

## The role of public procurement in responding to the COVID-19 pandemic

### *Introduction*

In June 2020, when this special issue of *Journal of Public Procurement* was launched, nothing could have prepared us for two long years of disruption to the global economy, health-care systems, social relations and our personal lives. While we are still navigating the pandemic, the past two years have unveiled critical weaknesses of private and public supply chains that are at the root of the observed disruptions (Choi, 2021). However, important lessons have also been learned about crisis management (Rhodes, 2021; Schleper *et al.*, 2021), which will guide us in redesigning processes, management and network structures of the supply chains of the future (Ivanov and Dolgui, 2021).

Public procurement has been at the very center of the pandemic. At the start of the crisis in 2020, sourcing processes in the public sector exhibited a number of failures in responding to the soaring demand for protective equipment that public health-care organizations were receiving (Livingston *et al.*, 2020), characterized by opportunism, low-quality and inefficient distribution (Atkinson *et al.*, 2020). Public purchasing was pressurized to adopt more agile procedures to match demand (European Commission, 2020), amid a situation in which private supply exhibited severe capacity constraints (Gereffi, 2020). Later, during 2021, public procurement was called upon to manage the sourcing of vaccines and medications to reduce health impacts and select suppliers and quantities under conditions of dire uncertainty concerning product characteristics and demand evolution and distribution (Finkenstadt and Handfield, 2021). In addition to health-care goods and services, public demand for information technology solutions has dramatically increased, engendering the urgent need to develop greater expertise in evaluating such purchases (e.g. contactless solutions, online services) (Shen and Sun, 2021).

The need to cope with a “new normal,” in which unexpected oscillations in the demand for health-care services, equipment and drugs may occur, prompts a rethink of public procurement goals and capabilities:

- From a policy perspective, policymakers and procurement agencies need to move beyond the “emergency logic” as a justification for more agile public sourcing (Handfield *et al.*, 2020). The sustainability and resilience of the public supply chain must become a strategic goal integral to public procurement value creation (Meehan *et al.*, 2017).
- Preparedness for future crises requires public procurement agencies to become equipped with a set of critical capabilities (Harland *et al.*, 2021). Among these, coordination capabilities are needed to deter hoarding that trigger bullwhip effects in the upstream supply chain (van Hoek, 2021). At the same time, the ability to efficiently and effectively vet suppliers on a wider range of performance criteria (that include supply security) will have to be prioritized (Harland *et al.*, 2021).
- More research on supply risk management within public procurement is needed. For example, Patrucco *et al.*'s (2017) literature review on JOPP notes only five articles on the topic and keyword searches in most databases yield very few results. The pandemic, along with the increasing disruptions caused to supply chains from climate change (Dasaklis and Pappis, 2013; Er Kara *et al.*, 2020) and cyberattacks (Creazza *et al.*, 2022), demands that risk management takes a more center stage in



public procurement in general and public procurement of health care in particular. For example, the special issue article by Meyer *et al.* (2021) suggests adding contract clauses regarding drawings and copyrights to enable additive manufacturing of products or parts during emergency situations and supply shortages – an excellent example of the proactive approach to risk management that is needed in public procurement.

### *The contributions*

During the crisis, different public health systems at national or regional level in different parts of the world have leveraged public procurement using a variety of strategies depending on local legislation and prevailing practices. Disseminating and consolidating knowledge internationally unveils “best practices” that can be used as foundation for future actions that facilitate public procurement in the health care sector (Nijboer *et al.*, 2017).

This special issue of *Journal of Public Procurement* offers a collection of four articles that reflect the experiences of public procurements systems in responding to the health crisis of COVID-19.

Casaby and Baxter (2021) discuss the role of unsolicited proposals (USPs) in procuring public–private partnerships (PPPs) in the health-care context. USPs mean proposals from private companies without prior solicitation or request. Casaby and Baxter’s viewpoint article gives an overview of their current usage and the benefits and challenges of handling USPs, particularly in the context of health care and the COVID-19 pandemic. They note that USPs may encourage innovation and increase capacity by offering critically needed health-care solutions with a shorter award procedure. However, several concerns are also noted, such as diversion of resources from strategic governmental goals, limited competition and potential for corruption. Casaby and Baxter then present an example case of a successful use of USPs at Pennsylvania’s Department of Transportation, which has a platform dedicated for USPs and a streamlined process including specific deadlines for accepting USPs, partner preregistration and qualifications and outlines of acceptable project types for which USPs can be submitted. Drawing from this case example, they go on to propose a platform-based approach with complementary arrangements.

Meyer *et al.* (2021) provide a case study of four public procurement organizations, investigating how they responded to COVID-19-induced supply disruptions and, particularly, how additive manufacturing (AM) has been used during the pandemic to overcome supply bottlenecks. AM is a new technology, more commonly known as 3D printing, which has not been previously featured in studies published by the *Journal of Public Procurement*. Meyer *et al.*’s case studies feature procurement of medical items that, prepandemic, were noncritical but became critical bottlenecks as a result of COVID-19. Three of the studied cases used AM to temporarily mitigate the supply scarcities from traditional sources through either in-house AM or AM service providers. One case study used a behavioral solution approach (as opposed to the technical solution approach of AM) to establish a new supply chain by bringing together local supply sources. All cases had no preexisting resilience plans but were able to secure supply through these alternative means, with AM being a quicker solution, though not cost-effective in the long term. Key contributions of this study are the recommended steps for preparing for disruption, demonstrating the potential of AM for meeting supply needs in emergencies. They also note that public buyers should include relevant clauses in procurement contracts regarding, e.g. property rights and

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computer-aided design data to ensure that AM back up supply arrangements can be deployed in emergency situations.

Rutkowski *et al.* (2021) highlight the role of strategic procurement in creating value for communities hit by the pandemic. The article discusses a case study involving a collaborative PPP, the Supply Chain Advisory Committee, established during the pandemic in order to acquire personal protective equipment (PPE) and other critical supplies in Ohio. The collaboration involved socially responsible private firms that wanted to deliver community impact and nonprofit organizations. The in-depth single case study provides detailed discussion of strategies, processes and the framework that were developed to procure the needed items with a short lead time. The crisis complicated supply chain management especially for nonprofits, small and local businesses. Findings show how the PPP successfully helped to address inequalities in the supply chain during the crisis. Further, the study suggests that the relationships and shared knowledge created by the collaboration may be more impactful than initially anticipated and create long-term positive change for the business community.

Tip *et al.* (2021) explore the management of the pandemic crisis from the perspective of procurement professionals' use of supplier classification and management tools to guide their purchases. The study addresses the role of the Kraljic purchasing portfolio model and a model of interbuyer rivalry in tailoring purchasing strategies to different product groups requirements. Thirteen case studies concerning Dutch hospitals are analyzed by the authors through interviews and secondary data. The findings are consistent with Kraljic's model of purchasing strategies in which product scarcity forces a shift in approach, with purchasers treating PPE as bottleneck items at the hospital level. The authors describe how volume and inventory security were applied, though with a shorter-term focus than that proposed by Kraljic. The authors also note however that purchasing strategies went beyond Kraljic's model to encompass rivalry. In fact, the study highlights that another common strategy used by Dutch hospitals was resource coordination. Purchasers and governments served as gatekeepers and reduced the potential harmful competition between and within hospitals.

Together, these four papers provide rich, diverse and yet complementary insights on the implications of the COVID-19 pandemic for public procurement in health care. Authors share practical insights and learning, through cases which demonstrate the value of developing capabilities for rapidly adapting sourcing practices and strategies, for new forms of coordination and cooperation and the use of new technologies in supply chain management. We expect more such papers will be published in this journal and others in the field; these four papers make an important contribution to this vital field of knowledge.

**Carmela Di Mauro**

*Dipartimento di Ingegneria Civile e Architettura, Universita degli Studi di Catania,  
Catania, Italy*

**Katri Kauppi**

*Department of Logistics, Aalto-yliopisto kauppakorkeakoulu, Helsinki, Finland, and*

**Louise Knight**

*Department of High Tech Business and Entrepreneurship, University of Twente,  
Enschede, The Netherlands*

## References

- Atkinson, C.L., McCue, C., Prier, E. and Atkinson, A.M. (2020), "Supply chain manipulation, misrepresentation, and magical thinking during the COVID-19 pandemic", *The American Review of Public Administration*, Vol. 50 Nos 6/7, pp. 628-634.
- Choi, T.M. (2021), "Risk analysis in logistics systems: a research agenda during and after the COVID-19 pandemic", *Transportation Research Part E: Logistics and Transportation Review*, Vol. 145.
- Creazza, A., Colicchia, C., Spiezia, S. and Dallari, F. (2022), "Who cares? Supply chain managers' perceptions regarding cyber supply chain risk management in the digital transformation era", *Supply Chain Management: An International Journal*, Vol. 27 No. 1, pp. 30-53.
- Dasaklis, T.K. and Pappis, C.P. (2013), "Supply chain management in view of climate change: an overview of possible impacts and the road ahead", *Journal of Industrial Engineering and Management (Management)*, Vol. 6 No. 4, pp. 1139-1161.
- Er Kara, M., Ghadge, A. and Bititci, U.S. (2020), "Modelling the impact of climate change risk on supply chain performance", *International Journal of Production Research*, available at: <http://dx.doi.org/10.2139/ssrn.3652664>
- European Commission (2020), "Guidance from the European commission on using the public procurement framework in the emergency situation related to the COVID-19 crisis, (2020/C 108 I/01)", available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020XC0401\(05\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020XC0401(05)&from=EN)
- Finkenstadt, D.J. and Handfield, R.B. (2021), "Tuning value chains for better signals in the post-COVID era: vaccine supply chain concerns", *International Journal of Operations and Production Management*, Vol. 41 No. 8, pp. 1302-1317.
- Gereffi, G. (2020), "What does the COVID-19 pandemic teach us about global value chains? The case of medical supplies", *Journal of International Business Policy*, Vol. 3 No. 3, pp. 287-301.
- Handfield, R., Finkenstadt, D.J., Schneller, E.S., Godfrey, A.B. and Guinto, P. (2020), "A commons for a supply chain in the post-COVID-19 era: the case for a reformed strategic national stockpile", *The Milbank Quarterly*, Vol. 98 No. 4, pp. 1058-1090.
- Harland, C.M., Knight, L., Patrucco, A.S., Lynch, J., Telgen, J., Peters, E., ... Ferk, P. (2021), "Practitioners' learning about healthcare supply chain management in the COVID-19 pandemic: a public procurement perspective", *International Journal of Operations and Production Management*, Vol. 41 No. 13, pp. 178-189.
- Ivanov, D. and Dolgui, A. (2021), "Or-methods for coping with the ripple effect in supply chains during COVID-19 pandemic: managerial insights and research implications", *International Journal of Production Economics*, Vol. 232.
- Livingston, E., Desai, A. and Berkwitz, M. (2020), "Sourcing personal protective equipment during the COVID-19 pandemic", *JAMA*, Vol. 323 No. 19, doi: [10.1001/jama.2020.5317](https://doi.org/10.1001/jama.2020.5317).
- Meehan, J., Menzies, L. and Michaelides, R. (2017), "The long shadow of public policy; barriers to a value-based approach in healthcare procurement", *Journal of Purchasing and Supply Management*, Vol. 23 No. 4, pp. 229-241.
- Nijboer, K., Senden, S. and Telgen, J. (2017), "Cross-country learning in public procurement: an exploratory study", *Journal of Public Procurement*, Vol. 17 No. 4.
- Patrucco, A.S., Luzzini, D. and Ronchi, S. (2017), "Research perspectives on public procurement: content analysis of 14 years of publications in the Journal of Public Procurement", *Journal of Public Procurement*, Vol. 17 No. 2.
- Rhodes, M. (2021), "Failing forward': a critique in light of COVID-19", *Journal of European Public Policy*, Vol. 28 No. 10, pp. 1537-1554.

Schleper, M.C., Gold, S., Trauttrims, A. and Baldock, D. (2021), "Pandemic-induced knowledge gaps in operations and supply chain management: COVID-19's impacts on retailing", *International Journal of Operations and Production Management*, Vol. 41 No. 3.

Shen, Z.M. and Sun, Y. (2021), "Strengthening supply chain resilience during COVID-19: a case study of JD.com", *Journal of Operations Management*, available at: <https://doi.org/10.1002/joom.1161>

van Hoek, R. (2021), "Larger, counter-intuitive and lasting—the PSM role in responding to the COVID-19 pandemic, exploring opportunities for theoretical and actionable advances", *Journal of Purchasing and Supply Management*, Vol. 27 No. 3.