

Public Sector Innovation for Europe: A Multinational Eight-Country Exploration of Citizens' Perspectives

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Abstract

This study presents an ambitious, three-year effort to study public sector innovation in Europe from the citizens' viewpoint. It examines a model of public sector innovation across a multinational sample of eight countries and 626 participants. The paper develops a theory of antecedents to and consequences of innovation in public administration as perceived by knowledgeable citizens and end-users. Participants were senior and mid-level managers of third sector organizations that work closely with citizens both as individuals and groups, and with public sector agencies in various domains. SEM technique was used to examine two theoretical and five alternative models. Major findings that transcend national borders are: (1) responsiveness, and leadership and vision are important antecedents of innovation in the public sector, (2) public sector innovation affects trust in and satisfaction with public administration, and (3) the effect of public sector innovation on trust and satisfaction is both direct and mediated by the image of public organizations. The paper ends with a discussion of the theoretical and practical implications for public administration theory, especially for public sector innovation in Europe, and with directions for future studies.

Introduction

Extensive criticism is frequently voiced against governments and bureaucracies worldwide, suggesting that their rigid red-tape nature, inefficiency, lack of flexibility, and negative attitudes towards change restrict social progress and economic growth in modern states. Similarly, public administration scholars and experts suggest that *innovation* in the public sector is a powerful engine and a key instrument for the reform and revitalization of fully state-owned bodies or quasi-governmental organizations and agencies.

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Nonetheless, comprehensive efforts to examine innovation in the public sector are scarce. Borins (2001) and Golembiewski and Vigoda (2000) have claimed that innovation and bureaucracy make an “odd couple” due to numerous differences in core principles. For example, bureaucracy relies on old organizational models (tradition, vertical communication channels, compliance, order, and control) rather than on innovative ones (creativity, commitment, mixed flow of communication, autonomy, and responsibility). Therefore, successful innovation is self-defeated when grounded in the classic bureaucratic models (Golembiewski & Vigoda, 2000).

The goals of the study are fourfold; (1) to review the extant literature on public sector innovation; (2) to develop a conceptual and testable model on the basis of the general management literature that can be used across Europe, or even globally; (3) to suggest a knowledgeable citizens' perspective for the analysis and understanding of public sector innovation; and (4) to recommend the best alternative among competing theoretical models.

Public Sector Innovation – This time from the citizens' perspective

Rogers (1983, p.11) defines innovation as "an idea, practice, or object that is perceived as new by an individual or another unit of adoption." His examples of innovative policies (and non-policies) and barriers to innovation in public administration and policy-making worldwide highlight a need for systematic approaches to exploring the inhibitors and facilitators of innovation. Rogers' ideas have been discussed by Vigoda-Gadot, Shoham, Schwabsky, and Ruvio (2005), who developed a comprehensive conceptual framework for a system-based analysis of antecedents to and results of innovation, based on current knowledge from the business and management sciences. This system-based approach advocates new methods for studying innovation. For example, the conventional approach to studying organizational innovation is through intra-organization perspectives such as employees' and managers' attitudes, technological or financial data, or best-practice comparisons across firms, cultures, or time (i.e., Berry, 1994; Borins, 2000a, 2001; Evans, 1996). While such an approach has been valuable in studies about innovation and its evolution in the modern world, they have largely overlooked the perceptions of citizens towards innovation and innovative activities of public sector agencies.

Such neglect stands in contrast with the increasing interest in studying citizens' perceptions of public administration performance in general (i.e., Ebdon & Franklin, 2006; Holzer & Kloby, 2005). Possibly, citizens' perspectives have gained more attention in the public administration domain because of the New Public Management (NPM) reform. Today, NPM is a codename for the infusion of successful managerialism into old-style bureaucracies. NPM has been exported to many developed and developing countries over the past two decades (Pollitt & Buckaert, 2000). A cornerstone of the NPM reform is viewing citizens as clients and improving services through market-based mechanisms (i.e., competition, integrative performance measurement tools, and innovativeness) (Lynn, 1998; Pollitt, 1988, 1993; Terry, 1998).

Moreover, the citizens' perspective can suggest new performance indicators (PI), in accordance with the NPM paradigm. Such PIs can be used to measure the levels of innovation, creativity, entrepreneurship, and willingness to adopt changes or emulate successful reforms. They may also foster openness to solutions that have not been tested yet in the public arena. Hence, the citizens' perspective may facilitate improvements and reforms in public administration based on new PIs. Like other NPM ventures, this process also builds on the knowledge gained in the business sector and has theoretical and practical advantages that will be discussed later in this paper.

Theoretical models: Antecedents to and outcomes of public sector innovation in Europe

Insert Figure 1 about here]

The literature suggests several individual- or organizational-level variables that can be related to innovation in the generic managerial environment context (i.e., individual factors of commitment, esprit-de-corps, and openness to change, and organizational factors of market orientation, sales, profitability, or competitiveness). Studies by Frambach and Schillewaert (2002), Shoham and Rose (2001), Jaworski and Kohli (1993), and Narver and Slater (1990) inspired our theoretical model (Figure 1). However, unlike these studies, our model recognizes and accounts for the uniqueness of public organizations' innovation and includes variables that are relevant to the nexus between citizens as end-users and public organizations as service providers (responsiveness, professionalism, organizational politics, morality and ethics, and leadership and vision). Amongst the outcomes of innovation, we focused on citizens' satisfaction with services, as well as on the less studied aspects of public sector image and trust in governance. Thus, while our model is partially based on previous studies, it also uses new variables in the context of modern bureaucracies.

Antecedents to public sector innovation

Responsiveness of public agencies to citizens' needs is the first antecedent that is proposed to relate with public sector innovation. The management science literature defines responsiveness as two sets of activities: design (using information to develop plans) and implementation (executing the plans). Thus, studies such as Deshpande, Farley, and Webster (1997), Kohli and Jaworski (1990), and Narver and Slater (1990) have emphasized information management and information dissemination as strongly related with responsiveness and building a learning process aimed at providing quality services or products based on clear and speedy timetables. Similarly, the responsiveness of public agencies may affect citizens' perceptions of their innovativeness. A responsive agency is one that is more oriented toward innovativeness as it adopts new and creative ways to address citizens' needs. Another important construct that may serve as an antecedent to innovation in the public sector is organizational politics. This construct reflects both the level of conflict and the use of power by organizational members in their efforts to influence others and secure interests, or, alternatively, to avoid negative outcomes within the organization (Vigoda-Gadot, 2003). Studies on workplace politics and conflicts (i.e., Cropanzano et al., 1997) have suggested that politics reflects fairness and justice in the organization. These studies have supported the notion that politics, fairness, and justice have substantial impacts on creative organizational climate and outcomes (e.g. Ferris & Kacmar 1992; Vigoda-Gadot, 2003). As such, organizational politics, especially as perceived by citizens (Vigoda-Gadot & Yuval, 2004), may potentially reduce innovativeness and creativity in any organization, including those of the public sector. Moreover, inter-personal or inter-departmental communications may also be harmed by higher levels of conflict and politics in the organization, which may then reduce innovation and innovativeness. Finally, studies indicate that public sector agencies are more exposed to intra-organizational conflicts and politics, mainly due to the nexus between the professional and the political cadres that often have diverging interests and visions (Vigoda-Gadot, 2003). This antagonism may reduce information dissemination, lessen responsiveness to citizens' needs and demands (Ruekert & Walker, 1987), and inhibit organizational innovativeness (Jaworski & Kohli, 1993). Antecedents to public sector innovation also include professionalism and the proper implementation of policies. Public personnel, as policy implementers, are responsible for transferring innovative technology, regulations, behaviors and processes to citizens. Public service systems may be perceived as more innovative when the professionalism of bureaucrats is high, resulting in improved responses to complex requests and increased

responsiveness in delivering services. The quality, skills, and training of public personnel, as well as their understanding of their jobs and their commitment to their duties, was found to have a positive effect on public sector performance at the personal, team, and organizational levels (Terry, 1998). In line with the rationale described for employees, we further argue that top public management and leadership plays an important role in instituting organizational changes or innovations in public systems (Moon, 1999). Management's attitude towards change and its willingness to take risks should affect innovation positively. A risk-adverse mindset typical of many state-controlled agencies might reduce innovativeness, and a risk-oriented one might enhance it (Damanpour, 1991; Rose & Shoham, 2002; Shoham & Rose, 2001). Leaders' support has also been identified as critical to the success of innovations (e.g. Jaworski & Kohli, 1993; Kohli & Jaworski, 1990; Selnes et al., 1996; Webster, 1988). Strong top management support increases the chance that innovations will be adopted. Finally, top management's vision in the public sector should stress innovativeness in order to make its importance apparent to all employees. Public administration studies have shown the importance of managerial and entrepreneurship vision in setting a clear policy and implementing long-range planning (Berry, 1994; Evans, 1996; Moon, 1999; Thompson & Ingraham, 1996), a view reiterated following the September 11th events (Sloan, 2002). A final potential antecedent to public sector innovation in our model is the ethics and morality of the public personnel cadre. Recently, administrative ethics and morality have become central in public administration studies (DeLeon, 1996; Gawthrop, 1976; Lui & Cooper, 1997; Richardson & Nigro, 1991; Suzuki, 1995; Wilenski, 1980). However, citizens' views about such topics are infrequently considered, particularly with regard to public sector innovation. We therefore expect that citizens who perceive public personnel as interested, honest, and ethical will expect to see them more innovative, creative, and caring about the systems they serve.

Consequences of public sector innovation

To date, most research on the consequences of public sector innovation has focused on the effect of innovativeness and innovation adaptation on organizational performance (e.g., Frambach & Schillewaert, 2002; Miles, Snow, Meyer, & Coleman, 1978). Such research has viewed public sector innovation and innovativeness as a strategy aimed at enhancing an organization's competitive advantage and performance. This approach highlights organization- and market-level consequences and focuses on the economic, business-oriented, or managerial outcomes of innovation. Hence, it may be considered as emanating from the NPM paradigm that emphasizes competition based on the economic considerations of a free market and implementing it, with some constraints, in the public sector arena (Lynn, 1998). Similarly, citizens' perspectives for analyzing the consequences of public sector innovation may be seen as another NPM element, which is useful for a better understanding of innovation. Our study is therefore geared to the wider citizen-oriented outcomes of innovative governance. We believe that satisfaction with services, trust in governance, and public sector image, as perceived by citizens, are the predominant characteristics of such citizen-oriented outcomes. Citizens' satisfaction has been used as a core measure of high performance in public administration, local governance, and other state or federal agencies (i.e., Van Ryzin et al., 2004; Vigoda, 2002; Vigoda & Yuval, 2003). Its analysis is based on a comprehensive, distinctive, reliable, and continuous assessment of governmental operations. Satisfaction measures have become prevalent in state and federal agencies, largely prompted by the client canon of NPM and by the vision of "putting citizens first" (Caiden & Caiden, 2002). Public administration officials also encourage the use of satisfaction measures as part of performance evaluations for public agencies (e.g., Poister & Henry, 1994; Swindell & Kelly, 2000). Similarly, trust in governance is another aspect of a well-performing bureaucracy. Trust is a psycho-political concept. To trust a person, a group, or an institution is to assume their reliability, to believe that they will act "as they should"

(Barber, 1983; Citrin & Muste, 1999). Psychologically, trust is an informal contract between at least two parties that brings some certainty into their relationship. Trusted people are expected to fulfill unwritten agreements, and thus, allow the trusting person to plan under the assumption that the agreement will be honored. Hence, trust has political implications that are relevant for national- and community-level relationships such as those between citizens and central and local government or other public administration agencies (Nye, Zelikow, & Philip, 1997; Vigoda & Yuval, 2003). Nonetheless, the linkage between trust and innovation in public administration has received little empirical consideration. Previous studies have suggested that citizens' trust is related to innovative knowledge sharing through inter-organizational networks (Hartley & Benington, 2006), to positive attitudes towards new and innovative health-care technologies (Calnan, Montaner, & Horne, 2005), and to innovative e-government initiatives (Carter & Martin, 2005). It is thus possible that trust is a reflection of the legitimacy that citizens confer on the bureaucratic system in response to innovative changes and reforms that try to make better use of public money. Finally, organizational image has been shown to impact private firms' outcomes (i.e., Dutton, Dukerich, & Harquail, 1994). The public sector's image and organizational outcomes (efficiency, customer satisfaction, intention to join/stay in the organization) are positively related (Cohen, Zalmanovich, & Davidesko, 2005; Vigoda-Gadot & Ben-Zion, 2004; Vigoda-Gadot, Vinarsky, & Ben-Zion, 2003). To the best of our knowledge, the relationship between public sector innovation and its perceived image in the eyes of citizens has not been yet fully explored. Consequently, we propose two versions of the theoretical model: one for image as a direct result of innovation (Model 1) and the second for image as a mediator between innovation and satisfaction and trust (Model 2).

Method

The PUBLIN project

This study was based on the EU's Fifth Framework Project of PUBLIN (Public Sector Innovation), conducted simultaneously in Ireland, Israel, Lithuania, Netherlands, Norway, Slovakia, Spain, Sweden, and the United Kingdom during 2003-2005. The project was designed to explore the nature of innovation in social and health services, its antecedents and results based on qualitative and quantitative methods. Except for the UK, eight country teams provided data on citizens' perspectives. Our analysis is based on this data.

Sample and procedure

Unlike other studies that use intra-organizational data/surveys or citizens' responses to assess the performance of public services (i.e., Carter, Klein, & Day, 1992; Van Ryzin et al., 2004), this study used the less conventional approach of surveying *knowledgeable* citizens as sources. Participants were senior and mid-level managers of third sector organizations who work closely with citizens and public sector agencies in social and healthcare services. The managers were authentic representatives of civic groups, as well as knowledgeable informants on governmental agencies. This approach allowed us to minimize biases due to a lack of awareness of public service outcomes and subjective evaluations based on word-of-mouth, two problems that frequently bedevil ordinary citizens' surveys. Respondents with tenure of at least five years with their organizations were asked to provide data based on their own experience with contacts with various public agencies.

All together, we distributed 1156 questionnaires in eight countries. A direct distribution and return method was used to maximize potential participants' commitment and to provide participants with confidence that the data they provided would be used properly. Country research teams selected between 5 and 10 organizations that worked closely with citizens and public sector agencies in the fields of social services (i.e., dealing with children in need, elderly populations, or the unemployed) or healthcare (public clinics or hospitals).

A total of 626 usable questionnaires were returned (an overall response rate of 54.2%). Received/distributed questionnaires and response rates (in parentheses) by nation were: Ireland: 118/200 (53.6%), Israel: 103/140 (73.6%), Lithuania: 68/120 (56.7%), Norway: 121/225 (53.8%), Slovakia: 81/120 (67.5%), Spain: 72/120 (60%), Sweden: 44/81 (54.3%), and Holland: 20/150 (13.3%). Thus, except for Holland, the response rates (53%-74%) were reasonable². The combined multinational sample included 64.3% females with an average age of 45.48 (s.d.=16.96) and an average of 15.64 (s.d.=3.94) years of education. Regarding income, 39.2% earned an average income in their country, 32.6% were below the average, and 28.2% above it. Unless stated otherwise, all questionnaire items were measured on five-point (1=strongly disagree to 5=strongly agree) scales,

Measures

Public Sector Innovation (INNOV): This variable reflects entrepreneurial actions, creativity, flexibility, a willingness to adopt new ideas, and the initiation of original enterprises to improve services to the people (Borins, 1998; Rogers, 1983). It was measured by three items: (sample item - "Creativity is encouraged in the public social/health sector"). Country-level internal reliability ranged from 0.60 to 0.90, and the overall reliability was 0.82.

Responsiveness (RES): This variable refers to the accuracy and speed of public sector reaction to citizens' demands. Relying on Thomas and Palfrey's conceptualization (1996), it was measured by three items evaluating the speed and accuracy of public services provided to citizens by the authorities in each country (sample item - "In general, the administration of the public social/health sector responds to public requests quickly"). Respondents were asked to report the degree to which they agreed with the items. Country-level internal reliability ranged between 0.77 and 0.86, with an overall reliability of 0.84.

Professionalism (PROF): This variable refers to the professionalism and quality of public personnel as perceived by citizens (Vigoda-Gadot & Yuval, 2004). It was measured by two items (sample item - "Employees in the public social/health sector in my country are professionals and highly qualified"). Country-level internal reliability ranged between 0.60 and 0.85, with an overall reliability of 0.78.

Organizational Politics (OP): This variable reflects the level of political considerations in administrative work and decision-making as perceived by citizens (Vigoda-Gadot & Yuval, 2004). A three-item scale to assess a country's public sector in general was used (Sample item - "The actions of the public social/health sector administration serve only the purposes of a few groups or individuals, not the public interest in general"). A higher score reflects a higher perceived level of organizational politics. Country-level reliability ranged between 0.60 and 0.84, with an overall value of 0.68.

Leadership and Vision (LV): This variable represents views about the quality and vision of leading administrative groups, managers, and senior bureaucrats. It was taken from Vigoda-Gadot and Yuval (2004) and includes two items (Sample item - "Senior managers of the public social/health sector in my country have a clear vision and long range view as to where we are going"). The reliability scores ranged from 0.63 to 0.91 across countries, with an overall value of 0.76.

² Additional information on the psychometric properties in each country can be obtained from the final reports of the PUBLIN project on <http://www.step.no/publin/reports.html>

Ethics and Morality (EM). This variable includes two items that describe attitudes about the ethics, morality, and fairness of civil servants (Vigoda-Gadot & Yuval, 2004) (Sample item - "In this country most civil servants in the public social/health sector show high moral integrity"). Higher scores represent a more positive (moral and ethical) view of the public sector. Except for Spain, country-level internal reliability ranged between 0.69 and 0.84, with an overall value of 0.75.

Trust in Government and Public Administration (TRUST). This variable refers to the level of citizens' confidence in state authorities and administrative branches (Citrin & Muste, 1999). It was measured using a list of eight state agencies and public organizations (e.g., the public social/health sector, public educational system, police, public transportation system, employment services, political parties, and parliament). Respondents indicated how much trust they had in each on a five-point scale (1= very low trust to 5=very high trust) with an option of indicating if they had enough knowledge to evaluate each service/institution. With the exception of the Netherlands, country-level reliability ranged between 0.68 and 0.86, with an overall value of 0.79.

Citizens' Satisfaction (SAT): This variable refers to citizens' satisfaction with six groups of institutions and organizations that deliver various services (the public social/health sector, the public educational system, police, the public transportation system, welfare and social security, and employment services). They were asked to report how satisfied they were with the treatment they received. Country-level reliability ranged between 0.60 and 0.82, and the overall reliability was 0.71.

Public Sector Image (IMAGE): This variable refers to the reputation and prestige of public bureaucracies in the eyes of citizens and was based on a scale developed by Dutton and Dukerich (1991) and Oswald (1996). We adopted a two-item scale (Sample item - "Many of my acquaintances think that a job in the public social/health sector is a respectable and a good one"). Country-level internal reliability ranged between 0.60 and 0.88, with an overall value of 0.72.

Analysis of models

Structural Equation Modeling (SEM) with AMOS 6 was used for the assessment of the research models. SEM is a statistical method that is based on path-analysis, and was originally designed to test competing models in the social sciences (Joreskog, 1977; Joreskog & Van Thillo, 1973).

Findings

Insert Table 1-4 & Figure 2 about here

Table 1 provides descriptive statistics for the research variables across the participating countries. The number of usable questionnaires in six countries (Norway, Ireland, Israel, Slovakia, Spain, and Lithuania) was above the minimum level of 50 that is required for independent statistical analysis under the principle of normal distribution. For Sweden and the Netherlands, however, it was rather low (44 and 20, respectively), which did not allow for an independent analysis. The table shows that most of the reliability levels exceeded 0.60 (except for ethics and morality in Spain and trust in governance in the Netherlands). Table 2 provides descriptive statistics and inter-correlations for the combined sample of 626 participants. Innovation was positively related with responsiveness, leadership and vision, and citizens' satisfaction ($r=.26$; $p<.001$, $r=.27$; $p<.001$, $r=.23$; $p <.001$, respectively).

The table further demonstrates somewhat weaker, positive relationships with public sector image, trust in governance, and ethics and morality ($r=.17$; $p<.001$, $r=.14$; $p<.001$, $r=.10$; $p<.01$, respectively). The correlations between innovation and organizational politics and professionalism were not significant.

Table 3 provides the fit indices for the models. The theoretical models were initially tested separately for each of the six participating countries that provided a minimum of 50 usable questionnaires (except for Sweden and the Netherlands). Results showed no significant differences in the quality of the models for these countries. Therefore, we combined the data and analyzed the integrative database.

As Table 3 shows, the analysis of the theoretical models for the combined data yielded weak fit indices, below the recommended levels in the literature (i.e., Bentler 1990; Bentler & Bonett, 1980; Bollen 1989; Medsker et al., 1994). Therefore, we decided to trim the original theoretical models and used several revised models that focus on specific antecedents. Table 4 shows that the three most influential antecedents to public sector innovation are responsiveness, leadership and vision, and organizational politics (the minimum level of the path coefficients with innovation was $.34$; $p<.001$, $.31$; $p<.001$, and $-.10$; $p<.111$, respectively). Thus, we analyzed five competing models (Figure 2; models A-E). Revised models A-C suggest a direct relationship with the outcome variables, and revised models D-E suggest an indirect relationship, with image serving as a mediator.

As shown in Table 3, model B demonstrates the best-fit indices amongst all the tested models, including the theoretical ones. Whereas its X^2 value is significant, its X^2/df value is the closest to 2, NFI, RFI, TLI, and CFI are the closest to 1, and RMSEA and ECVI are the closest to 0 amongst all other models. These findings indicate that this model is the closest fit with the theoretical conception. The other alternative models (A, C, D, and E) are also superior to the original theoretical models and are quite similar, based on their fit indices.

In addition to the models' fit, Table 4 allows an in-depth comparison of the models in terms of path coefficients and explained variance (R^2). Across the models (2 theoretical and 5 alternative models), responsiveness, and leadership and vision have a positive effect on public sector innovation, ranging between $.29$ and $.38$ for responsiveness and $.21$ and $.32$ for leadership and vision. As can be seen, path coefficients for model B work in the expected direction, as is the case for the other models. For example, model B's path coefficient between innovation and image is in the expected positive direction ($.31$; $p<.001$), as are D's and E's ($.34$; $p<.001$ and $.32$; $p<.001$, respectively) and the theoretical models 1 and 2 ($.37$; $p<.001$ and $.38$; $p<.001$, respectively). The only exception in all the models, including B, is the insignificant relationship between organizational politics and public sector innovation. Therefore, according to the path coefficients, and in contrast with the results based on the fit indices, it might be overstating the case to conclude that model B is the correct model. Furthermore, R^2 statistics show that the highest explained variance for innovation and for the dependent variables is with the theoretical models. It reaches a level of 36.7% for innovation in theoretical model 1 and 28.6% in theoretical model 2. In addition, explained variance for trust is 23.4% and 29.2% and for satisfaction 32.7% and 29.2%, respectively for theoretical models 1 and 2. The explained variance for image in the theoretical models is around 14%. In comparison with these scores, the explained variance in model B is 24.2% for innovation and 9.6% for image. Hence, these findings suggest that overall model B is the one with the best fit, but the other models may also represent significant relationships and advantages, especially in terms of explained variance, that should be considered in the discussion and implications section.

Innovation and citizenry outcomes in the European administrative landscape: Discussion and summary

The literature about public sector innovation lacks a comprehensive view that transcends nations, cultures, and populations. Most importantly, it largely overlooks the street-level perspective of citizens as customers or clients, a view of the public frequently suggested in much of the NPM literature. This study attempts to aggregate data over eight European countries and to propose an analysis of innovation in the public sector beyond these borders and from the less conventional approach of knowledgeable citizens' perspectives. One major finding shows that public sector innovation is best explained by citizens' perceptions of responsiveness and by leadership and vision in the European administrative landscape. The more responsive the public social and healthcare systems are, and the better leadership and vision they demonstrate, the higher the perceived level of innovation in these systems. This finding was consistent across the participating countries (at least for the six countries with a sufficient number of participants). The finding about the relationship between responsiveness and perceptions of innovativeness is consistent with several studies from the field of management and marketing (i.e., Deshpande et al., 1997; Kohli & Jaworski, 1990; Narver & Slater, 1990). In addition, and to the best of our knowledge, the finding about the relationship between leadership and vision and perceptions of innovativeness is less common and has received less attention in previous studies. Other variables such as the professionalism of public sector officers, the perceived level of ethics and morality among public sector employees, and internal politics as perceived by citizens seem important, but according to our empirical findings, demonstrated very little or no relationship with perceptions of innovativeness. Most of these relationships were found only in the bi-variate analysis and diminished in the more complex, multivariate analyses. Therefore, we conclude that these variables, although highlighted extensively in previous management and public administration studies (i.e., Jaworski & Kohli, 1993; Kohli & Jaworski, 1990; Moon, 1999; Selnes et al., 1996; Shoham & Rose, 2001; Webster, 1988), are only secondary to responsiveness and to leadership and vision in their effect on public sector innovation in Europe. Nonetheless, we believe that they still deserve attention in future studies. Another major finding of our study is the effect of both the independent variables and perceived innovation on the citizenry outcomes that were tested here. As demonstrated in model B, the best-fitted model (that also worked quite nicely according to the "plausibility criterion" of Joreskog and Sorbom (1994)), the most notable outcome of public sector innovation in Europe is the image of this sector in the eyes of citizens. While the effect of innovation on citizens' satisfaction and especially on trust in governance is also significant (see model C for comparison), it seems that the most salient effect is the direct relationship between innovation and image. Another support for the centrality of image is the modest, but interesting advantage of theoretical model 1 over theoretical model 2, both in terms of fit indices and in terms of most of the explained variance statistics. This finding offers additional support for the notion that image plays an important role in explaining citizenry outcomes of innovation, such as satisfaction with services and trust in governance. Thus, one may conclude that innovation and innovativeness in government agencies strongly improves the image of this sector in the eyes of citizens. Nonetheless, we still recommend that this interpretation be made with caution. It should be noted that the magnitude of this relationship in model B, although significant, is still inferior to the magnitude of the same relationship in the indirect models (D and E) and even more so in the theoretical models. Therefore, it is possible that the more accurate interpretation of our findings is that public sector innovation has a main effect on image, but in the same vein a secondary, relevant effect on trust in governance and also on citizens' satisfaction with services. In sum, whereas model B seems like the one with the best fit to the data, it is still far from being the only "correct" model in this study. Its major limitations are the fact that its fit indices are not optimal and the competitive advantages of the indirect models (D and E) in terms of path coefficients and

effect on the other dependent variables, trust in governance and citizens' satisfaction. Another limitation of model B is the fact that it demonstrated no superiority in terms of explained variance.

What are the theoretical implications of this study for European countries and even beyond them, for the collective knowledge about innovation in public sector organizations? We believe that a primary theoretical contribution can be made in the general context of innovation studies in public management. The citizens-as-clients perspective enriches the customer-marketing perspective by adding a dimension of the public marketing arena to the business-oriented studies on innovation. In the opposite direction, this study exemplifies how managerial thinking contributes to our knowledge in public administration, in line with the prevailing philosophy of NPM. Therefore, we argue that this study makes a cross-disciplinary contribution both to managerial and business thinking and to the specific field of public administration and public policy, as well as to public opinion and communication studies. In addition, the study contributes to our understanding of public sector innovation by adding variables that have not yet been studied in this context, such as responsiveness, leadership and vision, and organizational politics. Moreover, the fact that the theoretical models worked similarly in six out of the eight countries provides support for a more generic model of innovation that holds beyond national and cultural characteristics, at least for the European region. However, other studies are needed that adopt our strategy, methods, and/or tools to further support our ideas in a more universal context. In sum, this study attempted to discuss innovation in the public sector from the less conventional perspective of citizens' views, and relied on an original and extensive European dataset to explain some specific relationships in this context.

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Table 1:
Descriptive statistics for the participating countries

N	Ireland			Israel			Lithuania			Norway			Slovakia			Spain			Sweden			Netherlands		
	Mean	SD	α	Mean	SD	A	Mean	SD	α	Mean	SD	α	Mean	SD	α	Mean	SD	α	Mean	SD	α	Mean	SD	α
1. Innovation	2.95	1.41	.78	2.85	.91	.84	3.20	.75	.69	2.82	.85	.77	3.33	.94	.86	2.53	.94	.90	2.38	1.14	.80	2.48	.81	.60
2. Responsiveness	2.56	1.12	.86	2.72	.89	.84	2.83	1.63	.81	2.82	.85	.84	2.11	.68	.85	2.31	.78	.77	1.89	.90	.78	2.05	.64	.79
3. Professionalism	3.74	.62	.85	3.06	.99	.83	3.19	.74	.60	3.84	.79	.68	3.04	.66	.72	3.53	.80	.64	4.10	.74	.81	3.14	1.1	.81
4. Organizational Politics	3.23	.76	.67	3.25	1.07	.84	3.08	.93	.62	2.97	1.1	.68	3.17	.71	.70	3.07	.80	.64	1.66	1.38	.75	3.18	.91	.60
5. Leadership & Vision	2.77	.71	.76	2.72	.91	.82	3.00	.82	.73	3.34	.87	.73	2.82	.71	.78	2.87	1.0	.71	2.11	1.49	.63	2.75	.85	.91
6. Ethics & Morality	3.02	.71	.74	3.05	1.03	.69	2.61	.90	.82	3.51	.90	.70	2.76	.77	.69	3.34	.74	<.60	3.42	1.27	.77	3.07	.78	.71
7. Trust in Governance	2.79	.42	.80	2.75	.63	.82	2.88	.49	.71	3.31	.59	.79	2.61	.57	.82	2.71	.52	.68	2.83	.81	.86	2.75	.48	<.60
8. Image	3.81	.75	.70	3.30	.89	.67	3.37	.81	.70	3.83	.84	.76	3.11	.93	.76	3.68	.78	.64	2.14	.96	.60	3.75	.80	.88
9. Citizens' Satisfaction	2.89	.38	.60	2.84	.71	.82	3.00	.51	.68	3.28	.56	.72	2.83	.65	.85	2.85	<.60	.66	2.86	.58	.74	2.75	.47	.66

N=626

Table 2:
Descriptive statistics and intercorrelations matrix (reliabilities in parentheses) for the combined sample

	Mean (SD)	1	2	3	4	5	6	7	8	9
1. Innovation	2.86 (1.04)	(.82)								
2. Responsiveness	2.51 (1.03)	.26***	(.84)							
3. Professionalism	3.49 (.86)	.08	.29***	(.78)						
4. Organizational Politics	3.04 (1.03)	-.05	-.11**	-.29***	(.68)					
5. Leadership and Vision	2.87 (.94)	.27***	.41***	.41***	-.12**	(.76)				
6. Ethics and Morality	3.12 (.95)	.10**	.30***	.30***	-.25***	.41***	(.75)			
7. Trust in Governance	2.86 (.61)	.14***	.36***	.38***	-.18***	.37***	.42***	(.79)		
8. Image	3.46 (.95)	.17***	.30***	.30***	.03	.37***	.25***	.27***	(.72)	
9. Citizens' Satisfaction	2.94 (.58)	.23***	.40***	.37***	-.18***	.42***	.37***	.72***	.27***	(.71)

N=626; *p<.05; **p<.01; ***p<.001

Table 3:
Goodness of Fit Indices

Model	X ²	df	X ² /df	p	NFI	RFI	TLI	CFI	RMSEA	ECVI
Theoretical models 1	1269.66	191	6.67	<.000	.76	.69	.72	.79	.10	2.30
Theoretical models 2	1055.29	191	5.52	<.000	.80	.74	.78	.83	.09	1.96
Revised Model A	242.76	58	4.19	<.000	.91	.86	.89	.93	.07	.54
Revised Model B	131.45	47	2.79	<.000	.95	.91	.94	.97	.05	.35
Revised Model C	235.77	58	4.07	<.000	.91	.86	.89	.93	.07	.52
Revised Model D	339.35	82	4.14	<.000	.89	.84	.87	.91	.07	.71
Revised Model E	319.96	82	3.90	<.000	.89	.85	.88	.92	.07	.68

N=626

Table 4:
Path coefficients and explained variance (p values in parentheses)

Model Path	Theoretical Model 1	Theoretical Model 2	Revised Model A	Revised Model B	Revised Model C	Revised Model D	Revised Model E
RES → INN	.38 (<.001)	.34 (<.001)	.30 (<.001)	.29 (<.001)	.30 (<.001)	.29 (<.001)	.29 (<.001)
PROF → INN	-.05 (<.581)	-.09 (<.319)	-	-	-	-	-
OP → INN	-.09 (<.149)	-.10 (<.111)	-.07 (<.177)	-.07 (<.188)	-.08 (<.176)	-.07 (<.192)	-.07 (<.19)
LV → INN	.32 (<.001)	.31 (<.001)	.23 (<.001)	.22 (<.002)	.21 (<.003)	.22 (<.002)	.22 (<.002)
EM → INN	-.09 (<.340)	-.12 (<.210)	-	-	-	-	-
INN → TRS	.48 (<.001)	-	-	-	.33 (<.001)	-	-
INN → IMA	.37 (<.001)	.38 (<.001)	-	.31 (<.001)	-	.34 (<.001)	.32 (<.001)
INN → SA	.57 (<.001)	-	.44 (<.001)	-	-	-	-
IMA → SA	-	.54 (<.001)	-	-	-	.39 (<.001)	-
IMA → TRS	-	.54 (<.001)	-	-	-	-	.39 (<.001)
R ²							
INNOV	.367	.286	.265	.242	.249	.247	.245
TRUST	.234	.292	-	-	.107	-	.153
SAT	.327	.292	.192	-	-	.118	-
IMAGE	.137	.145	-	.096	-	.150	.105

N=626

Figure 1:
Multinational citizens' perceptions of public sector innovation in Europe: Theoretical models

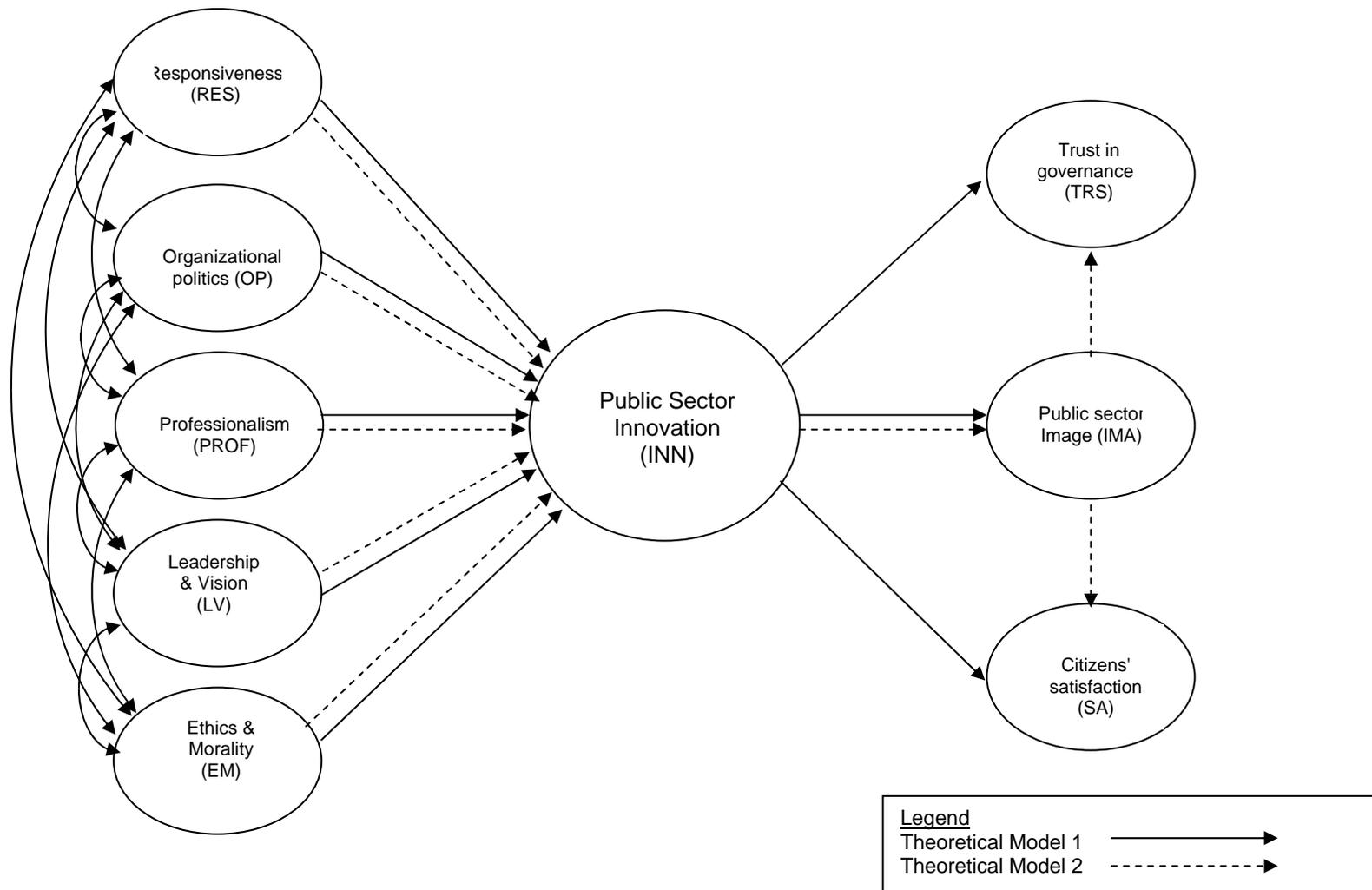


Figure 2:
Five revised models: Direct (A,B,C) and mediating (D,E) effects

