participation is an important aspect of democracy, e-participation is an important part of e-democracy.

Above all, e-participation or applying ICT in the context of citizen engagement has the potential to enable more people to get involved in these decision-making processes more regularly and on a broader scale. Moreover, e-participation provides a more convenient path to citizen involvement by means of personal computers, tablets, or mobile phones.

Participatory budgeting is a specific form of citizen involvement in public decision-making. It is a concept that refers to including residents in spending decisions on a portion of public funds. Participatory budgeting was first introduced in the 1980s in Porto Alegre, Brazil (Sintomer, Herzberg, & Röcke, 2008). Since then, participatory budgeting has been instituted in many municipalities across the globe, including many European countries, both Western European as well as transition economies, that is, countries that are in the process of transition from a planned economy to a market economy, such as Croatia, Czech Republic, Poland, and Slovakia (Džinić, Svidroňová, & Markowska-Bzducha, 2016; Kukučková & Bakoš, 2019).

Lockdowns, quarantines, and other mobility-related restrictions during COVID-19 have resulted in many people working from home (e-office), students studying remotely (e-learning), and medical professionals consulting with patients virtually (e-health), using ICT. It seems evident that COVID-19 served as a catalyst for speeding up the general digitalization trend (Soto-Acosta, 2020). However, we know little about how COVID-19 affected various forms of e-participation by the public in community affairs.

Thus, in this research, we aimed to address this issue and explore to what extent COVID-19 has also been a driver for e-participation. Specifically, we investigated residents' participation in one particular aspect of local democracy, namely participatory budgeting. Thus, our main research question was:

RQ1. What impact has COVID-19 had on e-participation with respect to participatory budgeting in Poland?

Based primarily on 34 interviews of leading managers in five City Halls in Poland, we investigated the impact of COVID-19 on changing public behavior with respect to participation in municipal budgeting, looking at changes in total participation and at the shift from paper voting to e-voting, i.e. e-participation. We asked the leading managers about their observations on various e-participation forms and tools.

The results indicated an increased willingness of residents to vote on participatory budgeting by digital means, i.e. e-voting. Moreover, the use of various other forms of e-participation emerged in the interviews. These included e-deliberation, e-lobbying, and e-consultation, which the residents embraced during the process of participatory budgeting.

By investigating the residents' participation in one particular aspect of local democracy, namely participatory budgeting, the main contribution of this study was to show that COVID-19, indeed, increased various forms of e-participation. Moreover, our findings demonstrated that e-participation during participatory budgeting seems to be an effective way to involve more people in political decision-making and to practice democracy, i.e. e-democracy.

The rest of the article is organized as follows. After providing some background to our research on e-participation in general and on participatory budgeting in Poland, we describe our research approach. Next, we present and discuss our findings and conclude with a brief recap of our contribution and opportunities for future investigations.

Background
e-participation
According to Cambridge English Dictionary (2024c), to participate means "to take part in or become involved in an activity." As mentioned earlier, an important aspect of democracy is involvement or participation in policy and decision-making activities by the people, and digital technologies provide opportunities and channels for such involvement for the general populace (Pinto, Macadar, & Pereira, 2023). According to the 2020 UN e-Government Survey (United Nations, 2020) and as stated earlier, participation by digital means, that is, e-participation is the "process of engaging citizens through ICT in policy, decision-making, and service design and delivery in order to make it participatory, inclusive, and deliberative." Based on that, we define e-participation as the utilization of ICT to engage citizens in the discourse with politicians and governments. Moreover, e-participation has the potential to

greatly affect the direction of socioeconomic development, by shifting the power-balance among different societal groups. e-Participation may take multiple forms, including e-voting, e-deliberation, e-petitioning e-lobbying, e-consultation, and e-referendum. An important facilitator for all of these types of e-participation is e-information, i.e. information through electronic means, which is necessary to inform and encourage citizens to participate. Figure 1 shows these major modes of e-participation. We explain them in the following paragraphs.

e-Information: According to the Cambridge English Dictionary (2024b), information is "facts about a situation, person, event, etc." Traditional sources of information are books, newspapers, television, and radio. Besides these conventional information media, people can also acquire or distribute information by means such as verbal communication or posters, leaflets and newsletters, and social media. Information communicated via digital media is e-information.

The 2020 UN e-Government Survey (United Nations, 2020) states that "providing citizens with public information and access to information without or upon demand" is essential for their participation in the public discourse. Though not considered to be strictly participatory by some authors, as e-information often is considered as one-way, top-down information dissemination to the general public, it is necessary to realize e-participation. In her model of e-democracy, Kneuer (2016) views e-information as both top-down and bottom-up, as citizens may respond and provide supplementary information to the authorities as well as to other citizens.

e-Voting: According to Cambridge English Dictionary (2024f), to vote means "to express your choice or opinion, especially by officially writing a mark on a paper or by raising your hand or speaking in a meeting." Merriam-Webster Dictionary (2024c) defines voting as "to choose, endorse, decide the disposition of, defeat, or authorize (someone or something) by vote." In general, voting is a broad term, and voting procedures can be applied in many settings and for various purposes, such as electing (or recalling) political representatives, public referendums, or in parliamentary actions.

We define e-voting simply and broadly as any voting that involves electronic means (Svensson & Leenes, 2003; Roztocki, Strzelczyk, & Weistroffer, 2022b). As with voting in general, there are many types of e-voting, and depending on the setting, e-voting may be used by ordinary people as well as elected or appointed officials and government members. Moreover, e-voting may serve in general elections, such as for the president of a country or for a legislative representative, or it may serve to decide on specific issues within smaller regions and groups.

e-Referendum: According to the Cambridge English Dictionary (2024e), referendum refers to "a vote in which all the people in a country or an area are asked to give their opinion about or decide an important political or social question." Beigbeder (2011, p. 2) defines referendum as a "direct vote by the electorate of a country to advise or decide on a specific issue, in contrast to votes for individual candidates." Referendums may be considered to be an instrument of direct democracy, as citizens directly vote on an issue, rather than indirectly, through their elected
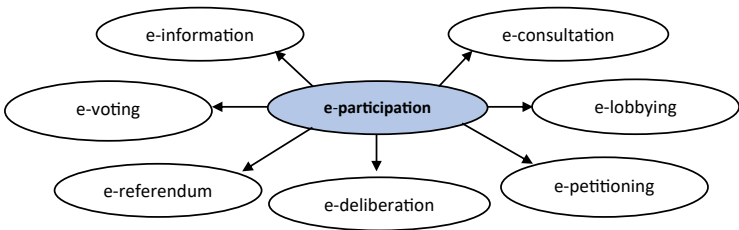
Source(s): Own elaboration

Figure 1. Forms of e-participation

representatives (Rose, 2019). Both authorities and citizens can initiate referendums and they may be binding or advisory (de Vreese, 2007). An advisory (or consultative) referendum is more like a guidance or a consultation, as the authorities "can ignore the outcome if they wish" (Saward, 2003, p. 56).

A referendum conducted via electronic means is an e-referendum. In an e-referendum, votes are submitted not by a ballot box, but with the use of ICT, that is, through the internet or using mobile telephones (Musiał-Karg, 2012). An e-referendum is a form of e-voting, but rather than voting for a candidate or party in an election, it means voting on a particular issue placed before the people (Roztocki *et al.*, 2022b). Though an e-referendum is a type of e-voting, we list and discuss it separately as it is much narrower in its definition and plays a very important role in e-democracy. An e-referendum can be a top-down form of e-participation when initiated by government administration, or it can be bottom-up if initiated by citizens via a petition.

e-Deliberation: To deliberate means "to think about or discuss issues and decisions carefully" (Merriam-Webster Dictionary, 2024a). Thus, deliberation is a process of exchanging viewpoints and thoughtfully assessing and debating alternatives before making a choice, such as for example prior to voting in an election.

We define e-deliberation as deliberation on ICT-supported platforms. Such e-deliberation platforms provide various groups of interested individuals the opportunity or affordances to engage in political discussions, voice opinions, give suggestions, and communicate with political representatives (Bendor, Lyons, & Robinson, 2012; Rose & Sæbø, 2010). Furthermore, e-deliberation platforms facilitate interaction and building networks (Mechant, Stevens, Evens, & Verdegem, 2012).

In addition to e-deliberation on dedicated platforms created by governmental bodies, there also exists spontaneous e-deliberation that makes use of private websites, blogging platforms, and social media (Rose & Sæbø, 2010).

e-*Petitioning*: According to Merriam-Webster Dictionary (2024b), to petition is "to make a formal written request to an authority." Cambridge English Dictionary (2024d) defines a petition as "a document signed by a large number of people demanding or asking for some action from the government or another authority." Petitioning has a long tradition (Harrison *et al.*, 2022) and in modern times is a well-established way for people to voice their concerns with local, regional, and national authorities. A key element in a petition, which is a petition that is taken into serious consideration by authorities and potentially processed further, is the collection of sufficiently many signatures supporting a given issue, usually a policy change.

As Clark and Lomax (2022) observed, in recent years more and more petitioning activities have been migrated into the electronic sphere. Roztocki *et al.* (2022b) define e-petitioning as the utilization of ICT by citizens to request of their government specific actions or changes in policies. Harrison *et al.* (2022) consider e-petitioning as a genre of technology-based collective action tools that enable members of the public to address government decision-makers directly with their requests for policy-related action.

An advantage over traditional paper petitions is that e-petitioning can serve to quickly, easily, and accessibly mobilize vast numbers of people to sign on and request action from officials that address specific issues. Furthermore, e-petitioning is a bottom-up form of e-participation, where bottom-up refers to being initiated by the people (i.e. the "represented"), rather than the administration (i.e. the "representatives").

e-Lobbying: The term lobbying derives from interested parties conferring with legislators in a hotel or legislative chamber lobbies and trying to influence their votes on specific matters. According to the Britannica Dictionary (2024), lobbying means "to try to influence government officials to make decisions for or against something." The official definition of lobbying as well as lobbying laws and regulations vary across countries (Prentice & Brudney, 2017). In the USA, according to Almog-Bar and Schmid (2013, p. 15), lobbying "refers to advocacy efforts that aim to influence specific legislation through appeals to policy-makers or individuals." Lobbying using electronic means is e-lobbying (Aidemark, 2003).

An interesting variety of e-lobbying is lobbying using social media, where the lobbyist seeks not only to persuade government officials directly, but also encourages other people to join the cause and pressure decision-makers (Gargouri, 2022). Both e-petitioning and e-lobbying are bottom-up forms of e-participation, where both use ICT to request specific actions from government officials.

e-Consultation: Cambridge English Dictionary (2024a) defines consulting as "to get information or advice from a person, book, etc. with special knowledge on a particular subject." Public consultation involves authorities asking the public for their opinions on community issues. Although people share their input, the authorities make the final decision and may choose whether or not to use the feedback. Consultation via electronic means is e-consultation. Luna-Reyes (2017) describes e-consultation as an approach in which central, regional, or local governments ask citizens for their opinions on policy options or pending legislation.

The aim of e-consultation is to increase the legitimacy of policies and laws by soliciting input from citizens. We define e-consultation thus as the utilization of ICT to solicit public opinion about pending governmental initiatives or proposed regulations. We view it as a top-down, i.e. administration-initiated form of e-participation.

Participatory budgeting

As Madej (2019) observed, political participation in Poland is generally low, where political participation may also include all types of participation by electronic means, i.e. e-participation. This is mirrored by the United Nations e-participation index (EPI) (United Nations, 2022), which in 2022 was 0.6477 for Poland, as compared to 0.7273 for neighboring Germany, and 0.9091 for the USA, which is often considered the most established democracy. This lagging behind may indicate that there is still room for e-participation growth in Poland.

A particular domain for citizen participation in public decision-making is participatory budgeting, which becomes a type of e-participation when done via digital means. Participatory budgeting allows residents to take part in spending decisions on some public funds. In a study of participatory budgeting in Serbia, Milosavljevic, Spasenic, Benkovic, and Dmitrović (2020, p. 999) state that "participatory budgeting has been advocated as a democratic innovation that could bring governance closer to citizens." Investigating driving factors for participatory budgeting in the Czech Republic, Chovanecek, Panek, and Frlickova (2024) see participatory budgeting as a "democratic innovation" that empowers people through fiscal decision-making.

Participatory budgeting began in Brazil in the 1980s (Sintomer *et al.*, 2008). In many transition economies, which are countries transitioning from a planned economy to a market economy (Roztocki & Weistroffer, 2015), it appeared only in the last decade (Chovanecek *et al.*, 2024). Participatory budgeting has become a feature in many Polish municipalities starting in 2011, when it was first introduced in Sopot as a specific "civic budget" (Džinić *et al.*, 2016). In discussing participatory budgeting in Poland, Makowski (2019) asserts that participatory budgeting increases citizens' sway over local administration expenditures, engages residents in the local policy-making process, and spreads awareness about local democracy.

City Halls (in Polish: *Urzędy miasta*) oversee public facilities, such as playgrounds, city parks, and public parking lots. They also manage the procedures for participatory budgeting, which we can view as a kind of public consultation, inviting input from residents on how to spend part of the budget. When it involves electronic means, it becomes a form of e-consultation. There is no uniform process, and local authorities have much discretion in their jurisdictions, including what portion of their overall finances to include in the participatory budgets. Local authorities may also specify whether there will be only one participatory budget with voting for the entire jurisdiction, or split budgets, assuring that specific districts within their administrative region will receive at least one project financed. The required number of supporting signatures for proposed projects may also vary.

Despite some variations, in most Polish cities and boroughs, authorities conduct participatory budgeting once a year and the general procedure consists of five major steps: information campaign, submission of project proposals, evaluation of submitted proposals, voting on the proposals deemed as eligible, and announcing of results and implementation. Figure 2 shows the major steps in typical participatory budgeting procedures in Poland, and the various types of e-participation related to specific activities in these major steps. As we see in Figure 2, all forms of e-participation listed in Figure 1 may be included in participatory budgeting.

In the information campaign, city or borough authorities inform residents about the idea behind participatory budgeting, the amount of money allocated, the procedure itself, and frequently encourage residents to participate. The information campaign may use conventional methods like distributing flyers, placing newspaper ads, and posting on billboards. The information campaign can also employ digital means (e-information) by using websites or dedicated portals, online forums, and social media.

During the project submission step, residents can propose specific projects, such as the reconstruction of a specific street intersection, acquisition of equipment necessary for rescue and firefighting operations, improvements to the existing sports infrastructure, as well as

Participatory budgeting		
Major steps	**Activities**	**E-participation type**
information campaign	informing about participatory budgeting procedures	e-information
proposal submission	providing training and discussion forums	e-deliberation
	promoting through special interest	e-lobbying
	submitting project proposals	e-petitioning
	informing about status of proposals	e-information
proposal evaluation	reviewing of proposals by committee	e-deliberation
	soliciting information and opinions on specific projects	e-consultation
	selecting of projects by committee	e-voting
	informing about proposal selections and appeal procedures	e-information
public voting	informing about voting procedure	e-information
	voting on projects by the public	e-referendum
results announcement	informing on the voting results and projects to be implemented	e-information

Source(s): Own elaboration

Figure 2. E-participation in participatory budgeting

financing of cultural events. To prepare a competitive proposal, residents can discuss their ideas online (e-deliberation) or establish groups to promote a particular project (e-lobbying). From a legal perspective, the whole process of participatory budgeting is defined as a public consultation. However, submitting an online proposal can be seen as e-petitioning, since the person uses ICT to propose an idea and request action from the administration.

In the evaluation of submitted proposals phase, a committee reviews all submitted proposals for legal compliance and technical feasibility. Moreover, the committee estimates the total cost of each project and either approves the project for further consideration or rejects it. The committee may use e-voting for this proposal selection, similar to voting in local council meetings. Moreover, deliberations by this committee may involve electronic means (e-deliberation). Usually, the initiators of the rejected projects have an option to appeal.

In the public voting step, residents can vote for financing specific projects. We may view this voting step as a referendum as the residents vote directly on the proposed projects rather than on electing their representatives. When done online, we can consider the announcement about the voting details as e-information. Usually, the voting can be done via paper ballots or over the internet (e-voting or e-referendum).

The final steps in participatory budgeting are announcing the voting results and implementing the winning projects. The projects with the highest number of approval votes are selected for financing until the allocated budget is exhausted. In some cities and boroughs, projects must also receive a specified minimum number of supporting votes to be implemented.

Theoretical context

As observed by Bernardino and Santos (2020), participatory budgeting can be viewed as a special form of crowdsourcing. The term "crowdsourcing" is attributed to Howe (2008) who described it as outsourcing a business function previously performed by employees to an unidentified and generally large network of people via an open invite. More generally, we may define crowdsourcing as the search for the solution of a specific problem by requesting input from a large number of people, i.e. a crowd (Howe, 2008; Marjanovic & Roztocki, 2013). In the case of participatory budgeting, city or borough authorities outsource part of the budgeting procedure to the local residents, to help decide on how to best spend an available amount of money. In the consequent steps, local residents, i.e. the crowd, participate in the generation of specific proposals and finally select the winning projects.

It may be advantageous in many aspects to use crowdsourcing or engage a large number of people in the solution of a specific problem. Besides reducing costs and time, the involvement of a local crowd in public decision-making helps build connections with residents. Benefits of public participation also include profiting from non-expert or non-mainstream knowledge brought into the problem-solving process. Solutions emerging from non-expert knowledge might never have come up within the professional and bureaucratic confines of the organization (Brabham, 2009).

Crowdsourcing has its theoretical roots in group intelligence and the wisdom of crowds (Surowiecki, 2005). The fourth-century BC Greek philosopher Aristotle has been credited to be the first person to write about the wisdom of the crowd (Waldron, 1995). According to Aristotle (2017), many people, even if not individually knowledgeable, may be better collectively in contributing wisdom. As a group, "the people may make better, wiser, and abler decisions" as they combine their individual abilities "into collective knowledge, experience, judgment, and insight" (Waldron, 1995, p. 364).

The wisdom of the crowd concept is used in business strategy, advertising, and political research. Crowd intelligence, or collective intelligence, emerges when many people work together, each person adding his or her own knowledge, experience, judgment, and insights. Levy (1997) defines collective intelligence as a "form of universally distributed intelligence, constantly enhanced, coordinated in real-time, and resulting in the effective mobilization of skills".

Methodology
We decided to use interviews and archival documents as the main sources of evidence to answer our research question. Archival sources represent hard data on trends in participation and e-voting. Interviews can corroborate the hard data and provide additional information on the behavior of the City Hall clients.

The specific archival documents provided by the City Halls included lists of offered e-services; lists of interactive electronic forms available to constituents via the City Hall websites; statistical summaries of e-services utilized; information on voting-support software; regulations on internal e-voting on budget matters; and information on a dedicated smartphone application for e-voting.

We conducted a pilot study with six interviews in a single City Hall in May 2021 in an exploratory approach to narrow our focus and gain experience before conducting the main study in four additional City Halls in 2022. In total, we conducted 34 semi-structured interviews in five City Halls in Poland. Due to COVID-19 restrictions, we conducted all the interviews remotely. We recorded, transcribed, and then translated all interviews into English. Appendix 1 shows the interview scenario, and Appendix 2 provides an overview of the interview sessions. We analyzed the responses using open coding with the help of MAXQDA, a software for qualitative and mixed methods data analysis.

Findings
Pilot study
The pilot study confirmed what has been reported by other studies, i.e. that COVID-19 substantially accelerated the digital transformation, including the demand for e-government services (Soto-Acosta, 2020). Though many of the currently offered e-services were available via publicly accessible websites even before COVID-19, they had been little used. Moreover, the pilot study pointed to an interesting issue. In the city where we conducted the pilot study, before COVID-19, people could vote on participatory budgets either traditionally or digitally, but they rarely used the e-voting system. The COVID-19 restrictions triggered a big switch to e-voting on participatory budgeting:

> . . . we noticed that in the last year, there was very little interest in paper voting. . . . when it comes to voting, in 2019 we had 17,922 votes for the civic budget, the number of votes on paper was 6,947. In 2020, the number of all votes was 77,510, with 4,300 on paper, and in 2021 we have 60 940 votes, only 272 on paper. (Interviewee P6)

Thus, besides a big switch to e-voting versus paper ballots, there was also a significant increase in participation overall. This motivated us to include specific questions regarding e-participation for the main study conducted in the additional four City Halls, as shown in Appendix 1.

Increased use of e-information
Some interviewees stated that providing information related to all steps of participatory budgeting has been to a large extent moved online, by, for example, establishing dedicated platforms. These platforms perform various additional functions, besides providing basic operational information on participatory budgeting. Every interested person, after registering, can participate in online training on project writing, discuss initiatives and ideas, and submit a project proposal. One interviewee complained that there was a lack of support from mainstream media:

> . . . there is too little information on the radio or local television about the participatory budget. In particular, there is no information that you have to vote electronically. I did not see any support there. (Interviewee P26)

Moreover, according to one of the interviewees, insufficient financing for promoting participatory budgeting during COVID-19 may be the reason for a less-than-expected increase in interest for participation. There were differences in the allocation of budget expenditure in 2020 and 2021 compared to 2019. One of the interviewees stated:

> The expenditure on promotion was lower [during COVID-19] . . . Recently I received an interesting e-mail from other cities. . . that observed exactly the same tendency (Interviewee P27)

It seems that this may also be one of the reasons for inconsistencies in observed demands for e-voting and e-petitioning.

Increases in e-voting (or e-referendum)
The responses of interviewees regarding the changes in voting patterns on the participatory budgets during COVID-19 in City Halls B, C, D, and E (see Appendix 2) were not as consistent as in the pilot study (City Hall A). Nonetheless, similarly to the pilot study, many interviewees said they observed an increase in interest in the participatory budget and voting (referendum on final project acceptance), including the e-voting option:

> Looking at the last two years; well, the number of online votes has almost doubled. (Interviewee P22)

> In comparison to 2019, we recorded an increase by 20,000 in 2020. So, more people participated. (Interviewee P13)

The archival sources provided by the officials and the information available on the official website of these City Halls confirmed that the number of votes on participatory budgets in 2020 and 2021 increased in comparison to 2019 (the year before COVID-19) in City Halls A, B, and D, while in City Hall C, they noticeably decreased in both years. We observed a mixed situation in City Hall E where in 2020 the number of votes increased by 58% in comparison to 2019, while in 2021, we noted a decrease of 28% in comparison to 2019. To clarify, in all of the City Halls e-voting was available during and also before COVID-19. However, in City Hall B, voting has been exclusively electronically since 2017. All interviewees agreed that voters in participatory budgeting are more willing to use online voting platforms since the start of COVID-19:

> . . . now as many as 99% voted electronically. In the previous year, it was 95%. (Interviewee P13)

> . . . the pandemic has greatly accelerated the City Hall's path to where we contact residents electronically, not via paper. (Interviewee P27)

> . . . people started to trust the computer and see that they can do something remotely much faster and much more easily. (Interviewee P14)

> Now one can observe that people have a little more confidence in it (computer). (Interviewee P11)

> We are certainly dealing with the familiarization of something like electronic voting. (Interviewee P28)

Greater participation in e-deliberation
The interviews also showed that many participatory budgeting activities, once done face-to-face, were moved online. During COVID-19, organizers used e-deliberation to discuss with residents and encourage them to provide ideas, prepare project proposals, and participate in voting. Many of the interviewees remarked on this shift toward e-deliberation:

> In the participatory budgeting process, we always used to hold an event called the. "Marathon of Writing Applications to the Civic Budget." It was always hosted here in the courtyard of the City Hall and there was a tent set up. It was a bit like a festival. But since last year . . .we moved it to an online version. . . (Interviewee P24)

. . . we started to conduct a lot of online meetings. (. . .) some residents liked very much that they did not have to go anywhere, but that they could connect from home. (Interviewee P33)

During these online meetings, the public can provide their ideas using chat or microphones. Also, social media forums were opened. However, some of the interviewees observed a limitation to this solution:

> For some it will be a positive, for others, it will be a negative. For example, the president agonizes terribly about not being able to meet residents and explain to them in person at a multi-hundred-person meeting. (. . .) she feels isolated from the residents, and I see frustration here. (Interviewee P9)

> . . .we still hope that we will not expand it but will return to the old way, because we want to meet our residents as normal; we are not planning for it now. . . (Interviewee P5)

City Halls have established separate online platforms to provide detailed e-information about this type of local budgeting. Some City Halls also use dedicated portals with forums for e-deliberation, which are not necessarily limited to participatory budgeting. These portals allow for collecting ideas, recording threads of interactions, and obtaining opinions from residents.

> Apart from this civic budget, we also have a platform (. . .) that the Promotion Department in our City Hall is responsible for. It allows an online form of deliberation. If for example, we want to introduce a new painting pattern on public transport vehicles or choose a name for a park, then people can "vote" there in an open form. (Interviewee P11)

Furthermore, it seems that digitalization prompted some groups that used to be rather passive to become more visible and involved. For example, one interviewee observed that senior citizens were now more actively participating in projects offered by the City Hall:

> . . .the one thing that surprised us was how when we conducted workshops [online] with seniors on writing projects, there were many more of these seniors than when we met with them in real life. . . (Interviewee P24)

Increased use of e-petition tools and e-lobbying activities
As previously stated, we may consider the act of submitting a project proposal as a form of petitioning. In all of the City Halls included in our study, e-petitioning had been introduced several years before COVID-19.

> The participatory budget had been operating online for many years before the pandemic in the sense that projects for the participatory budget can be submitted via such an online service (Interviewee P24)

Similarly, as with e-voting, archival sources and the responses of the interviewees were not consistent regarding the increase in e-petitioning during COVID-19. In City Halls A, B, D, and E, we observed increases in the number of submitted projects. However, in City Hall C, it dropped during COVID-19. One of the interviewees from City Hall C said:

> Well, this is a big surprise, (. . .) during the pandemic, . . . the number of people who both submitted the project electronically and voted in the budget was smaller. It seemed to have increased after a year of the pandemic, but not much. (Interviewee P27)

Interestingly, interviewees noticed that during the first two years, in 2020 and 2021, submitted projects were more oriented towards direct help to those in need, such as establishing food pantries, while in the ensuing years, the interest in this type of projects decreased. It seems that during the first two years of COVID-19, the initiators of the projects showed a high empathy level.

> I have the impression that the projects submitted are more pro-social and in the interest of the entire community, not just the individual. (Interviewee P27)

Moreover, interviewees noted the presence of distrust in the internet platform used for e-petitioning and electronic project submissions, highlighting it as a key issue to address. According to some interviewees, the lack of citizens' trust in e-petitioning is a major barrier to increasing project submissions in participatory budgeting.

> ... I've seen these petitions, but people don't trust them yet, I guess ... they expect that the government website will guarantee that our data will not be shared somewhere ... I think that's what they're afraid of. (Interviewee P24)

Citizens seem to be concerned about the protection of personal data in online project submissions. However, because COVID-19 forced the use of these platforms, we can expect an increase in the acceptance of electronic tools among users.

Participatory budgeting may also involve a certain amount of e-lobbying, encouraged by the administration. Responding to the needs of a wide range of stakeholders including many special interest groups, local authorities invite representatives of these groups to submit projects and lobby their supporters:

> Whatever initiative we implement, we always invite all representatives (...) of the city's social structures. We also always want non-governmental organizations to participate in such decision-making. (Interviewee P24)

Some residents with a desire to support or influence local initiatives feel that their voices may be better heard if they join together and establish lobbying groups in the form of non-profit organizations. An advantage of forming such non-profit organizations is that, by law, they become participants in many administrative processes. As interviewee P24 indicated, these non-profit organizations may be invited by public officials to discuss initiatives proposed to be financed by participatory budgets.

> There are plenty of non-governmental organizations and associations where citizens present their opinions and ideas, or perhaps not always implement them, but present them. They feel, somewhere you should approach the authorities with your plans and ideas. (Interviewee P34)

During COVID-19, traditional lobbying moved to e-lobbying. Both individuals and groups submitted projects, participated in discussions, and advocated their views through websites and mobile apps. Their ideas and arguments in support of specific initiatives are stored and available in the internet forums' archives.

Shift from traditional consultation towards e-consultation
Besides platforms for e-deliberation related to participatory budgeting, City Halls also organize consultations with the local community about their opinions on specific projects, when deemed relevant. Before COVID-19 these consultations were in person, but all five City Halls shifted to e-consultation:

> ...public consultations have been organized on projects that arouse strong emotions among the population. So inevitably, when COVID-19 started, they were looking for another way [online] to continue and maintain this form of dialogue with the residents. (Interviewee P11)

> What has changed is that, above all, consultation can be done electronically... (Interviewee P27)

Discussion
Regarding our research question, "What impact has COVID-19 had on e-participation with respect to participatory budgeting in Poland?" there are several interesting findings that arose from our interviews. It seems that based on the opinions of most of our interviewees, COVID-19 indeed has been a driver for e-participation.

First, we observed an increase in e-voting. This increase in e-voting stemmed mostly from the fact that during COVID-19, traditional paper balloting was discouraged or even not

possible. However, by comparing the drop in traditional voting to the increase in e-voting, we can also observe some gains in overall voting. It seems that because of the popularization of e-voting, additional groups of residents participated in voting on participatory budgeting that previously did not. Second, we observed an increase in e-deliberation activities. Third, we observed that many forms of participation are in hybrid form, combining conventional modes with electronic means. For example, in some cases, the authorities may employ exclusively traditional paper balloting but ask the electorate to register electronically, online.

Our interviewees were somewhat skeptical regarding the necessity to increase the involvement of ordinary people in the democratic decision-making process. Some of them voiced the belief that many people lack the necessary knowledge or the desire to get involved and prefer that important decisions are made for them. It was suggested that when confronted with taking a position and making decisions on important issues, many people would remain passive and avoid taking responsibility.

Overall, COVID-19 has accelerated e-participation as well as digitalization in general in public interactions. However, not everybody yet fully embraces this development and some holdouts would prefer a return to conventional operations. As citizen participation is an important aspect of democracy, so is e-participation an important component of e-democracy and may lead to greater citizen involvement in many aspects of public decision-making. However, there may also be a downside, as even though e-participation may facilitate and encourage participation of segments of the public that previously were unable or reluctant to contribute to the public discourse, it is also possible that removing or restricting traditional means of communication and interaction may increase the digital divide and deter participation by some other people. More research in this area is clearly warranted.

Contributions

First, this study showed empirically that COVID-19 increased e-participation. We based this evidence on interviews with 34 leading managers in five City Halls in Poland, focusing on participatory budgeting.

Second, the study provided a structure and explanation for e-participation and its various forms in participatory budgeting, as shown in Figures 1 and 2. We identified twelve activities of managing participatory budgeting that were organized into five major steps: information creation, proposal submission, proposal evaluation, public voting, and results announcement. Furthermore, we matched all identified participatory budgeting activities with the seven forms of e-participation. These forms of e-participation have been described by various previous authors, however, we used them to explain the changes in participatory budgeting that were caused at least in part by COVID-19.

Third, the study highlighted how participatory budgeting presents an opportunity for local residents to practice various elements of democracy (or e-democracy).

Limitations and future research

In our discussion of e-participation, we only considered the six components, e-voting, e-deliberation, e-petitioning e-lobbying, e-consultation, and e-referendum. It may be worthwhile to investigate a more general and wider discourse on e-participation and its role in e-democracy in a future study.

In our research, we interviewed only managers in five City Halls who were involved in facilitating the process of participatory budgeting. We did not interview any representatives, such as elected or appointed political leaders and other decision-makers with executive power over the money to be distributed and the overall procedure to be followed in participatory budgeting. We also did not elicit opinions from ordinary people, i.e. the "represented," versus the "representatives." In this context, it would be interesting to investigate reasons for non-participation. As observed by Kneuer and Datts (2020), in many countries even the most

popular nationwide e-initiatives are able to mobilize only about one percent of the population. At the local level, e-participation is usually higher but still only includes a fraction of the eligible population, with predominantly young and well-educated males participating.

We conducted the study in Poland, which according to a taxonomy developed by Roztocki and Weistroffer (2015) we can classify as a double-level transition economy. This group of countries abruptly abolished their centrally planned economic system and one-party controlled political system and moved to a market-driven economy and multi-party democratic system. In the 1980s, as participatory budgeting was first introduced in Porto Alegre, Brazil, Poland was still a communist country and a part of the Eastern Bloc. Regardless of more than three decades of an ongoing transition process, many transition economies are still plagued by continuing shortages of resources and assets (Roztocki & Weistroffer, 2015), and persistent income differentials as compared to mature market economies (Kowal & Roztocki, 2015; Gabryelczyk & Roztocki, 2018). A similar study in a country with a longer free market and democratic government tradition and with a more affluent population that is more experienced with participation in democratic decision-making processes may produce different results.

It would be interesting to observe how Polish legislation responds to residents' desire to offer e-voting options not only on civic budgets but also for political elections, which are currently done only in traditional paper voting format (in person or remotely by mail). It also will be interesting to investigate how COVID-19 increased the demand and desire for other forms of e-participation, such as e-petitioning or e-referenda, in contexts other than participatory budgeting. Based on our study, it appears that COVID-19 created a demand for more e-participation, but future studies need to confirm this.

From the current study, it is difficult to assess to what extent the observed shift in demand for e-participation is indicative of a long-lasting trend, or if it turns out to be a transitory phenomenon due to the temporary conditions caused by COVID-19. It is also difficult to gauge the implications of this shift for the wider aspects of society and for longer term socio-economic development. These issues need follow-up investigations, perhaps using alternative or complementary research approaches.

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Appendix 1
Interview scenario

The estimated time per interview is 45 minutes. Interviews are recorded.
Imprint:
Position   …………………..
Function/role   …………………..
Female/Male   …………………..
Name of department/office. Division   …………………..

Interview questions:
  1. Did you observe higher participation in e-voting on public budgets?
  2. Did you observe a change in public desire for involvement in democratic decision-making processes (e.g., e-voting, e-petition)?
  3. Can you think of an explanation for this?
  4. Do you feel that more public involvement in the decision-making process would be beneficial?
  5. Is there anything else that you would like to add to our discussion?

Appendix 2

Table A1. Data collection details

Interviewee	Profile of interviewee	City Hall	Date	Duration
Pilot study				
P1	Head, Surveying and Cartographic Documentation Centre	A	May 2021	00:43:00
P2	Deputy Director, Financial Department	A	May 2021	00:25:00
P3	Deputy Head, Registry Office	A	May 2021	01:01:00
P4	Director, IT and Telecommunications Service	A	May 2021	00:55:00
P5	Deputy Director, Civil Affairs Department	A	May 2021	00:31:00
P6	Head, Tele-informatics Service for Residents and Public Information	A	May 2021	01:05:00
Main study				
P7	Mayor's Proxy and Head, Digitalization and Cybersecurity	B	Feb. 2022	01:03:00
P8	Digital Project Lead Specialist, Digitalization and Cybersecurity	B	Feb. 2022	
P9	Press Office Director and Spokesperson of the President	C	Feb. 2022	01:02:44
P10	Director of the City Digitization Office	D	Feb. 2022	00:43:42
P11	Deputy Director, Organization and Residents Service	C	Feb. 2022	01:11:11
P12	Director, Residents Relation	D	Feb. 2022	01:07:19
P13	Senior Lead Specialist, Residents Relations	D	Feb. 2022	
P14	Deputy Director, City Data Network Center	D	Feb. 2022	0:42:30
P15	Acting Deputy Director, Organization and Residents Service	C	Feb. 2022	00:32:35
P16	Acting Director, Taxpayer Service, and Acting Deputy Treasurer	D	Feb. 2022	00:35:50
P17	Head, Customer Service, Tax and Fees Department	B	Mar. 2022	00:46:02
P18	Head, Department of Vehicle Inspection and Registration	D	Mar. 2022	00:25:05
P19	Director, Geodesy and Cadaster Office and City Surveyor	D	Mar. 2022	00:52:32
P20	Deputy Director, Geodesy and Cadaster Office	D	Mar. 2022	
P21	Head, Waste Management, Department of Communication and Organization	D	Mar. 2022	00:36:13
P22	Deputy Director, Urban Planning and Architecture Department	E	Mar. 2022	01:02:38
P23	Deputy Director, Spatial Information Systems, Geodesy and Cadaster Board	B	Mar. 2022	00:46:48
P24	Head, Social Communication, President's Office	B	Mar. 2022	00:29:39

Table A1. Continued

Interviewee	Profile of interviewee	City Hall	Date	Duration
P25	Director, Daily Nursing Home	E	Mar. 2022	00:49:36
P26	Head, City Surveying and Cartographic Documentation Centre	E	Mar. 2022	00:41:36
P27	Head, Communication and Local Communities Development	C	Mar. 2022	00:50:44
P28	Director, Contact Office	B	Mar. 2022	01:15:47
P29	Deputy Director. Organizational and Supervision Department	E	Mar. 2022	00:21:09
P30	Director, Smart City Office	E	Mar. 2022	00.34:40
P31	Director, Culture, Promotion and Sport Department	E	Mar. 2022	00:30:49
P32	Director, Business Activity and Agriculture Department	B	Mar. 2022	00:32:50
P33	Mayor's Proxy, Cooperation with Non-Governmental Organizations	D	Mar. 2022	00:13:18
P34	Deputy Head, Registry Office	E	Mar. 2022	00:47:01

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