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PUBLIC SERVICE INNOVATION AS A SOURCE OF RISK: AN EXPLORATIVE CASE STUDY FROM POLAND

Abstract

The relationship between risk and innovation in the sector of public services has gained little attention and remains mainly only outlined theoretically with very few empirical insights. This paper presents a case-based exploration of cultural public service innovation as a source of risk. The collected evidence demonstrates the complexity of the relations between innovation and risks and the interrelations between risk types. As a result, a refined framework of risk management styles is proposed. The new framework outlined in this article merges the two former theoretical contributions known from the literature and offers possible practical implementations.

Keywords: innovation, public service, risk management, cultural service, case study

Streszczenie

Innowacje w usługach publicznych jako źródło ryzyka: eksploracyjne studium przypadku z Polski

Zależności między ryzykiem a innowacjami w usługach publicznych poświęcono niewiele uwagi i ta relacja pozostaje zarysowana głównie teoretycznie, z niewielką liczbą spostrzeżeń popartych badaniami empirycznymi. W artykule przedstawiono analizę przypadku dotyczącą innowacji w usługach kulturalnych jako źródła ryzyka. Zebrany materiał ukazuje złożoność relacji pomiędzy innowacją a rodzajami ryzyka oraz wzajemne powiązania pomiędzy rodzaja-

mi ryzyka. W rezultacie zaproponowano udoskonalone ramy koncepcyjne stylów zarządzania ryzykiem. Ramy te, zarysowane w artykule, łączą dwie wcześniejsze propozycje teoretyczne opisane w literaturze oraz określają implikacje dla praktyki.

Słowa kluczowe: innowacja, usługi publiczne, zarządzanie ryzykiem, usługa kulturalna, studium przypadku

Introduction

Improving public administration and public service delivery through innovation has become a widely accepted and pursued notion in public sector reform, both in Anglo-Saxon countries with a long history of NPM and Governance experience [Hughes, Kataria Moore, 2011; Kinder et al., 2015; Pinto, 1998] and also in European countries from the post-communist block] or in Africa [Rugumyamheto, 2004]. Even though risk is recognised as central to successful innovation processes in both business and public sectors [Borins, 2002; Singh, 1986] the debate on the relations between innovation and risk was initiated only relatively recently [Brown, Osborne, 2011]. The seminal studies by Brown and Osborne [2013] and Flemig et al. [2016] probably provide the first theoretical frameworks that conceptualise how risk and uncertainty are linked to various types of innovation and to hard and soft risk management approaches in the public sector. These frameworks outlined the general research agenda and addressed an urgent practical problem: when to use hard and when to use soft risk management strategies. Conceptually, they link particular strategies to particular innovation types.

Although the debate has started, the field remains significantly underexplored and demands empirical investigations. Within this vein, Dudau et al. [2017] have already found that educational service consumers and professionals are likely to perceive consumer-led innovation and professional-led innovation as successful, respectively. Their study suggests that public service innovations have a complex relation with consumer risk. Another approach examined in details barriers to innovation related with public sector staff [Vassallo et al., 2023].

This paper reports an explorative case study [Yin, 2003] that was conducted to reveal the organizational risks to which public service innovation contributes [cf. Brown, Osborne, 2013], and what role this kind of innovation plays in such relations. A better understanding of innovation as a source of risk is necessary to develop the framework of their mutual relations and indicate more detailed implications for practice.

Relations between innovation and risk – the main approaches

The debate on the relations between innovation and risk was initiated by Osborne and Brown [2011], and the line of argumentation has been evolving ever since. In

the initial paper they expressed criticism of the current state of knowledge and risk management practices and argued for risk governance as an option that is much better aligned to the specificity of public services which require participation in co-production and public policy. Moreover, they highlighted the lack of practical guidelines for risk management in public service innovation [Brown, Osborne, 2011]. Next they developed a holistic framework for risk governance in innovation in public services by combining innovation types and risk management modes [Brown, Osborne, 2013]. Subsequently, an alternative and more streamlined framework integrated the two types of risk management (hard and soft) with risk and uncertainty [Flemig et al., 2016]. The innovation types proposed originally by Osborne [1998] have found their locus within the framework; each type of innovation was assigned to either risk or uncertainty and to either hard or soft risk management [Flemig et al., 2016]. This most comprehensive and up-to-date study also suggests three types of relations between innovation and risk.

The first type perceives risk as a source of innovation. In this vein, Palermo [2014] suggests that organizational innovation may result from the activity of risk managers. In turn, Andreeva et al. [2014] concept of ‘knowledgeable supervision’, which embraces less strict and regulatory risk management, implies that such risk governance might support innovation.

The second type approaches risk as factors that negatively affect the process of innovation. Risk management means handling risk during the innovation process in order to reduce the potential hazards which may interrupt successful implementation [Bowers, Khorakian, 2014]. It encompasses various obstacles to innovation in the public sector [e.g. Borins, 2000; Glor, 2001; Manley, 2002]. In his seminal paper, Borins [2000] grouped the obstacles into three categories: bureaucracy, political environment, and the environment outside the public sector. Generally, these categories have been used by others in subsequent studies and supplemented in detail [Teofilovic, 2002]. Manley [2002] distinguished risks from other impediments, namely inadequate resources, inadequate incentives, and bureaucratic organisational culture. In her study, risk is associated with criticism of innovation from various stakeholders, including media, staff, policymakers, and citizens, whereas bureaucratic organizational culture embraces risk aversion among staff and managers. Several studies also pointed to risk aversion as an important obstacle to change and innovation [Borins, 2000; Teofilovic, 2002; Xie, 2016]. Many of the incentives that motivate innovation [Glor, 2001] can turn into hindrances if not provided. The recent systematic literature review identified that the nature of barriers differs in the innovation process and innovation types [Cinar, Simms, Trott, 2019]. In turn, the study by Vassallo et al. [2023] showed that individuals are more likely to implement their innovative ideas if they have higher cognitive empathy and risk-taking propensity, but lower emotional empathy.

The third type sees risk as a result of innovation. A business-related example that applies to some extent in the public sector pertains to the negative

consequences of disruptive innovation [Christensen, 1997; Christensen, Hwang, 2008]. Another example is related to the potential cost of being responsible for the failure of an innovative project and the ‘blame game’ that goes with it in a political context [Fleming, 2015; Hood, 2002], especially when innovations undergo media scrutiny and public transparency procedures [Hartley, 2013: 54]. Failure of an innovation incurs a waste of all sorts of costs (financial, time, power, etc.). The most recent study of educational services revealed that the perception of innovation outcomes depends heavily on the perspective of the stakeholder [Dudau et al., 2017]. Some explanations for the lack of more advanced recognition of the adverse effects of innovation on organizations stem from the fact that risk and negative aspects are neglected in official reports. The European Public Sector Innovation Scoreboard 2013 focuses on innovation outcomes for innovators, business performance, and government procurement [Hollanders et al., 2013]. The Australian Public Sector Innovation Indicators Project (APSII) takes into account intangible outputs and outcomes, such as societal and environmental impacts, quality, efficiency and productivity, improved employee satisfaction, benefits for users, and other intangible effects (e.g. trust and legitimacy), and the effects of innovation [Australian Government, Department of Innovation, Industry, Science and Research, 2011]. However, NOA [2000: 5] reports that lack of innovation may be a source of risk for an organization, especially in terms of missed opportunities to improve the delivery of objectives.

The summary of the reviewed literature clearly shows that although risk as a result of public service innovation is a significantly underexplored area, it is relevant in terms of the practical application of risk management and risk governance strategies. Considering the theoretical development and suitable application needs expressed by Flemig et al. (2016), the basic motivation for this study was to better understand innovation as a source of risk on the basis of empirical exploration.

Context of the case study: Public service innovations in culture centre

The study investigated the case of a culture centre (The Researched Culture Centre, RCC) which, due to the topic of research and the need for privacy, remains anonymous (see the methodology subsection). RCC was founded in 2012 by a local government in Poland and began to operate in 2013. In terms of staff, the centre is a small public service organization. At the end of 2013, RCC had the equivalent of 6.15 full-time contracts; this rose to 9.6 in 2014. Importantly, not all of the RCC staff were employed on full-time contracts: some worked part-time, and some were interns from the employment office.

RCC is located in a 19th century palace surrounded by a 8 hectare park. The interior was totally renovated in 2010–2012, but not the facade. It has two stair cases and an elevator for the disabled. An exhibition space is located on

the ground floor (5 big rooms, 3 small rooms) and on the first floor (4 rooms). There are also offices on the first floor, while utility rooms are located mostly in the basements. There are sanitary facilities on the ground and first floor. Next to the building there is a car park. The palace and utility buildings in the park are registered as national heritage. Analysis of the annual reports indicates an increase in the attendance rate from 10,000 in 2013 (mainly due to a big outdoor event) to 11,389 in 2014. The annual budget of the RCC is around 750,000 PLN (€ 180,000). The main source of income is a subsidy from the local government, which is also the founding and supervising body of RCC and the owner of the palace and park.

We chose RCC (a recently founded organization) in order to minimize the potential influence of factors other than service innovation. This is important because the history of an organization impacts the way it operates [Nadler, Tushman, 1982]. Moreover, the first initial phase of the organizational life cycle is deemed the most innovative [Cameron, Quinn, 1983], thus implying that the services offered in the first year are considered innovative. This refers to total innovation, which not only embraces changes which are ‘new to the organization, and which serves a new beneficiary group’, but also means ‘the creation of a new organization itself’ [Osborne, 1998: 23]. In the case of the researched culture centre, its first year of activity was 2013, when various services were introduced, including art exhibitions, guided tours of the palace, photography workshops, photography competitions, lectures hosted by other organizations, and club meetings. In turn, in RCC’s second year, total innovation also included a bike rally. As one of the interviewees described it:

One new offering was the sports, for example the bike rally. It was a new thing... firstly, it enriched our offer, and secondly it reached a new audience, people who had never been here before.

Other service innovations implemented by RCC either introduced novel changes to existing services or offered existing services to new audiences. Thus, they may be regarded as evolutionary or expansionary innovations, respectively [cf. Osborne, 1998: 23]. Evolutionary innovations embraced live music concerts (according to the Chronicles the first concert was in January 2014) and a history education event – a new offer to the existing audience interested in history. The second edition of this event in 2015 is considered an expansionary innovation because the same service was offered, but with a new partner and attracting a new audience. Another expansionary innovation was a visual art exhibition presented to various new audiences in many institutions around two neighbouring regions of Poland. The exhibition was novel in terms of aesthetics and audiences, but the form of presentation was not new [cf. Zolberg, 1980]. Developmental innovations ‘where the existing services of an organization to its existing beneficiary group are modified or improved’ [Osborne, 1998] have been excluded from analysis.

Methodology

The aim of this paper was to identify the organizational risks that result from innovation in public cultural services or are affected by such innovation. Research questions encompass: what are the organizational risks that innovation in public cultural services contributes to, and what is the nature of this contribution.

Due to the nature of the problem and its very modest recognition in the literature [Flemig et al., 2016], we applied an explorative case study [Yin, 2003]. This case study provides the especially needed real-life perspective on the relations between innovation and risk [Van Thiel, 2014]. A similar approach in this context was applied by Palermo [2014].

The study had two phases. First, we started with analysis of organizational documents encompassing annual reports, financial statements, and the actual territorial self-government (TSG) strategy for cultural development. Additionally we conducted a survey among full-time staff ($n = 5$) using a specially developed questionnaire consisting of 66 indicators based on a framework already used in previous studies that investigated the diverse effects of innovations in cultural organizations [Lewandowski, 2013]. We used Osgood's semantic differential scale but allowed the respondents to indicate both positive and negative impacts of service innovations in order to avoid a situation in which a positive effect cancels out a negative one. In fact, in some cases the respondents indicated negative and positive impacts for the same factor. The questionnaire was conducted in January 2015. It allowed us to get satisfactory initial insights into the effects potentially caused by service innovation. These findings were used in the subsequent phase to inform the semi-structured interviews that were conducted with the same employees of the organization, including the director, accountant, program department manager, and secretary. The interviews, approximately 30–60 minutes long, were recorded and transcribed. Then, we analysed the interviews independently and coded the data on the basis of organizational risk types borrowed from Harland et al. [2003]. However, we used the term 'operational risk' instead of 'operations risk'. Discrepancies were discussed until the best interpretations of the interviewees' statements were agreed. To get additional confirmation of the results, the organization's annual reports were analysed for visual or textual information supporting the identified risk types [Konecki, 2005]; this encompassed analysis of text (216 pages) and photographs (460 pictures). Additionally, we used information from informal conversations with the staff. The coding and analysis of interviews and visual/textual data was supported by Atlas.ti software. All data was collected and analysed in Polish, after which we translated the reported data.

As already indicated, the case is presented anonymously for reasons of confidentiality. Therefore, not only was the name of the culture centre not revealed, but also the names of some sources used in the research are not labelled with the appropriate full titles (local government's cultural development strategy, the chronicles, annual reports, financial statements). This anonymity is motivated

by serious ethical concerns. The study investigated the negative impact of innovation and revealed sensitive information regarding staff and audience safety issues, areas of possible violation of laws, and the internal problems of the institution, all of which could also damage relations between the RCC and local authorities (the founding body). Moreover, as the research comprises only the negative aspects of innovation, this may somehow distort the image of RCC. It must be emphasized that the positive results outweighed the negative aspects, and the RCC operates very well also due to the implemented innovations.

Findings from the study

Analysis of the gathered data revealed several types of organizational risk to which service innovations caused or contributed.

Operational risk

The empirical evidence revealed that all service innovations in 2014 reduced the internal ability to deliver services, mainly due to staff absenteeism and overwork; therefore, operational risk also increased. The increased number and complexity of tasks related to the new offer contributed to temporary work overload and increased overtime. Giving time off in lieu with such a small team simply disrupted communication between employees and reduced idle capacity for preparation of another events. As the director put it:

In fact, roles were assigned before the event and meetings were held almost every day. As a matter of fact, during the event I needed all employees but only a few were available. When only one link fails, problems occur. Moreover, after the event I needed to give these people time off in lieu. If there is another event coming, well, the risk of problems increases.

Operational risk was leveraged by stricter labour regulations pertaining to workers with disabilities. Especially impactful regulations concern restrictions related to physical working time, breaks, overtime, time off in lieu.

as a disabled worker I am not allowed to work more than 7 hours per day within 5 consecutive days...

In turn, lack of knowledge, experience, or procedures due to the novelty of tasks related to the bike rally in 2014 also led to an increase in the number of hours worked. The staff had no relevant procedures or routines:

This offer led to a lot of bureaucratic elements: queries to the police about the possibility of overloading public roads, assuring health and safety standards, selecting leaders of the rally. You know, taking care of the entire course, someone must be at the beginning, one in the middle, one at the end. Not to mention preparing the over-

all strategy of this rally, processing applications, distributing t-shirts and meals, etc. Because this is a cultural institution that is principally engaged in exhibitions of the visual arts, this event was something absolutely new that required something other than the standard exhibition preparation processes.

Moreover, in 2013 the exhibition openings were combined with seated concerts. The many tasks involved required not only the engagement of all staff during the event but also many meetings and analyses beforehand. The director expressed it as such:

It is necessary to have employees on the spot who can immediately respond to situations; e.g. if there are elderly people without seats, we need to bring chairs from the ground floor. These employees must also set up the stage, do the lighting, etc. During the event, basically all employees are needed. Furthermore, we need to ensure that the concert does not overshadow the opening of the exhibition. This necessitates numerous meetings and analyses before the opening.

Similarly, because tickets were sold both in advance and on the door, seating the guests in appropriate positions required many meetings and analyses of different options. This took more time than expected:

For instance, in terms of the organization of paid concerts (...) some people have made prepayments, while others collected their tickets on the door. It was necessary to assign names to places. These people had to be seated in the order in which they bought tickets, so those who booked first got the best places. It is possible, but it was associated with a lot of meetings and analysis.

Nevertheless, once routines had been established the risk was mitigated:

Once we had learnt how to organize an event, staff knew what to do and when, e.g. they didn't ask me how to arrange the chairs anymore, they just asked for how many people.

Additionally, the new cultural services offered by RCC in 2014 – the bike rally, the first edition of the history education event, the concerts, the artistic derby – all contributed to the staff being overworked. This was caused not only by offering services at weekends and in late afternoons, but also by the intensive preparations required before events. Although time off for overtime was given, the workload was imbalanced and sometimes caused exhaustion. The employee least involved in the artistic activity of RCC (the accountant) noticed that:

(...) sometimes people physically couldn't cope.

However, from the perspective of the director, the most exhausting period was 2013:

The beginning demanded almost total commitment. Actually, from my perspective, in 2013 I could have moved in and lived here.

Legal risk

Empirical evidence revealed that service innovations in 2013 (mainly the art exhibitions) might have increased the probability of litigation due to copyright infringements. However, as the director emphasized, there were rigorous procedures to prevent this:

Yes, yes, they were associated with risk, but this was compensated for by a well-constructed contract in which the author provides art works for us and allows them to be filmed and photographed for a particular purpose and used in materials for specific purposes. So, our rights must be protected, but of course there is such a risk.

This issue also pertains to live music concerts in 2014. As one member of the RCC's Program Department noticed:

If we host a concert, I need to learn how ZAIKS¹ works. I must acquire new knowledge on the topics required by new services.

Moreover, due to the new services offered in 2013 and the planned new services in 2014, new information channels were prepared in 2014 to better inform citizens about the cultural program of RCC. The information boards in front of the building were eventually installed in 2015, but the whole process started a year earlier. Because the building has historical heritage status, the installation of charts required special designs and special permissions, agreements, and other confirmations. If improperly administrated and processed, the issue might have ended up in court due to the breaching of heritage regulations.

We wanted to install information boards, just like those found in front of other cultural institutions, with posters, placards, etc. This requires a whole pile of documents: design, permission of the heritage conservator, all contracts related to the fact that I have the right to represent the institution, etc. (...) Of course, there is a risk of error.

In a similar vein, the new services in 2013 and 2014 indirectly conflicted with the need to take care of the park where RCC is located, as this was also the statutory obligation of RCC. Gardening work uncovered some old and heavy (but not heritage) fence components. The decision was to sell the scrap metal immediately as there was no other use for it and the RCC budget was short (confirmed by the annual financial statement). There was a need to tidy the park due to upcoming events and the increased attendance, so the director decided to unload the truck

¹ ZAIKS is the biggest Polish copyright agency, managing the copyrights on behalf of the artists.

with the help of a staff member. This exposed them to potential hazards related to carrying heavy objects. Thus, the innovations indirectly increased the potential for litigation in the case of injury:

I had to go to the scrapyards myself; I had no employees. I went with one of the employees to carry the scrap. Really large pipes (...) that can damage the spine or detach the retina.

In turn, the risk of breaching labour regulations regarding time off and working hours increased as some of the new events did not have exact closing hours, especially the history education event and the bike rally, but also the artistic derby and – to a lesser extent – the live concerts. Additionally, the risk was leveraged by reduced working time due to disabilities in the case of some employees. As the director pointed out:

Organization of events which are usually held on Saturday and Sunday afternoons is associated with the need to find a formula for giving time off in lieu while not exceeding the limits imposed by labour laws. (...) We make a roster, but the reality is different; e.g. an employee is scheduled for an event up to 8 pm but must stay till 9.30 pm, well, because this is the situation, simply.

Reputation risk

Empirical evidence revealed that one service innovation in 2013 and the history education event in 2014 directly increased risk to the reputation of the organization because these events were overcrowded beyond capacity. This resulted in a situation in which it was difficult for attendees to breathe. As one staff member stated:

Twice, the success overwhelmed us. (...) We counted more than 200 people, which meant we had to open windows for safety reasons, so nobody would faint... We decided to repeat the movie the next day, so those who didn't manage to see it had another chance. For the second event we introduced tickets to limit the number of participants.

Moreover, the director admitted that in case of a fire alarm the evacuation would have been more difficult, and false fire alarms had happened before:

And there is not enough space for everybody. This entails risk. If, even mistakenly, the fire detector had been activated, well, we would have had to deal with the evacuation, which engenders danger.

Both editions of the history education event contributed indirectly to reputation risk related to the condition of the building. Although the palace interior had been

renovated, the facade had not. One of the employees indicated that when weather conditions are unfavourable small parts of the tower fall off, so:

If more people attend open-air events, we must always monitor the weather so nobody gets hurt accidentally.

Strategic risk

The analysed materials revealed that the service innovations introduced in 2013 might have contributed to problems related to implementation of the strategy of RCC's founding body, and hence to strategic risk. According to the TSG strategy for cultural development, there are a few cultural products which should be provided and supported by the local government. One of them is the RCC, and the assumption of the TSG authorities was to provide a permanent exhibition of naive art. This assumption had been literally included in the strategy before the RCC was founded. It comprised presenting a gallery of naive art, which had been located in the palace before it became the headquarters of RCC. However, when the RCC was founded and its Program Board established, a new vision for this institution was developed, and hence a new vision for the palace. This embraced presenting visual arts related to the region (where RCC operates), but of a high artistic standard. The new services provided by RCC followed this vision as much as they could. Eventually, the naive art exhibition caused three problems related to the new vision: it did not match the artistic quality requirements, it infringed the decorum principle, and it occupied space and reduced the new dynamics of RCC. Moreover, this exhibition mirrored the main theme of other artistic venues in a nearby city. Thus, new services supplanted the naive art exhibition, even though it breached the TSG cultural development strategy. As the RCC director expressed it:

After some time, attendance of the naive art exhibition fell. It broke the principle of decorum. (...) It did not promote the dynamic character of this institution. It reduced the space available for other exhibitions. It destroyed a certain order: here comes [the name of famous artist and professor of art] and behind the wall are naive art paintings.

Customer risk

Regarding customer risk, one of the interviewees indicated a typical risk related to audience choices. The 'high culture' concert barely attracted any people. In contrast, a more known artist playing popular music – perceived as a lower artistic standard – attracted a full audience. Both concerts were designed for the same audience.

Attracting an audience for high culture events demands a huge amount of work... those people need to be reached. For KR [the popular musician] there was no seating left; for MM [the more sophisticated musician], 50 people came, that's really bad.

Competitive risk

The last identified risk was competitive. Empirical evidence revealed that both editions of the history education event might have created problems with recognizing whose service is offered. Although competition is not the *modus operandi* in the case of public events, branding issues are certainly important. The event's brand and its connection to the RCC was blurred when it was jointly presented with another event of another institution or institutions. During the first edition:

Simply, they used our success to promote their event (...); it was our success and we "sold" it to the other institution.

During the second edition the event was co-created with a new partner. This entailed brand recognition problems, as a staff member noted:

Our partner had a permanent exhibition but no artistic program, so we offered them our experience and information about what the audience wanted – we kind of sold the product. We gained a new partner so information about us reached new people, and the partner benefited from the results of our work.

Analysis of the RCC chronicles indicated that similar problems occurred when RCC joined an interregional artistic project (the Artistic Derby). It was led by an artistic foundation from a neighbor region in cooperation with many cultural institutions, including RCC.

Revisiting conceptual framework of risk and innovation in public services

Innovation in public service creation and delivery is unquestionably one of the most relevant ways to improve public sector performance. Although the relation between risk and innovation has been rather neglected and underexplored, some early conceptualizations have been proposed [Brown, Osborne, 2011, 2013; Flemig et al., 2016]. The results of the conducted explorative case study provide new insights from a more detailed perspective into the debate on the relations between risk and innovation.

Empirical evidence from these public cultural service innovations reveals their diverse impacts on various types of risks. The new offer of live music concerts did not meet audience expectations when a high artistic standard was provided; therefore, customer risk appears as a direct result of evolutionary innovation. Moreover, it also means community risk in terms of unattractive offers. All three types of innovations contributed indirectly to operational risk and legal risk. For example, new services, such as the bike rally, required intense organizational effort, additional working hours, and new knowledge, which all together contributed to staff absenteeism and overwork, and later to problems with

overtime, time off and minimization of idle capacity when preparing for other events. It also indirectly entailed staff safety issues and labour rights. All in all, these evolutionary and expansionary innovations also contributed to reputation risk. In this case, the source of risk was related to the condition of the building (ugly façade and debris falling from the tower) and its capacity; moreover, the innovation attracted a bigger audience that posed not only a risk to the reputation of the organization, but also potential safety hazards for the audience. Moreover, as the success of the new offers progressed, the RCC needed more space to present larger exhibitions and decided to close one permanent exhibition which was directly mandated by the founding body's (district level) strategy for cultural development. In this regard it might have harmed the relation with the strategic stakeholder. In turn, a novel project realized jointly with another cultural institution led to mixed services being offered, thus blurring the clear identification of which event was hosted by which institution. In this way evolutionary and expansionary innovation directly entailed not only a competitive risk to the organization, but also a risk to its partners. These findings are summarized in table 1.

Table 1. The risks and the relations between them, as revealed by the case study

Innovations and risk types	Innovation type	Customer risk	Operations risk	Legal risk	Reputation risk	Strategic risk	Competitive risk
Services in the year 2013	Total		I	I	M	I	
Bike rally	Total		I	I			
History education event. 1st ed.	Evol.		I	I	M		D
Live-music seated concerts	Evol.	D	I	I			
History education event. 2nd ed.	Expan.			I	M		D
Artistic derby	Expan.		I	I			D
Staff risk			X	X			
User risk				X	X		
Partners' risk							X
Founding body's risk						X	
Community risk		X					

Note: D = direct effect, I = indirect effect, M = moderating effect, X = organizational risk resonates with particular consequential or behavioural types of risk.

Source: own elaboration based on conducted research.

The findings provide a basis to revisit the assumptions underlying the conceptual framework of the relations between risk and innovation. First, the earliest theorization suggested that more risk management strategies apply when an innovation is more complex. In particular, total innovation requires only risk negotiation; expansionary innovation requires both risk negotiation and risk analysis; and evolutionary innovation must embrace all three types – risk negotiation, risk analysis, and technocratic risk minimization [Brown, Osborne, 2013]. Subsequent theorization suggested that particular types of innovations should entail particular risk management strategies. Especially, total and expansionary innovation require rather soft risk management, while evolutionary innovation calls for hard risk management [Flemig et al., 2016]. The obtained empirical evidence shows that various types of innovation contribute to various risks in different ways. This supports the argument that mixed risk management strategies could apply more broadly than both previous conceptualizations suggest [Brown, Osborne, 2013; Flemig et al., 2016], at least from the perspective of a single organization.

Second, the type of innovation does not matter as much as other factors when choosing the right risk management strategy. More important is the type of impact, which is either simple and direct, or more complex, embracing indirect or moderating effects. This corresponds to the level of predictability, in particular to risk and uncertainty in the second framework of risk-innovation relations [Flemig et al., 2016]. Direct impact is much easier to predict, so harder risk management strategies should apply. However, the evidence suggests that the direct impact of innovation on risk pertains to customers and partners. Thus, softer, negotiation-based risk management also seems applicable and desirable. This argument stems from the observation that some interrelations between organizational risks and consequential and behavioural risks do exist (see lower portion of table 1). This strongly supports the earlier argument of Brown and Osborne [2013]. As they expressed it in the case of risk assessment of community care services, “the balance here between risk and benefit is relevant not only to the users and their carers, but also to the reputation, legitimacy and possibly sustainability of a PSO and its staff” [Brown, Osborne, 2013: 190]. This is also consistent with other empirical findings regarding educational services [Dudau et al., 2017] and stakeholders involved in public risk governance [Andreeva et al., 2014].

Third, building on the argument of complexity (or uncertainty as Flemig et al. [2016] put it), the two dimensions indicated above may be considered jointly. The uncertainty level depends on the complexity of relations between organizational risks and consequential and behavioural risks, and between innovation and risk. Thus, it may be theorized that hard risk management strategies apply to situations in which the relations between risk and innovations are simple (direct impact), and the complexity of risk interrelations is low (one organizational risk is related to risk for one stakeholder group). In turn, mixed risk strategies are more applicable when one of the dimensions manifests higher complexity, either in the

risk interrelations (one or more organizational risks are related to many consequential and behavioural risks), or in the relations between innovation and risk (indirect or moderating). Eventually, soft risk management strategies apply best when uncertainty is highest. Namely, when organizational risks highly resonate with consequential and behavioural risks, and the relations between innovation and risk are complicated (mix of direct, indirect, and moderating). Table 2 illustrates all four situations.

Table 2. Revised conceptual framework of risk and innovation in public services

	Simple innovation–risk relations	Complex innovation–risk relations
Simple risks interrelations	hard risk management	hard and soft risk management
Complex risks interrelations	hard and soft risk management	soft risk management

Source: own elaboration based on conducted research.

The proposed conceptual framework has some practical implications. Most importantly, risk management requires an open-minded approach and managers must manifest the ability to implement soft risk management as soon as complexity increases, regardless of the type of innovation and phase of the innovation process.

The framework reflects more ideal typical situations, but practical operations face the problem of achieving the best trade-off between hard and soft risk management. Thus, using both approaches is probably the best choice. However, this requires distinct tools. On the one hand, there are sets of guidelines and/or standards for risk management (such as ISO 31000:2009 or the newest ISO 31000:2018) which support hard risk management. On the other hand, soft risk management could be introduced through dialogue, co-production, and co-design – instruments that fruitfully employ empathy within service innovation processes [Alford, 2016; Bovaird, 2007; Lewandowski, 2018; Moynihan, 2008]. Such a mixed approach is in line with most recent suggestions for big public agencies [Goldhammer et al., 2023].

Conclusions

Risk and innovation are constantly considered an unexplored area in the public sector. Previous studies on the nexus between risk and innovation comprised theorization of risk management strategies suitable for particular innovation types,

and the distinction between risk and uncertainty. Moreover, the literature contains very few empirical examples to substantiate the given theorizations. Therein, risk is mainly seen as a potential source of innovation or its hindrance. The opposite, i.e. when innovation is a source of risk, remains the most underexplored vein. This paper focuses on the latter and reports an explorative case study that demonstrates various relations between risk and innovations, as well as the interrelations between risk types. Empirical evidence partly supports both previous theorizations and suggests merging them to refine the framework of risk management styles in the context of public service innovation. Complementing the theoretical argumentation of Brown and Osborne [2013] and Brown et al. [2016], this explorative case implies the following:

1. The identified complexity of the impact of innovation on risk suggests rethinking the current perspective on engagement in risk and trade-offs in innovation.
2. Both hard and soft risk management must be applied to public service innovation; the real dilemma pertains to the best trade-off between those approaches, regardless of the type of innovation.
3. Risk management requires a systematic endeavour and the engagement of various stakeholders in terms of direct, indirect, and moderating effects between innovation and various risks.

The right balance of soft risk governance and hard risk management is the most important concern for practitioners. It requires a mix of technocratic procedures and participatory solutions. The toolkit should embrace risk management regulations and a variety of participative organizational behaviours such as dialogue, co-production, and public service design. This requires changes in organizational culture. Nevertheless, the presented research is very limited by its size and context. Further empirical investigations are needed in this regard to refine or reinforce the interim conclusions of this study.

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