Internal Idea Management Contest as a Catalyst for a Culture of Innovation in the Public Sector. The Case of Madrid City Hall (Spain).

Juan Ramón Campos Blázquez
ESIC Business & Marketing School. Camino de Valdenigrales, s/n, 28223 Pozuelo de Alarcón, Madrid, Spain.
E-mail: juanramon.campos@esic.com

Guadalupe Calderón Martínez
UAM Cuajimalpa. Avenida Vasco de Quiroga 4871, Santa Fe Cuajimalpa, 05348, Ciudad de México.
E-mail mcalderon@correo.cua.uam.mx

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Abstract: As part of the current economic crisis, the public sector is subject to major budget constraints. At the same time, the demand for public services in many advanced countries is growing faster than the rest of the economy. Innovation can help to improve public sector efficiency (costs per service, reduced administration costs) and to deliver new and better quality services, but it continues to face a number of internal obstacles. This paper proposes the development of an innovation culture based on a process which encourages the participation of public employees and which promotes intrapreneurship as a mechanism to enhance the innovation capability. Through a single case study, we analyze a clear case of intrapreneurship achieved in a local government institution through the development of an innovation culture -Madrid City Hall (Spain) case- for which we have used the innovation culture model of Rao and Weintraub (2013) as a theoretical framework.

1. Introduction
The current revolution in Information and Communication Technologies (ICTs) constitutes what Carlota Pérez (2010, 2002) considers to be the fifth greatest movement since the Industrial Revolution. Each of the
biggest waves of world economic development, have given rise to a whole new set of organisational principles, and their corresponding externalities of knowledge and infrastructure which allow existing industries to modernize.

Another important transformation is the value now acknowledged in favour of intangible assets and human capital. While in the four previous technological waves the intangible elements were incorporated to material equipment and manufactured products, they are generally nowadays considered of greater added value. This fact does not only transform how production is organised, but it also requires an effort from both the financial and political sectors in order to respond to this new and different way of valuing knowledge.

Thus, when there is a massive change to technology, there is an associated transformation, not only to the way products are manufactured and purchased, but also in how they are organized and managed and the way markets are structured. According to Peluffo and Contreras (2002), as a result there must have also been key changes to public sector administration and organisational development in all economies which have adopted this paradigm.

In the public sector these transformations have been accelerated by several factors. First, in the current economic crisis initiated in 2007, the public sector has been subject to major budget constraints. Second, the demand for public services in many advanced countries is growing faster than the rest of the economy (Thenint, 2010) and finally, there is pressure to tackle challenges such as ageing, climate change and migration. In order to respond to these challenges, the public sector needs to continue to innovate, as innovation can help to improve public sector efficiency (costs per service, reduced administration) and to deliver new and better quality services. According to the general innovation results, the public sector in Europe innovates, but it still faces a number of internal and external obstacles. The European Public Sector Innovation Scoreboard 2013, identified internal barriers as lack of human and financial resources, a lack of management support and staff incentives, and a risk-averse culture or staff resistance. Therefore, it is worth finding mechanisms that help minimize internal barriers in order to enhance innovation capability in the public sector.

Borins (2006) divides the innovation barriers in public sector into three groups. The first, internal barriers, primarily within the bureaucracy, included hostile or skeptical attitudes, difficulty coordinating organizations, and public sector opposition to entrepreneurial action; the second, political barriers, arising in political environment and, finally the third, external barriers, caused by the environment outside the public
sector. The European Public Sector Innovation Scoreboard 2013 also highlights internal and external barriers.

Treating citizens as customers has been one of the key elements in transforming public sector from bureaucratic organizations into public service providers. Around this view has emerged Public Value Theory (Moore, 1995) and eGovernment (Stowers, 1999) which combined together have re-asserted a focus on citizenship, and the role of governmental and local administrations and public authorities in working with citizens to generate public value. Although some researchers have emphasized the different roles of citizen in the modernization of public sector, more in-depth studies should carry out to stimulate a more innovative-oriented culture in public sector organizations to remove its risk-averse culture and staff resistance.

The objectives of this study are: a. describe the steps to implement an internal idea management contest initiative which encourages the participations of all employees and which promotes intrapreneurship in a public organization - City Hall of Madrid (Spain) case-, b. analyze which elements of an innovative-oriented culture are influenced by that initiative.

We have used a single holistic case study design, adapted from Villarreal (2007) and Villarreal and Landeta (2010). This design has been drawn up using the most relevant contributions (Eisenhardt, 1989; Maxwell, 1996; Yin, 1998, 2014) from literature review. We use multiple sources of information to confirm evidence obtained in two phases. The first one, essentially qualitative, it was carried out to describe the motivations and characteristics of each stage of the internal idea management contest initiative in the city hall of Madrid (Spain). Gathering the evidence from: a. internal and external documentation review, b. multiple in-depth interviews to 11 key informers, c. use of physical, technological and cultural artefacts. In addition, we obtained a review of the case report developed by key informers.

For the second –quantitative- phase, we constructed an instrument based on the innovation culture model of Rao and Weintraub (2013) that we have used as a theoretical framework to analyze which elements of an innovative-oriented culture are influenced by the mentioned initiative. The instrument allowed to analyze the 54 items grouped in six dimensions: Values, Behaviors, Climate, Resources, Processes and Success. The questionnaire was sent to the 209 employees that participate in the initiative. From April 8 to April 22, 2015, we received answers from 72 participants. With this data we made an exploratory factor analysis (EFA) using SPSS v23 program.

The study provides a schematic diagram of the framework of an internal idea management contest initiative which encourages the participations of all employees and which promotes intrapreneurship in a
public organization. Some services have currently been launched as a result of this initiative.

Regarding the quantitative analysis, the results reflected that such initiatives have a positive impact on the values and success dimensions, helping to drive priorities and decisions, and to some extent drive actions from employees in support of innovation.

2. Theoretical background

2.1. Innovation Culture

Whereas innovation in the private sector is related to commercial success, this is rarely the case in public sector activities. Innovation in the public sector has been highly influenced by the emergence of ICTs. It can be said that the public sector has been very innovative in Information Technology (IT), but beyond the technological aspect of innovation, IT should be considered more as an innovation driver rather than an innovation in itself (Thenint, 2010).

While technology plays a vital role in the innovation process, a great deal of innovative activity is founded on an organizational structure which promotes learning and leverages knowledge. However, in order for this to be possible, conditions need to exist which favor the risk-taking practices inevitably linked to the new activity and from adopting new organizational models (Berger, 2005), and the ability to overcome any internal obstacles identified.

The term innovation is being used by organizations for describing many concepts, and ways of managing innovation found in literature vary according to the context and the scope of the analysis (Dobni, 2008), but overall innovation must constitute a certain novelty and provide substantial improvements. Some definitions are quite general and refer to the type of cultural behaviors to be adopted by employees.

For the purpose of this research, a culture of innovation is defined in a multi-dimensional context. We have chosen the Rao and Weintraub (2013) innovation culture model as a theoretical framework to explore which elements of an innovative culture improve in a public organization which provides resources for managing ideas to stimulate employee co-creation around intrapreneurship. This choice was driven by the selection of this model by the “Asociación Española para la Calidad (AEC)” (Spanish Quality Association) to carry out the first study of an Innovation Culture in Spain (AEC, 2014, 2015). This model considers that an innovative culture rests on a foundation of six blocks: resources, processes, values, behaviors, climate and success (figure 1). Each of the six building blocks
is composed of three factors (18 in all), and each of those factors incorporates three underlying elements (54 in all). As we move from those abstract building blocks towards more concrete elements, the innovative culture becomes more measurable and manageable – for example, the abstract building block of values involves the entrepreneurial factor, which can be further divided into hungry, ambiguity and action-oriented.

The building blocks are dynamically linked. Thus, the values of the organization have an impact on people’s behaviors, on the climate of the workplace and on how success is defined and measured.

**Figure 1** Components of the innovation culture model.


When it comes to fostering innovation, organizations have generally focused considerable attention on resources, processes, and success-measures, and have often paid less attention to those people-oriented dimensions, such as values, behaviors and working environment. As many managers have discovered, peoples’ values, behaviours and the working environment, are less tangible and difficult to manage. Below we describe each dimension in detail (Rao and Weintraub, 2013: 30).

**Values.** Drive priorities and decisions, which are reflected in how an organization spends its time and money. The more innovative organizations generously invest in fostering intrapreneurship, promoting creativity and in encouraging continuous learning. The values of an organization are less about what the leaders say or what they write in the annual reports and more about what they do and what they invest in.
Values manifest themselves in how employees behave, more in what they say.

**Behaviors.** Describe how people act in support of innovation. For leaders, those acts include a willingness to substitute existing products with new and better ones, to energize employees through a vivid description of the future and to reduce bureaucracy. For employees, actions which support innovation include perseverance in overcoming technical roadblocks, optimizing resources when budgets are tight and listening to customers.

**Climate.** An innovative climate cultivates engagement and enthusiasm, challenges people to take risks within a safe environment, fosters learning and encourages independent thinking.

**Resources.** Comprises three main factors: people, system and projects. Of these, people – especially “innovation champions” – are the most critical, because they have a powerful impact on the organization’s values and climate.

**Processes.** Processes are the paths that newly developed products follow, from the idea to the commercialization of the resulting innovation. One of the most utilized methods of the XX century, with the explosion of the manufacturing industry, is the innovation funnel managed by a stage-gate process. It is a model designed to manage the classic life-cycle of a product under development, where the funnel is a metaphor representing how the different ideas and projects filter through each stage of innovation until a product finally emerges (Domingo, 2013).

**Success.** The success of an innovation can have an impact at three levels: external, organizational and personal. In particular, external recognition shows how well an organization is regarded as being innovative by its customers and competitors, and whether an innovation has paid off financially.

### 2.2. Crowdsourcing

Over the course of the last decade, the literature on innovation management devoted much attention to new open models of innovation that facilitate knowledge exchange among the different actors in the innovation process (Villarroel and Reis, 2010). Crowdsourcing (Howe, 2006a, 2006b) is one of the new type of open innovation (Chesbrough, 2003) organization are increasingly seeing the potential of.

According to Howe (2006b):

“Crowdsourcing is the act of taking a job traditionally performed by a designed agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call”.
Crowdsourcing is a relatively new practice that has developed considerably during the last decade. Nevertheless, as a concept, it is still considered “under construction” (Schenk and Guittard, 2009), and as such, it remains underexplored. Many taxonomies of crowdsourcing can be found in the literature as explicit and implicit crowdsourcing (Doan, Ramakrishnan and Halevy, 2011), external and internal crowdsourcing, and so on, but for the purpose of this research we are focused on enterprise crowdsourcing (Scupola and Nicolajsen, 2014), internal crowdsourcing (Dimitrova, 2013) or intra-corporate crowdsourcing (Villarroel and Reis, 2010), in the form of an internal idea management contest.

Villarroel and Reis (2010, p.2) give the following definition of intra-corporate crowdsourcing:

“Refers to the distributed organizational model used by the firm to extend problem-solving to a large and diverse pool of self-selected contributors beyond the formal internal boundaries of a multi-business firm: across business divisions, bringing geographic locations, and hierarchical positions.”

Several studies have demonstrated that an internal idea management contest is a very powerful method for problem-solving and collaboration, but in order to be accepted as an innovation facilitator by employees, the internal idea management initiative should be designed and managed carefully.

First of all, success largely depends on how well the challenge has been specified. Another crucial factor is communication. An appropriate and intense communication plan is required during the full duration of the initiative in order to encourage participation. The transparency of the process is another key aspect. Special emphasis must be placed on explaining why the challenge exists and what criteria are being used to evaluate ideas. Finally, to get the trust of the employees it is mandatory to pursue the implementation of winning ideas.

The contest create urgency, help create buzz on social media, strengthen the relationship between the parties by building a sense of fun, and tend to give contributors a benefit for participating (often in the form of prizes, points, or other rewards). According to The American Productivity & Quality Center (APQC, 2013) they can also influence an organization’s culture to be more open.

In the following section we describe the methodology used for the Madrid City Hall case study.
3. Research method

In this research we have applied a case study methodology (table 1). The complexity of the research, such as its attempt to study the contemporary phenomenon within the organization in its actual context, justifies the suitability of this research strategy. This premise supports the use of case studies for demonstrating how an internal idea management contest which favours entrepreneurship influences the development of a culture of innovation in a public organisation.

For this purpose, following the methodological design proposed by Villarreal (2007) and Villarreal and Landeta (2010), based on the findings of the literature reviewed (Eisenhardt, 1989; Maxwell, 1996; Yin, 1998, 2014), several sources of evidence were used, obtained in two complementary phases of research. The first one, essentially qualitative, was carried out to describe the motivations and characteristics behind each stage of the internal idea management contest initiative in the City Hall of Madrid (Spain). Using methodological triangulation to validate the data, we gathered the evidence from: a. internal and external documentation review, b. multiple in-depth interviews with 11 key informers, c. use of physical, technological and cultural artefacts for recording interviews and for producing photographs. In addition, we obtained a review of the case report developed by key informers.

For the second –quantitative- phase, we constructed an instrument based on the innovation culture model of Rao and Weintraub (2013) that we have used as a theoretical framework. Using a Likert-type response scale with degrees of influence ranging from 1= without influence to 5= very positive, the questionnaire allowed the analysis of the initiative’s influence on each of the 54 elements corresponding to the six dimensions of the innovation culture model selected.

<table>
<thead>
<tr>
<th>Table 1 Case study data.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose of research</strong></td>
</tr>
<tr>
<td>Understand motivations, characteristics and key factors of an internal idea management contest initiative. Analyze which aspects of an internal ideas management initiative have a positive impact on the development of a culture of innovation in a public organization and its inherent components.</td>
</tr>
<tr>
<td><strong>Methodology of research</strong></td>
</tr>
<tr>
<td>Single holistic case study (single analysis unit). Descriptive and exploratory study.</td>
</tr>
<tr>
<td><strong>Single analysis unit</strong></td>
</tr>
<tr>
<td>A local public organization which has implemented an internal idea management initiative.</td>
</tr>
<tr>
<td><strong>Type of sample</strong></td>
</tr>
<tr>
<td>Logical and theoretical sample (capacity of transferability of the phenomenon studied), non-random (sampling and statistical generalisation).</td>
</tr>
<tr>
<td><strong>Sample</strong></td>
</tr>
<tr>
<td>Single case: case of the Madrid City Hall of an Innovation Culture development.</td>
</tr>
</tbody>
</table>
Evidence-gathering methods

- Documentary review (documentation and archives).
- Multiple semi-structured interviews with open-ended questions.
- Use of physical, technological and cultural artefacts.

Information sources

- *Internal*: internal reports and studies.
- *External*: publications, Madrid City Hall website and other websites.

Key informers

- Relevant employees, project managers and directors dealing with the internal idea management initiative.

Methods of analyzing the evidence

Essentially qualitative:

- Search for key factors
- Search for critical difficulties
- Identification and description of the steps to implement such an initiative.
- Analysis of critical decisions.

Partially quantitative (means and EFA).

Scientific approach

- Analytical induction through replication logic (analytical generalization).
- Deductive processes insofar as they arise from the theoretical propositions of the theoretic model.

Evaluation of the methodological rigor and quality

- Validity (constructive, internal and external), reliability, consistency (contextual and theoretical – interpretative).

Date conducted

- March 2015 – October 2015

Source: Authors.

Inspired by Yin (1998) and Villarreal and Landeta (2010) and its application in the context of international cooperation for innovation in the Dominican Republic case by Villarreal and Calvo (2015), in table 2 we summarize the rigor and quality assessment tests used in this case study.

<table>
<thead>
<tr>
<th>Test</th>
<th>Tactical</th>
<th>Research phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constructive validity</td>
<td>Prior analysis of the conceptual context and theoretical framework (theoretical triangulation).</td>
<td>Review of the literature</td>
</tr>
<tr>
<td></td>
<td>Structural design of the main conceptual elements based on the Innovation Cultural model of Rao and Weintraub (2013) (theoretical model).</td>
<td>Design of the research</td>
</tr>
<tr>
<td></td>
<td>Use of different methods for gathering the evidence (methodological triangulation):</td>
<td>Evidence gathering</td>
</tr>
<tr>
<td></td>
<td>- Documentary review.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Multiple in-depth interviews.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Use of physical, technological and cultural artefacts.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use of multiple sources of information (data)</td>
<td>Evidence</td>
</tr>
</tbody>
</table>
triangulation) to confirm evidence in different sources:

- Internal and external, direct (primary) and indirect (secondary).
- Varied typology: documentation, files, interviews, questionnaires, real physical context.
- Diversity of key informers faced with the same questions.
- Critical assessment of evidence compared by source.

Quasi-simultaneous and unified process of evidence gathering and analysis.

- Establishment of chain of evidence.
- Feedback of case report by key informers.

**Internal validity**

- Pattern matching (support in theoretical propositions).

**External validity**

- Eclectic and inclusive approach to the theoretical perspectives and focuses on culture of innovation and crowdsourcing

- Establishment of unit of analysis and selection of the case based on the potential of knowledge on the phenomenon studied (development of a culture of innovation).

- Selection of evidence-gathering methods (methodological triangulation) based on the potential for understanding the phenomenon under study.

- Application of replication logic (analysis of other case studies) to arrive at analytical generalisation.

- Consideration of the results of the research as an initial hypothesis for studies in future lines of research.

**Reliability**

- Creation of a study protocol and monitoring of guidelines as a guide for action.

- Preparation of a database that will organise, integrate and synthesise the information obtained from the different sources of evidence.

- Ethical commitment on effort, time, dedication and specific activities of the key informers involved.

- Rigorous assessment of ethical aspects in obtaining and analysing the evidence.

**Theoretical-interpretative**

- Prior understanding of the phenomenon and the context according to key informers (high degree
consistency of empathy with the frameworks of reference of the sources of information).

Use of techniques (starting protocol, open questions, semi-structured interviews) that will allow dialectic initiative by key informers.

Critical filtering of the contextual knowledge based on relevant conceptual and theoretical elements established in the theoretic model.

Contextual consistency

Attention to relevant contextual elements for explaining the phenomenon to be studied, even those not explicitly set out in the original model.

Consideration of the generic environment of the unit of analysis and critical assessment of the evidence based on this (macro) context.

Consideration of the specific environment of the unit of analysis and critical assessment of the evidence based on this (micro) context.

Source: Authors. Adapted from Villarreal and Landeta (2010).

3.1. Data collection

The main data collection method was semi-structured interviews with open-ended questions. The interviewees included key relevant employees, the IT project manager and directors involved in the idea management initiative. Some of the respondents were interviewed more than once.

In total we have conducted 11 interviews between March and October, 2015. The respondents were selected on the basis of their involvement with the internal idea management process. The respondents were proposed by the project manager based on the profiles we were interested in. Most of the interviews lasted around 90 minutes each. All interviews were MP4 recordings and transcribed. Moreover, an ongoing dialogue with our main contact in the City Hall had been taking place in order to identify any misunderstandings and to obtain additional insights both by telephone and by e-mail.

Documentation review and field notes were complementary collection methods in this phase. Internal sources included documents such as; outlines for submitting an idea; samples of submitted ideas; winning ideas, criteria for ranking ideas and idea selection. Material used for communicating the initiative was also included. In the case of external sources, web pages, associations and media were used to compile the information.

Subsequently, the designed instrument (questionnaire) was developed with the Eval&Go tool in order to facilitate implementation and ensure more efficient data recovery. The survey was sent by the project manager to the 209 city hall employees who submitted the 287 ideas. Between April 8 and April 22, 2015, we received 72 usable responses (34.4%
response rate). Demographic information for the respondents is presented in table 3.

**Table 3** Demographic Data for Sample Respondents

<table>
<thead>
<tr>
<th>Sex</th>
<th>Percent</th>
<th>Government Depart.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>45.83</td>
<td>City Hall</td>
<td>15.28</td>
</tr>
<tr>
<td>Female</td>
<td>54.17</td>
<td>Economy and Treasury</td>
<td>13.89</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Citizen Participation, Transparency and Open Government</td>
<td>9.72</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Culture, Sports and Tourism</td>
<td>11.11</td>
</tr>
<tr>
<td>Age range</td>
<td></td>
<td>Environment and Transportation</td>
<td>5.56</td>
</tr>
<tr>
<td>Less than 26 years old</td>
<td>5.56</td>
<td>Safety and Emergencies</td>
<td>12.5</td>
</tr>
<tr>
<td>Between 26 and 35</td>
<td>6.94</td>
<td>Urban Development</td>
<td>4.17</td>
</tr>
<tr>
<td>Between 36 and 45</td>
<td>29.17</td>
<td>Activities Agency</td>
<td>2.78</td>
</tr>
<tr>
<td>Over 45 years old</td>
<td>58.33</td>
<td>Information Systems</td>
<td>2.78</td>
</tr>
<tr>
<td>Job Category</td>
<td></td>
<td>Health</td>
<td>2.78</td>
</tr>
<tr>
<td>Executive</td>
<td>18.06</td>
<td>Districts</td>
<td>15.28</td>
</tr>
<tr>
<td>Administrative</td>
<td>26.39</td>
<td>Others</td>
<td>4.15</td>
</tr>
<tr>
<td>Employees</td>
<td>8.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>45.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1.38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors

To analyze the results (figure 3), we calculated an average for each question (element), the distribution of the responses for each question, an average for each factor (average of the three questions related to each factor) and finally the average for each dimension (the average of the three factors related to the building block). This provided a ranking of factors and elements which had been most influenced by the initiative. Additionally, with this data we made an exploratory factor analysis (EFA) using SPSS v23 program to identify which were the most relevant elements grouped in components.

3.2. Components and data analysis

Hair, Black, Babin, Anderson and Tatham (2009) recommend 6 steps for applying EFA: objectives, design, assumptions, factor derivation and overall adjustment evaluation, interpretation of factors, and evaluation of significance. In order to build the proposal, analytical induction was applied through the logic of replication (analytical generalization) and
deductive processes based on the theoretical propositions of the selected innovation culture model.

**Objective:** The objective of applying EFA is to determine factors which can group together different items on the questionnaire which have been most relevant, based on the characteristics of Madrid City Hall’s organisational culture.

**Design:** In addition to clarifying the main objective of analysis, the aim is to identify the type of data to be used. In this case the study variables are represented on a numerical scale.

**Assumptions:** The original idea is based on the assumption of normality. Using the SPSS v23 program, coefficients were observed on the correlations matrix; in general, an adequate level of correlation between variables is detected (Gorsuch, 1983; Pett, Lackey and Sullivan, 2003). The KMO as a way of distinguishing partial correlations from variable ones, can be interpreted through different thresholds; restrictive criteria eliminated those indicators which exceeded the minimum limit set at 0.7 (Nunnally, 1978). The use of Bartlett’s sphericity test shows that there is a statistically significant degree of correlation. (Bartlett, 1950; Hair et al. 2009).

**Factor derivation and overall adjustment evaluation:** Before applying EFA it is necessary to specify the statistical model for extracting new factors and for determining what number of these to apply. In this analysis we will select the Principal Components method.

**Interpretation of factors:** In order to achieve a satisfactory interpretation of the results the factorial axes were rotated through the Varimax method, in an attempt to maximize weightings by factor level, and so fully minimize the number of variables within each factor.

**Decision about the significance of factors.** Once the factors are rotated, it is necessary to assess the weightings of each one. During this stage it is important to make both statistical and practical evaluations in order to determine which variables are the most important and likewise to identify those which do not contribute and can therefore be eliminated from the analysis. In order to make a statistical evaluation we looked at the significance of the weightings - values of above 0.7 are considered relevant for this study (Gorsuch, 1983; Hair et al. 2009; Pett et al. 2003). Even though the EFA is used with at least 100 observations, regarding the size of the sample, at least five observations per variable is the recommended number to use (Costello and Osborne, 2005; Hogarty, Hines, Kromrey, Ferron and Mumford, 2005; Pett et al. 2003).
3. Results

3.1. Qualitative analysis

The City Hall of Madrid is the top-tier administrative body of the municipality of Madrid, Spain. It consists of the elected Mayor of Madrid, the Government Council and an elected 57-member Plenary with scrutiny powers, 9 Governments Departments and 21 City Districts. It has 25,410 public employees.

Madrid City Hall constitutes a clear case of intrapreneurship achieved in a local government institution through the development of an innovation culture based on an internal idea management contest initiative.

The initial idea was born in the Social Innovation Office with the aim of, in words of the initiative leader.

“Improving public services by leveraging the participation and the talent of all city hall employees. That was the essence of the initiative”.

“Innovando Juntos” (Innovating Together) is an initiative launched in 2014 in which public employees from both the Madrid City Hall and its autonomous entities are able to participate by submitting their ideas on how to improve public services and by voting for those which they find the most interesting.

The objectives pursued through this initiative have been:

- Encourage the participation of all Madrid City Hall employees in the proposal of innovative ideas for improving higher quality services and a more optimal use of resources.
- Incorporate the collective knowledge and experience of city hall staff, in order to improve public services.
- Move towards an innovative government in order to adequately respond to public demands and problems.
- Create a common space for all city hall staff, promoting a sense of belonging within the organization.

The problems or deficiencies they have attempted to overcome have been:

- Lack of models for active employee participation or of systems for identifying intrapreneurs.
- Failure to recognize talent in the organization or to leverage the experience of all city hall employees as citizens and as workers.
- Failure to encourage internal communication or the promotion of employee ideas regardless of their role within the organization.
• Failure to seek new formulas for responding to public demands with regards to efficiency and effectiveness in the XXI century government.

The initiative is divided into three stages (figure 2), detailed below.

**Systematic and Focused Gathering of Ideas.** For this stage a normalized process has been established. In the first place, the IT department of Madrid’s City Hall developed a tool which allowed city hall employees to participate by contributing and evaluating ideas. It includes the phases of i) planning: this took place between April and June 2014, in which the project’s steering committee outlined the challenge of innovative ideas for improving public services provided by the City Hall. ii) promotion: for this, the steering committee established a plan for sending e-mails to all city hall employees and created a specific area on the corporate Intranet. 12 e-mail submissions were made on the dates and to the number of members shown on table 4. The table also shows the impact in number of ideas presented during the period of participation, between June 16 and September 15, 2014, in response to the e-mails received.

**Table 4** Impact of the emailing campaign. Number of ideas submitted.

<table>
<thead>
<tr>
<th>Date of the emailing</th>
<th>Recipients</th>
<th>Subject</th>
<th>Ideas submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>05.30.2014</td>
<td>24,241</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.03.2014</td>
<td>24,304</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.16.2014</td>
<td>24,745</td>
<td>Launching of the initiative</td>
<td>10</td>
</tr>
<tr>
<td>07.04.2014</td>
<td>24,274</td>
<td>Comfort zone</td>
<td>8</td>
</tr>
<tr>
<td>07.09.2014</td>
<td>24,274</td>
<td>Acknowledgment</td>
<td>5</td>
</tr>
<tr>
<td>07.22.2014</td>
<td>24,303</td>
<td>Innovative personality test</td>
<td>8</td>
</tr>
<tr>
<td>09.03.2014</td>
<td>24,312</td>
<td>Musical staircase video</td>
<td>2</td>
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<tr>
<td>09.10.2014</td>
<td>24,294</td>
<td>Reminder last days. Balloon ideas</td>
<td>34</td>
</tr>
<tr>
<td>10.07.2014</td>
<td>23,824</td>
<td></td>
<td></td>
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<tr>
<td>10.13.2014</td>
<td>23,850</td>
<td></td>
<td></td>
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<tr>
<td>10.16.2014</td>
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<td></td>
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<tr>
<td>11.04.2014</td>
<td>23,804</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.05.2014</td>
<td>23,718</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Social Innovation Office of Madrid City Hall
iii) participation: between June 16 and September 15, 2014, any employee could submit ideas. iv) evaluation and selection of ideas, consisting in two sub-phases:

1. In the first sub-phase, the jury reviewed all ideas presented, 287 ideas submitted by 209 employees (each employee could submit a maximum of 3 ideas), and 20 were selected.

2. Between 6 and 19 October, 2014, all city hall employees could vote on the 20 pre-selected ideas. 2,811 employees voted for one idea each, and were not allowed to change the vote once submitted. As a result of this voting 5 ideas were short-listed.

The five short-listed ideas were:

- **Welcome to Madrid Mobile Application** (490 votes). The objective of the project is to have an information service in mobile format in several languages in order to improve the experience of visitors to Madrid. The application will provide useful information for visiting the city such as: routes, easy-to-understand maps, art, culture, gastronomy, transportation, services, event calendar, and also information for solving problems and carrying out administrative processes in Madrid.

- **Access and use of Social Services through TICs** (432 votes). The objective of the project is to improve efficiency, access, speed and simplicity of Social Attention processes through Information and Communication Technologies (ICTs) adapting them to current demand and to the change in the technological profile of the population.

- **Single Card** (335 votes). The objective of the project is to create a single card for all citizens with two variants - on paper or via mobile application - which facilitates citizen access to municipal services. This single card will allow the holder to be identified, use all municipal services, and to securely carry out payments and transactions with the City Hall.

- **Cultural Pass** (294 votes). The objective of the project is to design a web portal which features all municipal cultural offerings separately and attractively, whilst at the same time simplifying and speeding up the system for ticket purchases. It will provide several advantages for pass holders such as: discounts; bookings; instant access to free shows, guided visits, meetings with artists and other benefits. In addition to providing citizens with information and the possibility to purchase tickets at advantageous prices, it constitutes a powerful tool for the municipal administration of culture.
- **Municipal Social Advisory Body** (288 votes). The objective of the project is the creation of a Service aimed at providing support to citizens with difficulties of personal autonomy by obtaining and interpreting documents, completing forms, and generally facilitating any procedures with the Public Administration or utility companies.

**Project Development.** The objective of this phase was to enable the development of each one of the five ideas and convert them into viable projects in the City Hall. With this in mind, not only were team members provided with specific IT tools (portable computers and tablets) they were also provided with training in the use of tools such as Design Thinking, Osterwalder and Pigneur’s (2010) business model canvas, prototyping and elevator pitch. Once the proposals were developed, they were presented to a jury who finally selected the winner: “Single Card”.

**Roll-out in Government Areas or Districts.** In this last phase the business model hypotheses were tested with the potential citizens or users who had the need to satisfy. The information acquired was used to review assumptions and repeat the cycle, at least once, testing the re-designed prototype and making small adjustments (iterations) until the model was tested. Subsequently, the implementation plan was designed, which began with a pilot proposal.

**Figure 2** The internal idea management contest process and results for “Innovando Juntos” initiative.
3.2. Quantitative Analysis

After describing the motivations, the characteristics and the outcomes of the initiative “Innovando Juntos”, we presented the survey and EFA results. With the results of this analysis we set out to identify which aspects, considered to be key in a culture of innovation, are more significant.

According to the responses of those employees who participated in the survey (figure 2), they consider the “Innovando Juntos” initiative to have had a positive influence on the blocks: Values (3.18), Success (2.82), Process (2.62) and Climate (2.61), favoring factors such as Creativity (3.28), Learning (3.27) and Individual Success (3.03). In contrast, in the more action-oriented blocks, such as Resources (2.34) and Behaviors (1.98), its influence was less significant, highlighting factors such as Energize (1.86), Enable (1.96) and Engage (2.12), factors where the motivation provided by managers is key.

![Figure 3 Results of employee survey.](image)

Source: Authors.

According to these results, one can at first conclude that the initiative has been positive for providing a common process whereby every city hall employee can show their talent and contribute to improving the public services provided. However, it did not lead to managers assuming a more active role as “innovation promoters”.

With regard to EFA results, these show that from the initial measuring model made up of 54 variables, of which 18 are endogenous variables and 36 exogenous, 18 observed variables or indicators appear. In order to analyze the content validity, we took into account relevant literature as well as the qualitative analysis of the model’s application in the organization. Table 5 shows the initial eigenvalues. With the first component, the eigenvalue of which is 29.85, we are able to explain 55% of the total variance. When we add a second component we are able to explain 64% of the variance. In Social Science it is normal to consider as...
satisfactory a solution which represents at least 60% of the total variance (Hair et al., 2009).

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of variance</td>
</tr>
<tr>
<td>1</td>
<td>29.851</td>
<td>55.279</td>
</tr>
<tr>
<td>2</td>
<td>4.969</td>
<td>9.202</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Source: Authors

The component matrix showed the relationship of each one of the 2 components extracted with the variables from which they are composed. In this analysis we observed that all variables had a correlation of greater than 0.7 (Nunnally, 1978). In order to know the significance of the components it is necessary to rotate them.

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviors 1</td>
<td>.879</td>
<td></td>
</tr>
<tr>
<td>Behaviors 2</td>
<td>.908</td>
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</tr>
<tr>
<td>Behaviors 3</td>
<td>.893</td>
<td></td>
</tr>
<tr>
<td>Behaviors 4</td>
<td>.915</td>
<td></td>
</tr>
<tr>
<td>Behaviors 5</td>
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<td>Behaviors 6</td>
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<tr>
<td>Behaviors 7</td>
<td>.889</td>
<td></td>
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<tr>
<td>Behaviors 8</td>
<td>.913</td>
<td></td>
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<tr>
<td>Behaviors 9</td>
<td>.876</td>
<td></td>
</tr>
<tr>
<td>Values 1</td>
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<td>.785</td>
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<tr>
<td>Values 2</td>
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<td>.756</td>
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<td>Values 4</td>
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<td>Values 5</td>
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<td>Values 7</td>
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<td>Values 8</td>
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<td>.746</td>
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<tr>
<td>Values 9</td>
<td></td>
<td>.745</td>
</tr>
</tbody>
</table>

Rotation Method: Varimax with Kaiser Normalization.
Source: Authors.
Table 6 shows the result of this rotation which has been carried out using the Varimax method in order to clearly differentiate with which variables each one of the factors relates. Component 1 clearly shows more variables related with behavior, with which there is a correlation of above 0.76 in all cases. Component 2 is more closely related to values, which, in accordance with the model, determine priorities and decisions. The values of an organization show up in how people behave, more than in what they say.

4. Conclusion and discussion

The main objective of this study is to investigate if and how an internal idea management contest initiative can help to stimulate a more innovation-oriented culture in public institutions to overcome some of the identified internal obstacles in the public sector, such as: insufficient human and financial resources; lack of management support; lack of staff incentives; a risk-averse culture and staff resistance. Building on the Rao and Weintraub (2013) culture of innovation model, we begin to answer this question by analyzing the internal idea management contest initiative, “Innovando Juntos” (Innovating Together), organized by Madrid City Hall in 2014.

The first strand of findings shows that through its initiative, Madrid City Hall, has managed to enable participation, leverage collective intelligence, change behaviors, and definitely stimulate an entrepreneurial spirit within their organization.

A fundamentally innovative aspect of the initiative is the use of a contest format as source of new ideas and solutions in which all city hall employees participate equally and in which the administrative structure serves to strengthen and materialize creative ideas.

“Innovando Juntos” has allowed innovation in ways of working, bringing multi-disciplinary teams together with different profiles and responsibilities and promoting a more diverse, more transversal culture.

The Madrid City Hall case has demonstrated that some internal barriers such as; insufficient human and financial resources; a lack of staff incentives, staff resistance and a risk-averse culture can be overcome in cultures that encourage innovation and reward new ideas.

With regard to our study, the main problem identified was the lack of effectiveness of complementary actions (seminars) for raising awareness among coordinators and general managers as a way of encouraging the participation of their team members. Nevertheless, it is true that this task is complicated by a pyramidal organizational structure, with various levels of management, and by the standardization of public employee jobs.
The second objective of this study is to complement existing knowledge on crowdsourcing with extensive empirical research regarding the impact of crowdsourcing on a local government institution’s innovative-oriented culture and innovation strategies. More specifically, the research examined how crowdsourcing influences a public organization’s innovation culture by studying an internal idea management initiative of Madrid City Hall, Spain. It also documented and analyzed the use of crowdsourcing as an innovation strategy in terms of providing strategic foundations, processes, and technologies that supported the implementation of the initiative.

Therefore, on a practical level, the research provides other public institutions with valuable, new empirical information which can help them identify successful practices for implementing an internal crowdsourcing initiative to enhance their innovation capability and deal with the increasing competitiveness among European cities (Parkinson, Hutchins, Simmie, Clark, and Verdonk, 2004) to attract talent.

Innovation requires thinking and acting differently and Madrid City Hall has looked to achieve this through city hall employees, creating a method for channeling talent, for continuing on the path of innovation and becoming a more efficient, flexible, agile and transparent Administration.

Although the type of single case study used here allows considerable quality and depth of information, it should be accepted that it constitutes a relevant limitation to any wider application of the conclusions. The single case study reduces the chance of using Yin’s replication logic, compared with a multiple-case study. In this regard, it is proposed as line of future research to use Yin’s replication logic, both in other cases with a similar context (literal replication) and in different contexts (theoretical replication), with a view to achieving a greater degree of transferability (Maxwell, 1996).

Acknowledgements

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References


