



L'innovation publique locale : une analyse de ses impacts perçus en matière de performance publique

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Local public innovation: an analysis of its perceived impacts on public performance

Local public innovation: an analysis of its perceived impacts on public performance

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Abstract

This paper explores public innovations implemented by local authorities, which consider them as a key means of improving their performance, in response to a restrictive context. The authors thus propose to grasp the impacts of these innovations in terms of perceived performance, from a global and multidimensional point of view. Based on a quantitative study conducted among French local authorities, this research first presents the results obtained from a theoretical point of view, providing insight into the multiple impacts of implementing innovations within the public sector. Finally, at the managerial level, the study identifies specific impacts for each type of public innovation, the aim being to structure the innovation portfolio of public organisations.

Key words.

Public innovation, public performance, local authorities, impacts

Points for practitioners

An increasing number of innovations are being introduced in the public sector. However, the impact of these innovations on public performance is often not assessed. That is why, by focusing our research on the French local authorities we guide managers both in analysing this influence, by distinguishing several types of innovation and performance, and in building a portfolio of innovations, in line with the internal resources of their local authority, but also the public service provided in response to the needs of the territory.

In a particularly restrictive context, innovation today plays a fundamental role at international level, being very much in the spotlight of public organisations (De Vries et al., 2018). For example, innovation is heralded as a means of boosting the efficiency of public action (Damanpour and Schneider, 2006), and of improving the quality of public services (Boyne et al., 2005; Jung and Lee, 2016). Under these conditions, innovations, which are polymorphic and multidimensional in nature (De Vries et al., 2016), are deployed by local authorities seeking to adapt to changes in their environment.

However, while local public innovations may be presented today as the solution to the difficulties facing the public sector, we question here their effects in terms of public performance. The fact is that a lot of the research has focused on the dynamics and determinants of public innovations, their processes of adoption and dissemination (Boyne et al., 2005; Damanpour and Schneider, 2006, 2008; Walker, 2006, 2007), but few studies specifically analyse the impacts of these innovations, or sometimes simply address some of their benefits for public organisations (Hartley and Rashman, 2018; Torugsa and Arundel, 2016; Walker, 2006, 2007). Moreover, when they are studied, these impacts are stated in general terms (performance improvement, economic growth, or organisational change), without being demonstrated, nor as being specific to different types of public innovation.

As this field of research is relatively unexplored in the public sector, this study thus aims to explore the perceived impacts of local public innovations in terms of local public performance. The originality of this study lies in the choice not only of a multidimensional

approach to the impacts in terms of local public performance, but also to public innovation in the broad sense. This issue is addressed by means of a national quantitative study, in the French context, enabling us to study the relationships between the type of innovation rolled out and the impacted dimensions of local public performance. Before doing so, a first part of this paper presents the different types of local public innovations, as well as the categories of potential performance impacts identified by the literature. In a second part, we present our research methodology and then analyse and discuss the results obtained.

1. A RESEARCH FRAMEWORK INTEGRATING DIFFERENT TYPES OF LOCAL PUBLIC INNOVATIONS AND OVERALL PUBLIC PERFORMANCE

To present our analytical framework, we first discuss the different types of local public innovations (1.1). We then go on to describe local public performance and characterise its dimensions (1.2), formalising our research model (1.3).

1.1. The different types of local public innovations

Although innovation is a complex and polymorphic concept, it can be defined, within the meaning of Rogers (2003), De Lancer Julnes (2008) and Damanpour and Schneider (2008), as a process leading to the adoption by an organisation of new ideas, practices or behaviours. This means that, for public organisations, innovation is understood as the implementation of a technical, organisational, policy or service concept that changes and improves the functioning and performance of the public sector (Hartley, 2005; Damanpour et al., 2009; Gieske et al., 2018).

Studies on innovation generally make a distinction between three main categories of public sector innovations: product/service/policy innovations, process or organisational innovations, and governance innovations (Schneider, 2007; Walker, 2006). The first of these relate to the outputs of public action. Organisational innovations relate to the modes of organisation and production of these public organisations, whereas governance innovations refer mainly to the management of relations between the public organisation and its partners in the implementation of public policies.

However, this first typology seems to us to be limited. First of all, even if organisational innovation is frequent, and despite its positive influence on organisational performance suggested by certain research (Gieske et al., 2019), it has long been considered minor and secondary by academic research. This is why we endorse the need to broaden this typology by making a distinction between organisational or structural innovations, on the one hand, and innovations in managerial techniques and processes, on the other (De Vries et al., 2016). Moreover, from our point of view, another limitation of this typology concerns the lack of analysis of innovations relating to the design and implementation of public policies. This means that, in the wake of changes affecting their context, local authorities evolve by overhauling their strategy. They then seek to become more open to their environment, by collaborating with other organisations and with users or citizens (Crosby et al., 2017). Finally, they also become flow and communication managers in a smart city logic (Côme et al., 2018), prompting them to implement technological innovations.

Hence our decision to select five types of local public innovations from the existing literature (table 1). Our research thus makes it possible to harness several types of public innovations and to grasp their results on local public performance.

Table 1 - The types of local public innovations

<i>Types of public innovations</i>	<i>Definition</i>	<i>Authors</i>
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Services	Development of new services or improvement of existing services	Schneider, (2007), Walker (2006)
Organisational – structures	New structure, new organisation mode, (pooling, transversality, project mode, etc.).	Schneider, (2007), Walker (2006)
Organisational - practical	New managerial technique and management practices (dashboards, cost accounting, etc.)	De Vries et al., (2016)
Technological	New information and communication technologies, digitalisation	Walker (2006, 2007)
Strategic and governance	Development of partner-based relations and processes with external actors, new way of thinking and formalising local public policies, overhaul of the economic model (pricing, partnership financing, etc.).	Hamel and Breen (2007), Hartley and Rashman (2018), Schneider, (2007)

Source: authors

1.2.A multidimensional analysis of local public performance

Although some studies already look into the impacts of innovation in terms of performance, these often seem to be specific to the private sector and limit themselves to analysing the results with a purely economic-financial focus, often linked to growth (Amami et al., 2016). Moreover, studies dedicated to the public sector do not precisely analyse the results of innovations on the performance of public organisations from a multidimensional viewpoint. It therefore appears important to define performance in polysemous terms, as a function of different grids and models of analysis (Guenoun, 2009).

In this sense, some authors first develop models of public performance management with a qualified economic approach. This is the case of Demeestere (2005), Bouckaert and Pollitt (2004), Gibert (1980) and Hood (1995). Alongside these first models, other studies favour a more open and partnership-based approach. This is the case for the Public Service Self-Assessment Framework or the Public Sector Scorecard (Moullin, 2006), which are of particular interest to stakeholders interested in public performance. In this sense, signing up to an integrative and multidimensional logic, we subscribe to the approach of Maurel et al. (2014), who propose to define local public performance as *"the capacity of a public organisation to control its human, financial and organisational resources, in order to produce an adapted offer of public services, in terms of quality and quantity, meeting the needs of its stakeholders and generating sustainable effects with regard to its territory"*.

On the basis of this definition, these authors identify various characteristics of local public performance and propose five dimensions: organisational, human, financial, public service and territorial. Thus, first of all in keeping with a more endogenous logic, the organisational dimension of public performance is characterised by the adaptation of human, financial and technical means (Bouckaert and Pollitt, 2004), and the adjustment of the culture and structure of the organisation to its public service role (Demeestere, 2005). The human dimension of public performance comes through in the commitment, motivation and mobilisation of staff around the strategy (CAF model, 2006), and in the response to aspirations for well-being and personal development (Demeestere, 2005). Finally, the

financial dimension of public performance is determined by the control of expenditure defined and committed in an appropriate, economical and compliant manner (Moullin, 2002), and by the optimisation of revenues and compliance with regulations (Hood, 1995). In this sense, several items from the literature have enabled us to measure these three endogenous dimensions of local public performance. They are detailed in Appendices 1, 2 and 3.

In addition, in keeping with a more exogenous logic, the territorial dimension of public performance concerns the positioning of the local authority vis-à-vis its territory. It is characterised by the search for general interest, social justice and the regulation of economic activity (Bouckaert and Politt, 2004), through the provision of public services that meet the needs and satisfaction of citizens and the local environment (Hood, 1995). This dimension is therefore closer to the theory of public value (Moore, 2013), which considers that public action must be based on civic and democratic principles such as equity, freedom, responsiveness, transparency, participation and citizenship. Consequently, public performance, in its territorial dimension, is based on reliable, accessible and transparent communication with its stakeholders on the actions undertaken and the means mobilised (CAF model, 2006), as well as on the search for actions contributing to the image and attractiveness of a local authority (Borja, 2007). Secondly, the 'public service' dimension is defined as the adaptation of the quantity and quality of local public service provision to the needs of users (Gibert, 1980; Moullin, 2002).

In total, these five dimensions of local public performance will subsequently be taken up to analyse the impacts of local public innovations. Their measurement items are presented in Appendices 4 and 5.

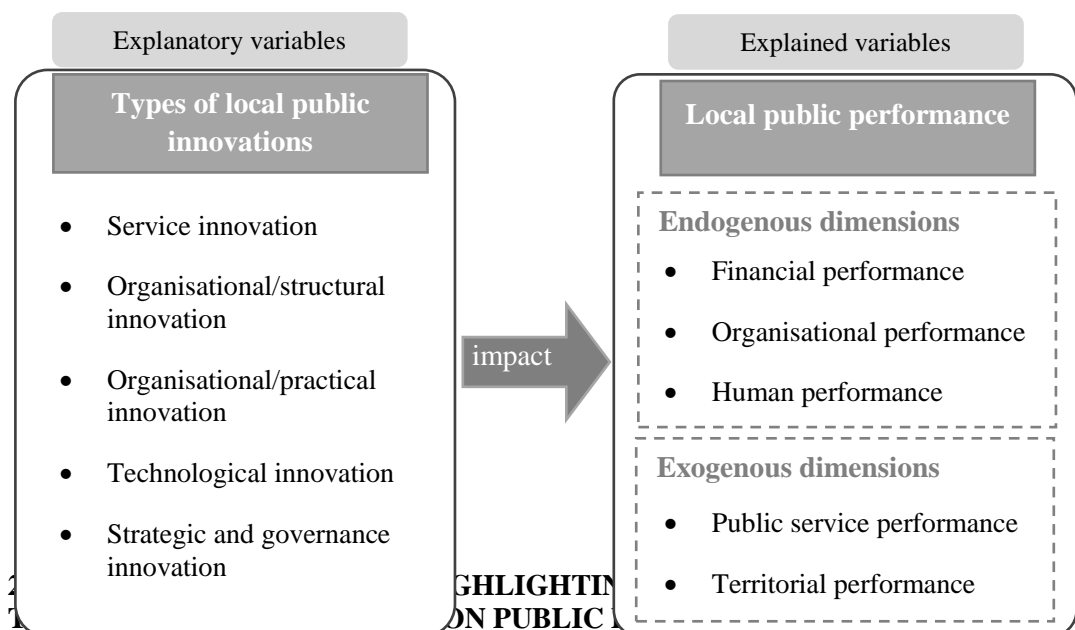
1.3. Local public innovations that generate performance

The existing academic literature also only partially addresses the links between innovation and performance. On the one hand, in the private sector, innovation is presented as the main source of sustainable competitive advantage and adaptation to a competitive and turbulent environment (Damanpour and Schneider, 2006; Jullien and Ruffieux, 2001). Similarly, some authors specifically study managerial innovation, establishing a direct relationship between the latter and the performance of the company (Besbes et al., 2013; Damanpour and Aravind, 2012; Hamel, 2006; Mol and Birkinshaw, 2006). As such, the latter is claimed to be a source of organisational change allowing better adaptation to the environment and enabling the company to stand out from the competition better than a technological or product innovation, by creating an advantage and lasting success for the organisation (Hamel, 2006). Nevertheless, these analyses are not specific to the public context, and the findings they raise mainly concern the benefits of innovations for companies.

On the other hand, in the studies specific to public organisations, this link between innovation and performance is not demonstrated. Indeed, the impacts of innovations are often studied in a general way, as the main vector for improving public services (Walker, 2006), in relation to efficiency, effectiveness or economic growth. Moreover, analyses are not specific to different types of innovations (Hartley and Rashman, 2018; Torugsa and Arundel, 2016; Walker, 2006; 2007).

Therefore, in view of the limitations of existing studies, our research focuses on the impacts produced by public innovations on local public performance from a multidimensional perspective. This study, which adopts an interpretative and comprehensive approach, has an exploratory vocation insofar as the literature does not explore the link between types of innovations and dimensions of public performance. This is why, our study aims to do more than simply test pre-established hypotheses, but explore a general research proposition, according to which the types of public innovations have differentiated impacts on local public performance. Our research model is thus summarised in Figure 1 below.

Figure 1 - Research model



This second part begins by describing the approach adopted by this research (2.1). We then go on to present our descriptive quantitative results (2.2), before analysing the differentiated effects of the types of public innovations on the dimensions of local public performance (2.3). Finally, we discuss our results in the light of the existing literature (2.4).

2.1. A quantitative and global methodology

We broached the issue at hand by drawing up a national questionnaire sent to nearly 1,800 French territorial managers. The survey enabled us to obtain 118 usable answers. The respondents represent each stratum of the French local administration (67 communes, 29 inter-municipal structures, 16 departments, 3 regions), at different scales and with different functions (54 Chief Executives, 23 Deputy Chief Executives, 35 Heads of Departments, 6 elected representatives), which enables us to favour a global approach.

This questionnaire is constructed on the basis of the research model presented above. That is why, in addition to a descriptive section, we asked the respondent to choose an innovation and to characterise it. In a second part, the survey concerns the perception of the results of the innovation chosen by the respondent (according to a Likert scale) on each of the items making up the five dimensions of local public performance¹.

Drawing on the answers to this questionnaire, we then carry out factor analyses using the Principal Component Analysis (PCA) extraction method on each of the dimensions of performance, in order to verify these constructs and validate the measurement scales².

We then perform a score function on each dimension of performance based on the average of their items measured on a Likert scale.

Thus, we obtain 5 new ordinal performance variables which pool the results relating to each of the items. Finally, using the SPSS software, we study the links between each type of public innovation (dummy variables) and the dimensions of local public performance identified in the literature (ordinal variables), using linear regressions. This allows us to

¹ See Appendices 1 to 5.

² The results of these factorisations appear in Appendix 9.

analyse the significance of the link between each type of public innovation and the five dimensions of performance.

This study therefore focuses on the five types of local public innovation identified in the literature (see Table 1), for which 118 responses are obtained. Thus, we obtain information on 33 service innovations, such as: the creation of a health centre, town hall services on board a mobile bus, direct transport of children from school to extracurricular activities, a one-stop shop, a public service centre, etc. The study also includes 39 organisational-structural innovations, such as the creation of a multi-municipal municipal police force, a grouping of services and premises for culture and youth, a global pooling of services, a restructuring of school sites, or the creation of a network of shared management assistants. We also have 15 responses on organisational-practical innovations, such as a continuous improvement approach, an administration project, a charter of managerial values, or a mission to evaluate the performance of local policies. There are also 16 technological innovations that are taken into account, with, for example, the live capture and broadcast on the Internet of the town council, the dematerialisation of certain internal procedures, a change of computer server with remote access to the server, or the centralised management of automatic watering. Finally, 15 strategic and governance innovations are also explored, including, for example, a territorial educational project, a skills centre set up to implement an ambitious employment/training/integration policy in the area, or a social forum bringing together project leaders, citizens and public authorities, which is being transformed into a lasting local dynamic of social innovation. The public innovations analysed are therefore varied.

2.2. Local public innovations with variable impacts

To begin our empirical analyses, our descriptive statistics focus on the impacts of public innovations, in a global manner, without going into detail about the types of innovation. As such, we briefly track the results for each dimension of local public performance.

In the case of the endogenous dimensions of performance (Appendix 6), we first note a rather relative importance of the perceived impacts linked to financial performance, whether in terms of reduction in operating and investment expenditure, increase in revenue, accounting quality, results culture or financial information. However, in this area, public innovations are seen more as contributing to economies of scale or to the development of financial management tools. On the other hand, and contrary to the financial impacts, public innovations produce multiple perceived effects on organisational or human performance. Among the organisational impacts, the most important, on average, concerns the formalisation of a global strategic project and its application in services. In addition, the respondents insist on the improvement in relations, internal communication, and the evaluation of public policy performance. On the human level, the impacts also appear to be numerous. First of all, better sharing of knowledge, know-how and interpersonal skills seems to be particularly the result of public innovations, as well as staff's sense of belonging to the organisation. Secondly, there is also a belief that innovations make it possible to improve staff accountability and involvement.

Then, in addition to these results, public innovations also serve to improve the impact of the local authority with regard to its territory and its users (Appendix 7). Thus, several striking results are perceived by the respondents. In terms of "public service" performance, they mainly produce an improvement in the offer with the creation of new services. They also make it possible to optimise this offer, by seeking to do better with less. Finally, it appears that the innovations undertaken improve the information provided to users and result in their needs being better taken into account when it comes to creating public services. From a territorial point of view, local innovations are perceived as sources of a better image for the local authority and allow it to better project itself into the future by gaining a good grasp of the issues related to the sustainable development of its territory. Then, to a lesser

extent, innovations improve the response to the socio-economic needs of the territory, and the consideration of the remarks and opinions formulated by users and citizens.

Overall, public innovations are perceived as generating significant effects on the overall performance of local authorities, since the vast majority of items are rated between 3 and 4 on a 5-point Likert scale. Only financial performance seems to be less impacted by the innovations undertaken. The other dimensions, i.e. human, organisational, public service and territorial dimensions are all significantly influenced by the commitment to public innovations. The next step of the study involves specifying these impacts for each of the five types of local public innovations identified in our research model.

2.3. Varied impacts of the types of innovation on the dimensions of local public performance

Beyond these initial descriptive analyses, we then use linear regressions (Appendix 8) to study the impacts of the types of public innovations (dummy variables) on the 5 dimensions of performance (ordinal variables obtained from a score function on the item averages). We do this by summarising the results of our regressions for the statistically significant effects at the 1% threshold (Table 2), before breaking them down.

Table 2 - Summary of the statistically significant impacts of the types of local public innovations for the five dimensions of public performance

Performance	Financial	Organisational	HR	Public service	Territorial
Types of innovations					
Service	,185*			,584*	,600*
Orga. Structural	,136*		,634*	,620*	
Orga. Practical		,419*	,418*		,423*
Technological		,407*			
Strategic and governance				,410*	,433*

*significant at the 1% threshold.

- Financial performance influenced by service and organisational-structural innovations

Service innovations and organisational innovations of structures are those that have a significant and positive perceived impact on the financial performance of local authorities, but with limited weight. Indeed, respondents perceive the development of new services or the improvement of existing services, such as a health centre, a one-stop shop or a public services centre, as creating economies of scale and contributing to an improved results culture in the local authority.

However, this type of service innovation does not seem to produce positive effects on expenditure and income, nor on the match between the financial means and the local political project. Moreover, innovations relating to the development of a new structure, a new mode of organisation, such as a grouping of local services, a pooling of services, the creation of an intermunicipal service, are also perceived as producing efficiency, and

clearly contribute to the emergence of a culture of results, in a context of generalised budgetary austerity.

- Organisational performance linked to organisational-practical and technological innovations

We then look at the organisational performance of local authorities. The perception of the latter is significantly impacted by organisational innovations, oriented towards practices and tools, as well as by technological innovations. In this sense, new managerial techniques and management practices, such as the implementation of a continuous improvement approach, or a managerial values charter, produce perceived impacts on the improvement of the quality of the local authority's operating processes, contribute to the formalisation of a strategic project, or improve communication. Moreover, technological innovations, which are reflected in the implementation of new information and communication technologies and digitalisation, such as the live capture and broadcasting of the municipal council's activities on the Internet, or the dematerialisation of internal procedures, for example, are also perceived as creating organisational performance. In particular, they can improve communication and strengthen information systems. Nevertheless, it should be noted that we were only able to collect about fifteen innovations for each of these two types.

- Human performance dependent on organisational-structural and practical innovations

Our results highlight a link between local public human performance and organisational innovations, whether structural or practical. Indeed, these two types of public innovations, linked to new modes of operation and organisation, or to new managerial techniques and management tools, are perceived as creating a better sharing of knowledge, know-how and interpersonal skills, as well as a development of the organisational culture and climate through the improvement of relations between staff. More specifically, organisational-practical innovations are seen as having an impact on organisational justice, in particular by helping to improve the alignment of remuneration with staff activities and responsibilities.

- Public service performance linked to service, organisational-structural, strategic and governance innovations

Exogenously, public service performance is the result of service innovations, structural organisational innovations, as well as innovations in strategy and governance. Firstly, a new public service, or the improvement of an existing service, leads, according to the respondents' perception, to a better ethic with identical access to services in the territory, reduced response times to user requests, modernisation of facilities, but also optimisation of the service offer. In addition, organisational innovations, involving new structures and modes of organisation, are seen as a source of modernisation of public service facilities, while at the same time improving users' confidence in the local authority. Finally, our results point out the effects on public service performance of strategic and governance innovations, such as the holding of a social forum bringing together project leaders, citizens and public authorities, or a multi-actor educational project for a territory. These latter innovations, linked to the development of relations and partnership processes, or to the way in which local public policies are considered and formalised, are seen as leading to significant improvements in response times and in the confidence of users in the local authority. They can also lead to an optimisation of the supply of public services in a context of increased need for collaboration between actors working for the same local policy.

- Territorial performance impacted by service, organisational-practical, strategic and governance innovations

Finally, several types of public innovations are perceived as having a significant impact on the territorial performance of local authorities. Thus, service innovations enable the authority to attract agents and skills, to better meet the socio-economic needs of the territory, but also to improve the organisation's societal responsibility. On the other hand, organisational-practical innovations lead, according to the respondents' perception, to a better image of the local authority. Finally, strategic and governance innovations are the source of many territorial impacts, contributing to a better knowledge and attractiveness of the general public and improving the image of the local authority. They also contribute greatly to a better response to socio-economic needs and make it possible to improve behaviours that are compatible with the principles of societal responsibility of organisations.

2.4. Discussion: summary and implications of the study

Our results allow us to observe the presence of multiple and specific impacts linked to the types of public innovations, characterising the willingness of local authorities to respond to the complexity of their actions, both internally, by improving their operating methods, and externally, in relation to their stakeholders and their environment. From this point of view, our study echoes previous research on the need to take into account overall performance, defined as the aggregation of economic, social and societal performance (Capron and Quairel, 2005; Reynaud, 2003; Maurel et al., 2014). Moreover, without rejecting the existence of possible financial impacts, despite the existence of a context of strong budgetary tensions, our results highlight the much more diversified nature of the types of effects perceived when local authorities implement innovations. Furthermore, by focusing on the differentiated impacts of the types of public innovations on several dimensions of local performance, our work generates new results compared to previous research (Arundel et al., 2015; Damanpour and Schneider, 2006; Dermircioglu and Audretsch, 2017; Torugsa and Arundel, 2016), which address innovation globally and uniformly. Thus, in an exploratory approach, we confirm and refine our research proposal since the types of public innovations have positive and differentiated impacts on the performance dimensions of local public organisations. Therefore, our results show common impacts, but also specific impacts for certain types of public innovations.

First of all, service innovations have a perceived positive impact on financial performance, as well as on territorial and public service performance. Indeed, according to the respondents, these innovations are implemented in order to better meet the needs of the population, but also to produce a positive impact on the territory within the meaning of the dual production function highlighted by Gibert (1986). Moreover, only organisational-structural innovations are also perceived as creating financial performance. They are also analysed as generating positive effects on the human level and on the public service. As for organisational-practical innovations, they generate positive effects on the human level, on organisational and territorial performance. Technological innovations, on the other hand, are seen as a source of impact on the organisation only. Thus, our results are similar to those of Han et al. (2017), who also highlight the relatively weak effects of technological innovation in the private sector. Also, it seems that the latter can be coupled with another type of innovation, by constituting the support for innovations of a service-oriented or organisational and managerial nature. Finally, strategic and governance innovations present results on the exogenous dimensions of performance, with regard to public service and the positioning of the local authority with regard to its territory.

More generally, this study is part of the multiple consideration for the impacts of different types of public innovations, in line with previous literature on the differential effects of

innovations and their links with performance (Damanpour and Gopalakrishanan, 1999; Entorf and Pohlmeier, 1990; Greenan and Guellec, 2000; Han et al., 2017). In addition, this research builds on the results of Walker (2006) on improving public services, by specifying the types of potential contribution according to the innovations undertaken, such as optimisation or a wider range of public services, or improved information for users. Finally, our results go beyond the limits of previous work by grasping public performance beyond an internal and service-related logic. In particular, we show that several innovations implemented by local authorities have an impact on the territory and the local environment within the meaning of Gibert (1986).

Moreover, this study, which points out the multiple and specific impacts of public innovations, is in line with the conclusions of Liouville (2006) on the need for an organisation to have a 'portfolio of innovations', enabling it to optimise its innovation management. Indeed, several works have focused on this notion and its interests. An innovation portfolio would thus make it possible to prioritise projects, to allocate and better distribute resources to the various innovations, to globally optimise innovations under budgetary constraints, to improve their evaluation within a learning logic, to give greater visibility to innovations, to develop exchanges between project leaders, and to better link innovations and the organisation's strategy (Cooper et al., 1999; Bayard et al., 2000; Lenfle and Midler, 2002; Fernez-Walch et al., 2006). This is why, in the light of our results, we raise the need for local authorities to set up an innovation strategy, aimed at better combining them in order to better respond to the constraints of their environment. Moreover, piggybacking innovations makes it possible to link up and transfer their learning outcomes (Lenfle and Midler, 2002). This research further ties in with the public adaptation of the typology of innovation projects developed by Lenfle and Midler (2002). In this way, innovations can be classified according to the strategic axis to which they belong, but also according to the type of solution and impact on public performance that they propose.

CONCLUSION

Until now, very little research has comprehensively addressed the full range of local public innovations and their influences on multidimensional performance. This is why this exploratory research is of theoretical interest by shedding light on the characteristics of the impacts produced by each type of public innovation.

In addition, at the managerial level, different recommendations can be put forward depending on the situation or the expected results, in order to guide local authorities in the constitution of their innovation strategy. Consequently, depending on the objective pursued, whether it is global (endogenous or exogenous) or more specific, local authorities may be encouraged to adopt certain types of innovation. This means that, if certain dimensions of local performance prove to be insufficient, local authorities could then better cover them by deploying innovations in response to them. Finally, public organisations often face methodological obstacles in the implementation of innovations, particularly in the absence of evaluation and assessment (Bartoli and Blatrix, 2015). Indeed, they encounter difficulties in capitalising on and learning from past changes. This is why our approach could enable local authorities to benefit from a framework for analysing the impacts of innovations, and thus change the structuring of their 'innovation portfolio' (Liouville, 2006).

Beyond these scientific and managerial interests, however, this study has certain limitations. Firstly, the sample is approached in a global manner. It would therefore be interesting to consider differences between the types of local authorities. Secondly, this research gives only an initial idea of the complex phenomenon of the study of the results of public innovations, approached through the perception of local actors. This is why the perceived impacts should be complemented by more in-depth case studies, allowing us to build on these first results. Although allowing the integration of several dimensions of

public performance, our measurement remains perceptual and potentially biased. Therefore, going forward, it could also be interesting to combine it with complementary quantitative indicators. Moreover, political actors only participated to a limited extent in the survey. However, their perception of the impacts of the innovations, especially on the exogenous level, appear to be in need of further investigation. In addition, we have focused here on the links between the type of innovation and local public performance. However, it would also be interesting to include in this analysis certain moderating variables, such as contextual variables or the process of adoption and implementation of these innovations. This is why, going forward, this research will focus on the results of the innovations, analysed in relation to the terms and conditions of its implementation process, as recommended by Liouville (2006). This would make it possible to grasp and explore the interactions and complementarities likely to exist between the types of innovations (Favoreu et al., 2018), and thus to better understand the sequential results of public innovations.

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