

# CHAPTER 6

## Conclusion and Recommendations

### 6.1 Conclusion

196 ICT-based public service innovations were identified on the Sinovik dataset issued by the Ministry for Administrative and Bureaucratic Reform of the Republic of Indonesia (KemenpanRB). Based on the collection of data compiled by category, dimensions, and indicators according to public value criteria, 196 Indonesian ICT-based service innovations in the Sinovik dataset are known to create public values. The public values created by Indonesian ICT-Based public service innovations are effectiveness (86%), efficiency (99%), equity (49%), social justice (99%), fairness (71%), democratic (78%), and service continuity (72%). These numbers reflect the representation or fulfillment of the public value indicators by Indonesian ICT-based public service innovations on the Sinovik dataset. In general, the average score of ICT-based public service innovations on Sinovik dataset yields fairly good results for each dimension of the public value framework.

196 ICT-based public service innovations are known to achieve their objectives and improve social welfare. ICTs infusion in public service has simplified the service procedure, reduced the time for service completion, eliminated social & institutional discrimination, provided every citizen an equal footing in accessing public services & resources, and distributed service

benefits fairly. ICTs infusion can also prevent discretion that can create injustice for the wider community because the neutrality of public servants is guaranteed.

Although about one-fifth of these innovations accommodate those who live in economic and social disparities, the government still needs to pay more attention to the vulnerable, marginalized, and excluded groups. The government might need to consider an integrated complaint platform to improve the accountability of administration. In addition, to heed the value of democracy in Indonesia, the government can exploit ICT to achieve full transparency.

## **6.2 Recommendations**

1. The service provider should be more transparent about the cost of each service, especially ones that require payment.
2. The government should consider offline service points to accommodate those who do not have access to technologies.
3. The service provider needs to consider providing an integrated complaint platform on each service.
4. Recommends further research on public values to incorporate collaboration (co-production) and good leadership into the public value framework.

And to overcome the issues addressed in the document analysis process, each service provider might need to consider to:

5. Improve the writing structures of innovation descriptions, such as clear problem identification, what are the alternative problem solutions, what the innovation is about, how the innovation solves the identified problem,

and finally, the evaluation report concerning the succession of the innovation.

6. Form a specific team that will be trained and taught to communicate their innovations to the public.
7. Provide a fine description of every service available, including the types of ICT used in delivering the service.

## REFERENCES

- ‘1945 Constitution Law of Indonesia’ (1945). Badan Perencanaan Nasional. Available at: <https://bappenas.go.id/files/pendanaan/regulasi/uud-1945-perubahan-iiiiiiiv.pdf>.
- Abel, C. F. (2014) ‘Toward a Theory of Social Justice for Public Administration’, *Administrative Theory & Praxis*, 36(4), pp. 466–488. doi: 10.2753/atp1084-1806360402.
- Adams, D. and Hess, M. (2001) ‘Community in public policy: Fad or foundation?’, *Australian Journal of Public Administration*, 60(2), pp. 13–23. doi: 10.1111/1467-8500.00205.
- Alford, J. and O’Flynn, J. (2009) ‘Making sense of public value: Concepts, critiques and emergent meanings’, *International Journal of Public Administration*, 32(3–4), pp. 171–191. doi: 10.1080/01900690902732731.
- Bellamy, C. (2004) *Moving to e-government: The role of ICTs in the public sector*, *Public Management and Governance*.
- Bellamy, C. (2009) ‘Managing ICTs in public sector organizations’, in Bovaird, T. and Löffler, E. (eds) *Public Management and Governance*. 2nd edn. Routledge, pp. 135–164.
- Bellamy, C. and Taylor, J. A. (1998) *Governing in the information age*. Public Policy and Management.
- Benington, J. (2009) ‘Creating the public in order to create public value?’, *International Journal of Public Administration*, 32(3–4), pp. 232–249. doi: 10.1080/01900690902749578.
- Benington, J. and Moore, M. H. (2011) ‘Public value in complex and changing times’, *Public value: Theory and practice*. Palgrave Macmillan Reino Unido, 1.
- Blum, J. and Manning, N. (2009) ‘Public management reforms across OECD countries’, *Public Management and Governance*. Routledge London, 2, pp. 41–58.
- Bonina, C. M. and Cordella, A. (2009) ‘Public sector reforms and the notion of “public value”: Implications for e-government deployment’, *15th Americas Conference on Information Systems 2009, AMCIS 2009*, 1, pp. 469–476.
- Bovaird, T. and Löffler, E. (2004) *Public management and governance*, *Public Management and Governance*. Taylor and Francis. doi: 10.4324/9780203634219.

- Bovaird, T. and Löffler, E. (2009) *Public Management and Governance*. 2nd edn, *Public Management and Governance*. 2nd edn. Edited by T. Bovaird and E. Löffler. Routledge. doi: 10.4324/9781315693279.
- Bowen, G. A. (2009) 'Document analysis as a qualitative research method', *Qualitative Research Journal*, 9(2), pp. 27–40. doi: 10.3316/QRJ0902027.
- Bozeman, B. (2007) *Minggu ke 2 & 9\_Barry Bozeman-Public Values and Public Interest\_ Counterbalancing Economic Individualism (Public Management and Change)-Georgetown University Press (2007).pdf*, Georgetown University Press. Washington, D.C.: Georgetown University Press.
- Bryson, J. M., Crosby, B. C. and Bloomberg, L. (2014) 'Public value governance: Moving beyond traditional public administration and the new public management', *Public Administration Review*, 74(4), pp. 445–456. doi: 10.1111/puar.12238.
- Bygstad, B. and Lanestedt, G. (2009) 'ICT based service innovation - A challenge for project management', *International Journal of Project Management*. Elsevier Ltd and IPMA, 27(3), pp. 234–242. doi: 10.1016/j.ijproman.2007.12.002.
- Chen, J., Walker, R. M. and Sawhney, M. (2015) 'Public Service Innovation: A Typology', pp. 1–52. doi: <https://dx.doi.org/10.2139/ssrn.3410084>.
- Cordella, A. and Bonina, C. M. (2012) 'A public value perspective for ICT enabled public sector reforms: A theoretical reflection', *Government Information Quarterly*. Elsevier B.V., 29(4), pp. 512–520. doi: 10.1016/j.giq.2012.03.004.
- Cordella, A. and Paletti, A. (2017) 'Value creation, ICT, and co-production in public sector: Bureaucracy, open sourcing and crowd sourcing', *ACM International Conference Proceeding Series*, Part F1282, pp. 185–194. doi: 10.1145/3085228.3085305.
- Cordella, A., Paletti, A. and Shaikh, M. (2017) 'Public value and co-production: Reconfiguring service delivery', *2017 Annual Meeting of the Academy of Management, AOM 2017*, 2017-August. doi: 10.5465/ambpp.2017.132.
- Creswell, J. W. (2002) *RESEARCH DESIGN: Qualitative, Quantitative, and mixed methods approaches*, *RESEARCH DESIGN*.
- Criado, J. I. and Gil-Garcia, J. R. (2019) 'Creating public value through smart technologies and strategies: From digital services to artificial intelligence and beyond', *International Journal of Public Sector Management*, 32(5), pp. 438–450. doi: 10.1108/IJPSM-07-2019-0178.
- Dahlui, M. *et al.* (2015) 'HIV/AIDS related stigma and discrimination against PLWHA in Nigerian population', *PLoS ONE*, 10(12), pp. 1–11. doi:

10.1371/journal.pone.0143749.

- Danieli, A. B. (2008) *eGovernment for Development - eGov Websites - Why Have an eGovernment Website?* Available at: <http://www.egov4dev.org/websites/basics/why.shtml> (Accessed: 8 March 2021).
- Djellal, F. and Gallouj, F. (2008) 'Survey of research on health sector innovation Faridah', in Windrum, P. and Koch, P. (eds) *Innovation and entrepreneurship in public services*. Edward Elgar Publishing Limited, pp. 64–87.
- Dutta, S., Lanvin, B. and Wunsch-Vincent, S. (eds) (2020) *Global innovation index 2020: who will finance innovations*. 13th edn, *Law and innovations*. 13th edn. doi: 10.37772/2518-1718-2021-1(33)-1.
- Fukumoto, E. and Bozeman, B. (2019) 'Public Values Theory: What Is Missing?', *American Review of Public Administration*, 49(6), pp. 635–648. doi: 10.1177/0275074018814244.
- Ganapati, S. (2015) 'Using Mobile Apps in Government', pp. 1–53.
- 'Global Information Society Watch 2014' (2014), pp. 140–142. Available at: [GISWatch.org](http://GISWatch.org).
- Grabow, B. (2007) 'Third-Generation Local E-Government', in Anttiroiko, A. and Mälkiä, M. (eds) *Encyclopedia of Digital Government*. Idea Group Reference, pp. 1547–1553.
- von Heimburg, D., Ness, O. and Storch, J. (2021) 'Co-Creation of Public Values', pp. 20–41. doi: 10.4018/978-1-7998-4975-9.ch002.
- Helsper, E. (2014) 'Harnessing ICT for social action, a digital volunteering programme ( Spain , 25 March 2014 ) Digital Inclusion in Europe: Evaluating Policy and Practice 1 Introduction: Background and Context', (March), pp. 1–35.
- Indeks Demokrasi Indonesia (IDI) Menurut Indikator 2017-2019* (2019). Available at: <https://www.bps.go.id/indikator/34/638/1/indeks-demokrasi-indonesia-idi-menurut-indikator.html>.
- Johnson, N. J. and Svara, J. H. (2011) *Justice for All : Promoting Social Equity in Public Administration*. Edited by T. F. Buss. New York: M.E. Sharpe, Inc. Available at: [www.napawash.org](http://www.napawash.org).
- Jørgensen, T. B. and Bozeman, B. (2007) 'Public values: An inventory', *Administration and Society*, 39(3), pp. 354–381. doi: 10.1177/0095399707300703.
- Kakabadse, N. K., Kakabadse, A. and Kouzmin, A. (2007) 'The Civic within the Democratic Project in the Digital Era', in Anttiroiko, A. and Mälkiä, M. (eds)

*Encyclopedia of Digital Government*. Idea Group Reference, pp. 183–189.

- Karkin, N. *et al.* (2018) ‘The impact of ICTs-related innovation on public values in public sector: A meta-analysis’, *ACM International Conference Proceeding Series*. doi: 10.1145/3209281.3209351.
- Kelly, G., Mulgan, G. and Muers, S. (2002) ‘Creating public value: An analytical framework for public service reform’, *London: Strategy Unit, Cabinet Office*.
- Kementerian PANRB (2014a) *Law of Public Service Innovation Guidelines No. 30 of 2014*. Indonesia.
- Kementerian PANRB (2014b) *Top 99 Inovasi Pelayanan Publik Tahun 2014*. 1st edn. Edited by M. Imanuddin, S. Hartini, and Tim Transformasi. Jakarta: Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. Available at: <https://sinovik.menpan.go.id/index.php/unduh>.
- Kementerian PANRB (2015) *Top 99 Inovasi Pelayanan Publik Tahun 2015*. 1st edn. Jakarta: Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. Available at: <https://sinovik.menpan.go.id/index.php/unduh>.
- Kementerian PANRB (2016) *Top 99 Inovasi Pelayanan Publik Tahun 2016*. 1st edn. Jakarta: Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. Available at: <https://sinovik.menpan.go.id/index.php/unduh>.
- Kementerian PANRB (2017) *Top 99 Inovasi Pelayanan Publik Tahun 2017*. Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. Available at: <https://sinovik.menpan.go.id/index.php/unduh>.
- Kementerian PANRB (2018) *Top 99 Inovasi Pelayanan Publik Tahun 2018*. Jakarta: Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. Available at: [https://sinovik.menpan.go.id/uploads/unduh/Buku\\_TOP\\_99\\_2018\\_Dua\\_Bahasa.pdf](https://sinovik.menpan.go.id/uploads/unduh/Buku_TOP_99_2018_Dua_Bahasa.pdf).
- Kementerian PANRB (2019) *Top 99 Inovasi Pelayanan Publik Tahun 2019*. Jakarta: Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi.
- Kementerian PANRB (2020) *Top 99 Inovasi Pelayanan Publik Tahun 2020*. Jakarta: Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. Available at: [https://sinovik.menpan.go.id/uploads/unduh/Buku\\_TOP\\_99\\_20201.pdf](https://sinovik.menpan.go.id/uploads/unduh/Buku_TOP_99_20201.pdf).
- Kvale, S. (1996) ‘The Social Construction of Validity’, *Qualitative Inquiry*, pp. 229–252. doi: 10.1177/107780049500100103.
- Leiponen, A. (2005) ‘Core complementarities of the corporation: Organization of an innovating firm’, *Managerial and Decision Economics*, 26, pp. 351–365.

doi: 10.1002/mde.1232.

- Lichtman, M. (2017) 'Conceptualizing Research Approaches', *Qualitative Research for the Social Sciences*, pp. 81–96. doi: 10.4135/9781544307756.n4.
- Lufunyo, H. (2013) 'Impact of public sector reforms on service delivery in Tanzania', *Journal of Public Administration and Policy Research*, 5(2), pp. 26–49. doi: 10.5897/JPAPR12.014.
- Manzoor, A. (2014) 'A look at efficiency in public administration: Past and future', *SAGE Open*, 4(4), pp. 1–5. doi: 10.1177/2158244014564936.
- Matheson, A. and Kwon, H.-S. (2003) 'Public Sector Modernisation: A New Agenda', *OECD Journal on Budgeting*, 3, pp. 7–23. doi: 10.1787/budget-v3-art2-en.
- McCourt, W. (2013) 'Models of Public Service Reform: A Problem-Solving Approach', *World Bank Policy Research Working Paper*, (6428), pp. 1–32. Available at: <http://papers.ssrn.com/abstract=2258956>.
- MenpanRB, H. (2018) 'Bentengi Keberlanjutan Inovasi dengan Perda', *Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi*, 19 July. Available at: <https://www.menpan.go.id/site/berita-terkini/bentengi-keberlanjutan-inovasi-dengan-perda>.
- Miao, X. *et al.* (2011) 'Lean public management: How lean principles facilitate municipal governance reform in China', *African Journal of Business Management*, 5(5), pp. 1564–1569. doi: 10.5897/AJBM09.436.
- Mintrom, M. and Luetjens, J. (2017) 'Creating Public Value: Tightening Connections Between Policy Design and Public Management', *Policy Studies Journal*, 45(1), pp. 170–190. doi: 10.1111/psj.12116.
- Moore, M. H. (1994) 'PUBLIC VALUE AS THE FOCUS OF STRATEGY', *Australian Journal of Public Administration*, 53(3), pp. 296–303. doi: <https://doi.org/10.1111/j.1467-8500.1994.tb01467.x>.
- Moore, M. H. (1995) *Creating Public Value: Strategic Management in Government*. London, Cambridge: Harvard University Press.
- Moore, M. H. (2013) *Recognizing Public Value*. Cambridge, London: Harvard University Press.
- Mulgan, G. *et al.* (2019) 'Public Value: How can it be measured, managed and grown?', *Nesta*, (May), p. 55. Available at: [https://media.nesta.org.uk/documents/Public\\_Value\\_WEB.pdf](https://media.nesta.org.uk/documents/Public_Value_WEB.pdf).
- Nasim, S. and Sushil (2010) 'Managing continuity and change: A new approach for strategizing in e-government', *Transforming Government: People,*



- Process and Policy*, 4(4), pp. 338–364. doi: 10.1108/17506161011081327.
- National Cyber Security Centre (2019) *Protecting SMS messages used in critical business processes*. National Cyber Security Centre. Available at: <https://www.ncsc.gov.uk/guidance/protecting-sms-messages-used-in-critical-business-processes> (Accessed: 4 April 2021).
- O’Flynn, J. (2007) ‘From new public management to public value: Paradigmatic change and managerial implications’, *Australian Journal of Public Administration*, 66(3), pp. 353–366. doi: 10.1111/j.1467-8500.2007.00545.x.
- OECD (2016) ‘OECD Open Government Review 2016’, *OECD Open Government Review Indonesia*.
- Open Government Indonesia (2012) *RENCANA AKSI OGP INDONESIA 2011 - 2012*.
- Open Government Indonesia (2015) *Rencana Aksi OGP INDONESIA 2014 - 2015*.
- Open Government Indonesia (2020) *PERJALANAN OGI*. Available at: <https://ogi.bappenas.go.id/perjalanan> (Accessed: 5 March 2021).
- Osborne, S. and Brown, K. (2005) *Managing Change and Innovation in Public Service Organizations, Managing Change and Innovation in Public Service Organizations*. doi: 10.4324/9780203391129.
- Osborne, S. P., Radnor, Z. and Strokosch, K. (2016) ‘Co-Production and the Co-Creation of Value in Public Services: A suitable case for treatment?’, *Public Management Review*, 18(5), pp. 639–653. doi: 10.1080/14719037.2015.1111927.
- Panagiotopoulos, P., Klievink, B. and Cordella, A. (2019) ‘Public value creation in digital government’, *Government Information Quarterly*, 36(4). doi: 10.1016/j.giq.2019.101421.
- Pang, M. S., Lee, G. and Delone, W. H. (2014) ‘In public sector organisations: A public-value management perspective’, *Journal of Information Technology*, 29(3), pp. 187–205. doi: 10.1057/jit.2014.2.
- Patel, S. C. and Zu, X. (2009) ‘E-government application development using the Six Sigma approach’, *Electronic Government*, 6(3), pp. 295–306. doi: 10.1504/EG.2009.024946.
- Pemerintah Kota Surabaya (2021) *Surabaya Single Window*. Surabaya: Pemerintah Kota Surabaya. Available at: <https://ssw.surabaya.go.id/> (Accessed: 3 April 2021).
- Pradipto, Y. and Setiadi, B. (2019) ‘The Role of Internalized Stigma and Perceived Discrimination Regarding the Self-Esteem of People Living with

- HIV/AIDS in Jakarta', *ANIMA Indonesian Psychological Journal*, 33. doi: 10.24123/aipj.v33i4.1797.
- Public Information Disclosure Law No. 14 of 2008* (2008). Available at: [https://www.kpk.go.id/images/pdf/uu\\_pip/UU\\_No\\_14\\_Tahun\\_2008.pdf](https://www.kpk.go.id/images/pdf/uu_pip/UU_No_14_Tahun_2008.pdf).
- Rhodes, R. A. W. and Wanna, J. (2007) 'The limits to public value, or rescuing responsible government from the platonic guardians', *Australian Journal of Public Administration*, 66(4), pp. 406–421. doi: 10.1111/j.1467-8500.2007.00553.x.
- Richmond, E. B. (1980) 'German Via the Airwaves, Phase Two: On the Beam with CB Radio', *Foreign Language Annals*, 13(5), pp. 371–372. doi: 10.1111/j.1944-9720.1980.tb01357.x.
- Robinson, K. (2009) *Gender, islam and democracy in Indonesia (ASAA women in Asia series)*.
- Rodríguez Bolívar, M. P. (2015) 'Smart Cities: Big Cities, Complex Governance?', *Public Administration and Information Technology*, pp. 1–7. doi: 10.1007/978-3-319-03167-5\_1.
- Rodríguez Bolívar, M. P. (2019a) 'Public Value, Governance Models and Co-Creation in Smart Cities', in *Public Administration and Information Technology*, pp. 271–280. doi: 10.1007/978-3-319-98953-2\_11.
- Rodríguez Bolívar, M. P. (2019b) *Setting Foundations for the Creation of Public Value in Smart Cities*. doi: 10.1007/978-3-319-98953-2.
- Rosenblatt, A. J. (2007) 'Integrated Online and Offline Advocacy Campaign Strategy', in Anttiroiko, A. and Mälkiä, M. (eds) *Encyclopedia of Digital Government*. Idea Group Reference, pp. 1095–1099.
- Rutgers, M. R. and van der Meer, H. (2010) 'The origins and restriction of efficiency in public administration: Regaining efficiency as the core value of public administration', *Administration and Society*, 42(7), pp. 755–779. doi: 10.1177/0095399710378990.
- Sami, A. *et al.* (2018) 'Systematic Review of Public Value', *Journal of Public Value and Administration Insights*, 1(1), pp. 1–6. doi: 10.31580/jpvai.v1i1.131.
- Sanderson, I. (1996) 'Evaluation, learning and the effectiveness of public services Towards a quality of public service model', *International Journal of Public Sector Management*, 9(5–6), pp. 90–108. doi: 10.1108/09513559610146375.
- Savoldelli, A., Misuraca, G. and Codagnone, C. (2013) 'Measuring the Public value of e--Government: The eGEP2.0 model', *Journal of E-Government*, 11, pp. 373–388.

- Sementelli, A. J. and Abel, C. F. (2007) 'Metaphor, cultural imagery, and the study of change in public organizations', *Journal of Organizational Change Management*. Emerald Group Publishing Limited, 20(5), pp. 652–670. doi: 10.1108/09534810710779081.
- Sen, A. and Drèze, J. (2002) *India: Development and Participation*. New Delhi, India: Oxford University Press. Available at: <https://scholar.harvard.edu/sen/publications/india-development-and-participation>.
- Septyandrica, C. R. (2013) *INDEPENDENT REPORTING MECHANISM: INDONESIA PROGRESS REPORT 2011–2013*.
- Silverman, D. (2013) *Doing Qualitative Research*. 4th edn. Edited by K. Metzler. SAGE Publications.
- Singh, B. G. and Engineer, C. C. (1905) 'UHF Digital ( License free band radio ) Handheld'.
- Skaalsvik, H. and Johannessen, J. A. (2014) 'Service innovation: Suggesting a typology of service innovation', *Problems and Perspectives in Management*, 12(3), pp. 38–45.
- Song, C. and Lee, J. (2016) 'Citizens Use of Social Media in Government, Perceived Transparency, and Trust in Government', *Public Performance and Management Review*, 39(2), pp. 430–453. doi: 10.1080/15309576.2015.1108798.
- Spicker, P. (2009) 'The Nature of a Public Service', *International Journal of Public Administration*, 32, pp. 190–692. doi: 10.1080/01900690903050927.
- Stoker, G. (2006) 'Public value management: A new narrative for networked governance?', *American Review of Public Administration*, 36(1), pp. 41–57. doi: 10.1177/0275074005282583.
- Tong, C., Tak, W. I. W. and Wong, A. (2015) 'The Impact of Knowledge Sharing on the Relationship between Organizational culture and Job Satisfaction: The Perception of Information Communication and Technology (ICT) Practitioners in Hong Kong', *International Journal of Human Resource Studies*, 5(1), p. 19. doi: 10.5296/ijhrs.v5i1.6895.
- Twizeyimana, J. D. and Andersson, A. (2019) 'The public value of E-Government – A literature review', *Government Information Quarterly*. Elsevier, 36(2), pp. 167–178. doi: 10.1016/j.giq.2019.01.001.
- United Nations (2015) *2015 UNPSA Winners*. Available at: <https://publicadministration.un.org/unpsa/database/Winners/2015-Winners> (Accessed: 2 February 2021).

- United Nations (2018) *2018 UNPSA Winners*. Available at: <https://publicadministration.un.org/unpsa/database/Winners/2018-winners> (Accessed: 2 February 2021).
- United Nations (2019) *2019 UNPSA Winners*. Available at: <https://publicadministration.un.org/unpsa/database/Winners/2019-Winners> (Accessed: 2 February 2021).
- Walby, K. and Luscombe, A. (2018) 'Ethics review and freedom of information requests in qualitative research', *Research Ethics*, 14(4), pp. 1–15. doi: 10.1177/1747016117750208.
- Williams, I. and SHEARER, H. (2011) 'Appraising public value: Past, present and futures', *Public Administration*, 89, pp. 1367–1384. doi: 10.1111/j.1467-9299.2011.01942.x.
- Windrum, P. (2008) *Innovation and entrepreneurship in public services, Innovation in Public Sector Services: Entrepreneurship, Creativity and Management*. Edited by P. Windrum and P. Koch. Edward Elgar Publishing Limited. doi: 10.4337/9781848441545.00009.
- Wulandari, R. *et al.* (2020) 'Pemetaan Topik Nilai Publik Dalam Penelitian', *Baca: Jurnal Dokumentasi Dan Informasi*, 41(2), p. 203. doi: 10.14203/j.baca.v41i2.683.
- Zio, M. Di *et al.* (2016) *Methodology for data validation 1.0 Essnet Validat Foundation*. 1st edn. Available at: [https://ec.europa.eu/eurostat/cros/system/files/methodology\\_for\\_data\\_validation\\_v1.0\\_rev-2016-06\\_final.pdf](https://ec.europa.eu/eurostat/cros/system/files/methodology_for_data_validation_v1.0_rev-2016-06_final.pdf).
- Zio, M. Di and Guarnera, U. (2016) 'Why data validation - Relationship between validation and quality', in Zio, M. Di *et al.* (eds) *Methodology for data validation 1.0 Essnet Validat Foundation*. 1st edn, pp. 7–8.