

Introduction

Innovation Adoption in the Public Organization: Research Directions

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ABSTRACT

Like any other organization, contemporary public organizations face more and more significant challenges resulting from pressure from multiple stakeholders, the need for effective operation, transparency, openness, universal accessibility, and professionalization of management. With regard to the signalled requirements and expectations, public organizations are forced to redefine the method and logic of action, in particular, to move towards organizational changes and increase adaptability. In other words, organizations should gradually transform into organizations that promote flexibility, efficiency, adaptability, proactivity, improvement of public services and creating value for the customer. In practice, this poses new challenges for public decision-makers, which leads to the need to search for solutions enabling the achievement of the above objectives. The possibility of meeting these expectations and challenges for public organizations is seen in the implementation of innovations. While there is a lot of research on the implementation of innovation in the public sector, there are rarely publications on trends and challenges in implementing innovation. This article contributes to the literature devoted to implementation of innovations in the public sector and, in particular, it draws attention to research trends and related challenges that are faced by decision-makers in public organizations.

Key words: innovation, innovation adoption, public organization, research direction

Introduction

The economic, social, political, and administrative transformations observed in recent decades have changed the approach to managing public organizations so far. The new optics was aimed at looking for ways to meet the challenges of democratization of public life, growing expectations of citizens, their willingness to create new services, solutions, and improvements, with the simultaneous obligatory implementation of legal regulations on subsidiarity, decentralization, increasing the efficiency and effectiveness of public tasks and rational spending of public funds. In this context, some need to implement innovation in the public sector (Borins, 2001) is discussed, because “public sector innovation involves significant improvements in the services that government has a responsibility to provide, including those delivered by third parties” (OECD, 2016: 1). In addition, public sector organizations are under pressure to innovate due to public demand for new or improved services and budget constraints. It is even indicated that the implementation of innovations is to be the future in the context of public sector reforms. In practice, this means that public organizations are changing their status from the superior regulator of social relations to entities using solutions previously used only in business. In this context, “public sector organizations around the globe consider the development of new ideas and innovation paramount and inevitable” (Moussa et al, 2018: 1).

Nowadays, innovation has become the main challenge for all types of organizations, including public ones (Glor and Rivera, 2017). It is considered a key driver of the long-term success of an organization (Baker and Sinkula, 2002; Balkin et al, 2000). Additionally, it is the basis of sustainable development (Bessant and Tidd, 2007). In relation to public organizations, innovation can contribute to improving the quality of public services, as well as increasing the ability of public organizations to solve problems in dealing with social challenges, and thus the legitimacy and trust in public organizations.

Based on the literature it is easy to conclude that innovation is a complex, multi-faceted construct, while its implementation requires many different mechanisms (Clausen et al, 2020). However, despite the interest of researchers in the issues of innovation in public organizations (Buchheim et al, 2020; Osborne and Brown 2011; Walker, 2014), it is possible to state that the issue of innovation in the context of the public sector is still underdeveloped (Potts and Kastle 2010; Osborne and Brown, 2011; Sørensen and Torfing, 2011) and it is recognized that research into public sector innovation has so far made a very limited contribution to, in particular in the context of antecedents (Clausen et al, 2020). In addition, the literature indicates that there is a need for further literature reviews in the field of innovation in the public sector (De Vries et al, 2018), as systematic literature reviews are important from the point of view of public management research (Cinar and Simms, 2018). At the same time, there is a lack of comprehensive systematic reviews of antecedents of innovation in public organization (De Vries et al, 2018). In this context, Charest (2012, p. 1) says “public management consists in a set of processes and tools aimed at achieving optimal performance in an organization dedicated to public service.”

This special issue places the antecedents of innovation in the public sector in the research program, including collection of inspiring results of systematic literature reviews on analysis of antecedents of trailblazing and adoption of public policy innovation, a nomenclature and classification system for antecedents of public policy innovation trailblazing and adoption derived, and antecedents of different types of innovation. In addition, the reader will find information about the possibility of using the PRISMA protocol to guide a systematic literature review of antecedents of policy innovation trailblazing and adoption. The publications in this special issue of *The Innovation Journal: The Public Sector Innovation Journal* respond to the research needs signalled by other researchers related to considering various types of innovations, antecedents, and the issues of implementing innovations in public organizations. The special issue includes six publications and a book review of *Measuring Innovation Everywhere: The Challenge of Better Policy, Learning, Evaluation and Monitoring*, by Fred Gault.

Although each of the following articles stands solidly on its own merits, we have made an effort to impose a rough thematic structure and logical flow in their ordering, motivated by an interest in emphasizing some of the methodological similarities and differences. This issue starts with an article about the applicability of the PRISMA systematic literature review methodology to trailblazing and adoption of innovation. The second article focuses on the antecedents of trailblazing and adoption of public policy innovation which was identified in a systematic literature review. In the next article, the author develops terminologies and a classification system for antecedents of trailblazing and adoption of public policy innovation. The next article focuses on the antecedents in quantitative and qualitative literature. Antecedents of private, public sector, and social innovation are presented in the article "A Comparison of Antecedents of Different Types of Innovation". The conclusion summarizes the analyses and findings of this special issue for antecedents of trailblazing and adoption of

public policy innovation. We hope the innovation science community will find this special issue to be an informative and useful collection of articles.

This introductory article develops a conceptual framework for innovation adoption in the public sector from the antecedent perspective and identifies cutting-edge trends and challenges for adoption of innovation in the public sector inspired by the antecedent research featured in this special issue.

Evolution of the Approach to Managing Public Organizations

Pointing to the evolution of the approach to managing public organizations, four stages can be distinguished: (1) law enforcement, (2) the ideal bureaucracy model, (3) approximation to the functioning of commercial organizations, and (4) interaction with stakeholders. Firstly, the earliest mention that public organizations should be managed was reported in the 18th century. Back then, however, public organizations were considered to be executors of the law. A century later, people began to postulate the separation of administration from politics. Not without significance for the management of public organizations were the reforms initiated in the mid-18th century in England and the United States, which led to the construction of a coherent model of public administration.

Secondly, another breakthrough for the management of public organizations is attributed to the achievements of Weber, in particular to his concept of an ideal bureaucracy from 1920, according to which the superiority of the bureaucratic approach in managing public organizations over other methods was emphasized.

Thirdly, discussions of management of public organizations intensified after the Second World War, developed in the 1980s and reached their peak in the late 1990s. They boiled down to questioning the proposals of Weber's achievements, in particular the monopolistic forms of providing services (Stoker, 2006), the bureaucratic pillar of the traditional public administration of Pfiffner (2004), the cult of legal regulations, intra-organizational conservatism, the increase in the cost of maintaining public organizations and the eruption of formalized action. This criticism has become a source of inspiration to the search for more effective and efficient ways of managing public organizations.

There was a move towards a managerial model, and more specifically New Public Management. In line with the model in question, it was postulated that to move away from a passive public organization in favour of one organization would achieve results. The management of public organizations was also started to be perceived through the prism of strategic behaviour in a changing environment. The need to adopt private sector practices was emphasized, to increase the efficiency of the state, to allow the implementation of ideas into reality (Kelman et al, 2003) and to become “a miraculous elixir” for all problems encountered in the public sector.

Fourthly, in 2005 it was announced that “New Public Management is dead” (Dunleavy et al, 2006) and ceases to be a viable and up-to-date concept (Drechsler, 2005). According to critics, New Public Management did not contribute to the creation of better-performing and less cost-intensive public organizations. Difficulties related to the possibility of increasing efficiency, effectiveness and correcting errors in public organizations began to be noticed: Excessive standardization, bureaucratization (Moynihan, 2013), citizen clientization, as well

as weakening the state's ability to solve structural problems, omitting strategic and cultural aspects of public management, unreflectiveness that did not take into account the specificity of public organizations, transferring management tools from the commercial to the public sector, fragmentation of the administrative system and blurring of rules and mechanisms of responsibility for the quality of public affairs management (Flynn, 2007). Negligence related to the use and regulation of information and communication technologies was also noticed. In general, New Public Governance was found to deal poorly with the new challenges and expectations of citizens, in particular regarding the use of the Internet (Dunleavy et al, 2008).

Increasingly, the need to mobilize the experience, resources and ideas of public and private entities in the creation of public and social solutions began to be indicated. Currently, it is postulated that stakeholders should be involved in co-management of a public organization, using information and communication technologies, digital information sharing or open government. The evolution of the approach to managing public organizations has changed the perception and treatment of citizens. Due to criticism of traditional public administration, accusations of prejudice and injustice as well as favouritism of the elite seemed to be observed more and more frequently. A search for solutions that would allow the public sector to become more effective and innovative, and open to citizens was started (Joshi and Moore, 2014). According to Alford (2002), this approach was supposed to be an antidote to the stereotypical understanding of bureaucracy associated with long queues and standardization.

Following the criticism of traditional public administration, the era of “citizen participation” was announced (Moynihan, 1969), in which the citizen is no longer just a passive subject waiting for care and assistance from a public organization (McLaughlin, 2009). Accordingly, the client of a public organization is guided in his actions by individual interests and personal satisfaction, and his preferences are to be satisfied by these organizations (Roberts, 2004). The citizen began to be treated as an active client interested in taking responsibility for their decisions and in assessing the quality of actions taken by public organizations (Needham, 2006). Innovations in the public sector began to occupy an important place targeted by politicians, officials, and social organizations. They have become an open process of cooperation between stakeholders from different organizations (Bekkers and Tummers, 2018), a way to improve service quality, competitiveness, efficiency, and performance (Piening, 2011).

Innovation and Innovation Adoption

Innovations are defined in various ways. For example, Thompson's (1965: 2) states that “innovation is the generation, acceptance and implementation of new ideas, processes, products or services”. In turn, Wong et al. (2008: 2) states that “innovation can be defined as the effective application of processes and products new to the organization and designed to benefit it and its stakeholders”. In another approach, Kimberly (1981: 108) recognizes that “innovation as a process, innovation as a discrete item including, products, programs or services; and innovation as an attribute of organizations”. On the other hand, Plessis (2007: 21) recognizes that innovation is “creation of new knowledge and ideas to facilitate new business outcomes, aimed at improving internal business processes and structures and to create market driven products and services. Innovation encompasses both radical and incremental innovation”. On the other hand, in the Oslo Manual, innovations are defined in the following way: “an innovation is a new or improved product or process (or combination

thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)” (OECD/Eurostat, 2018: 60).

Other benefits include improving customer access to information, increasing customer satisfaction, increasing the absorption of funds, simplifying administrative procedures, improving working conditions and employee satisfaction, and reducing the operating costs of organizations adopting innovations.

The literature indicates that the adaptation of innovation in an organization may follow three stages: (1) initiation, (2) adoption (decision) and (3) implementation (Angle and Van de Van, 2000). Initiation concerns recognizing the need, acquiring knowledge, and searching for solutions, being aware of existing innovations, identifying appropriate innovations, and selecting innovations in order to adapt them. Therefore, these are activities relating to the recognition of the need, being aware of the existence of the innovation, assessing the legitimacy of its adaptation and making a decision on its adoption. In this phase, the members of the organization learn about the existence of innovation, consider its usefulness for the organization, and propose its adoption. The acceptance decision focuses on evaluating the proposed ideas from a technical, financial, and strategic perspective, making a decision to accept the idea as a desired solution, and allocating resources to acquire, change and assimilate it. The stage of making a decision on the adaptation of innovation means assessing its usefulness of innovation for the organization, the scope and methods of its implementation, and the specific requirements of adopting the innovation in the organization. On the other hand, implementation means events and activities that concern the modification of an innovation, preparation of an organization for its use, trial use, acceptance of innovation by users and further use of innovation, routinization, until it becomes a routine practice of the organization. Routinization includes all activities related to the modification of an innovation until it becomes a routine practice in the receiving organization. At this stage, the innovation is used by members of the organization, clients, or customers. This stage includes the modification of both the innovation and the organization adapting it, and then taking actions related to the effective use of this innovation.

Innovation Adoption in the Public Sector: What Next?

So far, eight literature reviews of public sector innovation have been published (Bekkers and Tummers, 2018; Buchhmein et al, 2020, Cinar et al, 2018; Matei and Bujac, 2016; Potts and Kastle, 2010; De Vries et al, 2014, 2018). They focused on barriers within public sector innovation processes (Cinar et al, 2018), innovation types in the context of public sector organizations (Buchhmein et al, 2020). They present and analyse innovation as a social phenomenon, how it is tangential to public administration reform and identify the defining characteristics that classify the reform process as one innovation (Matei and Bujac, 2016: 761), its status and trends in measuring innovation impacts, definitions of innovation , innovation types, goals of innovation, antecedents of innovation and outcomes of innovation (De Vries et al, 2014), the analytic context of public sector innovation (Potts and Kastle, 2010), an open and collaborative approach to innovation in the public sector (Bekkers and Tummers, 2018), and diffusion and adoption of public sector innovations (De Vries et al, 2018).

As a result of the synthesis of the main results of the literature reviews carried out so far, several conclusions can be drawn:

- innovations in the public sector occupy an important place among researchers (Bekkers and Tummers, 2018), which is reflected in the increased number of scientific articles on innovation (De Vries et al, 2018).
- governments increasingly make innovation a key issue on the political agenda, recognizing their potential to promote economic growth and tackle social and environmental challenges (Nasi et al, 2018);
- a fundamental problem in public sector innovation research is that little is known about how innovations work and what is important in their implementation (Potts and Kastle, 2010);
- there is a need to develop a set of factors that determine the reasons why public organizations use innovation (Buchhmein et al, 2020);
- research on types of innovation should include different types of management, because each public organization is different and the implementation of innovation may take place in completely different ways (De Vries et al, 2014);
- types of innovation are insufficiently and inconsistently analysed, which contributes to the results obtained being blurred (Buchhmein et al, 2020);
- barriers to innovation in the public sector are multidimensional, therefore they should be analysed considering the individual stages of innovation, with the implementation phase experiencing the greatest number of barriers. Therefore, the implementation of innovations should be well thought-out, carefully designed and conscious. Besides, barriers can be seen as opportunities to design and modify innovations to make them more context-specific (Cinar et al, 2018);
- antecedents are of great importance for innovation in the public sector. The antecedents identified by Rogers (2003) are common but rarely addressed in the public management literature. However, various researchers note the antecedents are not complementary (e.g., Savoldelli et al, 2014). In addition, there is a need to strengthen research on antecedents at the individual level, such as employee skills and abilities, because the success of innovation implementation depends on them (De Vries et al, 2018).

In a special way, the issue of innovations and their adaptation fits into the directions of future research. Implementing innovations requires a strong combination of technological, motivational, and managerial abilities in public organizations. The need to conduct research in this area results not only from the postulates of researchers, but also from the fact that the implementation of innovations requires specific procedures or actions. And the implementation itself should result from the needs of the organization. However, public organizations must not forget that employee resistance, sabotage, or lack of knowledge about innovations can pose a serious threat to their implementation. Therefore, management should take measures to increase employees' awareness and knowledge of innovations and their potential impact on the performance of public organizations. It should be remembered that the public sector has difficulty adapting to new solutions. In this approach, it is important to properly prepare the local government offices to implement innovations, as innovations can have enormous potential for public organizations. Considering the above, the implementation of innovations is considered to be relevant, timely and a noteworthy issue (Glor, 2017).

Conclusion

Contemporary public organizations face more and more significant challenges resulting from the democratization of public life, pressure from multiple stakeholders, the need for effective operations, transparency, openness, universal accessibility and professionalisation of management. Public organizations are required to be innovative, while innovation is set as a priority and a *sine qua non* for effective management (De Vries et al, 2016; Osborne and Brown, 2011; Sørensen and Torfing, 2011; Walker, 2014). However, despite the growing number of conceptual and research works, the issue of adapting innovations in the public sector is still insufficiently understood. Therefore, the list of challenges and directions for further research in the field of innovation adaptation prepared in this article is in line with the challenges and recommendations of other researchers (Berry and Berry, 2014; Greenhalgh et al, 2004; Hartley, 2016). In addition, directions for future research have been proposed. Despite the many antecedents identified in the literature and explored in this special issue, little is known about the practices or factors that determine the adaptation of innovation in the public sector. Moreover, while the problem of dissemination and adoption is widely recognized by researchers (e.g., Berry and Berry, 1990; Greenhalgh et al, 2004; Hartley, 2016; Shipan and Volden, 2012; Taylor and Todd, 1995; Tornatzky and Klein, 1992, Walker, 2014; Zaltman et al, 1973; Zhang et al, 2014) as indicated by de Vries et al (2018), a limitation may be seen in the fact that the researchers refer to particular types of public organizations in their considerations. Hence, it is necessary not only to identify the antecedents of innovation adaptation, but also to synthesize public management, public policy, and e-administration.

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Regina Lenart-Gansiniec is an Associate Professor at Jagiellonian University in Krakow, Poland. As a scientist, she conducts research within strategic management, focused on organizational learning and knowledge management, crowdsourcing and organizational unlearning. Her interest as well as the research projects granted by National Science Centre in Poland and European Commission targets educational sector including higher education. Reviewer and member of the Editorial Board of many recognized scientific journals and scientific conferences in Poland and in the world (Scopus, Web of Science). She is a member of the European Group for Organizational Studies, and the International Society for Professional Innovation Management.

References:

- Alford, John. 2002. Defining the Client in the Public Sector: A Social-Exchange Perspective. *Public Administration Review*, 3(62): 337-346.
- Baker, William E. & James M. Sinkula. 2002. Market Orientation, Learning Orientation and Product Innovation: Delving into the Organization's Black Box. *Journal of Market Focused Management*, 5: 5-23.
- Balkin, David B., Gideon D. Markman & Luis R. Gomez-Mejia. 2000. Is CEO Pay in High-Technology Firms Related to Innovation? *Academy Of Management Journal*, 43(6): 1118-1129.

- Bekkers, Victor & Lars Tummers. 2018. Innovation in the Public Sector: Towards an Open and Collaborative Approach. *International Review of Administrative Sciences*, 84(2): 209-213.
- Berry, Frances Stokes & William D. Berry. 1990. State Lottery Adoptions as Policy Innovations: An Event History Analysis. *American Political Science Review*, 84: 395-415.
- Berry, Frances Stokes & William D. Berry. 2014. "Innovation and Diffusion Models in Policy Research." Pp. 307-362 in Paul A. Sabatier and Christopher M. Weible (eds.), *Theories of the policy process*, 3rd edn. Boulder, CO: Westview Press.
- Bessant, John R. & Joe Tidd. 2007. *Innovation and Entrepreneurship*. Chichester, UK: Wiley.
- Borins, Sandford. 2001. Public Management Innovation: Toward a Global Perspective. *The American Review of Public Administration*, 31(1): 5-21.
- Buchheim, Laurin, Alexander Krieger & Sarah Arndt. 2020. Innovation Types in Public Sector Organizations: a Systematic Review of the Literature. *Management Review Quarterly*, 70(4): 509-533.
- Charest, N. (2012). "Public Management," in L. Côté and J.-F. Savard (eds.), *Encyclopedic Dictionary of Public Administration* (online), www.dictionnaire.enap.ca.
- Cinar, Emre, Paul Trott & Christopher Simms. 2018. A Systematic Review of Barriers to Public Sector Innovation Process. *Public Management Review*, 21(2): 264-290.
- Clausen, Tommy Høyvarde, Mehmet Akif Demircioglu, Alsos & Gry A. Alsos. 2020. Intensity of Innovation in Public Sector Organizations: The Role of Push and Pull Factors. *Public Administration*, 98(1): 159-176.
- Cresswell, Kathrin & Sheikh Aziz. 2013. Organizational Issues in the Implementation and Adoption of Health Information Technology Innovations: an Interpretative Review. *International Journal of Medical Informatics*, 82(5): 73-86.
- De Vries, H.A., V.J.J.M. Bekkers & L.G. Tummers. 2014. Innovation in the Public Sector: A Systematic Review and Future Research Agenda. Speyer, Germany: EGPA conference.
- De Vries, Hanna, V. Bekkers & Lars Tummers. 2015. Innovation in the Public Sector: A Systematic Review and Future Research Agenda. *Public Administration*, 94(1): 146-166.
- De Vries, Hanna, Lars Tummers and V. Bekkers. 2018. The Diffusion and Adoption of Public Sector Innovations: A Meta-Synthesis of the Literature. *Perspectives on Public Management and Governance*, 1(3): 159-176.
- De Vries, Hanna, Lars Tummers, V. Bekkers. 2018. A Stakeholder Perspective on Public Sector Innovation: Why Position Matters. *International Review of Administrative Sciences*, 84(2): 269-287.
- Drechsler, Wolfgang. 2009. The Rise and Demise of the New Public Management. *Post-Autistic Economics Review*, 33(14): 17-28.

Dunleavy, Patrick, Helen Margetts, Simon Bastow & Jane Tinkler. 2006-07. New Public Management Is Dead-Long Live Digital-Era Governance. *Journal of Public Administration Research and Theory*, 3(16): 467-494.

Flynn, Norman. 2007. *Public Sector Management*, Sage, Bresser-Pereira L.C. London.

Glor, Eleanor D. (Ed.). 2017. *Leading-Edge Research in Public Sector Innovation*. Bern, Switzerland: Peter Lang UK.

Glor, Eleanor D. & Mario Rivera. 2017. "Innovation and Organizational Survival Research." Pp. in James D. Ward (Ed.). *Leadership and Change in Public Sector Organizations: Beyond Reform*. New York, NY and London, UK: Routledge Taylor and Francis Group.

Greenhalgh, Trisha, Glenn Robert, Fraser Macfarlane, Paul Bate & Olivia Kyriakidou. 2004. Diffusion of innovations in service organizations: Systematic review and recommendations. *Milbank Quarterly*, 82: 581-629.

Hartley, Jean. 2016. Organizational and Governance Aspects of Diffusing Public Innovation. Pp. 95-114 in Jacob Torfing and Peter Triantafillou (eds.) *Enhancing Public Innovation by Transforming Public Governance*. Cambridge, UK: Cambridge University Press.

Hartley, Jean, Eva Sørensen & Jacob Torfing. 2013. Collaborative Innovation: A Viable Alternative to Market Competition and Organizational Entrepreneurship. *Public Administration Review*, 73(6): 821-830.

Joshi, Anuradha & Mick Moore. 2014. Institutionalised Co-production: Unorthodox Public Service Delivery in Challenging Environments. *The Journal of Development Studies*, 40(4): 31-49.

Bovaird, Tony. 2007. Beyond Engagement and Participation: User and Community Coproduction of Public Services. *Public Administration Review*, 67(5): 846-860.

Kelman, Steven, Fred Thompson, L.R. Jones & Kuno Schedler. 2003. Dialogue on Definition and Evolution of the Field of Public Management. *International Public Management Review*, 2(4): 1-19.

Matei, Ani & Razvan Bujac. 2016. Innovation and Public Reform, *Procedia Economics and Finance*, 39: 761-768.

McLaughlin, Hugh. 2009. What's in a Name: 'Client', 'Patient', 'Customer', 'Consumer', Expert by Experience, Service User-What's Next? *The British Journal of Social Work*, 39(6): 103.

Moore, Gary C. & Izak Benbasat. 1991. Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation. *Information Systems Research*, 2: 192-222.

Moussa, Mahmoud, Adela McMurray & Nuttawuth Muenjohn. 2018. A Conceptual Framework of the Factors Influencing Innovation in Public Sector Organizations. *The Journal of Developing Areas*, 52(3): 231-240.

Moynihan, Donald P. 2013. Advancing the Empirical Study of Performance Management: What We Learned From the Program Assessment Rating Tool. *The American Review of Public Administration*, 43(5): 499-517.

Moynihan, Donald P. 1969. *Maximum Feasible Participation: Community Action in the War on Poverty*. New York, NY: The Free Press.

Nasi, Greta, Maria Cucciniello & Virginia Degara. 2018. *Evaluation of Innovation Performance in Management in the Public Sector* (pp. 203-224). New York, NY: Springer, Cham.

Needham, Catherine, E. 2006. Customer Care and the Public Service Ethos, *Public Administration*, 84(4): 845-860.

OECD. 2016. Public Sector Innovation, in OECD Science, Technology and Innovation Outlook. Paris, France: OECD Publishing.

OECD/Eurostat. 2018. *Oslo Manual: Guidelines for Collecting, Reporting and Using Data on Innovation*, 4th Edition, The Measurement of Scientific, Technological and Innovation Activities, Paris, France: OECD Publishing; Luxembourg: Eurostat.

Osborne, Stephen P. & Louise Brown. 2011. Innovation, Public policy and Public Services Delivery in the UK: The word that would be king? *Public Administration*, 89(4): 1335-1350.

Pfiffner James P. 2004. Traditional Public Administration versus The New Public Management: Accountability versus Efficiency In A. Benz, H. Siedentopf, K.P. Sommermann (eds), *Institutionenbildung in Regierung und Verwaltung: Festschrift für Klaus König*. Berlin, Germany: Duncker & Humboldt.

Piening, Erk P. 2011. Insights into the Process Dynamics of Innovation Implementation. *Public Management Review*, 13(1): 127-157.

Plessis, Marina du. 2007. The Role of Knowledge Management in Innovation. *Journal of Knowledge Management*, 11(4): 20-29.

Potts, Jason & Tim Kastle. 2010. Public Sector Innovation Research: What's Next? *Innovation: Management, Policy and Practice*, 12(2): 122-137.

Roberts, Nancy. 2004. Public Deliberation in an Age of Direct Citizen Participation. *American Review of Public Administration*, 34(4): 315-353.

Rogers, Everett M. eds. 2003. *Diffusion of innovations*. New York, NY: Free Press.

Savoldelli, Alberto, Cristiano Codagnone & Gianluca Misuraca. 2014. Understanding the E-government Paradox: Learning from Literature and Practice on Barriers to Adoption. *Government Information Quarterly*, 31: 63-71.

Shipan, Charles R. & Craig Volden. 2012. Public Policy: Seven Lessons for Scholars and Practitioners. *Public Administration Review*, 72: 788-796.

Sørensen, Eva & Jacob Torfing. 2011. Enhancing Collaborative Innovation in the Public Sector. *Administration & Society*, 43: 842-868.

Stoker, Gerry. 2006. Public Value Management: A New Narrative for Networked Governance? *The American Review of Public Administration*, 36(1): 41-57.

Taylor, Shirley & Peter A. Todd. 1995. Understanding information technology usage: A test of competing models. *Information Systems Research*, 6: 144-176.

Thompson, Victor A. 1965. Bureaucracy and Innovation. *Administrative Science Quarterly*, 10(1): 1-20.

Tornatzky, Louis G. & Katherine J. Klein. 1982. Innovation Characteristics and Innovation Adoption-Implementation: A Meta-analysis of Findings. *IEEE Transactions on Engineering Management*, 1: 28-45.

Van de Ven, Andrew H., Harold L. Angle, & Scot Poole Marshall. 2000. *Research on the Management of Innovation: the Minnesota Studies*. New York: Oxford University.

Walker, Richard M. 2014. Internal and External Antecedents of Process Innovation: A Review and Extension. *Public Management Review*, 16(1): 21-44.

Wong, Alfred, Dean Tjosvold & Chunhong Liu 2008. Innovation by Teams in Shanghai, China: Cooperative Goals for Group Confidence and Persistence. *British Journal of Management*, 20(2): 238-251.

Zaltman, Gerald, Robert Duncan & Jonny Holbek. 1973. *Innovations and Organizations*. New York, NY: John Wiley & Sons.

Zhang, Hui, Xiaolin Xu & Jianying Xiao. 2014. Diffusion of E-government: A Literature Review and Directions for Future Directions. *Government Information Quarterly*, 31: 63-90.