Agile for Public Administration during the COVID-19 Crisis

Subjects: Management

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During the COVID-19 pandemic (and associated lockdowns), the need to digitalise public administration services and processes grew strongly, and digitalisation has emerged as an important enabler of good governance and an essential factor in the functioning of all segments of society. In particular, the mentioned pandemic was a very specific crisis with drastic restriction measures on the one hand and the availability of information and communication technology (ICT) infrastructure on the other. The pandemic has provided significant windows of opportunity for a radical digital transformation of public administration. More digital practices have been introduced around the world at different speeds, seeing the levels of the digitalisation of public services and processes rising exponentially compared to in the past. To increase the flexibility, responsiveness, adaptability, and resilience of public administrations in times of crisis, accelerated digitalisation and "agile" as a management concept (hereinafter: agile) could be adopted for them to function in line with good governance principles in today's VUCA world.

Keywords: agile values; COVID-19 pandemic; digitalisation; good governance; agile

1. Good Governance in the COVID-19 Crisis

Good governance refers to theories and issues of social coordination and the nature of all patterns of rule while placing less emphasis on "hierarchy and the state" and more on "markets and networks" (Bevir 2011). Thus, it is about the manner in which public officials and institutions acquire and exercise the authority to shape public policies and provide public goods and services (OECD 2004; Carbonari et al. 2013; Goltz 2014; World Bank 2015), which makes it important to examine it from different perspectives. One may say that good governance is relevant for incorporating the COVID-19 pandemic challenges and improvements or dysfunctions in a broader framework of sustainable social development, since the latter is characterised by economic progress, social cohesion, and public governance (OECD 2004). Nevertheless, one can find various theories, definitions, multiple factors and (mis)understandings of (good) governance in the literature. Still, there are common identifiers of the good governance concept, such as the interdisciplinary approach and its codepending fundamental principles, which are also most relevant regarding the topic of this research and associated research. Generally speaking, good governance is about a service-minded, decentralised, and participatory functioning of the state and other public agencies in society as a whole.

Moreover, it is important that good governance promotes the collaborative activities of various societal actors. The once traditional unilateral and authoritative state approach is replaced by networking, and the state is more a mediator to coordinate and adopt better policies (Kovač 2019). This means that when (all) good governance principles are followed, contemporary administration creates new value and a shift towards citizen-driven instead of citizen-centric power (Pečarič and Stare 2019). Good governance, therefore, enables the interdisciplinary functioning of modern administrative systems, despite the required legal determination and certainty, by connecting various stakeholders within the rule of law and efficient public management.

The good governance model emerged as an upgrade of the bureaucratic (Weberian) governance model and the later New Public Management model, both including different variations (Agere 2000; Bevir 2011; Bevir et al. 2003; Edgar et al. 2006; Graham et al. 2003; Kovač et al. 2016; Rao 2013; Ropret and Aristovnik 2019; Smith 2007). The most significant advantage of the Weberian model was its ability to solve quite structured problems based on regulation and economies of scale. Still, it was later unable to adapt to the fast-changing environment or solve complex problems and the conflicting goals of different stakeholders (Ansell et al. 2020). A few decades later, also overcoming the apparent weaknesses of NPM, this led to multi-actor collaboration (and subsequently co-creation) in the forms of partnerships and networks (Bevir 2011; Denning 2018; Torfing 2019; Weber and Khademian 2008), which require implementation of the good governance

model principles, namely, (1) the rule of law (lawfulness); (2) responsiveness; (3) transparency; (4) accountability; (5) equity and inclusiveness; (6) effectiveness and efficiency; (7) a consensus orientation; and (8) participation (Bevir et al. 2003; Kovač et al. 2016). Further, good governance covers the interdependent realisation of eight fundamental principles. These principles are often redefined or multiplied in the literature. This research takes them as a basis for the changed circumstances during the COVID-19 pandemic, questioning, among others, which of them need to be compromised or adapted, and to what extent. Researchers assume that even though these relevant principles were designed before such extreme crises, they still stand as originally defined, and it is crucial to implement them all to pursue a sustainable development paradigm. Naturally, it is expected that some principles are more emphasised in the COVID-19 circumstances, for instance, responsiveness and efficiency, yet not on account of the rule of law and accountability.

2. Digitalisation and Good Governance in the COVID-19 Crisis

Fast-moving information and communication technology (ICT) trends have also influenced how public administration functions, seeing the emergence of the digital era governance model (DEG). The latter involves reintegrating functions into the government sphere, adopting holistic and needs-oriented structures, and making greater progress with the digitalisation of administrative processes. DEG highlights the central role played by IT and information system changes in a wide-ranging series of approaches to how public services are organised as business processes and delivered to citizens or customers (<u>Dunleavy et al. 2006</u>). Fifteen years ago, several authors (<u>Dunleavy et al. 2006</u>) were already pointing to the need for a more adaptable, innovative, genuinely integrated, agile, and holistic public administration whose organisational operations would be visible in detail to both public servants and citizens and civil society organisations. This would add to organisational resilience, accountability, and "new ways of doing things", as well as bring about more open dialogue with both citizens and policymakers.

Prior to the COVID-19 pandemic, leading public administrations in developed countries were essentially neo-Weberian (e.g., New Zealand and Singapore), while many others were suffering from the negative effects of NPM reforms. The responses to COVID-19 show that countries have tended to revert to their dominant existing routines with respect to underlying capacities: for instance, while the UK primarily sought to outsource the response to the pandemic, Singapore and Germany were relying strongly on public actors (Mazzucato and Kattel 2020). During the COVID-19 pandemic, public administration authorities realised that they needed to respond to emergencies by organising rapid responses and mobilising resources. Effective governance requires capacities and capabilities for both agility and resilience (Drechsler and Kattel 2020).

In the research, the main focus concerns the drivers of good governance, assuming that, especially in the COVID-19 situation, digitalisation and an agile management approach were essential for ensuring the implementation of good governance principles. In the text below, both drivers are further elaborated. Moreover, there are notions used in literature related to good governance, typically "good", "efficient", "responsive", "resilient", and similar, that are indefinite and can be interpreted differently. Yet these are applied as abstract notions on purpose since there are no unified and explicit indicators defining them. This means that one needs to understand the mentioned attributes most broadly, whereas the research analyses conducted do try to define them as clearly as possible (see the empirical part).

3. Digitalisation as a Driver of Good Governance

The digitalisation of public administration means harnessing ICT to achieve the goals of public administration authorities, such as to efficiently manage information for the citizens (Mutambik et al. 2021; Săraru 2023), assure better service delivery, improve the access to and outreach of information, cost, and time savings (Statovci 2021), and empower people through participatory decision making (Nam 2019; Panagiotopoulos et al. 2022; United Nations 2004). It aims to improve public services and paves the way for more successful steps in each policy area. ICT is used in policymaking, audits, and follow-up processes (Rayes and Salam 2019). The rapidly expanding eco-system of advanced digital technologies (e.g., high-speed computing, big data, artificial intelligence, Internet of Things, blockchain) creates significant opportunities for all levels of government to improve the delivery of public goods and services (de Mello and Ter-Minassian 2020). Digital technologies provide great opportunities to solve big challenges if governed with a strong sense of public purpose (Perez 2019). The key risk of not fulfilling this potential lies not in how fast they are developed, but in how and for what purpose they are designed and deployed (Mazzucato 2019).

Many studies reveal digitalisation is a factor that supports different good governance principles, such as effectiveness and efficiency (Carnerud et al. 2020; Hodžić et al. 2021; Janssen and Estevez 2013; Nam 2019; Norris and Moon 2005; Ponsignon et al. 2019), transparency (Ciborra 2005), and accountability (Bertot et al. 2012; Pina et al. 2007). The COVID-19 crisis has accelerated digitalisation (Aristovnik et al. 2021; Fernandez and García i Rodríguez 2020; Gabryelczyk 2020;

Balakas et al. 2022) while also exposing certain systemic shortcomings that must be rectified to digitally transform public administrations to ensure that they perform even better in everyday situations or similar crises in the future. These shortcomings refer to specific characteristics of public administrations that make the digitalisation challenging, e.g., legal regulation in the acquisition of digitalisation projects, big and complex existing technological systems, slow innovation and development speed, hierarchical organisational structure, inflexible organisational culture, and the digital divide among public administration employees and other stakeholders (Brown 2001; Edquist et al. 2000; Parker and Bradley 2000; Ribeiro and Domingues 2018).

4. "Agile" as a Management Approach for Public Administration

The VUCA concept draws on the leadership theories of <u>Bennis and Nanus (1985)</u> and describes the volatility, uncertainty, complexity, and ambiguity of general conditions and situations. Developed in the military, it has generally gained importance in strategic management. Its relevance relates to how people view the conditions in which they make decisions, plan for the future, manage risks, foster change, and solve problems. In a globalised world, the pressure put on managers has become enormous. In order to succeed, they need a vision and an understanding of their organisations' capabilities, strengths, courage, and adaptability (<u>George 2017</u>). This applied even more strongly in the pandemic to both the private and public sectors.

To survive in a VUCA world, "agile" as a management approach emerged, representing a way of thinking and performing with a focus on internal and external collaboration, the quality and regular delivery of value, and the ability to deal with numerous changes. It comprises values, principles, methods, and practices (<u>Denning 2018</u>; <u>Perkin and Abraham 2017</u>; <u>Schoor 2021</u>). Agile management's historical roots lie in manufacturing with the quality movement in Japan in the 1970s and then in the United States during the 1980s in the form of iterative production techniques. In 1990, the iterative small team approach became known as "lean manufacturing". Yet, while the systematic use of small teams and the iterative approach began in hardware, it took off in software development in 2001 following the publication of the Agile Manifesto (<u>Denning 2018</u>). These days, businesses in all sectors, including public administration, and on all hierarchical levels use it (<u>Ansell et al. 2020</u>; <u>Carvalho et al. 2019</u>; <u>Greve et al. 2020</u>; <u>Rigby et al. 2016</u>; <u>Mergel et al. 2021</u>; <u>Schoor 2021</u>). Public administrations are also learning how to apply it while searching for innovation and performance improvements in their operations and provision of public services, e.g., software development (<u>Ribeiro and Domingues 2018</u>), crisis responses, including emergency management (<u>Janssen and Van der Voort 2020</u>; <u>Mergel et al. 2021</u>), and administrative reforms (<u>Greve et al. 2020</u>).

The key values of agile, as stated in the Agile Manifesto (Beck et al. 2001), as a counterpoint to more rigid management processes like waterfall planning (Denning 2018; LeMay 2019; Perkin and Abraham 2017; Sutherland and Sutherland 2014), are as follows: (1) Individuals and interactions over processes and tools; (2) Working software over comprehensive documentation; (3) Customer collaboration over contract negotiation; and (4) Responding to change over following a plan. While applying these values to public administration (especially during a crisis), they may be formulated as follows: (1) Employees and internal relationships; (2) Working public services; (3) A citizen orientation; and (4) Change management. By implementing these values, public administration can exercise agility, namely, the ability of an organisation as a whole to respond quickly to changes, notably external ones, e.g., by adapting and enriching organisational processes (Murdock and Barber 2017) or changing customer experiences (Schoor 2021). Thus, agile does not inherently conflict with democratic or other traditional administrative values, but is a method for making service delivery more efficient (Mergel et al. 2021).

According to <u>Perkin and Abraham</u> (2017), a vital advantage of the agile management approach is its ability to quickly adapt to changing realities and minimise overall risk. Although long-term goals may be set, there is much greater flexibility built into the path towards achieving them. Agile management means there is no longer a choice between disciplined execution (specific to the mechanistic/bureaucratic model of the organisation) and innovation (specific to the organic model of the organisation). Indeed, agile allows organisations to do both at once (<u>Denning 2018</u>; <u>Ribeiro and Domingues 2018</u>).

5. Agile Values as Mediators between Digitalisation and Good Governance during the COVID-19 Crisis

A widespread illusion existed before the COVID-19 crisis that technology by itself would resolve many of the challenges being faced by organisations. Many could not see that since they all generally had access to the same rapidly evolving technology, competitive advantage arose not from the technology itself, but from the agility with which managers in these organisations understood and adapted the technology to meet users' actual needs (<u>Denning 2018</u>). In the pre-COVID-19

world, public administrations were also increasingly turning their attention to tackling the "grand challenges" or "wicked issues" like climate change, demographic challenges, financial crises, and the promotion of health and well-being (Mazzucato 2018; Peters et al. 2011). Despite having in place numerous theories and models to capture different aspects of handling major crises, such as crisis management (Boin et al. 2016; Bouckaert et al. 2020) and blame avoidance (Hood 2007; Mortensen 2013), public administrations failed to cope with the COVID-19 crisis effectively, efficiently, and, for example, in Europe, in a coordinated way (Bouckaert et al. 2020). COVID-19 has brought long-held concerns about the digital economy to the fore: the monopoly power wielded by big tech, the lack of privacy, poor government capabilities, and the digital divide between those with and those without access (Mazzucato and Kattel 2020). Still, the COVID-19 crisis has accelerated public administration reforms concerning digitalisation and work conditions that barely three years ago would have looked entirely unrealistic (Cohen et al. 2021).

The unprecedented COVID-19 pandemic forced public administration authorities around the world to introduce measures that exceeded anything ever encountered by this generation. Their justification is quite clear—to maintain public health. Public administration was responsible for both adopting the legislation and adapting in response to it. While, on the one hand, the pandemic has revealed several weaknesses regarding the slow pace of previous public administration development, on the other, it has also accelerated the development of many aspects of public administration operations, e.g., the digitalisation of public administration in relation to electronic delivery, the speed of procedures, the use of new technologies, and several other areas of public life affected by the pandemic (Aristovnik et al. 2021; Horvat et al. 2021; Kovač et al. 2021). Good governance, including effective governmental intervention, is accordingly important for pandemic control (Nabin et al. 2021). It has become evident that in order to ensure the implementation of the good governance principles, public administrations, besides the accelerated digitalisation, have needed to introduce new management approaches, representing another challenge. Perkin and Abraham (2017) state that the new approaches can easily bump up against existing business practices and priorities. Mergel et al. (2021) stress that agile is a critical concept to be studied in the context of emergency management and public health responses. Moving to agile practices requires a significant shift in leadership style, culture, and working processes (Perkin and Abraham 2017). Unless employees feel psychologically safe (Edmondson 2018), they will not be prepared to collaborate, co-create, or be open to risk, which is usually closely related to any changes. This explains why they must be adequately supported by their leaders/managers and coaches in agile to recognise its underlying philosophy and principles (Perkin and Abraham 2017).

As revealed by the first wave of the COVID-19 pandemic experience, agile can reshape government, public management, and governance generally by bringing many benefits to public administrations, helping public managers overcome the obstacles they face when they are expected to make their organisations more flexible and responsive (Mergel et al. 2021). In public administration, agile is inspired by agile in software development, yet in administrative jargon, it means responding efficiently to changing public needs. The design of public services stresses the inclusiveness and transparency of both citizens and civil servants, and decision making involves both internal and external users from the start of the process, unlike in traditional bureaucracy where decisions are made top-down and feedback/complaints are sent bottom-up. Agile also includes efficiency in delivering services and being responsive to public values, e.g., equality and social responsibility. According to Peters et al. (2011) and McGuire and Agranoff (2011), functioning in the form of networks provides agile horizontal cooperation, thereby emphasising the orientation towards consensus. Agile public administrations are open to reforms and quick in responding to changes in the environment, public values, and public needs (Greve et al. 2020; Mergel et al. 2021). Alongside the advantages of agile as a management approach in public administration, there are many challenges, like agile being antithetical to many typical bureaucratic line organisations, or agile management requiring new styles of leadership and new forms of contracting and public procurement (Mergel et al. 2021; Opelt et al. 2013; Ribeiro and Domingues 2018). As stated above, digitalisation is an important factor of good governance. In order to efficiently exploit the potential held by digitalisation, state-of-the-art management approaches, such as agile (specifically agile values), should also be introduced in public administration.

References

- 1. Bevir, Mark, ed. 2011. The SAGE Handbook of Governance. Los Angeles: Sage.
- 2. OECD. 2004. Principles of Corporate Governance. Paris: OECD.
- 3. Carbonari, Lorenzo, Ernesto L. Felli, Massimo Gerli, and Giovanni Tria. 2013. Public sector's productivity and macroeconomic performance: The case of the Italian public administration reform. International Journal of Public Policy 9: 306–34.
- 4. Goltz, Jeffrey W. 2014. A contemporary public affairs approach to changing and improving police services in Puerto Rico: The administration, organisation, and community triumvirate. International Journal of Public Policy 10: 257–78.

- 5. World Bank. 2015. Governance. Washington, DC: World Bank. Available online: https://www.worldbank.org/en/topic/governance (accessed on 18 October 2023).
- 6. Kovač, Polonca. 2019. Vpliv stranske udeležbe na potek upravnih postopkov v upravnih enotah. In Javna uprava— Fokusna Skupina za Družbene Spremembe. Edited by Mirko Pečarič and Janez Stare. Ljubljana: FU. Available online: https://www.fu.uni-lj.si/wp-content/uploads/2021/02/Javna-uprava-Fokusna-skupina-za-druzbene-spremembe.pdf (accessed on 18 October 2023).
- 7. Pečarič, Mirko, and Janez Stare. 2019. Javna Uprava—Fokusna Skupina za Družbene Spremembe. Ljubljana: FU. Available online: https://www.fu.uni-lj.si/wp-content/uploads/2021/02/Javna-uprava-Fokusna-skupina-za-druzbene-spremembe.pdf (accessed on 31 March 2022).
- 8. Agere, Sam. 2000. Promoting Good Governance: Principles, Practices and Perspectives. London: Commonwealth Secretariat, vol. 11.
- 9. Bevir, Mark, Rod A. W. Rhodes, and Patrick Weller. 2003. Traditions of governance: Interpreting the changing role of the public sector. Public Administration 81: 1–17.
- 10. Edgar, Laura, Claire Marshall, and Michael Bassett. 2006. Partnerships: Putting Good Governance Principles in Practice. Ottawa: Institute on Governance.
- 11. Graham, John, Timothy Wynne Plumptre, and Bruce Amos. 2003. Principles for Good Governance in the 21st Century. Ottawa: Institute on Governance.
- 12. Kovač, Polonca, Nina Tomaževič, Anamarija Leben, and Aleksander Aristovnik. 2016. Reforming public administration in Slovenia: Between theory and practice of good governance and good administration. International Journal of Public Policy 12: 130–48.
- 13. Rao, N. Bhaskara. 2013. Good Governance: Delivering Corruption-Free Public Services. Thousand Oaks: Sage Publications.
- 14. Ropret, Marko, and Aleksander Aristovnik. 2019. Public sector reform from the Post-New Public Management perspective: Review and bibliometric analysis. Central European Public Administration Review 17: 89–115.
- 15. Smith, Brian C. 2007. Good Governance and Development. London: Palgrave Macmillan.
- 16. Ansell, Christopher, Eva Sørensen, and Jacob Torfing. 2020. The COVID-19 pandemic as a game changer for public administration and leadership? The need for robust governance responses to turbulent problems. Public Management Review 23: 949–60.
- 17. Denning, Stephen. 2018. The Age of Agile: How Smart Companies are Transforming the Way Work Gets Done. New York: Amacom.
- 18. Torfing, Jacob. 2019. Collaborative innovation in the public sector: The argument. Public Management Review 21: 1–
- 19. Weber, Edward P., and Anne M. Khademian. 2008. Wicked problems, knowledge challenges, and collaborative capacity builders in network settings. Public Administration Review 68: 334–49.
- 20. Dunleavy, Patrick, Helen Margetts, Simon Bastow, and Jane Tinkler. 2006. New public management is dead—long live digital-era governance. Journal of Public Administration Research and Theory 16: 467–94.
- 21. Mazzucato, Mariana, and Rainer Kattel. 2020. COVID-19 and public-sector capacity. Oxford Review of Economic Policy 36: S256–69.
- 22. Drechsler, Wolfgang, and Rainer Kattel. 2020. Debate: The developed civil servant—Providing agility and stability at the same time. Public Money & Management 40: 549–51.
- 23. Mutambik, Ibrahim, Abdullah Almuqrin, John Lee, Justin Zuopeng Zhang, Abdulaziz Alomran, Taha Omar, Ahmad Floos, and Abdullah Homadi. 2021. Usability of the G7 open government data portals and lessons learned. Sustainability 13: 13740.
- 24. Săraru, Cătălin-Silviu. 2023. Regulation of Public Services in the Administrative Code of Romania: Challenges and Limitations. Access to Justice in Eastern Europe 69: 69–83.
- 25. Statovci, Laura Hoti. 2021. The impact of digitalization in public administration in Kosovo. Perspectives of Law and Public Administration 10: 80–84.
- 26. Nam, Taewoo. 2019. Does e-Government raise effectiveness and efficiency?: Examining the cross-national effect. Journal of Global Information Management 27: 120–38.
- 27. Panagiotopoulos, Panagiotis, Aimilia Protogerou, and Yannis Caloghirou. 2022. Dynamic capabilities and ICT utilization in public organizations: An Empirical testing in local government. Long Range Planning 56: 102251.

- 28. United Nations. 2004. Global E-Government Readiness Report 2004: Towards Access for Opportunity. New York: United Nations.
- 29. Rayes, Ammar, and Samer Salam. 2019. Internet of Things from Hype to Reality: The Road to Digitization. Cham: Springer.
- 30. de Mello, Luiz, and Teresa Ter-Minassian. 2020. Digitalization challenges and opportunities for subnational governments. In OECD Working Papers on Fiscal Federalism. Paris: OECD Publishing.
- 31. Perez, Carlota. 2019. Transitioning to smart green growth: Lessons from history. In Handbook on Green Growth. Cheltenham: Edward Elgar Publishing, pp. 447–63.
- 32. Mazzucato, Mariana. 2019. Preventing Digital Feudalism. Available online: https://www.project-syndicate.org/commentary/platform-economy-digital-feudalism-by-mariana-mazzucato-2019-10 (accessed on 31 March 2022).
- 33. Carnerud, Daniel, Anna Mårtensson, Karin Ahlin, and Thomas Persson Slumpi. 2020. On the inclusion of sustainability and digitalization in quality management—An overview from past to present. Total Quality Management & Business Excellence, 1–23.
- 34. Hodžić, Sabina, Dejan Ravšelj, and Dubravka Jurlina Alibegović. 2021. E-Government Effectiveness and Efficiency in EU-28 and COVID-19. Central European Public Administration Review 19: 159–80.
- 35. Janssen, Marijn, and Elsa Estevez. 2013. Lean government and platform-based governance—Doing more with less. Government Information Quarterly 30: S1–S8.
- 36. Norris, Donald F., and M. Jae Moon. 2005. Advancing e-government at the grassroots: Tortoise or hare? Public Administration Review 65: 64–75.
- 37. Ponsignon, Frédéric, Stéphane Kleinhans, and Grégory Bressolles. 2019. The contribution of quality management to an organization's digital transformation: A qualitative study. Total Quality Management & Business Excellence 30: S17–S34.
- 38. Ciborra, Claudio. 2005. Interpreting e-government and development: Efficiency, transparency or governance at a distance? Information Technology & People 18: 260–79.
- 39. Bertot, John Carlo, Paul T. Jaeger, and Justin M. Grimes. 2012. Promoting transparency and accountability through ICTs, social media, and collaborative e-government. Transforming Government: People, Process and Policy 6: 78–91.
- 40. Pina, Vicente, Lourdes Torres, and Basilio Acerete. 2007. Are ICTs promoting government accountability?: A comparative analysis of e-governance developments in 19 OECD countries. Critical Perspectives on Accounting 18: 583–602.
- 41. Aristovnik, Aleksander, Polonca Kovač, Eva Murko, Dejan Ravšelj, Lan Umek, Marie Bohatá, Bernhard Hirsch, Fabienne-Sophie Schäfer, and Nina Tomaževič. 2021. The use of ICT by local general administrative authorities during COVID-19 for a sustainable future: Comparing five European countries. Sustainability 13: 11765.
- 42. Fernandez, Manu, and Sergio García i Rodríguez. 2020. COVID-19 and the Future of Cities: 9 Emerging Trends in Digital Transformation. Available online: https://www.citiestobe.com/digital-transformation-covid-19-future-of-cities/ (accessed on 31 March 2022).
- 43. Gabryelczyk, Renata. 2020. Has COVID-19 Accelerated Digital Transformation? Initial Lessons Learned for Public Administrations. Information Systems Management 37: 303–9.
- 44. Balaskas, Stefanos, Aliki Panagiotarou, and Maria Rigou. 2022. The influence of trustworthiness and technology acceptance factors on the usage of e-government services during COVID-19: A case study of post COVID-19 Greece. Administrative Sciences 12: 129.
- 45. Brown, Tom. 2001. Modernisation or failure? IT development projects in the UK public sector. Financial Accountability & Management 17: 363–81.
- 46. Edquist, Charles, Leif Hommen, and Lena Tsipouri. 2000. Policy Implications. In Public Technology Procurement and Innovation. Boston: Springer.
- 47. Parker, Rachel, and Lisa Bradley. 2000. Organisational culture in the public sector: Evidence from six organisations. International Journal of Public Sector Management 13: 125–141.
- 48. Ribeiro, Afonso, and Luisa Domingues. 2018. Acceptance of an agile methodology in the public sector. Procedia Computer Science 138: 621–29.
- 49. Bennis, Warren, and Burt Nanus. 1985. Leaders: The Strategies for Taking Charge. New York: Harper and Row Publishers.

- 50. George, Bill. 2017. VUCA 2.0: Strategy for Steady Leader in Unsteady World. Forbes Magazine. Available online: https://www.forbes.com/sites/hbsworkingknowledge/2017/02/17/vuca-2-0-a-strategy-for-steady-leadership-in-an-unsteady-world/#725a041613d8 (accessed on 31 March 2022).
- 51. Perkin, Neil, and Peter Abraham. 2017. Building the Agile Business Through Digital Transformation. New York: Kogan Page.
- 52. Schoor, Bruce. 2021. Agile vs. Agility. What Are the Differences? Available online: https://agilexl.com/blog-repository/2021/2/5/agile-vs-agility-what-are-the-difference (accessed on 31 March 2022).
- 53. Carvalho, André Mendes, Paulo Sampaio, Eric Rebentisch, João Álvaro Carvalho, and Pedro Saraiva. 2019. Operational excellence, organizational culture and agility: The missing link? Total Quality Management & Business Excellence 30: 1495–514.
- 54. Greve, Carsten, Niels Ejersbo, Per Lægreid, and Lise H. Rykkja. 2020. Unpacking Nordic administrative reforms: Agile and adaptive governments. International Journal of Public Administration 43: 697–710.
- 55. Rigby, Darrell. K., Jeff Sutherland, and Hirotaka Takeuchi. 2016. Embracing Agile: How to Master the Process That's Transforming Management. Harvard Business Review 94: 40–50. Available online: https://hbr.org/2016/05/embracingagile (accessed on 31 March 2022).
- 56. Mergel, Ines, Sukumar Ganapati, and Andrew B. Whitford. 2021. Agile: A new way of governing. Public Administration Review 81: 161–65.
- 57. Janssen, Marijn, and Haiko Van der Voort. 2020. Agile and adaptive governance in crisis response: Lessons from the COVID-19 pandemic. International Journal of Information Management 55: 102180.
- 58. Beck, Kent, Mike Beedle, Arie van Bennekum, Alistair Cockburn, Ward Cunningham, Martin Fowler, James Grenning, Jim Highsmith, Andrew Hunt, Ron Jeffries, and et al. 2001. Manifesto for Agile Software Development. Available online: https://agilemanifesto.org/iso/en/manifesto.html (accessed on 31 March 2022).
- 59. LeMay, Matt. 2019. Agile for Everybody. Sebastopol: O'Reilly Media.
- 60. Sutherland, Jeff, and Jeff Sutherland Jr. 2014. Scrum: The Art of Doing Twice the Work in Half the Time. New York: Crown Publishing Group.
- 61. Murdock, Alex, and Stephen Barber. 2017. IPMR and Public Management: The next 18 years? International Public Management Review 18: 1–20.
- 62. Mazzucato, Mariana. 2018. Mission-oriented innovation policies: Challenges and opportunities. Industrial and Corporate Change 27: 803–15.
- 63. Peters, B. Guy, Jon Pierre, and Tiina Randma-Liiv. 2011. Global financial crisis, public administration and governance: Do new problems require new solutions? Public Organization Review 11: 13–27.
- 64. Boin, Arjen, Eric Stern, and Bengt Sundelius. 2016. The Politics of Crisis Management: Public Leadership under Pressure. Cambridge: Cambridge University Press.
- 65. Bouckaert, Geert, Davide Galli, Sabine Kuhlmann, Renate Reiter, and Steven Van Hecke. 2020. European Coronationalism? A Hot Spot Governing a Pandemic Crisis. Public Administration Review 80: 765–73.
- 66. Hood, Christopher. 2007. What happens when transparency meets blame-avoidance? Public Management Review 9: 191–210.
- 67. Mortensen, Peter B. 2013. Public sector reform and blame avoidance effects. Journal of Public Policy 33: 229–53.
- 68. Cohen, Sandra, Francesca Manes Rossi, Eugenio Caperchione, and Isabel Brusca. 2021. Debate: If not now, then when? COVID-19 as an accelerator for public sector accrual accounting in Europe. Public Money & Management 41: 10–12.
- 69. Horvat, Matej, Wojciech Piatek, Lukas Potesil, and Krisztina F. Rozsnyai. 2021. Public Administration's Adaptation to COVID-19 Pandemic–Czech, Hungarian, Polish and Slovak Experience. Central European Public Administration Review 19: 133–58.
- 70. Kovač, Polonca, Lan Umek, Dejan Ravšelj, and Aleksander Aristovnik. 2021. Impact of COVID-19 on the digitalization of administrative procedures: Lessons from Slovenian administrative units. Teorija in Praksa 58: 652–69.
- 71. Nabin, Munirul H., Mohammad Tarequl Hasan Chowdhury, and Sukanto Bhattacharya. 2021. It matters to be in good hands: The relationship between good governance and pandemic spread inferred from cross-country COVID-19 data. Humanities and Social Sciences Communications 8: 1–15.
- 72. Edmondson, Amy C. 2018. The Fearless Organization: Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth. Hoboken: John Wiley & Sons.

- 73. McGuire, Michael, and Robert Agranoff. 2011. The limitations of public management networks. Public Administration 89: 265–84.
- 74. Opelt, Andreas, Boris Gloger, Wolfgang Pfarl, and Ralf Mittermayr. 2013. Agile Contracts: Creating and Managing Successful Projects with Scrum. Hoboken: John Wiley & Sons.

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