

Private And Public Sector Innovation And The Importance Of Cross-Sector Collaboration

Stanka Setnikar Cankar, University of Ljubljana, Slovenia

Veronika Petkovšek, University of Ljubljana, Slovenia

ABSTRACT


Innovation plays a very important role in the private sector in terms of competitiveness, and is the key to success for private businesses, helping to cut costs, improve products and open new markets. Nowadays, innovation is gaining in importance in the public sector as well, as it can improve the quality of service delivery as well as reduce costs. Innovation is an important driver of economic progress and competitiveness in all economies.

Collaboration between public and private entities creates better and more effective public and private services and products. Collaboration enables the participants to exchange and share knowledge, experiences, know-how and expertise. Collaboration helps to bring a broader set of skills and talents and a more responsive work culture into public sector organisations, along with innovative thinking and creativity; it also helps private companies to innovate more effectively and to achieve their concrete goals in a more efficient way.

The objective of this paper is to outline the differences and similarities between private and public sector innovation in terms of definition, driving factors, barriers and measurement; the paper also aims to examine the importance of cross-sector collaboration for private and public sector innovation, and demonstrate that collaboration can improve innovation.

Keywords: Innovation; Private Sector; Public Sector; Collaboration

INTRODUCTION

lobalisation, which is meant to connect all parts of the world equally, in fact connects them in a way that operates to the economic and political benefit of the most innovative, and puts those individuals, organisations, countries and international regions that are not sufficiently innovative at a disadvantage. The necessity of constant change in the process of developing new products and services is the key guiding principle for all businesses, and increasingly for public organisations as well (Fatur & Likar, 2009, p. 9-10).

Innovation and creativity in the public sector are even more important given the current financial and economic crisis; this means that countries should focus more on promoting innovation in the public sector. Resolution of the issue of public finances will require improvements to be made to enhance the quality of financial forecasting and management and avoid resource disruption. An understanding and appraisal of innovation in the public sector is likely to become very important in the coming years, since innovation is one of the crucial elements of sustainable growth. It is an important driver of economic progress and competitiveness in all economies (The Global Innovation Index 2012, 2012, p. 4; Thenint, 2010, p. 14).

Nowadays, the innovation environment involves different types of collaboration in scientific and technological research and development, cultural exchange, the sharing of best practice, open innovation challenges, and so on. The flow of ideas between different innovation actors and access to knowledge are important components

of innovation. Collaboration means forming links between different types of company, industry and public institution, aiming to address the challenges and opportunities that cannot be realised, or are difficult to realise, within a single organisation. Because innovation is crucial for competitiveness, organisations, companies and countries must innovate to remain competitive. One way to accomplish this is through broad collaboration (The Global Innovation Index 2012, 2012, pp. vii, xi).

PRIVATE AND PUBLIC SECTOR INNOVATION

Definition of Innovation

There are different definitions of innovation, but the most common is that it represents ‘the implementation of a new or significantly improved product (good or service), a new process, a new marketing method, or a new organizational method in business practices, workplace organization, or external relations’ (The Global Innovation Index 2012, 2012, p. 5). Innovation is the creation of better products, services, processes and technologies, implying a complex use of ideas, and it has to be accepted by society, markets and government (Fatur & Likar, 2009, p. 13; V. A. Popescu, G. N. Popescu & C. R. Popescu, 2012, pp. 3-5).

The definitions are usually used to define and measure innovation in the private sector and cannot be imported into the public sector directly, as there are differences in the types of innovation within the two sectors. There four general types of innovation in the private sector: (1) ‘A product innovation is the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics’; (2) ‘A process innovation is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software’; (3) ‘A marketing innovation is the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing’; (4) ‘An organisational innovation is the implementation of a new organisational method in the firm’s business practices, workplace organisation or external relations’ (European Public Sector Innovation Scoreboard (EPSIS) – Methodology Report, 2012, p. 4).

The concept of innovation in the public sector is combined with the overall definition of innovation and with individual types of innovation in the public sector. The definition of innovation takes into account the fact that it must have been implemented and that it brings significant changes compared to existing practices. Innovations therefore comprise new or significant changes to services and goods, operational processes, organisational methods, or the way an organisation communicates with users. The following four types of innovation are therefore used in the public sector: (1) ‘A product innovation is the introduction of a service or good that is new or significantly improved compared to existing services or goods in your organisation. This includes significant improvements in the service or good’s characteristics, in customer access or in how it is used’; (2) ‘A process innovation is the implementation of a method for the production and provision of services and goods that is new or significantly improved compared to existing processes in your organisation. This may involve significant improvements in, for example, equipment and/or skills. This also includes significant improvements in support functions such as IT, accounting and purchasing’; (3) ‘An organisational innovation is the implementation of a new method for organising or managing work that differs significantly from existing methods in your organisation. This includes new or significant improvements to management systems or workplace organisation’; (4) ‘A communication innovation is the implementation of a new method of promoting the organisation or its services and goods, or new methods to influence the behaviour of individuals or others. These must differ significantly from existing communication methods in your organisation’. Innovation in the public and private sectors differs in terms of the intensity of the different types of innovation (Bloch, 2011, pp. 13–14; European Public Sector Innovation Scoreboard (EPSIS) – Methodology Report, 2012, pp. 4–5).

Drivers of Private and Public Sector Innovation

Innovation is a dynamic process which identifies the problems, challenges and development of new creative ideas, and the selection and implementation of new solutions. It is no longer entirely the preserve of the

private sector; it is also increasingly widespread in the public sector as well. Recent interest in public sector innovation is linked to the expectation that innovation will help the public sector to improve its performance. There is an essential need for a new creative public sector. In order to arrive at innovation in the public sector, we have to understand the need for a new mode of governance and the role of the public sector in the creative economy. Both public and private sectors have an important role to play in increasing global welfare by developing coherent strategies and links for innovation at both company and national level (European Public Sector Innovation Scoreboard (EPSIS) – Methodology Report, 2012, p. 5; The Global Innovation Index 2012, 2012, p. ix; Sørensen & Torfing, 2012, p. 4).

The innovation process is influenced by different factors. The factors that stimulate innovative activities are considered to come from the external environment and from the organisation itself. Therefore, the factors driving innovation are divided into groups of internal and external factors. In the private sector, among the internal driving factors of innovation, are innovation strategy, innovation culture across the organisation, organizational structure, size, the proportion of highly educated staff, human resource management and the related competences of employees, the amount and type of resources the organisation possesses, the attitude of managers towards innovation, goal-setting and financial aspects. The external factors in the private sector are the prevailing economic state of affairs, existing government policies, market growth in the industry in question, the price of specific inputs into the production process and the age of the industry in question, collaboration with suppliers and with other companies, the interconnection between knowledge centres, the utilisation of financial resources or support regulations, and links with academic and research institutions. These factors show that, in order to start organisations on the path towards innovation, managers have to craft strategies to improve internal processes, improve the technical qualifications of their employees, and establish the technical infrastructure for developing and manufacturing more sophisticated products (Maldifassi & Crovetto, 2013, pp. 36-37; Markič et al., 2011, p. 9560).

A number of economic, industrial, political, relational and personal factors can motivate public sector innovation. The drivers of public sector innovation can be divided into three groups: internal, external and political. Internal factors are those that arise within the organisation, with the most frequent being internal problems within an agency or department. Good management and leadership can also play an important role in driving innovation, as well as human-resource-related factors, including education and training schemes for public servants, the availability of incentives to innovate, and good management and leadership. Not least, bureaucracy and organisational structure and design also influence public sector innovation. External drivers are those that exist in the external environment. These factors include collaboration between the public and private sectors, the presence of rewards for innovative public sector initiatives or units, and the existence of international good practice and international rankings, which stimulate change in internal structures, processes or services and impel them towards innovation. Political drivers are those that arise primarily in the political environment and relate to the political support and votes gained by being seen to perform better than opposing political actors. Political drivers also encompass budget reductions and the availability (or inadequacy) of funding resources; these can provide a major incentive to public institutions to be more innovative in their activities. The availability of financial resources or the direct allocation of budget funds to innovative public sector activities are also political drivers, as are EU requirements and EU funds, political support and changes in regulations (Agolla & Van Lill, 2013, pp. 167–171; Bloch, 2011, pp. 3–4; Rivera León, Simmonds and Roman, 2012, pp. 16–21).

Motivating factors for innovation in the private and public sectors may differ between individuals and within the business or organisation as a whole, but many individual factors are also relevant for businesses and organisations alike. For example, individuals in the public sector might be motivated to innovate by career considerations, idealism, professional recognition, power, self-fulfilment and money, while innovation motivators for public sector organisations include the propagation of a policy, idea or rationale, increased funding, problem-solving, an increase in staff, and public relations. Some of the motivating factors for private sector individuals are similar to those applying to individuals in the public sector – career, idealism, self-fulfilment, money, power, job security. The difference between the public and private sectors can be identified in motivating factors as they apply to organisations, where those in the private sector are motivated by profit, competition, market share and growth in size, but also by problem-solving and public relations (Bloch, 2011, p. 8; Thenint, 2010, p. 7).

Barriers to Innovation

Barriers to innovation can be internal or external to the business. Internal barriers are closely related to the specific management and organisation of a business; such barriers indicate that an existing organisation is trying to resist change, and include adoption barriers related to dominant designs and path dependency. Adoption barriers are often increased by excessive bureaucracy in large enterprises. Mindset barriers are another type of internal barrier and are related to the inability to ‘unlearn’ the old logic of how products and markets work; they may be associated with a lack of distinctive competences to detect and exploit opportunities. The third type is the risk barrier, which is associated with an excessive reliance on routines and experience, and the fourth type is the nascent barrier, which is associated with the ability of management to foster thinking and with the management of the innovation process. External barriers to innovation in the private sector are related to institutional and market contexts, and are associated with market, government and system failures. External barriers emerge when a business interacts with other businesses, agents and institutions in the economic and innovation system. Standardisation, regulation, the financing of innovation, the availability of skilled labour and technology transfer all decrease the incidence of external barriers to innovation (Barriers to Internationalisation and Growth of the EU’s Innovative Companies, 2010, p. 43).

In general, barriers to innovation in the private sector can be detected in a shortage of financial resources within a company and in difficulties in accessing finance and innovation project funding via bank loans, government grants and subsidies, venture capital, seed and angel capital, or crowd-funding. Another barrier relates to shortages in skills for managing intellectual property, shortages in knowledge and shortages in skills in innovation management, such as the ability to manage innovation processes inside the company, to manage ‘open’ innovation processes and to manage user-driven innovation processes. A shortfall in the information required to access new product or service markets, a lack of skills in commercialisation, a lack of information and skills required to access international markets, weaknesses in networking and in cooperation with external parties and insufficient knowledge of innovation support services are also evident as barriers (The major barriers to SMEs innovation, 2011, pp. 34–35).

Innovation in the public sector is usually hindered by a lack of competition and by limited financial incentives for improvement. Different barriers can be identified that hinder innovation in the public sector. One is definitely the absence or inadequacy of resources, which is identified as a main barrier to innovation. This is not only a lack of financial support, but also refers to shortages in the relevant skills and human resources, or in the opportunities to enlist other support services required for the implementation of innovation. Risk aversion and accountability constitutes another barrier. Public organisations are wary of undertaking or implementing changes which may result in an increased probability of risk for users and civil servants, and of enacting changes that may result in negative outcomes. Moreover, the pace and scale of change can present a barrier, as many public administrations and services have been subject to a large number of radical changes or reforms that can create an unstable environment, with little opportunity to assess the impact of the innovations introduced. A further barrier is public resistance to change, as the public is often resistant to reorganisation and to changes in the way public services are delivered, especially when it is not sufficiently informed of the benefits of the changes. Size and complexity is another barrier identified: the public sector has complex, large-scale organisational entities that can develop internal barriers to innovation. These barriers can consist of localised skills shortages and gaps, a lack of cooperation within the organisation, a lack of clear agreement, communication difficulties, lack of incentives for staff to innovate, and inadequate time allocated to innovation. There may also be a lack of structures and mechanisms for the enhancement of organisational learning and the diffusion of good practice. Technical barriers are also evident in the fact that there may be a lack of technological solutions to the problem at hand. Last but not least, a lack of flexibility in laws and regulations can also present a barrier to innovation (Bloch, 2011, p. 22; Carstensen & Bason, 2012, pp. 3–5; Thenint, 2010, pp. 6, 18–19).

Measuring Innovation

To determine the contribution that innovation makes, we need to know how successful an innovation system is. An innovation system consists of the participants and their activities and interactions, as well as the socio-economic environment within which these actors or participants function – these factors determine the innovative

performance of the system. The measurement of the performance of an innovation system influences the policy decisions that are taken to improve the system. Because there is no single accepted definition of innovation, this makes the identification of an innovation difficult. The focus is usually on companies as the only institutions in which innovation takes place – in a way, this means that the public sector is overlooked. Besides the lack of a common definition, there are also other problems in identifying innovation. One such problem is that innovations are heterogeneous in character, in area of application and in impact. Measuring innovation is difficult because it is a continuous process. Consideration must also be given to the fact that some of the impact of innovation cannot be measured in quantifiable terms such as growth in production or profit (Eggink, 2012, pp. 1–5).

There are several approaches that can be taken to monitor innovation. One of the fundamental methodological approaches is to analyse an innovation process on the basis of input, process and output groups of indicators. Process indicators help firstly to establish the state of innovation process management, such as organisation, planning, management, and supervision, and secondly to foster the use of the proper management techniques, such as benchmarking, market analysis, decision-making, idea creation and forecasting. Thirdly, they encourage the use of the innovation culture within an organisation. Output indicators reflect the results of innovation processes; these results are the number of patents and new market products, market share, revenues from sales of innovations or innovative products, etc. Many of these factors significantly influence innovation performance. Methodological approaches are applied in different ways, meaning that they use single and composite indicators, and use different sets of indicators, such as internal and external factors, factors focusing on the strategic, tactical and operational levels, etc. Because of these differences, it is difficult to compare the results (Markič et al., 2011, p. 9561).

There is an increasing awareness nowadays of the need for more systematic and comparable data on innovation in the public sector. The data is needed in order to be able to improve knowledge and understanding of the rate and degree of innovation in the public sector, and of its incentives, processes and impact. However, even if there is a need for better measurement of public sector innovation, it is not sufficiently clear what types of measures would be most appropriate and what aspects of public sector innovation could feasibly be measured (Bloch, 2011, pp. 4–5).

The public sector is very heterogeneous and consists of a complex open system of organisations with various tasks. Decision-making can therefore be slower than in the private sector because of the long chains of command. In particular, different levels of government and different types of output play a large role in measuring innovation. This complex organisational structure often has an impact on innovation. When measuring public sector innovation, the monitoring of efficiency and costs should not be the only focus; alongside this, a broad set of indicators should be provided. This set of indicators can highlight the innovation processes in public sector organisations and show how they can help governments to meet their objectives. Even if there is a lack of an overall framework for measuring public sector innovation, work in this area can be built on existing tools for measuring private sector innovation and on studies measuring the quality of public services (Bloch, 2011, p. 7; Measuring innovation: a new perspective, 2010, pp. 90-91; Thenint, 2010, p. 6).

A number of conceptual and empirical studies measuring public sector innovation have been already conducted. Three important studies were carried out in 2010. The first was a pilot survey for measuring innovation across the public sector and conducted by NESTA; it covered health and local government organisations in the UK. The second was a research project entitled ‘Measuring Public Innovation in the Nordic Countries (MEPIN)’, and the third was the European Commission’s Innobarometer Survey. In 2011 and 2012 the European Commission also compiled the European Public Sector Innovation Scoreboard (European Public Sector Innovation Scoreboard (EPSIS) – Methodology Report, 2012, pp. 6–7).

In Sweden, there was a study made by Jon Andersen on differences between public and private managers’ change-oriented behavior. Data were collected from 343 middle managers in two public agencies (social-insurance offices and senior secondary schools) and in one private company in Sweden. Andersen’s argument was that managers have an optimal potential for achieving organizational changes if they have the change-centered style of leadership, are intuitive, recognize demands for change, and have power motivated behavior. The study results showed that business managers were less change-oriented than managers in public organizations. The main reason

for the differences was seen in fact that some areas of the public sector and some public agencies in Sweden have been subject to profound and continuous changes over the last ten years. The public sector has encountered challenges and opportunities that have forced it to innovate. The successful implementation of organizational change in private or public sector organisations may depend on having top and middle managers with change-oriented behavior (Andersen, 2012, pp. 28-31).

PRIVATE AND PUBLIC SECTOR INNOVATION COLLABORATION

Innovations are implemented through innovation activities. Innovation activities include in-house activities, such as in-house research and development, planning and design, market research and other user studies, feasibility studies, testing and other preparatory work for innovation; training and education of staff for innovation, external R&D and other consultancy services for innovation; other external know-how, and the acquisition of machinery, equipment and software for innovation. Innovations can be implemented by means of innovation cooperation. Innovation cooperation is active participation with enterprises or other public organisations on innovation activities. Possible partners for cooperation are enterprises or public organisations as suppliers, enterprises or public organizations as clients, and universities, government research institutions, other public organisations and citizens as users. Innovation cooperation refers to cooperation at any stage of the innovation process (Bloch, 2011, pp. 17–19).

Innovation is the key to success for private businesses, as it helps to cut costs, improve products and open new markets. Private businesses vary enormously in size and in their allocation of resources to innovation. The innovation system involves the way these different sorts of business connect with each other and with other suppliers of relevant knowledge, with organisations and with markets to create, apply and share innovation-related knowledge. There is a lot of scepticism around the idea of public sector innovation. The public sector is considered to be a slow-moving bureaucracy which, with large and bureaucratic organisations, appears to be a supplier of services to society in general. The public sector implements policies that are usually presented as aiming to benefit society as a whole and not to pursue profit, unlike the private sector. There is a lack of competition and this means a lack of incentive to improve. However, the public sector is far more dynamic and innovative than many people think, for example developing new active labour market policies, preventive healthcare and climate change policies. New digitalised services and organisational reforms have transformed the operational processes of many public institutions. There are numerous instances of public sector innovation, despite the many barriers; this shows that there are important drivers of innovation in the public sector as well. There are politicians in the public sector who routinely find themselves in ritualised situations, such as election campaigns, parliamentary debates, public hearings, etc., and use these opportunities to introduce new ideas and calls for policy reforms; there are also managers and employees in the public sector who improve services and respond to new problems and challenges because they are well-educated, competent and driven by professional norms and ambitions. Citizens also play an active role in encouraging public innovation by giving critical and constructive feedback on policies and services, etc. (Halvorsen et al., 2005, pp. 23-25; Sørensen & Torfing, 2012, pp. 1-2).

Collaboration between public and private actors and between private service providers themselves creates better and more effective public or private services and products. ‘Collaboration involves activities where two or more parties work together and each contributes resources, such as intellectual property, knowledge, money, personnel or equipment, to address a shared objective, with a view to obtaining a mutual benefit’. Collaboration, particularly between the private and public sectors, can be a catalyst for achieving innovation that serves the community and is relevant to the marketplace. Collaboration between public organisations and businesses enables the participants to exchange and share knowledge, and provide opportunities to benefit from each other’s experience, know-how and expertise. Cooperation helps to associate knowledge with business expertise and adapt it to the needs of the market, as well as enable all partners to achieve tangible results faster and more reliably (Collaborations between the Public and Private Sectors: the Role of Intellectual Property, 2012; Halvorsen et al., 2005, pp. 15-16; Initiating public-private collaborations, 2012).

The bureaucratic way in which innovation is carried out in the public sector does not provide the quantity and quality required to solve emerging and persistent policy challenges, which leads to a need for collaboration with the private sector. Collaborative innovation must open the innovation cycle to internal and external innovation assets, facilitate risk-taking, and promote a positive attitude towards public sector innovation and risk-taking in the

socio-political environment. Collaborative innovation helps to overcome the organisational and cultural restrictions of the innovation cycle and gives government the opportunity to shift the place of implementation and diffusion to the most capable participant, thus strengthening the implementation and diffusion elements of the innovation cycle (Boomert, 2010, pp. 22–23).

Collaborative innovation brings together all relevant public innovation assets in terms of knowledge, imagination, creativity, courage, resources, transformative capacities and political authority. That is what market competition fails to do, because competitors usually do not exchange resources and ideas, and do not share risks and benefits from innovation. Similarly, the problem of public organisations is that they only exchange resources and ideas within their organisational and institutional borders. Moreover, different hierarchical layers often prevent exchange between the strategic competences at the top and the skills and experiences at the bottom of the organisation. Because of the constraints imposed by market competition and bureaucratic management, private companies have started to pursue innovation through strategic alliances and industrial clusters, while public organisations have begun to flatten their organisational structures and create inter-organisational networks. In addition, public organisations and private companies have started to form partnerships in order to enhance innovation through cross-sector collaboration. Different cross-sector actors are strongly encouraged to share existing skills and technologies. Collaborations and partnerships between the public and private sectors can make it possible to achieve technological challenges in an efficient way. Public-private partnerships make it possible to exchange information and to use partners' resources, skills and know-how to achieve concrete objectives (Collaborations and partnerships, 2012; Sørensen & Torfing, 2012, p. 5).

Collaborations between organisations should be considered as an important catalyst for innovations that in-house development alone cannot make possible, or indeed make difficult to achieve. Collaborations are viewed as a vehicle through which innovation can be generated. That does not mean simply developing new products and services, but also developing new processes for organisational management. When actors with different experiences, insights and ideas interact through processes in which ideas are circulated, challenged, transformed and expanded, the generation of ideas is accelerated and enriched. The selection of ideas is improved through collaborative interaction, while the implementation of the selected ideas is enhanced when collaboration creates ownership of new initiatives and helps to mobilize resources, ensure flexibility and compensate the losers (Esteve, Ysa and Longo, 2012, p. 842; Sørensen and Torfing, 2012, pp. 8-9).

CONCLUSION

Innovation plays a very important role in the private sector in terms of competitiveness. However, innovation is gaining in importance in the public sector as well, as it can improve the quality of service delivery as well as reduce costs. Improvements to performance and efficiency are important factors for promoting public sector innovation, along with a number of other specific factors, such as social challenges, compliance with new regulations and policies, and so on. At a time of global economic crisis in particular, public sector innovation is likely to become a way of sourcing radical solutions.

Public sector innovation is, in some respects, comparable to private sector innovation; in other respects, it is almost identical to it. There are commonalities, differences and synergies between private and public sector innovation. However, public sector decision-making processes can appear obstructive, risk-averse and time-consuming in comparison with private sector. This is the case in particular with policy innovation, where governments must bear responsibilities that greatly outweigh those borne by the private sector. When considering how to innovate effectively, it is important to pay attention to where, when and how the public sector might best engage the private sector in order to make use of its particular skills and expertise (Innovation in the public sector: Enabling Better Performance, Driving New Directions, 2009, p. 3).

Collaboration between public and private actors creates better and more effective public and private services and products. Collaboration enables the participating actors to exchange and share knowledge, experiences, know-how and expertise. It helps to bring a broader set of skills and talents, and a more responsive work culture, into public sector organisations, along with innovative thinking and creativity; it can also help private companies to innovate more effectively, as they bring together new financial resources and business capital and also help to facilitate innovation in increasingly competitive environments.

AUTHOR INFORMATION

Stanka Setnikar Cankar, PhD, is a Full Professor of Public Sector Economics at the Faculty of Administration, University of Ljubljana. She is the author of many articles and books on public sector economics and is the editor-in-chief of *International Public Administration Review*. She has been a member of the NISPACee Steering Committee, and is a member of the Programme Committee of the Annual Conference of Public Administration in Slovenia. She manages and participates in a variety of research projects in the field of public sector reform, healthcare, measurement of effectiveness in public administration and cross-border cooperation. E-mail: stanka.setnikar-cankar@fu.uni-lj.si (Corresponding author)

Veronika Petkovšek, MSc, is an assistant at the Department of Public Sector Economics at the Faculty of Administration, University of Ljubljana. Her areas of research interest include public sector economics in the field of healthcare reform, public procurement, and measurements of the efficiency and effectiveness of the public sector. She is also active in cross-border cooperation between Slovenia, Austria, and Italy. E-mail: veronika.petkovsek@fu.uni-lj.si

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