

# Political Dividends of Digital Participatory Governance: Evidence from Moscow Pothole Management

Nisan Gorgulu, Gulnaz Sharafutdinova, and Jevgenijs Steinbuks<sup>1</sup>

**Abstract:** This study takes advantage of a publicly salient policy sphere – of road quality – in the capital city of Russia to explore the use of digital technologies as means of aggregating information and demonstrating the governmental capacity and effectiveness. It focuses on the potential linkage between the road quality based on citizens’ complaints and the electoral outcomes in two rounds of Moscow mayoral elections in 2013 and 2018. The data of more than 200,000 complaints are collected from two online platforms: *rosyama.ru* and *gorod.mos.ru*, and combined with local election data. The causal relationship between these two processes is established, making use of an arguably exogenous variation in the differences across local weather conditions during the heating season that differentially affects pothole creation but is uncorrelated with electoral outcomes. The results indicate that greater use of digital technologies (measured by pothole complaints) result in increased number of votes and higher margin of victory for the incumbent. They highlight the role of digital technologies as a tool to create participatory governance mechanisms and convey to the public an image of a transparent, responsive, and capable government.

JEL classification: D72, D73, P25, P26

Keywords: digital infrastructure, elections, Moscow, pothole management

---

<sup>1</sup> Gorgulu: Department of Economics, the George Washington University and the Office of the Chief Economist for the Infrastructure Vice-Presidency, the World Bank. Sharafutdinova: Russia Institute, Kings College London. Steinbuks: Development Research Group, the World Bank. The authors are particularly thankful to Alejandro Molnar for his many invaluable suggestions that led to significant improvements of this manuscript. They also thank Gregory Asmolov, Charles Becker, Huiying Fan, Remi Jedwab, Stuti Khemani, Michael Lokshin, Tiago Peixoto, Bryn Rosenfeld, Apurva Sanghi, Renaud Seligmann, Mahvish Shaukat, Ivan Shulga, Stephen Smith, Georgiy Sunyaev, David Szakonyi, Leonid Volkov, Ben Williams, and the participants of HSE-ICSID conference and GWU Development Tea workshop for their helpful comments. Opinions expressed in this study are of authors alone and do not necessarily reflect the views of the World Bank, its Board of Directors or members states.