Strategies for Reducing Barriers to Innovation at Public Services and Procurement Canada Pacific Region

by

Baggio Ma
B.A., University of British Columbia, 2017

A Master's Project Submitted in Partial Fulfillment of the Requirements for the Degree of

MASTER OF PUBLIC ADMINISTRATION

in the School of Public Administration

STRATEGIES FOR REMOVING BARRIERS TO INNOVATION AT PUBLIC SERVICES AND PROCUREMENT CANADA PACIFIC REGION

Prepared by: Baggio Ma, MPA Candidate,
School of Public Administration, University of Victoria
July 24, 2019

Client:	Deirdre Liebrandt Johnson Regional Manager, Strategic Management Public Services and Procurement Canada
Supervisor:	Dr. Evert Lindquist Professor, School of Public Administration University of Victoria
Second Reader:	Dr. Roya Rouzbehani School of Public Administration University of Victoria
Chair:	Dr. Tara Ney Associate Professor, School of Public Administration University of Victoria

ACKNOWLEDGEMENTS

The sincerest thank you to my supervisor Dr. Evert Lindquist for your guidance throughout this journey. I could not have completed this project without your valuable advice, support, and reassurance along the way.

Thank you to my client, the Strategic Management team. Thank you to Deirdre Liebrandt Johnson for your encouragement and support in helping me move this project along. Thank you to Alan Chang for always checking in and offering your help and support.

Thank you to my friends and family for being there for me. Amanda, I cannot count the number of times that you not only provided a listening ear but also a second opinion whenever I was doubting myself and my work. You pushed me towards the finish line and I don't know how I would have completed this project without you.

EXECUTIVE SUMMARY

Objective

Public sector organizations around the world have faced increasing pressure to find new and innovative ways of delivering services. Competing forces such as fiscal constraints, an increasing demand for public services, and increasing complex societal issues have created an environment where innovation has become a necessity in the public sector. For these reasons, innovation has been identified as a priority area for Public Services and Procurement Canada Pacific Region (PSPC PR). The purpose of this report was to look for ways that PSPC PR can create an environment where employees feel they have the tools and support to pursue innovative ideas.

This report aims to answer the following research question:

- What strategies can be implemented to reduce barriers to innovation at PSPC Pacific Region?

The secondary research questions are:

- What innovations have been attempted in the past and what might be programs with potential for innovation?
- What are the specific barriers which exist at PSPC Pacific Region that have been and are preventing employees from innovating?

Methodology

This research was conducted using a qualitative methodology. Data was collected using a literature review and interviews. The purpose of the literature review was to gain an understanding of public sector innovation, what makes it unique, and its associated barriers. In addition to the literature review, interviews were conducted with seven participants representing five branches of the organization. These interviews provided information on the organizational factors that are inhibiting innovative ideas from moving forward within PSPC PR. Key themes from both data collection methods were identified and an analysis was conducted to determine the barriers to innovation that existed at PSPC PR.

Key Findings

The findings determined that the majority of innovations pursued were process improvements that did not require high levels of collaboration between teams or branches. These innovations were ad-hoc in nature and had neither been systemically planned for nor approached. Those who did have bigger scale, enterprise-wide ideas had difficulties finding avenues for communicating these ideas to decision makers. While existing avenues that promote innovation existed at the departmental and government wide level, these initiatives were not communicated effectively to staff. For innovations that required cross branch collaboration, finding the individuals who needed to be involved was difficult as they often did not have the knowledge or time to understand the idea. The main barriers identified as a result of this research were:

1. Lack of collaboration between branches, between region and headquarters, and between public and private sector meant that larger scale innovations had low success rates.

2. The ad-hoc nature of innovation due to not systemically approaching innovation meant that less time and resources were being allocated to perusing innovative ideas.

3. Lack of a platform for ideas to reach a larger audience of decision makers meant that there was an overreliance on immediate supervisor or manager to move ideas forward.

4. Lack of awareness of innovation activities meant that existing avenues for moving ideas forward were not utilized.

5. Short-term planning resulted in the organization being hesitant to change and becoming comfortable with the status quo (firm inertia).

Options and Recommendations

Based on these findings, PSPC PR was presented with four options to address these barriers:

1. **Plan with innovation in mind.** Introduce tools that embed innovation into the planning and reporting process through longer term planning and the proper allocation of time and resources to pursuing innovative ideas.

2. **Develop innovation competencies:** Provide training to staff from all levels of the organization on the six-core skills related to public sector innovation (storytelling, iteration, curiosity, data literacy, user-centricity and insurgency)

3. **Innovation champions/innovation network.** Have branch innovation champions that facilitate collaboration and information sharing up and down levels of the organization on innovation initiatives and hold regular meetings to discuss potential innovations that require the creating of cross branch "internal consultancy" groups. This network of champions will have three roles: bringing together the relevant actors to exchange information and ideas (conveners), manage differences between actors (facilitator) and to create disturbances that prompt actors to think out of the box (catalysts).

4. **Innovation Station:** Have a dedicated Intranet page to bring together all the information on innovation into one area, including success stories from employees in the region and to raise awareness of any regional or departmental initiatives that promote innovation.

The report recommended that Option 3 was best suited to address the barriers that have been identified. This option would be the most effective at increasing cross-branch collaboration, legitimizing the innovation process, creating a platform for ideas to reach larger audiences, increasing awareness of existing and new avenues for moving ideas forward, and breaking out of the short-term planning mindset that inhibits innovation. By breaking down these barriers, this option would allow for larger scale, collaborative innovations to be pursued and have higher chances of being successfully implemented.

Contents

ACKNOWLEDGEMENTS ..... **iii**

EXECUTIVE SUMMARY ..... **iv**

1. INTRODUCTION **1**

2. BACKGROUND AND ANALYTIC FRAMEWORK **3**

3. METHODOLOGY AND METHODS **6**

4. LITERATURE: MOTIVATIONS, DIFFERENCES, AND TYPES OF INNOVATION IN THE PUBLIC SECTOR **9**

5. ELEMENTS OF THE INNOVATION PROCESS **14**

6. BARRIERS TO INNOVATION **22**

7. INTERVIEW FINDINGS **26**

8. DISCUSSION AND ANALYSIS **30**

9. OPTIONS TO CONSIDER AND RECOMMENDATIONS **35**

10. CONCLUSION **44**

REFERENCES **45**

APPENDIX A INTERVIEW QUESTIONS **50**

APPENDIX B RECRUITMENT E-MAIL **51**

1. INTRODUCTION

Responsible for finding solutions for some of society's most complex issues, public servants often find themselves in situations where new and innovative ways of thinking are necessary. Public sector innovation can help generate new ideas that improve the way services are delivered to the public while ensuring sound stewardship of public funds and assets. When successful, innovative projects and initiatives can increase both effectiveness and efficiency of programs. However, innovation seems at odds with public sector organizations and their culture, hierarchy, and incentive systems. The need for innovation in the public sector is not new, but countries around the world are only recently beginning to focus attention on how innovation can be consciously and systemically approached to address society's most pressing challenges (Bason, 2010, p. 5). Due to the nature of public sector organizations, the shift has been slow and difficult. Governments have faced increased pressure to be innovative from competing forces that expect the public service to simultaneously save money, provide better services, and solve complex wicked problems. To fulfill these goals, organizations are looking for ways to make it easier for staff come up with and bring forward innovative ideas.

This is a pertinent problem for Public Services and Procurement Canada Pacific Region (PSPC PR), the client for this report. The most recent Public Service Employee Survey (PSES) indicated that only 57 percent of PSPC PR respondents had positive answers to the question "I am encouraged to be innovative or take initiative in my work", the lowest out of all regions in the department by a wide margin (TBS, 2018). In addition, PSPC PR was the only region to have scores on this question decrease from the previous year. (Figure 1).

The client has identified the opportunity for Strategic Management to deploy new tools and strategies to advance regional efforts towards creating a more innovative workplace. For this reason, the purpose of this project was to develop recommendations to reduce the barriers to innovation in PSPC PR. Thus, the primary research question is as follows:

- What strategies can be implemented to reduce barriers to innovation at PSPC Pacific Region?

The following were the secondary research questions for this project:

- What innovations have been attempted in the past and what might be programs with potential for innovation?
- What are the specific barriers which exist at PSPC Pacific Region that have and are preventing employees from innovating?

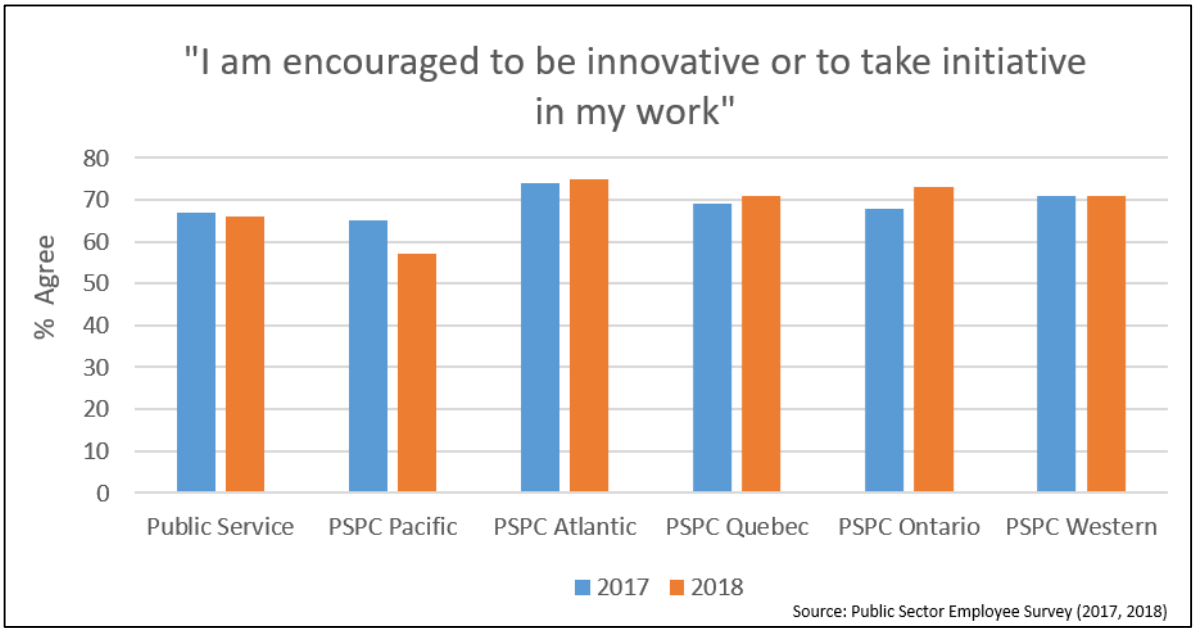


Figure 1 – PSES results from 2017 and 2018

The report has ten sections. Section 2 provides background that lays the groundwork for understanding the client organization and different initiatives to promote innovation at the regional level, the departmental level, and for the Government of Canada. This overview will allow for an understanding of why innovation is a priority for the client. Section 3 explains and defines the methodology and methods used to conduct the research and the limitations and delimitations of the chosen approach. Section 4 through Section 6 presents the findings of the literature review which explores aspects that make public sector innovation unique, the different elements of innovation, and a classification of the different barriers to innovation. Section 7 presents the findings of the interviews conducted for this project. Section 8 analyzes the data collected and the significance of these findings, including similarities and differences between the interviews and literature review findings. Section 9 identifies several options and a recommendation for the client to consider. Section 10 provides some concluding comments and identifies future research opportunities.

2. BACKGROUND AND ANALYTIC FRAMEWORK

This section of the report provides background information necessary to understand PSPC PR as well as the broader operating environment in which the organization exists. In addition to contextual information, a brief introduction to the literature presents key concepts and develops an understanding of the different types of barriers to innovation that exist. This information was used to inform the analytic framework that is presented at the end of this section.

2.1 Client Role and Organizational Information

The client for this project is Deirdre Liebrandt-Johnson, Regional Manager of the Strategic Management unit in PSPC PR's Corporate Services, Strategic Management, and Communications (CSSMC) Branch. PSPC is a department of the federal government mandated to provide several key services that support operations across the Government of Canada. Among these services are managing real property, acting as the central purchasing agent, and administering pay and pensions (PSPC, 2018).

Strategic Management leads the region in its strategic and business planning, risk planning, analysis and evaluation (mySource, 2018). The unit also leads the delivery of several leadership development events. These events aim to introduce new tools and concepts to staff which can improve the way they deliver services and to create workplace improvements for all staff. Through this role, Strategic Management can help move forward many of the regional priorities. The Regional Director General (RDG) of PSPC PR has identified innovation as one of three regional priorities and the Strategic Management team has been working with the RDG to integrate these priorities into their work.

The region consists of roughly 400 employees and several branches serving different and equally important functions: CSSMC, Human Resources, and Finance branches provide internal services, while Accommodations, Portfolio Management and Real Estate Services (APMRES), Professional and Technical Services (PTS), Office of Small and Medium Enterprises (OSME), and Procurement are client-focused branches which work closely with the other sectors and government departments. Due to the nature of work at PSPC PR, this research needed to pay particular attention to the distinctive challenges the department faced when working between the public and private sector, between branches in the region, and between the region and headquarters. These complex relationships can pose challenges but also present opportunities to leverage networks and learn from partners through collaboration.

2.2 Innovation Mandate of the Government of Canada

Under the Trudeau government, the Government of Canada introduced several initiatives through central agencies to encourage departments to experiment with innovative approaches for addressing complex problems. Through the Experimentation Direction for Deputy Heads, a fixed percentage of program funds were mandated for experimenting with new approaches to existing problems (Innovation Hub, 2016). Tools recommended for experimentation include user-centered design, behavioral insights, stage funded approaches to enable scaling, data analytics and modelling, and gamification (Innovation Hub, 2018). This directive was rolled out through

the Impact and Innovation Unit (IIU), located in the Privy Council Office. Formally known as the Innovation Hub, the IIU is guided by five principles: Partnership, Co-Creation, Citizen-Centered, Evidence-Based and Methodologically Driven, and Openness and Transparency (Innovation Hub, 2018). These principles have been pursued through several IIU-led activities to advance innovative approaches to problem solving. Partnerships with external organizations, such as the OECD, have been leveraged to develop and share strategies and best practices. The DM Taskforce on Public Sector Innovation and ADM Experimentation Committee are inter-departmental networks that the IIU works with to encourage information sharing and peer learning (Innovation Hub, 2016).

Directives set forth by IIU also encouraged central agencies to provide access to experimentation training for public servants, and departments were encouraged to collaborate with external partners to support experimentation. Evaluation strategies were developed and performance results were expected to be shared through Departmental Plans and Departmental Results Reports (IIU 2017). In the 2017-2018 Departmental Plan, PSPC identified eight experimental initiatives that the department had rolled out (PSPC, 2017):

1. Workplace modernization
2. Smart building technology
3. Smart tools initiative
4. Carleton Immersive Media Studio initiative
5. Data Analytics Framework
6. Remote interpretation service
7. Compliance with Official Languages Act in government advertising
8. Shared Case Management System Program

The reporting on these planned experimental initiatives included information on resource allocation, measurement strategies, and expected results. Successful experimentation initiatives were reported on in the Departmental Results Report at the end of the fiscal year. For example, as a result of a combined use of Smart building technologies and a data analytics framework, a 11% energy savings from 13 pilot buildings was reported over the year (PSPC, 2018).

2.3 PSPC Led Initiatives

Aside from central agency directed initiatives, PSPC has launched internal initiatives to promote innovation. In 2018, the Process Improvement Challenge was created to provide staff with an opportunity to suggest changes to processes that would improve the way they work. The Process Improvement Challenge encouraged employees from all levels and areas to submit ideas that would improve, streamline, redesign, or completely remove a process. The ideas did not require manager approval and in total, 336 submissions were received (GCPedia, 2018).

The initiatives highlighted in this section shows an appetite for innovation at both government-wide and departmental levels. While there is support for innovative ideas at these higher levels, there are few regional led initiatives to promote innovation that align with them. In addition, the high-level nature of these initiatives indicated that it was unlikely information had been passed down to regional employees. These communication gaps could have resulted in a lack of employee awareness to the available avenues for pursuing their innovative ideas. Another

possibility is that regional staff may not have been given opportunities to provide input into these initiatives because much of the development of programs and decision making is centralized in headquarters, such as the eight experimental initiatives highlighted above.

2.4 General Observations on Public Sector Innovation from the Literature

Because of its importance to all public-sector organizations, there is a substantial amount of literature on innovation. However, there exists a lack of a conceptual framework to identify and integrate various barriers to account for their combined effect (Hadjimanolis, 2003, p. 559). An initial scan revealed a general consensus on several key themes. Hadjimanolis (2003) classify internal barriers to public sector innovation into three categories:

1. People-related barriers that exist at all levels, from front line employees to senior management, which might include a lack of motivation to innovate or a lack of knowledge on how to come up with innovative ideas;
2. Structural-related barriers, such as "inadequate communication flows, inappropriate incentive systems, and obstruction problems by some departments" and;
3. Strategy-related barriers such as a lack of a defined and well understood long term organizational plans or objectives which can result in a lack of employee engagement and resources not being properly allocated to further innovative ideas (pp. 561-564)

Central to this research will be the identification of specific barriers to innovation inside PSPC. Given the operating context of PSPC PR, these three categories of barriers will impact the organization in distinctive ways. The structure and the organizational mandate of PSPC PR were taken into account when evaluating the impact of these barriers.

2.5 Conclusion: Preliminary Analytic Framework Guiding this Study

This background section uncovered a wide range of factors that need to be considered when exploring public sector innovation and the associated barriers in the specific context of PSPC PR. Drawing on the topics that have been explored thus far, a conceptual framework (Figure 2) was developed. This framework brings together the various factors that make PSPC PR unique and brings them together with the various types of barriers have been identified. This framework acted as starting point to conducting analysis on the organization and helped identify what factors were hindering innovative ideas.

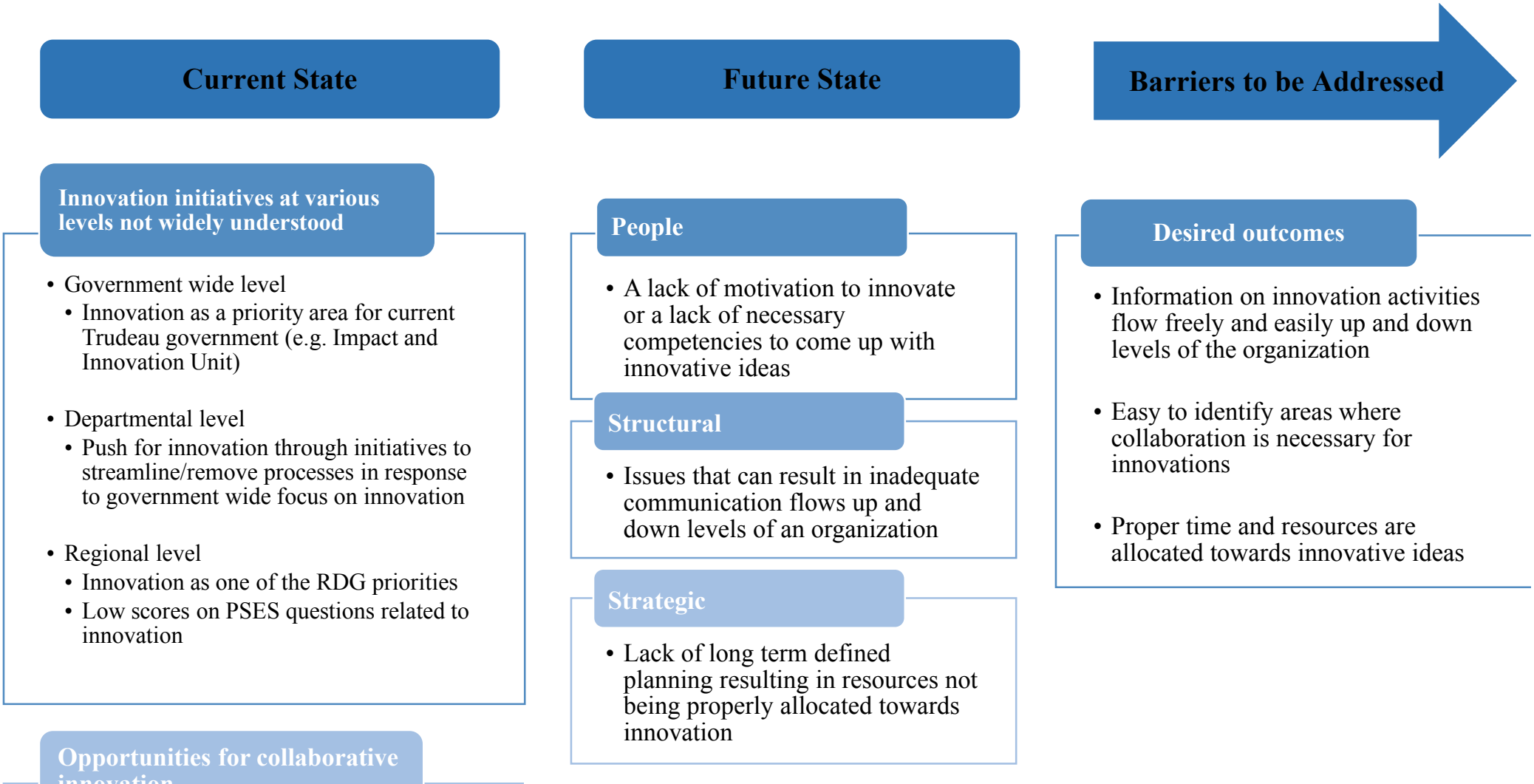


Figure 2 –Primary Analytic Framework

3. METHODOLOGY AND METHODS

This section of the report details the tools and approaches used to conduct this research. An exploratory approach was used and data was collected using both a literature review and interviews. An explanation as to why these methods were chosen and what the benefits and drawbacks of this approach have also been included. Potential limitations of this approach are stated and how these limitations were addressed are also discussed.

3.1 Methodology

This research was conducted using a qualitative methodology. Specifically, an exploratory research design was employed. This research methodology allowed the data collection and analysis to be flexible and adaptable to developments that occurred during the research period (Cuthill, 2002). The design allowed the research to delve into the nature of the problem and provided an opportunity to explore various dimensions of the organization that could be facilitating or impeding innovation. This deep exploration resulted in several key themes emerging throughout the research and analysis.

3.2 Methods

The two methods that were used to conduct this research were a literature review and interviews. Using multiple methods of data gathering provided more evidence to back up the findings of this research and strengthened the conclusions.

Literature Review

The first method used to conduct this research was a literature review. The purpose of the literature review was to gain an understanding of public sector innovation, what makes it unique, and its associated barriers. The review included academic journals and books as well as reports from governmental and non-governmental organizations. Sources used to conduct this research included UVic Library Summons, Google Scholar, and online search engines. The search terms used included “public sector innovation”, “barriers to innovation”, “innovation in government”, “skills required for innovation”, “conditions for innovation”, and “innovation process”.

Interviews

The second method used to conduct this research was interviews. Data was collected through one-on-one interviews using a semi-structured approach. Employees in the Vancouver office were interviewed in person and employees in the Victoria office were interviewed over the phone. Semi structured interviews were used as they allowed for a degree of freedom to probe beyond the answers given to the prepared questions (Lune and Berg, 2018, p. 59). This level of adjustability and flexibility allowed for exploration of a wide variety of topics that emerged during the course of the interview (see Appendix A for interview questions). A total of 7 interviews were conducted over several weeks in March and April of 2019,

To recruit participants for interviews, a purposive sampling method was used. The goal of using a purposive sample was to create a sample that was representative of the population. By using subjective methods and expert knowledge of the population to select in a nonrandom manner, a representative cross-section of the population can be sampled (Lavrakas, 2008). In this case, the client recommended employees to interview with the goal of ensuring that participants were representative of all levels and branches in PSPC PR (see Appendix B for the recruitment email).

3.3 Data Analysis

A transcript was created from voice recordings of each interview and analyzed using content analysis. Content analysis refers to the detailed and systemic examination of a set of materials with the goal of identifying patterns, themes, assumptions and meanings (Lune and Berg, 2018, p. 172). Based on the literature review and interview questions, analytical categories were formed and used to sort the interview data. The data was broken down into words and phrases and were coded according to these analytical categories. This process allowed for patterns to be identified and themes to emerge from the analysis.

3.4 Limitations and Delimitations

As the study was not longitudinal, there is a potential that the barriers identified may be unique to when the research was conducted. External factors beyond the researchers control may have impacted the conclusions of the report. For example, political uncertainty due to an upcoming election could have indicated that those sampled were more risk adverse than usual, thus lowering the amount of innovative activities that have been undertaken. Another limitation is the number of interviews conducted. Because of the variance in the work being done by various branches in PSPC PR, it is possible that a small sample size may not be representative of the entire region. For example, if the sample over represents individuals in roles where there are less opportunities to innovate, the responses may not be reflective of the entire regional office.

To mitigate these limitations, efforts were made to ensure that the sample includes individuals of various tenures in PSPC PR. Those who have been at PSPC PR longer were more likely to be able to speak to past and present organizational factors which positively or negatively impacted their ability to partake in innovative activities. The questions also encouraged interviewees to reflect on previous and more recent attempts at innovation. The research employed a purposeful sampling method to ensure that an equal number of respondents from all branches and a variety of position classifications were included in the data collection and analysis to ensure there is no over or under representation of groups.

4. LITERATURE: MOTIVATIONS, DIFFERENCES, AND TYPES OF INNOVATION IN THE PUBLIC SECTOR

4.1 What Makes Public Sector Innovation Unique?

In response to an increasing awareness of innovation and its place in the public sector, governments around the world have embraced more entrepreneurial methods of conducting business. New Public Management (NPM) was the perceived answer to the problems that many public sector leaders saw. This shift was driven by government concerns regarding spending and an increase in demand for government services by citizens (Aucoin, 1990). Countries that adopted NPM moved towards a bureaucracy that more closely resembled the way a business was run in the private sector. Priorities shifted to a focus on outputs, competition within the public sector, professionalism, and managerial autonomy (Suzuki & Demircioglu, 2017, p.10). Governments shifted focus towards providing services more effectively with lower budgets, and as a result innovative reforms were necessary. Despite this shift, differences remained between private and public sector innovation.

Motivations to Innovate

Drivers to innovate are one of the main differences between the public and private sector (Halvorsen et al., 2005). Private sector innovations are primarily driven by a firm's need to stay competitive. In a marketplace with multiple competitors, innovation is often necessary to survive when all firms are trying to produce goods at the lowest costs and with the highest profits. In contrast, public sector organizations are not in danger of losing clients or customers because there are often no other service providers. The lack of direct competitors to public sector organizations lowers the drive for innovation and makes innovations more likely to falter. (Australian Public Service Commission [APSC], 2010, p.7).

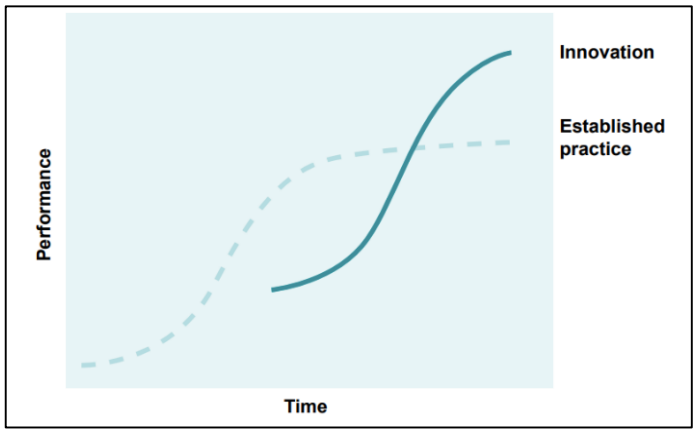
If the traditional motivations such as competition do not exist in the public sector, what motivates public servants to innovate? One suggestion was that public servants are motivated by a desire to serve the public (Koch, Cunningham, Schwabsky & Hauknes, 2006; Paarlberg, Perry & Hondeghem, 2008). The literature showed evidence that public servants pursued their careers with a goal of creating public value rather than to increase their own personal wealth. These employees found motivation when they saw the positive impact of their work on others. While increasing public value is an amicable goal, lack of feedback mechanisms can make measuring public organizational performance challenging. (Bason, 2010, p.18)

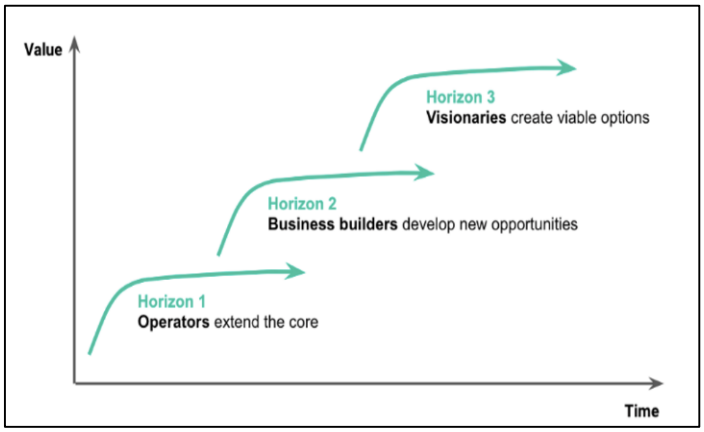
Aside from relying on public sector ethos, some countries have also experimented with providing incentives to public servants as a form of motivation (Dunleavy, Margetts, Bastow, & Tinkler, 2006, p.470). Incentives based on productivity can motivate employees to come up with new ways of doing things. The use of monetary incentives has been explored within the Government of Canada. The Employee Innovation Program was piloted within 8 departments and rewarded public servants for innovative ideas. The program challenged public servants to find more cost effective ways of delivering programs. Rewards were based off of a percentage of calculated savings measured in the first year of implementation, up to a limit of $10,000 (Government of Canada, 2010). The initiative was successful in its pilot phase and as a result, an "Employee

Innovation" category was included into the Public Service Award of Excellence Program. The award is presented yearly to recognize cost saving innovations from public servants across government (Government of Canada, 2010)

Planning and Strategy

The next key difference lays in the way public and private sector organizations approach planning and strategy development. In the private sector, many organizations embed innovation into their business and strategic planning. This process involves identifying challenges, the opportunities these challenges present for innovation, and strategies for communicating the need for innovation (APSC, 2010, p. 62). One planning tool employed by many private sector organizations is the s-curve, which is used to show that a longer period of time is needed before an innovative new product or method results in greater outcomes than the existing product or method (Figure 3). By keeping this s-curve in mind, organizations can plan and account for the time that it takes for innovations to fully come into fruition. This tool may be better suited for private sector organizations than public sector organizations who may have difficulty determining the dollar values of products developed and sold.





Figures 3 and 4: The S-Curve (left) (APSC, 2010) and Three Horizons Approach (right) (Mckinsey & Company, 2009) are two ways in which organizations can incorporate innovation into planning activities.

Another example of a planning tool that can be used to incorporate innovation into the planning process is the three horizons model for innovation (Figure 4). This approach was developed by McKinsey & Company (2009) and allowed organizations to use foresight to plan and manage projects into the future. Using a similar approach to the s-curve, planners looked at innovative ideas at various "horizons" in the development process: Horizon 1 was about maintaining projects related the core business, Horizon 2 was about nurturing emerging opportunities that would eventually replace Horizon 1 projects, and Horizon 3 was about looking at the future of the organization by identifying new opportunities and ideas that did currently exist in the organization in order to respond to anticipated opportunities. This approach allowed for organizations to sustain current operations while actively exploring future opportunities for growth (McKinsey, 2009).

However, these types of tools are seldom included into planning for public sector organizations because of fear that longer term time frames required for innovative ideas to become successful

would be seen as too risky and that funds are better allocated elsewhere (APSC, 2010, p.35). Due to the public accountability of all activities that occur within the public sector, a failure can often be seen as a waste of public funds. These pressures are made even greater by the potential for exposure by opposition parties or by the media (Borins, 2001)

4.2 Types of Innovation in the Public Sector

Identifying the different types of public sector innovations is an important first step in unpacking this complex topic. Depending on an individual's area of work, there are many different opportunities to innovate. Many have studied public sector innovations in an attempt to group them based on form of activity (Bason, 2010; Hartley, 2005; Francis & Bessant, 2005; Windrum, 2008). The following section of the literature review highlights the four types of innovations that de Vries, Bekkers, and Tummers (2016) have identified: process, product, governance, and conceptual. The four types are often interconnected and can influence one another (Figure 5),

Process Innovation

Process innovations are focused on improving external or internal processes to deliver existing services and products. Processes improvements are often associated with NPM as they are often undertaken with the goal of making tasks more efficient and effective. An example of this type of innovation would be a change to the procurement process to remove unnecessary steps and simplify the process for suppliers. Process innovations can often be undertaken using a design method approach involving those who deliver services and clients who receive them (Ernest and Young, n.d., p. 7). 57 percent of all innovations belong to this group, making it the most common type of public sector innovation (de Vries, Bekkers, & Tummers, 2016, p. 154)

In many cases, these innovations are in response to choices organizations make in the face of resource scarcity or changing customer demands (Walker, 2014, p. 22). Clients may want more flexibility in how they are able to access services. Organizations may also face political pressure to save money and turn to finding ways to make processes more efficient to meet this demand. For public sector organizations, process innovations often come in the form of technological changes that make service delivery methods easier and more efficient. Organizations may be more inclined to invest resources into process innovation as opposed to other types because the efficiency gains from streamlining processes can free up resources (Borins, 1998). For innovations such as the development of a new product or service, additional resources may be needed following implementation as more employees may be needed to deliver these new products or services. The short term additional costs of process innovations are often worth the long-term cost savings that can be created. This type of innovation is particularly attractive to public sector organizations heavily bound by rules and regulations which involve navigating multiple sets of processes.

Product or Service Innovation

Product or service innovations lead to the creation of new products or services for the public. Instead of focusing on improving a product or service (process innovations), product innovations focus on developing new products. Product innovations can also refer to combining two products for a new purpose (Bhoovaraghavan, Vasudevan, & Chandran, 1996, p. 233). There are times

when it is difficult to differentiate between a product or process innovation. For example, the creation of the laptop computer may be seen as a product innovation or process innovation depending on whether it is viewed as a new product or an update to desktop computers (Bhoovaraghavan, Vasudevan, & Chandran, 1996, p. 233). Product/service innovations are the second most common type of public sector innovation, with 22 percent of all innovations belonging to this group (de Vries, Bekkers & Tummers, 2016, p. 154).

Like process innovations, product or service innovations are often guided by the needs of clients and customers. New services or products may be demanded to meet changing customer needs (Ernest and Young, n.d., p. 7). Public sector organizations are more likely to create new services rather than new products. For example, an organization can create a new online procurement process to replace an existing paper system to make it easier and quicker for bidders to submit their proposals.

Governance Innovation

This form of innovation represents a change to systems in an organization to better interact with and meet the needs of stakeholders. A common outcome is improved cooperation between stakeholders, both internally and externally, to address societal challenges (de Vries, Bekkers & Tummers, 2016, p. 154). An example would be the creation of a Community of Practice to share information and break down organizational silos that prevent information sharing. This type of innovation has also been referred to as a systemic innovation (APSC, 2010, p.6). 13 percent of public sector innovations belong to this category (de Vries, Bekkers & Tummers, 2016, p. 154).

Most of the academic literature has focused on product/service or process innovations because the impact of governance innovations may be harder to quantify (Moore & Hartley, 2008). While the impact may be difficult to measure, governance innovations can often have a knock-on effect by creating organizational conditions more conducive to product or process innovations (Moore and Hartley, 2008, p. 13). By facilitating more collaboration within and between organizations, governance innovations can make idea generation easier, leading to new services or improvements to the way current services are delivered.

In addition to idea sharing within organizations, governance innovations can be used to tap into new sources of knowledge or funding from the private sector (Moore & Hartley, 2008). This can be particularly useful for public sector organizations that want to break down intra-departmental silos, and those who see potential in inter-departmental collaboration or collaboration with private sector organizations. While harder to quantify, governance innovations are often interconnected with other types and can have a cascading effect on product or process innovations.

Conceptual Innovation

Also known as a paradigm innovation, this form of innovation involves changing the underlying state of mind or outlook in which programs or policies are viewed. Concepts shape perceptions about reality. Perceptions are shaped by things public servants see and learn throughout their lives. When approaching new problems, prior knowledge is used to make sense of them. Through conceptual innovations, new ideas are introduced that challenge current assumptions.

By doing so, problems can be reframed and new solutions can be identified. An example is when a tax collection agency shifts to helping people comply with the tax code rather than focusing efforts on those who do not comply (Bason, 2010, p. 71).

For longstanding organizations, doing things the way they have always been done seems like the easy choice. Reframing issues and approaching them through new lens can result in the discovery of new and better ways of conducting business. Conceptual innovations can lead to developing new services and ideas to improve upon existing ones. Conceptual innovations can be seen as enablers for unleashing other types of innovation. Using the above example on tax collection, a conceptual innovation that reframes the role of a tax collection agency could lead to a product/service innovation, such as a new service that provides assistance filling out or understanding forms.

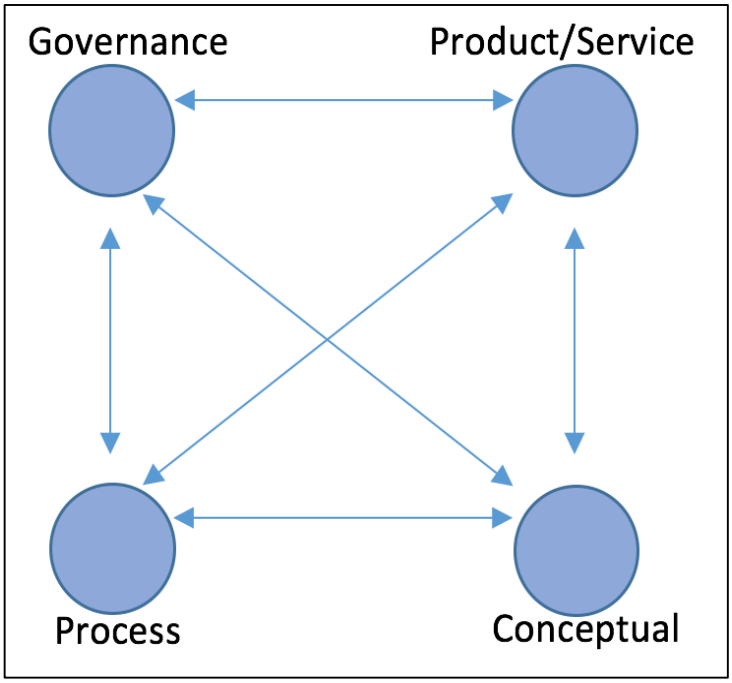


Figure 5: The four types of innovation are often interrelated

4.3 Conclusion

This section presented several factors that make public sector innovation unique. This understanding was useful for developing a framework through which public sector innovation can be studied. This understanding of the unique elements of public sector innovation has been used to examine the barriers to innovation that occur and the types of strategies can be used to overcome them.

5. ELEMENTS OF THE INNOVATION PROCESS

This section unpacks the various elements of the innovation process. Specifically, the different strategies and sources of innovation as well as the innovation cycle are introduced. Developing an understanding of these elements has been key to helping identify and define types of barriers to innovation and identify potential strategies for overcoming them

5.1 Strategies and Sources of Innovation

Research from Dumay, Rooney, & Marini (2013) noted the impact that having senior managers with the skills to identify the type of innovation and matching it to a relevant strategic approach had on the success of the innovation. Different types of innovation require different approaches. Eggers and Singh (2009) categorized public sector innovation strategies into 5 categories. The "strategy continuum" (Figure 6) ranges from internally sourced innovations (from the organization's employees) to externally sourced (from network partners such as those within civil society). Different types of innovations may be more suited for different types of strategies.

Under the traditional strategy of closed innovation, ideas are generated internally by firms. Over time, changing dynamics, particularly in the digital era have shifted focus towards external sources of innovation. The emergence of "innovation technologies" such as information and communication technologies, have made it cheaper and easier to search for innovation from external sources such as online communities, blogs and virtual worlds, and through crowdsourcing (West & Bogers, 2014, p. 819).

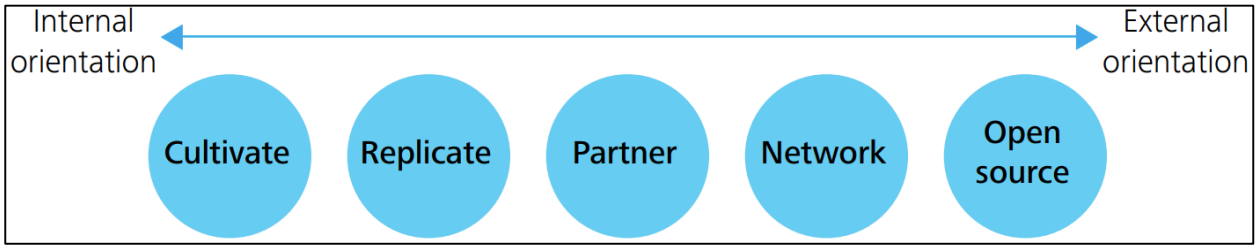


Figure 6: The strategy continuum highlighting the five different strategies for innovation

Cultivation

Categorized as the most internally facing strategy, cultivation involves harnessing ideas from staff at all levels of an organization. These ideas come from the tacit knowledge of individuals gained through day-to-day work (Eggers & Singh, 2009, p. 35). It is up to the organization to create an environment where this knowledge can be tapped to generate ideas. One way to do this is by hiring a diverse workforce. Individuals from different backgrounds are likely to come up with a variety of different ideas. Another key is to engage all levels of an organization, requiring mechanisms for senior management to hear ideas from front line staff. For example, the Transportation and Safety Authority (TSA) in the United States launched an intranet site where employees can submit ideas to improve processes and systems. Over two years, 7,837 ideas were submitted and about 39 were implemented by the TSA (Eggers & Singh, 2009, p. 40)

Multiple barriers commonly inhibit this type of innovation. Most are due to a lack of consciousness surrounding the topic of innovation. Individuals may not be aware of what innovation means in practice and do not reflect on their practices to see what new ideas can be adopted. Common strategies to unleash the potential of cultivating innovations involve education in innovation terminology, as well as communicating examples of past innovations and innovators (Bason, 2010)

Replication

Altshuler & Zegans (1997) found that the many public sector innovations involved discovery and not invention. Their research found that new ideas often came from bureaucrats identifying existing ideas and adopted them for the needs of their organization Eggers and Singh's built on this to identify second strategy for innovation: replication involves creating systems for employees to identify and adopt innovations from elsewhere (Eggers and Singh, 2009, p. 49). Having a structured way to identify and track ideas from other public sector organizations is an important part of this strategy. For example, the Texas Performance Review has been conducted every two years since 1994 and looks at all agencies within the state government and compares their performance to best practices around the world. Those ideas that are easiest to implement, are able to produce the most cost savings, and require the least expertise are prioritized as ones that the government should pursue (Eggers and Singh, 2009, p. 54). Following this set of criteria is meant to maximize the chances that the innovation will be successful. The Texas Performance Review has had very beneficial effects, saving Texas billions of dollars over the years (Eggers and Singh, 2009, p. 60). While this strategy incorporates external ideas, replication is primarily internally drive: public sector staff seek information from outside the public sector as opposed to external partners bringing the information to the public sector. (Marin and Bermejo, 2015, p. 717).

In addition to identification, employees need to have the skills to adapt ideas to local contexts (Eggers and Singh, 2009, p. 51). With ideas that could be sourced from different countries or different jurisdictions, applying a local lens to the innovation is important to the chances of success. To do so, it is important to build networks with other departments and agencies or neighboring jurisdictions to understand what made a certain innovation successful (Eggers and Singh, 2009, p. 61).

Partnering

While replicating ideas from other public-sector bodies, partnership moves further towards externally sourced innovations and incorporates outside actors into the innovation process. Due to the complexity of certain issues, multi-leveled, multi-agency, or multi-sectored solutions are often required. Three types of partnerships are commonly used to facilitate innovation.

- Private-public partnerships: Used by governments to leverage the expertise of private sector organizations;

- Public-public partnerships: Exist between departments or between different levels of government and are helpful for sharing information and breaking down silos. This type of

relationship can also include those with public organizations outside of the public service such as universities (Eggers and Singh, 2009, p. 66);

- Public-nonprofit relationships: Used as a way for governments to fill service delivery gaps and increase public involvement, allowing for programs to reach people while increasing the legitimacy of these programs (Eggers and Singh, 2009, p. 66). This type of partnership also allows for community centered innovations that are able to reach deeper into the community (Eggers and Singh, 2009, p. 69).

Whereas the previous strategies of innovations were primarily internally driven, this strategy can lead to both internally driven and externally driven sources of innovations. An example of a partnership that can result in externally driven innovations is public procurement (Marin and Bermejo, 2015, p. 717).

Testing new ideas is conventionally inhibited in the public sector by two main risks. The first risk is the challenge of spending on projects that might not be successful. Private companies are able to provide funds to test new and innovative ideas and to prove their value before public money is spent on them (Eggers and Singh, 2008, p. 67). The second risk mitigated is the lack of metrics to justify the use of new approaches. Private companies can create measurement tools that can be used by the public sector to measure impacts of programs on clients. For example, the Poverty Progress Index is developed by a private organization and used to measure the impact of government provided microfinances on individuals (Eggers and Singh, 2008, p. 68). Both can be mitigated by partnerships.

In the Canadian context, an example of a beneficial partnership was the digital agreement between the governments of Estonia and Canada. The partnership was mutually beneficial, with the government of Canada learning about e-government and the electronic delivery of public services from Estonia's X-Road system, while Estonia cooperated with Canada to learn more about the field of AI research and how a framework can be developed to responsibly implement AI into government (EER, 2018) With the knowledge gained from this partnership, Canada is developing a secure cross-departmental information exchange network.

Network

Rather than relying on defined partnerships, a network approach opens up the innovation process to anybody and everybody. This strategy benefits from "broadcasting" or disclosing problems to problem solvers outside of the organization (Eggers and Singh, 2009, p. 81). Broadcasting problems can bring in solutions from individuals outside of the original field of inquiry or outside of the original discipline (Eggers and Singh, 2009, p. 81). The majority of innovations from a networked strategy will be externally sourced. Another benefit of this approach is the ability to harness social networks to engage citizens and to spread word on government services and programs.

Open Source

Open source is the most external type of innovation. In this strategy, outside organizations and individuals not only generate the ideas but also help develop and maintain them (Eggers and

Singh, 2009, p. 96). Originating from the field of software development, the open source innovation model can easily be applied to the public sector and boasts several benefits. For example, governments can build repositories of publically available tools and allow users to develop innovative ideas with these tools, lessening the burden on governments to do so. Rather than developing an innovative education plan, the government of Ontario built an online repository of resources and allowed teachers and students to access them at no cost. This bottom up approach allowed users to have the ability to customize tools and services to meet their needs (Eggers and Singh, 2009, p. 98).

Another benefit of open source innovations is the ability to build in mechanisms for continuous improvement. By allowing users to make changes continuously, the quality of products or services can be greatly improved (Eggers and Singh, 2009, p. 99). An example of this benefit is found in the City of Melbourne, where the city plan was placed online as a shared document so that the public could view and edit (Eggers and Singh, 2009, p. 100). This type of open source strategy can minimize costs, bring in specialist's contributions and engage a broader community to serve the public (Eggers and Singh, 2009, p. 108).

5.2 The Innovation Cycle and Skills Required for Innovation

The innovation cycle (Figure 7) is the next important piece of the puzzle to discussed to establish an understanding of how and why innovations fail or succeed. The presence or absence of various factors impact whether an innovation fails somewhere along the cycle or reaches the final stage. The following section describes idea generation, selection, implementation, sustainment, diffusion and discusses how the six core competencies for public sector innovation (Figure 8, see next page) developed by the OECD (2017) can be used for moving innovation through the various stages. Being stuck at certain stages in the innovation cycle may indicate the absence of specific skills within an organization.

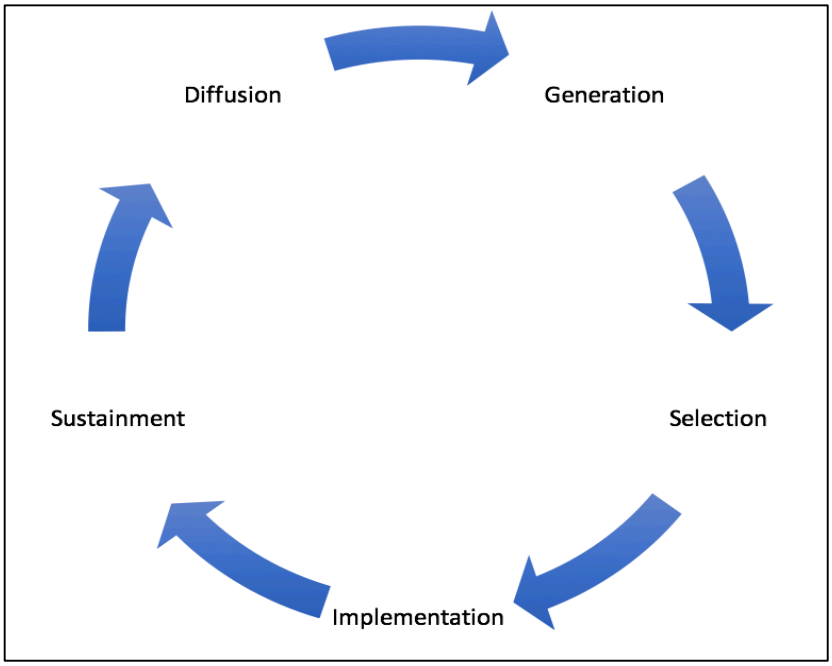


Figure 7: The five stages of the innovation cycle (APSC, 2010)

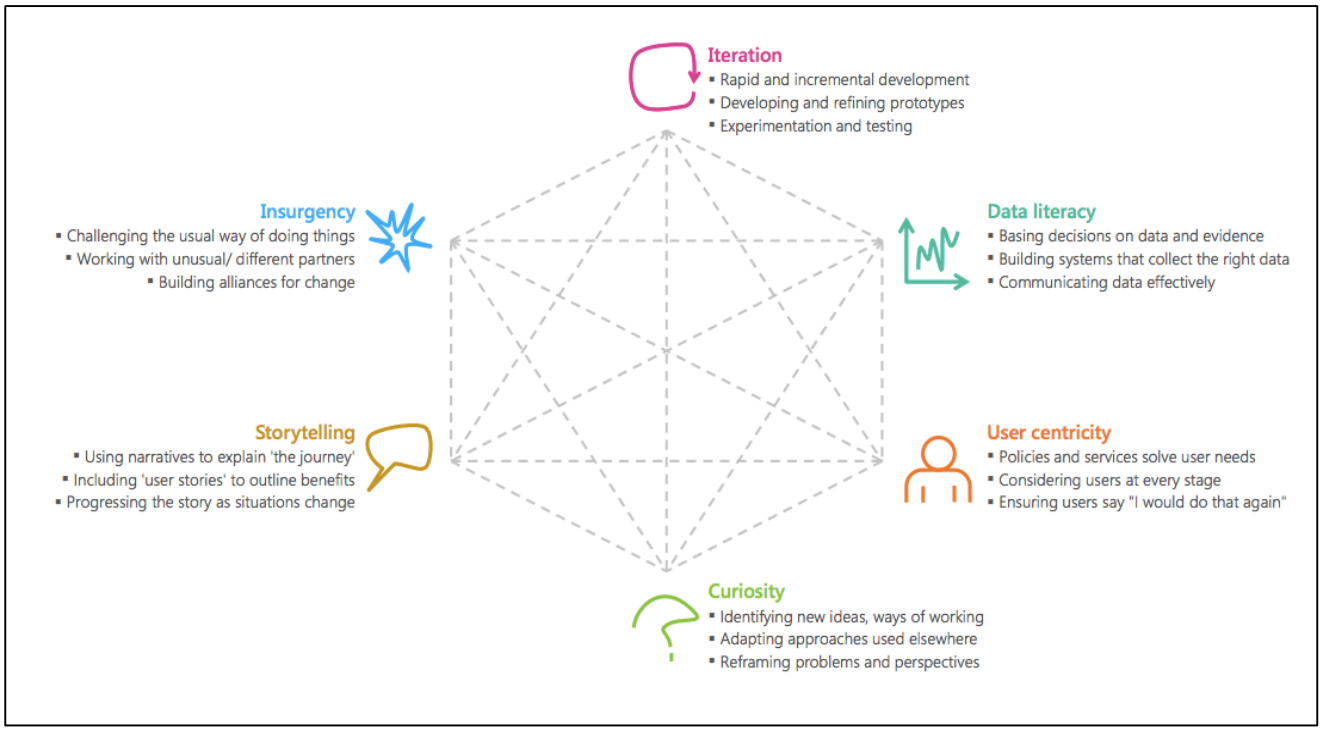


Figure 8: The six core skills for public sector innovation (OECD, 2017)

Idea Generation (Stage 1)

The generation of ideas can come from any level of the organization. Ideas could be an improvement to something that already exists or something completely new. Thompson and Sanders (1997) coined the term "gardening model" of innovation, in which management created the correct environment for innovations to flourish and relied upon front line staff to create ideas. Borins (2000) showed that frontline staff were a main source of innovation rather than high level politicians or agency heads, due to their proximity and direct contact with citizens or clients accessing services. While front line staff knew the needs of the public due to this proximity, there may have been difficulties in transforming these needs into ideas that fit into the organizational strategy. One explanation could be due to a lack of knowledge on the organizations strategy or its priorities. Another explanation may be a lack of proper training to understand the process behind innovative thinking. By developing competencies related to "curiosity" and "user centricity", employees will be able to identify areas where improvements are necessary and have the skills to communicate these gaps with decision makers (OECD, 2017, p.16).

Idea Selection (Stage 2)

Not all ideas generated move forward towards the implementation stage. Due to the high costs that need to be invested into new ideas, only ones that are likely to succeed and have the highest potential positive impacts move onto the implementation stage. In the selection stage of the innovation cycle, it is important that decision makers have a good understanding of what ideas are most in line with the needs of the organization. To do this, they must be able to evaluate any

potential idea against the strategic direction of the organization and the needs of stakeholders that may be impacted. Accounting for these factors will allow for a clear picture of the likelihood of an ideas success.

In terms of the individual or group hoping to advance their innovative idea past this stage, a necessary skill during this step is the ability to sell the idea to decision makers. According to the OECD (2017), having competency training to develop "storytelling" skills may be important at this stage as it allows for the individual or group to confidently convey the benefits of their ideas to decision makers.

Idea Implementation (Stage 3)

After ideas have been narrowed down and the best ones have been selected, steps are then taken to turn a vision into reality. Idea implementation is defined as the "process of setting up the structures, maintenance and resources to allow the innovation to develop and be utilized or produced" (Desouza et al., 2009, p.25). The implementation of a new idea often starts on a smaller scale, such as with a pilot project, in order to demonstrate the effects that an idea can have without needing to spend too many resources. This phase will require competencies related to "iteration" to allow for rapid experimentation and testing (OECD, 2017, p.10)

The public sector faces a unique challenge in that measuring pilot projects can be difficult due to lack of traditional performance indicators, such as number of new sales, that exist in the private sector. Despite this, a data-driven approach is still preferred in the public sector for scaling up small projects (Schoop, Holden, Eggers, 2018). Different performance measurement metrics can be used. For example, the City of San Diego introduced a new system to cut down on the paperwork necessary to verify benefit eligibility. To measure the impact of this new system, the time it took to approve an application was used as an impact measure. (Schoop, Holden, Eggers, 2018) These authors also mentioned the importance of not only quantitative data but also qualitative data in measuring performance. Stories from end users or those implementing or delivering the pilot were just as valuable as any other type of data collection. According to the OECD (2017), data literacy may be one important competency at this stage of the process. Cinar, Trott and Simms (2018) found that this is where most public sector innovations stalled, with 55 percent of all ideas failing to move past the implementation stage.

Idea Sustainment (Stage 4)

Due to a lack profit-driven decision making, this step is especially difficult for public sector innovations, even when innovative ideas are successful. This can result in additional efforts being required to embed new practices into public sector organizations (APSC, 2010, p.45). Reverting to old processes may come as a result of a change in political leadership or because of the short-term focus of many government organizations (APSC, 2010, p. 45). As with the implementation stage, "data literacy" and "storytelling" are important competencies during this stage. Being able to record and communicate information on the impacts of a new idea is key to ensuring that it can endure (OECD, 2017, p. 12). For example, letting an incoming government know about the tangible impacts of an innovative new program in terms of dollars saved or number of individuals impacted will make it more likely for the program to survive a change in government. By having the ability to convey evidence on the impacts of innovations to increase

the likelihood of sustainment, individuals more confidently pursue innovation knowing that the idea will not suddenly be halted despite success.

Idea Diffusion (Stage 5)

Even for ideas with tangible benefits, getting wide support and adoption is difficult. According to Rogers (1983), diffusion is defined as "the process by which an innovation is communicated through certain channels over time among the members of a social system" (p. 5). It is in this step that a large difference between public and private sector organizations exist. In the private sector, diffusing innovations is less common as private firms want to keep new ideas and products to themselves in order to create more profit in the short term through temporary domination of the market. In the public sector, diffusion is encouraged as it can lead to better use of public resources (Bloch & Bugge, 2013). When ideas from one team or one branch are shared with the others, the entire organization benefits. For innovation to reach and surpass this stage, the competencies "storytelling" and "insurgency" are important as they allow for the development of nontraditional partnerships that will allow for sharing of ideas and best practices (OECD, 2017, p.20)

5.3 Conclusion

This section provided an overview of the strategies and sources of innovation and the innovation cycle. The information from this literature review has been summarized below (Figure 9). This information was important for understanding the impacts that barriers can have on an organization. Depending on the type of innovation and strategy used, different types of barriers can occur along the innovation process. Collaborative innovations are often more difficult to achieve because they often require strategies that need to involve multiple actors. This knowledge made it easier to identify the origin of barriers and helped develop an understanding of how to overcome them.

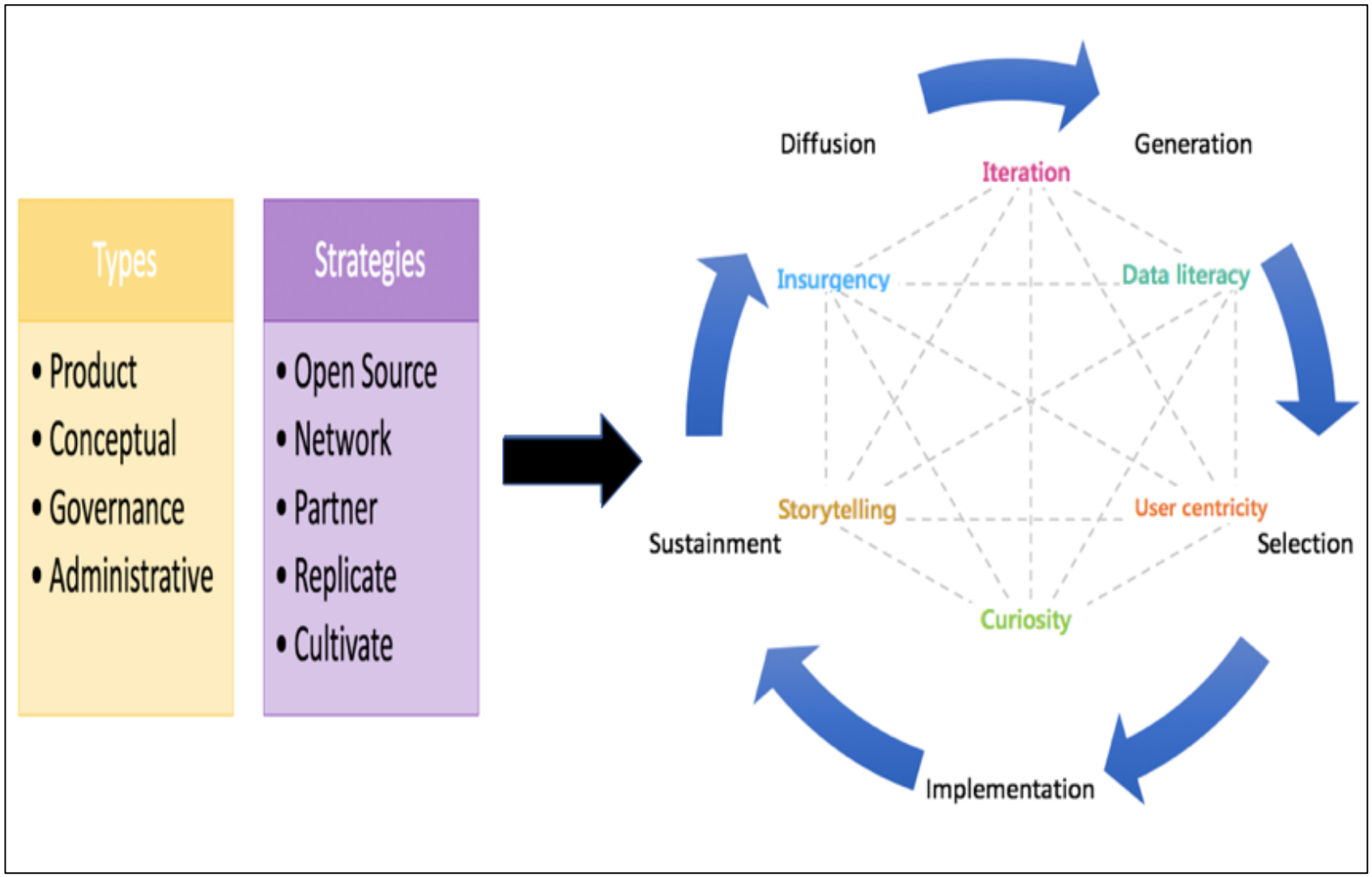


Figure 9: Summary of Literature Review

6. BARRIERS TO INNOVATION

This section explored the barriers that stand in the way of innovation. Hadjimanolis (2003) classified internal barriers to innovation into three categories that have been discussed below. Hadjimanolis also included three external barriers in his categorization. Because this research was focused on discovering actions that can be taken by the organization to remove barriers, external barriers that are a result of exogenous factors were not covered in this section of the literature review.

6.1 People Related Barriers

This barrier can exist at all levels of an organization, from front line employees to the management level. People related barriers can be further broken down into two categories: a lack of will and a lack of necessary competencies. Cinar, Trott and Simms (2018) found that a total of 35 percent of all public sector innovation barriers were people related, with 25 percent resulting from a lack of support from specific actors, and close to 10 percent due to a lack of skills, knowledge, or expertise.

Barriers related to a lack of will most often stem from a risk adverse management attitude and lack of motivating factors that encourage employees to innovate. For example, a subject matter expert in an area may not want to innovate, as finding a new way of doing things may make their expertise obsolete (Hadjimanolis, 2003, p. 562). For others, a fear of being blamed for mistakes or a fear of the unknown can inhibit innovation. As seen in the previous section, these concerns are particularly important to public sector employees who may face scrutiny for use of public funds on experimental ideas. On the management end, a lack of support from senior executives often leads to risk adverse attitudes on their teams.

Barriers related to lack of skills can often result in difficulties with generating creative ideas. A lack of training and skill diversity within a team and managers having skills in areas becoming outdated, rather than competences in emerging fields, are examples of issues that could cause this type of barrier (Hadjimanolis, 2003, p. 563). To counteract this, Lindquist and Desveaux (1998) suggested that management focuses on bringing in or promoting individuals with different types of talent, expertise, or disciplinary backgrounds.

To overcome these types of barriers, Hauschildt (2003) mentioned the importance of innovation champions. Innovation champions, also referred to as innovation promoters, are defined as those who are forward thinking, consistently contributing ideas, and use their powers to push forward the innovation process (p. 805). Other literature identified three roles for innovation leaders and managers, similar to the innovation champions that Hauschildt describes:

- Conveners: Aim to bring together, empower, and motivate actors, create and frame the discussions, set the agenda, define the rules and responsibilities for interaction, and promote a mutual understanding between actors (Ansell and Gash, 2008; Page, 2010).

- Facilitators: Handles conflicts and resolves any opposition that arises by aligning the interests of actors and building trust (Crosby and Bryson, 2010; Straus 2002).

- Catalysts: Exercises entrepreneurial leadership and management by reframing problems, obtaining information from various sources, identifying restraints and opportunities, managing risk, and encouraging and "out-of-the-box" thinking (Crosby and Bryson 2010).

Having an individual or group of individuals who can perform these activities would not only reduce people related barriers but structural and strategic barriers as well. For a group of innovation champions to be successful, the individuals must be centralized, have legitimacy, access to resources, and organizational support (Hartley, Sørensen, & Torfing, 2013)

6.2 Structure Related Barriers

Structure related barriers refers to "inadequate communication flows, inappropriate incentive systems, and obstruction problems by some departments" (Hadjimanolis, 2003, p. 564). The two most common that inhibit innovation are: organizations with centralized decision-making structures and organizations with mechanistic structures that discourage participation by employees (Hadjimanolis, 2003, p. 563). Organizations with barriers have difficulties communicating both up and down levels of the organization. Front line staff may find it difficult to bring ideas forward to decision makers, while senior level managers find it difficult to solicit feedback and ideas from their staff. This is particularly harmful for firms that operate in turbulent environments (Burns & Stalker, 1994). In the rapidly changing landscape public servants operate in, communicating ideas quickly to those who need information is crucial to the successful delivery of programs. Cinar, Trott and Simms (2018) found that close to 45 percent of all public sector organizational barriers were a result of ineffective administration of process activities or rigid organizational structures.

Structural barriers are a key reason for firm inertia, which refers to the tendency of organizations to continue on current paths (Gilbert, 2005). Overcoming inertia is a necessary step to changing the trajectory of an organization. This is especially relevant for public sector organizations which face minimal external threats to prompt change. For private sector organizations, inertia can be broken through external factors such as competition or changing market conditions (Gilbert, 2005). Inertia can come in the form of either resource rigidity or routine rigidity, with the former referring to an inability of an organization to change spending patterns and the latter referring to the inability to change existing processes (Gilbert, 2005).

Structural barriers can also result in culture rigidity. In organizations with structures not conducive to innovation, the norms, values, and beliefs system can create an environment where individuals fear blame for failure rather than empowerment and motivation to innovate (Armenakis & Bedeian, 1999). For this reason, cultural rigidity as a result of structural barriers have often been connected to people related barriers (Hadjimanolis, 2003, p. 563). As a result of structural issues, a work culture not conducive to innovation may discourage individuals from generating new ideas.

Also included in the categorization of structural barriers are system related barriers. Inadequate internal systems for identifying and communicating ideas may inhibit innovation. Not having proper systems to search for and acquire information both internally and externally can be a

major barrier to innovation. Innovations may exist externally but without a formal search process, it is difficult to identify and take advantage of them. Searching for information internally within the organization is equally important. For example, identifying and communicating information about innovative initiatives within other areas of the organization could point to new avenues of collaboration. To reduce this type of barrier, Madanmohan (2000) suggested creating a committee responsible for searching for and communicating ideas. The team would be cross-functional and would also combat issues such as inadequate planning and insufficient support for innovation by creating a culture of continuous and systemic support for identifying new opportunities for innovation. (Madanmohan, 2000, p. 188).

There is evidence of this strategy successfully identifying and implementing innovative solutions in the private sector. Madanmohan (2000) highlighted a case study where a brake manufacturing firm in India brought together team members from manufacturing, after sales, and research and development, as an "internal consulting" group, to solve a problem related to a defect in their product (p. 189). Information from the various branches of the organization was shared and a solution to a problem was identified through a process where each member was able to develop an understanding of the role and processes of the other teams. A similar type of "internal consulting" group could work in the public sector, where individuals from program delivery, project management, technical fields, and policy makers could be brought together in an effort to understand each other's roles and generate innovative ideas to solve problems.

6.3 Strategy Related Barriers

Strategy related barriers occur when organizations do not account for nor incorporate innovation into an organizational planning (Hadjimanolis, 2003, p. 563). Organizations that take innovation into account are able to match their organizational strategy with their needs. Those most aware of organizational needs are often front-line staff or technical experts who understand the operating context of the organization. For this reason, it is important that the strategic direction of an organization be clearly conveyed to staff. For organizations that do incorporate innovation into strategy, strategic barriers still exist when these strategies are not properly conveyed to staff. Without communication of the organization's goals and objectives, staff may be unable to identify the benefits of new approaches and bring them into the organization.

Developing a shared vision is critical for eliminating this type of barrier. Often, this shared vision comes from the top of the organization and must be effectively conveyed to staff. By making it clear what the organizational vision is and where the areas of priority are, employees will be able to understand and focus attention on and identify potential areas for innovation. Having a clear strategy, which may include budget commitments to innovation, can help create a shared vision with common goals to employees. Making these types of changes to the planning process may encourage employees to experiment and take more risks in their work.

Again, there is a clear relationship between strategic and the other types of barriers. People related barriers could be interconnected with strategic barriers, as those in charge of the planning process may be hesitant to incorporate innovation into strategy because of complacency or satisfaction with the status quo (Hadjimanolis, 2003, p. 563). Strategic issues are also intertwined with structural ones, as an organization that does not plan for innovation will not properly allocate resources and time to pursue innovative ideas. These strategic barriers contribute equally

to firm inertia as structural ones. Cinar, Trott and Simms (2018) identified lack of available resources, which could be attributed to not accounting for and planning for innovation in organizational strategies, as the barrier to innovation in 21 percent of cases.

6.4 Conclusion

Identifying barriers and their sources is an important first step for developing strategies to overcome them. This section outlined a classification of internal barriers to innovation for organizations and discussed some potential strategies for overcoming them. Most importantly, this section showed that there are often areas of overlap between these three types of barriers. The presence of certain barriers may reinforce or even create other ones. These three types of barriers do not act in isolation and the presence or absence of barriers are often interconnected. Because of this, a systemic approach to reduce or eliminate all barriers simultaneously may be the best approach.

7. INTERVIEW FINDINGS

Interview participants came from a wide range of backgrounds within PSPC PR. A total of seven respondents from five of the regional branches were represented in the responses, coming from different lines of work and with different levels of experience. From the interviews, key themes regarding the barriers to innovation emerged. In the following section, the themes identified were analyzed in relation to the findings from the literature review to identify any similarities or differences between the two.

7.1 Types and Sources of Innovation

When asked about innovative ideas led by their teams that have been successful, most participants were unable to name any large-scale initiatives. Instead, many spoke to process improvements and small tweaks that did not require high levels of approval or collaboration between branches or between departments. The reason for pursuing these types of changes were mostly to decrease redundancies and overlap in work. Many felt that current workflows were inefficient because they were bogged down by processes and rules. While the route for pursuing these changes was challenging, participants noted that the end results were positive and that the innovations were embraced.

Most participants spoke to the "ad-hoc" nature of innovations and stated that they only occurred when change was absolutely necessary. Change would occur in response to a pressing need or when new employees come in and identify areas that could be improved, rather than something that is systemically planned for and approached. Several reasons were given, and the most common was a lack of long term planning and support for innovation at higher levels of the organization. Not having the time or resources to fully commit to pursuing new ideas meant that the work often had to be done off the side of desks, leading to a lack of motivation to pursue those big picture ideas.

> *"It winds up that the people who want to innovative, they attack a problem because they want to make it easier, they see a process that they want to make easier, but it winds up being more work because they need to be doing what they are doing. and want to change, but you have to keep doing it the existing way as well. It's hard to implement the big change without having the resources and full support to do so."*

The majority of the innovations mentioned were process innovations and internally sourced. PSPC is heavily focused on client-service and frequently interacts with other government departments, the public, and the private sector. However, no respondent mentioned any types of innovations that were a result of collaboration or idea exchange with external sources. On the other hand, respondents from branches that had an externally facing role did point out that the potential for externally sourced innovations existed but they felt they did not have the tools, knowledge of proper procedures, or support from management to pursue these avenues. Many suggested closer ties and engagement with the private sector and industry as possible ways of finding solutions to problems. A few participants noted frustration in trying to come up with "in-house" solutions when private sector ones were available but not being adopted by the public sector.

7.2 Communication and Knowledge Gaps

Communication and knowledge gaps between those in the frontline and decision makers were especially evident for participants working in technical roles. Those delivering services in the region felt they had important knowledge from client interactions that could be useful for headquarters but had no avenues for moving this information forward. This gap was the cause of frustration for many participants.

> *"We have technical experts working in the weeds and we have bureaucrats making decisions. I believe sometimes they don't understand what we are talking about despite our efforts to explain it. I think there is a knowledge gap between the innovators and the decision makers. Sometimes we ask for the communication but it doesn't happen"*

Communication gaps were a common theme when discussing barriers: between teams within a branch, between branches within the region, or between the region and headquarters. Many felt that, despite attempts to move away from a "traditional organizational model", progress was slow and that silos remained. Not having involvement from the necessary parties or not knowing who to connect with to move ideas forward was a big challenge that prevented many "enterprise wide" innovations from being led and implemented by the region. When given the opportunity to collaborate with others, there were still difficulties due to the division between regional branches and between the region and headquarters. Participants noted that it was often difficult to explain ideas to others because those people did not have a basic understanding of the roles and responsibilities of their program area. There was frustration when trying to explain basics to others and as a result, the time commitment required to collaborate across teams made innovative ideas unfeasible to pursue.

7.3 Rules and Regulations

Those working in branches heavily bound by rules and regulations had very different views on innovation than those who were not. While they too were encouraged to be innovative, these participants noted they and their teams were more concerned about being "covered" than about thinking outside of the box. Due to the nature of some of these roles, deviation from rules and regulations could have legal implications. Although senior management promoted a culture of innovation within PSPC PR, their direct managers were hesitant to allow them to venture outside of the defined roles and responsibilities that guide their work.

> *"I don't think this job allows for innovative ideas. We are pretty regimented in what we are required to do and it's a lot of administrative paperwork and concern about covering yourself and less about interacting with people. And I think innovation, a lot of it in experience is about how you interact with people and human behavior and less about ticking a box"*

While those working in these roles acknowledged it was unlikely that any changes to legal rules and regulations could be changed, there was some optimism that innovative ideas could emerge while working with the system. Two participants who worked in these types of roles pointed to the local changes that had been made that improved the way that client

service was delivered in the region, such as a change to the way that client interactions are tracked and client questions were handled.

7.4 Avenues for Moving Ideas Forward

Existing Avenues

All participants agreed that no shortage of ideas existed within the region, but that it is either difficult to bring these ideas up or, once ideas were brought up, it was difficult to move them forward. Even those who felt their direct supervisors were very open and encouraged innovation noted that managers expressed interest in their ideas but had no avenues to proceed with implementing them. While smaller scale innovations such as improving processes may be encouraged and done at the team level with the support of managers, innovations to larger projects were usually more difficult as many of the directives were set out by headquarters. One participant had raised suggestions to their manager about improving something related to a large scale national project, but because the process was being led by headquarters and the manager had no "seat at the table", there was no avenue to raise this issue. When asked about innovative ideas originating headquarters and the process behind these ideas, participants were unsure of where they had come from were unaware of consultation at any stage of the development process.

This lack of consultation with the regions was evident when developing new policies and projects. Many felt that ideas from regional employees were not heard.

> *"The people in the regions doing the work, they are the experts, not of the policy, but of where the rubber hits the road, they really understand what is happening and how those processes really play out. I feel both (Ottawa and the regions) are obviously important. We can't offer services in Vancouver that aren't available in Nunavut, that's not allowed, but I think we need a better way to experiment locally and tell that story up and have it actually influence and give us the things that we need to do"*

One participant pointed to the existing avenues at the departmental and government wide such as the Process Improvement Challenge and Innovative Solutions Canada were effective ways for moving innovative ideas forward. They stated that it was "real surprising" to them how few public servants were aware of these initiatives and that the fact the programs existed and were available should be "way better promoted". Few participants were aware of departmental strategies or initiatives promoting innovation such as the Process Improvement Challenge. Some only heard of them in passing through e-mails and had not taken part in any of them. Participants stated that the information they received had been very sporadic and that they did not feel engaged in the process due to the fact that they were not kept up to date on the status of various initiatives. This meant that any valuable input they may have had was not given the opportunity to be heard.

> *"We hear of them occasionally, however, we are not aware of them and we are not engaged and we don't get updates. I hear there is some strategy, we don't know what it's about, we don't have an opportunity to share and it's created a little bit of apathy*

within the group… we get them occasionally, they come out of nowhere, we don't have any context."

Potential New Avenues

Several participants provided suggestions on how to reduce barriers preventing innovative ideas from getting considered to becoming successful. From "innovation hour" to "Dragons Den", a common theme was a desire for a platform with a wider audience where ideas could be "reviewed, considered, and introduced" for implementation.

> *"The government is quite hierarchical, so if the person above you doesn't understand or doesn't care to understand, nothing happens. I feel like no one says don't innovate, the problem is when you have an idea it isn't collaborative or you can't get someone's attention if they don't want to spend the time. So if a forum was available and it wasn't the responsibility of an individual, it could happen."*

While having this type of forum was suggested by many participants, there was skepticism about the "next step" after these types of events. Participants wanted ideas to be something other than a "side of the desk" task and stated that having the proper resources and time to pursue them would make these platforms a valuable use of time.

7.5 Conclusion

The interviews identified several common themes that have been analyzed and discussed in the next section. Unique organizational factors that made certain type of barriers more likely to occur were identified. However, these factors vary depending on the type of work that employees do within the organization. These differences are discussed in the next section and were kept in mind as the options and recommendations were developed.

8. DISCUSSION AND ANALYSIS

This section has summarized and brought together the findings from the interviews and literature review to identify and analyze the key themes. The analysis conducted in this section helped refine the analytic model and guided the development of recommendations in the next section.

8.1 Summary of Findings

Literature Review

The literature review identified several important areas of study related to public sector innovation. First of all, the research began by discussing the differences between public and private sector innovation. In particular, motivations and the planning and strategy process for public and private sector organizations were highlighted as key differences. Profit driven private sector organizations can plan for the long term, allowing innovations that will eventually become profitable to flourish. In contrast, public sector organizations suffer from short-term planning due to scrutiny from the public, including the media and opposition parties. This pressure leads to a risk adverse approach to planning. New and innovative ideas that have the possibility of failing are often not allocated the proper time and resources during the planning process. Decision makers are hesitant to pursue innovation as they have public accountability and pressure to succeed in the plans they make. If they fail, others are quick to blame them for wasting funds. Foresight tools such as the Three-Horizons approach were highlighted as examples of how public-sector organizations can mimic public sector ones and shift towards a planning style that is less risk adverse in the planning process. The different types of innovations were also introduced. Process innovations, produce/service innovations, governance innovations and conceptual innovations were defined and examples of each were presented. Major differences between these four types included the different amount of resources required to undertake them and the different impacts that they had. Another important fact was that there were often relationships and a degree of interconnectedness between the different types.

The next area that was explored were the various strategies and source of innovation as well as the innovation cycle. Ranging from internally to externally sourced strategies, cultivation, replication, partner, network, open sourced were introduced and the organizational conditions required for these different types of strategies were explored. Internally sourced strategies required little collaboration and faced few barriers, while externally sourced strategies often faced barriers related to the structure, people, or strategy of an organization. The stages of the innovation cycle (generation, selection, implementation, sustainment, diffusion) were introduced next. Why certain types of innovation or strategies of innovation are more common was explored to give the reader some context for understanding organizational barriers to innovation. This revealed that the ideas most often pursued were those that could be tackled by individuals, requiring the least amount of collaboration or support from others within an organization. Examples of this type of innovation included process innovations that are internally sourced. When pursuing larger scale ideas, resistance was often faced in the implementation stage, with over half of innovations faltering here according to the literature.

To round out the literature review, the three categories of barriers to public sector innovation were introduced. People related barriers, structure related barriers, and strategy related barriers

were defined and how these barriers impact the innovation process were explored and tied back to the various facets of innovation. People related barriers were introduced as issues that exist at various levels within an organization as a result of either a lack of will or a lack of a relevant and diverse skillset within an organization. Structural barriers were introduced as organizational structures that result in issues with communication flows and a lack of collaboration between teams. Finally, strategy related barriers were introduced as issues related to short term planning as well as issues conveying plans and strategic direction to staff to ensure that everyone is aware of the organizational goals. Together, these types of barriers make organizations and the staff within them resistant to change.

Interviews

The overall trend among the interviews was that innovative ideas had been employed at the individual or team levels, but it was difficult to move these ideas to a branch-wide or organization-wide level. This was due to the fact that participants felt they did not have the support from their management teams or senior management that were necessary to bring their ideas towards implementation. Because of this, individual innovations that take place in PSPC PR were often related to process or administrative improvements that made tasks easier and more efficient. It had also been mentioned in the interviews that many felt that innovation and change only occurred on an ad-hoc basis such as in times of need and necessity, rather than something that is planned for and systemically approached. It was apparently from interviews that many innovations were usually internally sourced. This was frustrating to those who believed that having collaboration with others could have been beneficial for instigating large scale change within PSPC PR. Some participants suggested that other branches within PSPC PR or even organizations within the private sector had the knowledge and skillset to solve some of their problems, but there were no ways of leveraging this expertise.

There was a clear disconnect between those in the front line and those in higher level positions. While many interviewees had supportive supervisors, bringing up any of their ideas that moved beyond the team level was unlikely to be successful, because implementing them required collaboration with others who did not have the time or willingness to understand and work together on ideas. Despite avenues that allowed for innovative ideas to be introduced at higher levels, there was little awareness of departmental or government wide initiatives that promoted innovation. This lack of awareness led to frustration about not having any avenues to move ideas forward past their team. While there were announcements and updates sent out through e-mail, these were often ignored due to the sporadic nature of them. Participants often saw e-mails about the start of a new initiative and did not hear about it again until months later when they had already been implemented. This meant that there was no chance of providing valuable information and insight and led to apathy due to the lack of engagement.

Communication and support were common suggestions from interviewees when asked about how to eliminate the barriers to innovation in the workplace. The gaps in how employees received and communicated information with others had been mentioned as a real challenge to moving ideas forward. To solve this, a common idea was to create a platform where ideas are heard and considered. Because of the hierarchical relationship among employees, many feel as though if their direct supervisor had no way to bring ideas up to those with decision making power, then their ideas were no longer pursued. Participants wanted to have an open forum

where their ideas were heard by a wide range of individuals who could help bring their ideas to a reality, rather than relying on their sole supervisor to bring their idea up and move it forward.

8.2 Emerging Themes

Types and Strategies of Innovation Being Undertaken

The literature suggested that the majority of innovations undertaken are process/administrative innovations because they face the least amount of resistance and are easiest to implement. Usually, they do not require high levels of approval or collaboration, factors the literature have identified as impediments to innovation. The findings from the interviews were in line with the literature review. Most of the past innovations that were discussed were process/administrative innovations, developed using internal facing strategies. The innovations were also done on an ad-hoc basis rather than planned for and approached in a systemic way. This was also in line with the literature, which found that public sector organizations have little incentive to innovative and are much more risk adverse than private sector firm's due to the scrutiny that they face and lack of profit-driven decision making. This type of environment leads to "firm inertia", defined as the inability for firms to change their resource allocation or routines. Bringing in tools that allow for longer term planning and strategizing, such as those used in the private sector, may break this inertia. This would allow for some more accountability and ownership of the innovation process by the various branches and legitimize the innovation process. The ad-hoc nature of innovation was frequently noted in participants –having a way to systemically approach the process of innovation would address many of these concerns.

In some program areas there were more opportunities to innovate than others. In particular, there was a clear difference in opinions between those who worked closely with headquarters and those who did not. The relationship between the regions and Ottawa meant that there were less opportunities for regional input into enterprise wide initiatives. Having rules and regulations implemented with little consultation with regional employees left many feeling that they had little control over their work. As the literature has stated, front line employees are a key source of information and is an area where many of the innovative ideas begin without a way to communicate these ideas, many potential ideas that could beneficial impacts on PSPC are lost. However, as the PSES results in the introduction section have shown, other regions had much higher positive response when asked about how they felt about innovation than PSPC PR did despite having a similar type of relationship with headquarters. This may suggest that while it was a common cause for concern from interview participants, the relationship between headquarters and the region is not the main factor inhibiting innovative ideas from moving forward within PSPC PR.

Gaps in Knowledge and in the Communication of Ideas

Collaborations between various levels of an organization are necessary to facilitate large scale changes. The literature has confirmed that having the ability to convey information to others is a key competency for successful innovation (OECD, 2017). This was an area where challenges exist within PSPC PR. Collaboration between branches as well as between the public and private sector are some of the most effective ways of unleashing innovation. Bringing in ideas from different backgrounds can help find solutions to problems that were not comprehendible.

However, the nature of hierarchical organizations means that there are often difficulties in finding and working with people who can be helpful to you. All those interviewed also seemed to have a good idea of what innovation means and had good ideas of what sort of innovations could be implemented to improve the way work was done within the organization. However, there were problems finding the individuals who they needed to involve in order to move innovations forward. These individuals often did not understand the work that was being done and did not have the time to understand. The literature points to structural issues as one of the main causes for inadequate communication flows (Hadjimanolis, 2003). Having different types of formal and informal networks that exist within and between branches as well as between the region and headquarters may be one way to allow for information to flow more freely. These networks may also help all employees understand the work that others do can help them identify the value that they can add to other areas of work.

In addition to communication problems within PSPC PR, participants noted that there did not seem to be a structured way of collaborating with those outside of government to harness the knowledge they had. Many noted that opening up the innovation process to include external partners may also facilitate other types of innovation outside of process/administrative ones, as innovations such as developing new services or products which may be more conducive to working with external partners. This is in line with the findings in the literature, which highlighted the benefits of including those within the private and non-profit sectors. Using strategies such as partnerships, networks, and open source approaches can have benefits such as a reduced risk to the public sector organization, increased legitimacy of policies and programs in the eyes of the public, and increased engagement from all segments of society (Eggers and Singh, 2009).

Avenues for Moving Ideas Forward

To create motivation for employees to innovate, there must be pathways for innovative ideas to work their way up to decision makers and there must be the time and resources for employees to make these ideas become a reality. Large scale ideas often got held up in the idea implementation stage of the innovation cycle. The siloed nature of PSPC PR meant there was little an individual with a good idea could do to move ideas forward other than talk to their immediate manager. Although most participants felt that their managers were supportive and encouraging of innovation, there was a sentiment that there was little that could be done to move large scale ideas forward. A common suggestion was the creation of some sort of platform where ideas could be heard by a larger audience. This would take the pressure off of their managers and potentially allow for collaboration with other teams or other branches within the region.

There seemed to be a lack of awareness of departmental or government wide initiatives that promote innovation. According to the literature, awareness of initiatives promoting innovation or success stories of innovations may be one way of giving employees a sense of motivation by knowing that their ideas could be implemented and could create public value. Individuals may be more motivated to bring up ideas when they realize there is the possibility of them being successful.

A common complaint during interviews was about sporadic and inconsistent information that was received regarding existing initiatives at the departmental or government wide level. This

led to disengagement by staff despite a desire to want to learn more and partake in these types of initiatives. Having some sort of dedicated resource to communicate information regarding innovation may be one way to fulfill this need. Having all this information in one place could reduce employee apathy and increase engagement in innovative activities.

8.3 Conclusion: A Revised Analytic Framework and Problem

This analysis showed that there needed to be a way for an organization to systemically approach innovation in order for ideas to have a higher chance of becoming successful. Without this type of approach, low level, easy to implement innovations would be the only type that are being pursued. After the analysis, it appears that the research question about barriers to innovation is more relevant to larger scale, enterprise wide innovations as opposed to small scale, team level innovations.

These larger scale innovations were often unable to move past the idea implementation stage. If PSPC PR wants to be ambitious and allow for large scale innovations to be led by the region, there will need to be steps taken that will motivate staff to bring ideas forward knowing that there are higher chances of those ideas becoming successfully adopted. To make these types of changes, PSPC PR will need to break out of the current way of doing things and develop ways of making innovations easier to pursue. To entrench innovation into the organizational culture, the time and resources must be made available. PSPC PR will also need to use tools and techniques to facilitate learning and collaboration between branches. Knowing about the work of others will make it easier to connect and explain ideas to others and see the areas where collaboration can unleash innovative ideas. As the organizational background section showed, PSPC PR requires collaboration between branches, between the region and headquarters, and between public and private sectors provides a real opportunity to leverage external knowledge. PSPC PR already has a skilled and motivated workforce with plenty of positive ideas capable of creating public value, and making these changes will help make these ideas easier to pursue.

This section ends with a revised analytic framework (Figure 10 on next page) with adjustments based on findings from the literature review and interviews. Together, these were used to create a picture of the various elements of the innovation process, the barriers to innovation, and how they relate to PSPC PR. We now understand that certain types of innovations are better suited for different strategies and that knowing when to use what is important. We also understand the different stages of the innovation cycle, the skills that are required to successfully move through these stages, and what the barriers faced along the way will be. This adds to the initial understanding established during the background section, which laid out the relationships between the various initiatives to promote innovation at various levels, as well as the networks and relationships that exist within PSPC.

Together, the research conducted has identified several specific barriers to innovation at PSPC PR. The barriers identified were: lack of collaboration; ad-hoc nature of innovation; lack of a platform for ideas to reach a larger audience; lack of awareness of innovation activities; short-term planning resulting in firm inertia

The next section of this report sets out options to tackle these barriers.

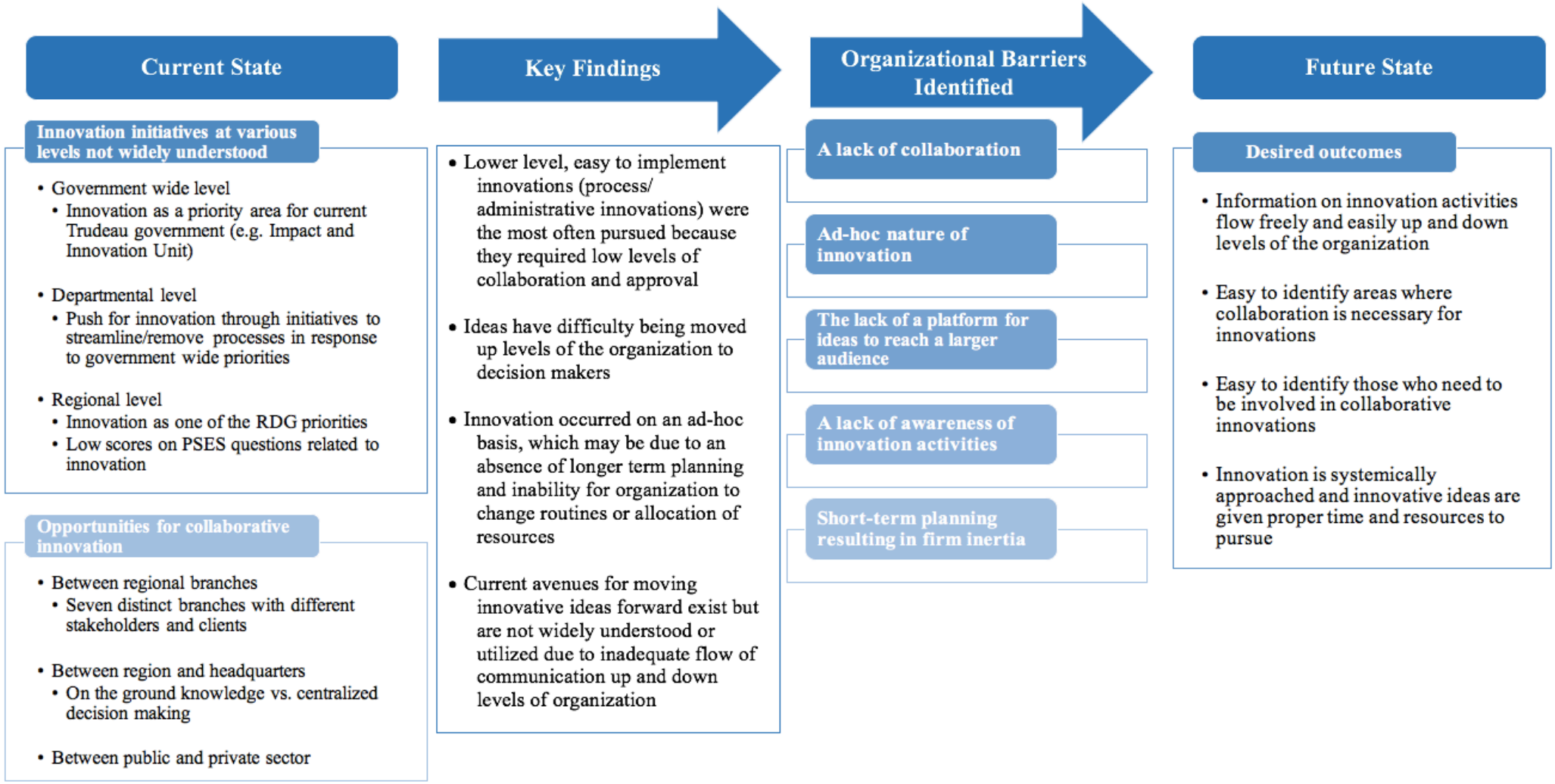


Figure 10 - Revised Analytic Framework

9. OPTIONS TO CONSIDER AND RECOMMENDATIONS

While many of the innovations occurring at PSPC have been lower level, individually led innovations, the goal should be to create an environment where employees feel like they have the tools and support to pursue large scale, collaborative ideas that can have much larger positive impacts on PSPC PR and on society. Several barriers have been identified through the findings of this research standing in the way of this goal. The following are options that are available for addressing these issues:

1. **Plan with innovation in mind.** Introduce tools that embed innovation into the planning and reporting process, specifically ones that allow for longer term planning that allow for the allocation of time and resources to pursuing innovative ideas.
2. **Develop innovation competencies:** Provide training to staff from all levels of the organization on the six core competencies for public sector innovation.
3. **Innovation champions/innovation network:** Have branch innovation champions that facilitate collaboration and information sharing up and down levels of the organization on innovation initiatives and hold regular meetings to discuss potential innovations that require cross branch collaborations.
4. **Innovation Station:** Have a dedicated Intranet page to brings together all the information regarding innovation into one area – including success stories from employees in the region – and to raise awareness of any regional or departmental initiatives that promote innovation.

In this section, these options are explored in detail and evaluated against the impact they will have on the identified barriers. The criteria used to evaluate the options were:

- **Increase collaboration:** will the option create a less siloed approach to innovation and increase collaboration between teams and between branches?
- **Break firm inertia:** will the option create a longer-term approach and strategy towards innovation that breaks out of the short-term mindset which encourages maintaining the status quo (firm inertia) and discourages innovation?
- **Increase awareness of innovation activities:** will the option provide employees with more information and transparency regarding innovation initiatives and success stories, giving them ideas of what the impact successful innovations can have and how to move ideas forward.
- **Create opportunities for ideas to reach larger audiences:** will the option lessen reliance on managers for moving ideas forward.
- **Less "ad-hoc" approach:** will the option legitimize innovation within the organization by providing more time and resources to these activities?

The costs of implementation were also considered when evaluating options. The costs refer to the amount of time and resources required for implementation.

Option 1: Plan with Innovation in Mind

As this research has shown, having proper support and resources are vital in creating an environment where innovative ideas can flourish. The most effective way to create an environment where these support and resources are available is by ensuring innovation is considered during the planning process. By taking the time to plan ahead, PSPC PR can use foresight to see how the external and internal environment can change in the future and account for these changes. To do so, the proper resources must be allotted to innovation activities and PSPC PR can be better prepared for the future. As Strategic Management leads the regional business and strategic planning process, there is a large opportunity for innovation to be included as part of this planning. This will encourage teams to plan out their priorities for the upcoming years while also considering upcoming challenges and how to proactively incorporate innovative ideas to meet these challenges. Having innovation embedded into the planning process the region can also add to legitimacy, as branches will need to come back to these plans at the end of the reporting period to reflect on their progress.

By using tools such as the Three-Horizons approach, teams can reflect on what their short, medium, and long-term business needs are as well as predict new and emerging opportunities. This process will help break the organizational inertia in PSPC PR and force teams to spend more time on planning for and coming up with innovative ideas that will eventually replace existing ones.

The opportunities for innovation identified through this type of activity could then be included in the regional business plans. While branches are encouraged to be innovative and incorporate the reporting of innovative ideas in their business plans, there are no requirements at the regional level that *require* them to do so. As seen in the background section, PSPC is required to report on innovation at the departmental level through the Departmental Plan. There is no equivalent to this in the regional planning and reporting process. This change would make innovation a more standardized part of planning and encourage all branches to think about how innovation can be leveraged to prepare for the future. This change may cause managers to place more emphasis on experimentation and innovation throughout the year as they know that they must report on these initiatives at the end of the year.

This option may see pushback as branches may not like the additional pressure of needing to document and report on their innovation activities. Incorporating these tools into the planning process will also be a substantial time commitment and may potentially cause pushback during the implementation phase from those involved in the planning process. The costs of this option, which include the time, effort, and money required for implementation, is expected to be medium. This option would require Strategic Management to bring together branch planners and educate them on these tools. Strategic Management could either take a workshop to learn more about these tools or bring in a facilitator to educate the entire branch planning network. With some branches having several FTEs involved in planning, this option would require approximately a week of time for upwards of 10 employees to understand the new tools. Strategic Management would also need to develop templates for reporting and work through several iterations as branch planners adjust to these new reporting requirements. This lead up time for implementation for this option would be several months.

Option 2: Develop Innovation Competencies

People are the center of innovation. As the findings of this research have shown, individuals within all levels of an organization must have a specific skillset in order to pursue innovation. Working level employees must be able to sell their ideas to decision makers who must be able to look at the data and identify the best ideas with high potential for success. For those who are not naturally disposed to undertake these types of activities, there are skills that can be developed through training. The six core skills for public sector innovation that have been developed by the OECD is a framework that can be used to develop these skills. While not all public servants will need to apply all six skills in their day to day work, having knowledge of these six areas can increase organizational knowledge and help build a culture that supports innovation.

The framework developed by OECD includes a definition of each competency and elements of practice related to each skill. Based off of this framework, the client could bring discussions to the wider leadership team through annual leadership events in the organization about what these skills mean to employees, which of these skills are necessary in what types of roles (for example, in technical roles versus management roles), and how managers can support the development of staff skills. These discussions will give the client some insight as to where the organization's strengths and weaknesses are and provide a snapshot of the innovation skill profile that exists within the organization.

Once the skill profile of the organization has been identified, resources can be directed towards the skills most lacking in PSPC PR. For example, if the outcome of the discussions is that data literacy is an important skill in many roles but managers have found that not many employees have this skill, the client can seek out tools that will help this talent within the staff.

To measure the impact of this skill training on bridging gaps, innovation could also be part of the Performance Management Agreement (PMA) of employees. Through beginning, midyear, and end of year discussions, managers could use these six skills as a measure of how well an employee is meeting their work objectives that are related to innovation. PMAs can also provide an opportunity to identify learning opportunities that may be able to advance these six skills.

This option would require significant amounts of time and money. Strategic Management would need to familiarize themselves with the competencies and develop content and tools to explore them at leadership events. After that, the team would need to develop a skill profile, decide the necessary areas to focus on, and develop a plan for addressing that area. The cost of this option may include the attendance of professional development workshops on innovation skills by all members of the Strategic Management team. The lead up time for this option would be several months of time commitment by the entire Strategic Management team to be trained and then develop a framework to determine what skills are missing and need to be addressed. In addition, several hours of executive time may also be required as the team works with senior management to determine how innovation may be included in employee PMAs.

Option 3: Innovation Champions/Innovation Network

Unlocking more high-level innovations requires making it easier for staff to collaborate. In a siloed organization, staff may not be aware of what is happening outside of their own branch. If staff had more opportunities to share ideas and get information on other areas of work, this knowledge could be useful for executing on more complex innovations. Being able to be collaborative would also mean less dependence on your own immediate supervisor or manager for moving your ideas forward. While managers are often supportive of employee ideas, they may not have the capabilities to move their ideas forwards without further support of senior management.

To further these objectives, Option 3 is to develop a network of innovation champions across branches. The innovation champions will serve three roles: conveners, facilitators, and catalysts. This network would serve multiple purposes. First of all, this network would be aware of all existing innovation initiatives happening across government (facilitating). Like the findings have shown, there already exists initiatives that could be leveraged by employees to move ideas forward that are not widely known about. The innovation champions of each branch could provide a much more personalized way of delivering this information to staff. Instead of hearing about it through an e-mail that may get lost or ignored, having someone on a team that is aware of these initiatives may greatly increase the chances that employees participate.

This network will also open up new ones for advancing innovative ideas. Staff will be encouraged to bring ideas to their branch innovation champions. The innovation champions would meet regularly to discuss different ideas that employees have raised within their branch (convening). In these meetings, areas where collaboration could be pursued would be discussed. The information from these meetings would then be relayed to staff and through this flow of information, collaborative innovations would have a much higher rate of success. Employees would be able to bring forth their ideas to their innovation champion, who would in turn bring them to the network. This process would immediately give their ideas a much wider audience and give the organization an opportunity to see where synergies between branches may exist. In addition, knowing that their ideas will have a chance to be heard by senior staff may provide more motivation for employees to raise new ideas (catalyzing).

To further give legitimacy to this network, regularly scheduled meetings with the senior executive team would be needed. At these meetings, the innovation network would provide an update on what new ideas have been raised since the last meeting. This would give working level staff a much more clearly defined and understood avenue for moving their ideas into the hands of decision makers. By the time the ideas reach this stage, most of those involved will have had the chance to hear about the idea, including any background knowledge necessary to understand the issue. The senior executive team can decide on the ideas that they believe have potential and bring together implicated parties for further discussions. The senior executive team may see potential in creating an “internal consultancy” group consisting of members from multiple branches and lines of work and providing them with the time and resources necessary to pursue these ideas. This option would take the pressure off of managers or supervisors who may want to help their staff but do not have the avenues, resources or skills available to them to do so. In addition, it would provide staff with the much requested option of being able to clearly see an

avenue for presenting ideas to a larger audience of decision makers, rather than having to slowly move them up the chain of command.

This option would require a medium level of effort, resources and time for Strategic Management. The client's team would play a role in the setting up of this innovation network. The team could help identify branch innovation champions, clarify expectations to the champions, all staff, and the executive management team. The lead time for this option will require three months of time and one FTE. While work will be needed to set up the network, Strategic Management would only be involved in the initial stages of the process. One area where the client's team could play a role is through evaluation following the implementation of the recommendation. After the creation of the network, it will be up to the individual champions as to how they best see the network be run. The network would consist of seven individuals (one per branch) that meet once a month for an hour as well another hour per month for the network to meet with the senior executive team.

Option 4: Innovation Station

While information on innovation is available to employees, it is not compiled into one area and this makes it extremely hard to keep track of. For this reason, this option involves the creation of a centralized hub that can increase awareness about organizational strategy and objectives, ongoing initiatives to promote innovation within the region, departmentally, or government wide, and to highlight success stories. The research has shown that having employees motivated to innovate is an important factor of successfully creating a culture of innovation within an organization. Increasing awareness can play a large part in helping employees understand how, where, when, what, and why they should innovate. It is also important that with this awareness comes some context on how these initiatives tie back to the work they do. Understanding the thinking behind these initiatives and the process that went into the development can help with increasing buy-in for them. Overall, this option seeks to decrease employee apathy towards innovation by giving them an easy way to access all the information they will need to understand the innovation landscape within their workplace.

By having a centralized location where employees can access all this information, there will be an increased awareness of initiatives and successful cases to contextualize the steps necessary for successful innovations. While innovations have been successfully implemented in the region, there is little awareness of these success stories. Aside from highlighting success stories from within the organization, the hub could also be expanded to highlight successful innovations from other jurisdictions performing similar business functions. For example, seeing a posting about successful implementation of a new procurement idea somewhere else in the world may spark someone in PSPC PR to identify a similar idea that can be implemented locally.

The Innovation Station would be located on the Intranet. The level of time and effort required for Strategic Management would be low and the option would require a month of lead time to implement. The bulk of the work for Strategic Management would be for gathering stories and obtaining information from other parts of government. This would require two hours a month of research. This option will also require help from other teams such as Communications or Digital Services that have the technological capacity to place this information on the Intranet. Content for the Innovation Station would include:

- Information on government wide, departmental, and regional initiatives promoting innovation, such as how to participate and updates on the development process and status of these initiatives
- Highlight success stories within the region, which may include interviewing the teams who developed and implemented the successful innovation and sharing the lessons learnt
- Highlight success stories from other jurisdictions by using scanning tools to identify similar organizations across different levels of government and how they improved the way they deliver services or served clients through innovative transformations

Comparing the Options

The four options were evaluated against the aforementioned criteria. Table 1 summarizes the results, which will be followed by a detailed explanation below.

Table 1- Evaluation of Options

Criteria	Option 1 Plan with innovation in mind	Option 2 Develop innovation competencies	Option 3 Innovation champions/ innovation network	Option 4 Innovation Station
Increase Collaboration	Low	Medium	High	Low
Break Firm Inertia	High	Low	Medium	Low
Increase Awareness of Innovation Activities	Medium	Low	High	High
Create opportunities for ideas to reach larger audiences	Medium	Low	High	Medium
Less "ad-hoc" approach to innovation	High	Medium	High	Medium
Time & resources required from client	Medium	High	Medium	Low

Option 1: Plan with innovation in mind – This option would have a low impact on increasing collaboration, as the planning process takes place at the branch level and only branch specific opportunities will be identified. The option will have a high impact on breaking firm inertia and providing a less ad-hoc approach to innovation, as including innovative ideas into the planning process may allow for more time and resources to be devoted to these activities and systemize the process by adding reporting accountability. There will be a medium impact on the awareness of innovation activities and the opportunity for ideas to reach larger audiences as these plans are not widely circulated or viewed outside of the branch.

Option 2 Develop innovation competencies – This option would have a medium impact on increasing collaboration and creating a less ad-hoc approach to innovation. The skills developed through this option, such as data literacy, storytelling and iteration, would be useful in addressing these barriers by teaching employees how to share ideas and approach the innovation process in a systemic way. The skill development would focus on individuals, so the immediate impact on high level barriers that require more organizational level structural changes such as increasing awareness of innovation activities, creating opportunities for ideas to reach larger audiences, and breaking firm inertia may not be immediately evident despite the fact that these skills could indirectly impact these barriers.

Option 3 Innovation champions/innovation network – The creation if this network could be extremely effective at breaking down collaboration issues by having the ability to bring ideas up to a larger audience at the leadership table. The champions will also be able to communicate information downwards within their branch as well, bringing information to their colleagues on new innovation activities and updating them on the status of current ones. This information on innovation activities may decrease the current apathy and increase participation. By being able to bring these ideas up to the senior leadership through a defined avenue, this option will have a large impact on creating a less ad-hoc approach to innovation. Finally, this option also has the potential to have a medium level of impact on breaking firm inertia, as senior leadership will be able to hear about innovative ideas and have the opportunity to plan and allocate time and resources towards them.

Option 4 Innovation station – The main benefit of this option will be the impact it has on reducing the barrier related to a lack of awareness of innovation activities. The creation of a centralized location for information regarding innovation will do little to impact collaboration, breaking firm inertia, or bringing ideas to larger audiences. The option will have a medium impact on creating a less ad-hoc approach to innovation, as taking time to develop a dedicated resource will add legitimacy to the organizations commitment to prioritizing innovation.

Recommendation: Option 3 Innovation Champions/Innovation Network

Given this evaluation, Option 3 is recommended as it has the highest impact on the barriers identified in this research. It is the most effective at increasing collaboration and at creating opportunities for ideas to reach a larger audience. These two factors are critical for helping larger scale innovations become successful. Being able to understand the work of others and recognize the areas where collaboration among teams is possible was one of the most frequently mentioned ways of facilitating innovation. Having senior management support for cross branch collaborations and the creation of "internal consultancy" groups would meet many of the

participant concerns. This option is also the best for providing a more systemic and clear way for innovations to move forward and create a less ad-hoc approach to innovation. This option will open the door for increased awareness and participation in initiatives that promote innovation at the regional, departmental, or government wide level by providing straight forward methods of communicating these initiatives. Finally, this option would have a medium cost to the client, as the amount of time and resources required for the client to implement are limited.

Implementation Plan for Option 3

A detailed implementation plan for Option 3 has been detailed in this section. The implementation of this recommendation requires three separate stages. Each stage and associated tasks are outlined below (Table 2).

- **Stage 1:** Preparation for implementation will require the executive team to be presented with the findings of this research and given an opportunity to review and approve the recommended approach
- **Stage 2:** Development of the network would require the identification of individuals and the definition of rules and responsibilities
- **Stage 3:** Implementation of the recommendation and evaluation of the initial impacts of this recommendation to allow for any changes necessary to be made moving forward.

Table 2 – Implementation plan

Stage	Tasks	Date
Stage 1 Preparation	• Review the research project and its associated findings • Prepare presentation to executive committee	Month 1
	• Present to executive committee • Seek approval for creation of innovation network	Month 2
Stage 2 Development	• Identify potential branch Innovation Champions • Contact them and ask if they are interested, finalize members	Month 3
	• In collaboration with the network, define the roles and responsibilities of each individual. • Assist in the development of Terms of Reference for the network, including purpose, meeting schedule, membership, and any other necessary information	Month 3-5
Stage 3 Implementation	• Assist Champions in getting message out to branch members about the network and its function • Network reports to executive committee for first time • Review results of PSES to see impact of the network on facilitating innovation	Month 6-12

10. CONCLUSION

The purpose of this research was to identify the specific barriers present in PSPC PR that have been hindering the ability of the organization to innovate. Through interviews and a literature review, evidence was collected that concluded the following barriers existed: a lack of collaboration, an "ad-hoc" approach to innovation, the absence of a platform for ideas to reach larger audiences, a lack of awareness of existing initiatives that promote innovation, and a short term approach to planning. The conclusion of these findings was that larger scale, enterprise-wide innovations are harder to implement. To address this, it was recommended that the organization develop an innovation network consisting of branch innovation champions. The creation of this network will create a clear path for ideas to move forward and create a culture were all staff who wish to do so are aware of and actively participate in the innovation process.

Further studies may wish to explore how structural barriers to collaboration between the public and private sector can be reduced. While the recommendations of this report allowed for a more networked approach to innovation through collaboration with other employees within the organization, there is a great potential in collaboration with the private sector to tackle some of the organizations challenges. This could include a look into how a move towards open-source data could be used to foster innovation within the public service. As a department that is mandated to perform work that involves frequent interactions with the public, this opportunity is particularly relevant for PSPC.

Future research may also want to look into how organizations deal with perceived two-tiered environments between centralized decision making within headquarters and the operational nature of regional or satellite offices. Suggestions as to how decision making can be more spread out and decentralized could be beneficial for many regional offices such as PSPC PR and help unleash innovative ideas throughout the organization.

While there is no secret ingredient to creating innovative organizations, the steps outlined in this research may shed some light on how gradual progress can be made towards creating an organizational culture where innovation is encouraged, individuals feel confident to present their new and exciting ideas, and there is widespread support in the form of time and resources for large scale projects that can have a sizable positive impact on society.

REFERENCES

Altshuler, A.A., Zegans, M.D. (1997). 'Innovation and Public Management: Notes from the State House and City Hall.' In Innovation in American Government: Challenges, Opportunities, and Dilemmas, Washington, DC: Brookings Institution Press.

Ancona, D. G. & Caldwell, D. F. (1992). Bridging the boundary: External activity and performance in organizational teams. Administrative Science Quarterly, 37, 634–665.

Ansell, C., and Gash, A. (2012). Stewards, Mediators, and Catalysts: Towards a Model of Collaborative Leadership. Innovation Journal 17(1): article 7

Armenakis, A. & Bedeian, A. (1999). Organizational change: A review of theory and research in the 1990s. Journal of Management, 25 (3), 293–315.

Aucoin, P. (1990). "Administrative reform in public management: paradigms, principles, paradoxes and pendulums." Governance 3 (2):115-137.

Australian Public Service Commission [APSC]. (2010). Empowering Change: Fostering Innovation in the Australian Public Service. Retrieved from https://www.apsc.gov.au/sites/g/files/net5296/f/empoweringchange.pdf

Bhoovaraghavan, S., Vasudevan, A., & Chandran, R. (1996). Resolving the Process vs. Product Innovation Dilemma: A Consumer Choice Theoretic Approach. *Management Science*, *42*(2), 232–246. Retrieved from JSTOR.

Bason, C. (2010). *Leading public sector innovation co-creating for a better society*. The Policy Press

Berg, B. L., & Lune, H. (2018). *Qualitative research methods for the social sciences*. Boston: Pearson.

Borins, S. (1998) Innovating with Integrity: How Local Heroes are Transforming American Government, Washington, DC: Georgetown University Press.

Borins, S. (2000). Public service awards programs: an exploratory analysis. *Canadian Public Administration*, *43*(3), 321–342. https://doi.org/10.1111/j.1754-7121.2000.tb01851.x

Borins, S. (2001). Encouraging innovation in the public sector. Journal of Intellectual Capital 2, 310–319.

Burns, T. & Stalker, G. M. (1994). The management of innovation. Oxford: Oxford University Press.

Cinar, E., Trott, P., & Simms, C. (2018). A systematic review of barriers to public sector innovation process. *Public Management Review,21*(2), 264-290. doi:10.1080/14719037.2018.1473477

Cuthill, Michael. "Exploratory Research: Citizen Participation, Local Government, and Sustainable Development in Australia." Sustainable Development 10 (2002): 79-89

de Vries, H., Bekkers, V., & Tummers, L. (2016). Innovation in the Public Sector: A Systematic Review and Future Research Agenda. *Public Administration*, *94*(1), 146–166. https://doi.org/10.1111/padm.12209

Desouza, K. C., Dombrowski, C., Awazu, Y., Baloh, P., Papagari, S., Jha, S., & Kim, J. Y. (2009). Crafting organizational innovation processes. *Innovation*, *11*(1), 6–33. https://doi.org/10.5172/impp.453.11.1.6

Dumay, J., Rooney, J., & Marini, L. (2013). An intellectual capital-based differentiation theory of innovation practice. Journal of Intellectual Capital, 14(4), 608– 633. doi:10.1108/JIC-02-2013-0024

Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2006). New Public Management Is Dead: Long Live Digital-Era Governance. *Journal of Public Administration Research and Theory: J-PART*, *16*(3), 467–494. Retrieved from JSTOR.

Eggers, W. D. & Singh, S. K. (2009). Harvard Kennedy School, & ASH Institute for Democratic Governance and Innovation.*The public innovators playbook: Nurturing bold ideas in government*. Deloitte Development LLC.

Ernest and Young. (n.d.). Public sector innovation From ideas to actions. Retrieved from https://www.ey.com/Publication/vwLUAssets/EY-innovation-public-sector-en/$FILE/EY-innovation-public-sector-en.pdf

ERR. (2018). Estonia, Canada sign digital cooperation agreement. Retrieved February 22, 2019, from ERR website: https://news.err.ee/836025/estonia-canada-sign-digital-cooperation-agreement

Francis, D; & Bessant, J. (2005) "Targeting innovation and implications for capability development".

GCPedia. (2018). Process Improvement Challenge. Retrieved from http://www.gcpedia.gc.ca/wiki/Innovation_Zone/Process_Challenge.

Gilbert, C. (2005). Unbundling the Structure of Inertia: Resource versus Routine Rigidity. The Academy of Management Journal,48(5), 741-763. Retrieved from http://www.jstor.org.ezproxy.library.uvic.ca/stable/20159695

Government of Canada. (2010.). Employee Innovation Program. Retrieved from

https://www.tbs-sct.gc.ca/faq/eip-pie-eng.asp

Hadjimanolis, A. (2003). The Barriers Approach to Innovation. *The International Handbook on Innovation* (pp. 559–573). https://doi.org/10.1016/B978-008044198-6/50038-3

Hauschildt, J. (2003). Promotors and Champions in Innovations: Development of a Research Paradigm.

Hartley, J. (2005). Innovation in Governance and Public Services: Past and Present. Public Money & Management. 25. 27-34. 10.1111/j.1467-9302.2005.00447.x.

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

Howell, J. M. & Higgins, C. A. (1990). Champions of technological innovation. Administrative Science Quarterly 35, 317–341.

Innovation Hub. (2016). Experimentation direction for Deputy Heads - December 2016. Retrieved from https://www.canada.ca/en/innovation-hub/services/reports-resources/experimentation-direction-deputy-heads.html

Innovation Hub. (2018). Theory of Change for the Impact and Innovation Unit. Retrieved from https://www.canada.ca/en/innovation-hub/services/blog/iiu-theory-change/theory-change-impact-innovation-unit.html

Koch, P., Cunningham, P., Schwabsky, N. & Hauknes, J. (2006). Innovation in the Public Sector. Publin Report No. D24 Summary and policy recommendations

Lavrakas, P. J. (2008). Encyclopedia of survey research methods Thousand Oaks, CA: Sage Publications, Inc. doi: 10.4135/9781412963947

Lindquist, E. & Desveaux, J., (1998). Recruitment and Policy Capacity in Government. Ottawa: Public Policy Forum

Madanmohan, T. R. (2000). Failures and Coping Strategies in Indigenous Technology Capability Process. *Technology Analysis & Strategic Management*, *12*(2), 179–192. https://doi.org/10.1080/09537320050003869

Marin, H.J.L., Bermejo L.R. (2015) External sources for innovation in public organizations, The Service Industries Journal, 35:13, 710-727, DOI: 10.1080/02642069.2015.1079817

McKinsey and Company. (2009). Enduring Ideas: The three horizons of growth. Retrieved from: https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/enduring-ideas-the-three-horizons-of-growth

Moore, M., & Hartley, J. (2008). Innovations in governance. *Public Management Review*, *10*(1),

3–20. https://doi.org/10.1080/14719030701763161

mySource (2018). Strategic Management. Retrieved from: http://pacific.pwgsc.gc.ca/services/cssmc/strat-man

Organization for Economic Cooperation and Development: Observatory of Public Sector Innovation [OECD:OPSI]. (n.d.). What's possible? Finding and filtering innovative ideas. Retrieved from https://www.oecd.org/media/oecdorg/satellitesites/opsi/contents/files/OECD_OPSI_GeneratingIdeasStudy_Alpha.pdf

OECD. (2017). CORE SKILLS FOR PUBLIC SECTOR INNOVATION. Retrieved from https://www.oecd.org/media/oecdorg/satellitesites/opsi/contents/files/OECD_OPSI-core_skills_for_public_sector_innovation-201704.pdf

Paarlberg L., Perry J. and Hondeghem A. (2008). From Theory to Practice: Strategies for Applying Public Service Motivation. In Perry J. and Hondeghem A. Motivation in Public Management: the Call of Public Service. Oxford: Oxford University Press

Page, S., (2010). Integrative Leadership for Collaborative Governance: Civic Engagement in Seattle. Leadership Quarterly 21(2): 264-63

Public Services and Procurement Canada [PSPC]. (2017). 2017 to 2018 Departmental Plan – Reports - PSPC. Retrieved from https://www.tpsgc-pwgsc.gc.ca/rapports-reports/pm-dp/2017-2018/index-eng.html

PSPC. (2018). 2017 to 2018 Departmental Results Report Public Services and Procurement Canada. Retrieved from https://www.tpsgc-pwgsc.gc.ca/rapports-reports/documents/rrm-drr/2017-2018/rrm-drr2017-2018-eng.pdf

PSPC. (2018). About Public Services and Procurement Canada. Retrieved from https://www.tpsgc-pwgsc.gc.ca/apropos-about/prps-bt-eng.html

Rogers, E. M. (1983). *Diffusion of innovations* (3rd ed). New York : London: Free Press ; Collier Macmillan.

Schoop, J., Alan, H., Eggers, W.D. (2018). Secrets to scaling innovation government organizations | Deloitte Insights. Retrieved from https://www2.deloitte.com/insights/us/en/industry/public-sector/innovation-in-government-organizations.html

Straus, D., (2002). How to Make Collaboration Work: Powerful Ways to Build Consensus, Solve Problems, and Make Decisions. San Francisco. Berrett-Koehler.

Suzuki, K., & Demircioglu, M. . (2017). (PDF) Assessing the Impact of Weberian Bureaucracy and New Public Management on Innovation. Retrieved from https://www.researchgate.net/publication/316135266_Assessing_the_Impact_of_Weberian_Bureaucracy_and_New_Public_Management_on_Innovation

Thompson, J., Sanders, R. (1997). 'Strategies for Reinventing Federal Agencies.' Public Productivity and Management Review 21(2):137–155.

Treasury Board Secretariat [TBS]. (2018). 2018 Public Service Employee Survey Results for Public Services and Procurement Canada. Retrieved from https://www.tbs-sct.gc.ca/pses-saff/2018/results-resultats/bq-pq/07/index-eng.aspx

Walker, R. M. (2014). Internal and External Antecedents of Process Innovation: A review and extension. *Public Management Review*, *16*(1), 21–44. https://doi.org/10.1080/14719037.2013.771698

Windrum P (2008). 'Innovation and entrepreneurship in public services', in Windrum P and Koch P (eds) 2008 Innovation in public sector services: entrepreneurship, creativity and management, Edward Elgar Publishing Limited, Cheltenham, 3–20

APPENDIX A INTERVIEW QUESTIONS

1. Can you tell me a little about your work and your role on your team?

2. What sort of challenges does your program area have that could be potential areas that would benefit from innovation?
    i. What do you think has prevented innovation in this area from happening?

3. What innovations are you aware of that have taken place in your unit/branch, where they successful or unsuccessful
    i. Where did this idea come from? Internally within the team or were external partners involved?
    ii. Was there a conscious decision to innovate (we planned that we needed to change this/we need to create this) or did the innovation sporadically occur (individual came up with an idea or it was in response to a crisis)?
    iii. Was there resistance to this new innovation?

4. What do you think the barriers to innovation were? Were they overcame and if so how?

5. Do you think your current workplace (management, executives) encourages innovation? Do you think that this regional group is less or more innovative than other places you have worked before?

6. Are you aware of any initiatives that are promoting or encouraging innovation within your team/branch/the region/government wide? Do you think they are working?

7. Do you think you have been given the proper training, tools and resources to recognize and act on opportunities for innovation?

APPENDIX B RECRUITMENT E-MAIL

From: Baggio Ma
To: Participant
Subject: Research on barriers to innovation at PSPC Pacific Region

Hello, I am a Master's of Public Administration student at the University of Victoria. As part of my degree I am required to complete a Master's Project. My project is being completed for a client – Deirdre Liebrandt-Johnson and the Strategic Management team of Public Services and Procurement Canada in the Pacific Region. The title of my research is Strategies for Removing Barriers to Innovation at Public Services and Procurement Canada Pacific Region.

The purpose of this research is to better understand the factors that are impeding innovative ideas from becoming successful in the region and to develop a more conscious and systemic approach to innovation. While there is ample research on barriers to public sector innovation as a whole, this project aims to specifically identify how, where, and why barriers to innovation occur within PSPC Pacific Region

I am wondering if you would be willing to take part in a 30-minute interview to discuss past or present attempts at innovation you have been a part of and what the factors that led to the success or failure of these ideas. You are being asked to participate in this study because you have been involved in previous or current attempts at innovation and will be able to provide valuable insight into the innovation process.

Attached to this e-mail is a consent form that will allow you to learn more about the nature of your participation and formulate any questions they may have. A physical copy will be made available at the interview for you to sign. If you have any questions, please feel free to email me back or call me at [phone number].

Thank you,

Baggio Ma
University of Victoria MPA Candidate