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Crowd innovation:

The role of uncertainty for opening up the innovation process in the public sector

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Abstract

Innovations are complex processes that can be created internally, caused externally or generated collectively with stakeholders. Integrating crowdsourcing and open innovation and supported by Web 2.0 technologies, a new innovation practice, crowd innovation, has emerged. In this paper, we illustrate empirically the practice of crowd innovation and discuss institutional obstacles, which exist for implementing crowd innovation in the public sector. Referring to the normative mode of publicness we argue that a lack of discretionary power due to unfavorable positions and insufficient political and managerial support causes uncertainty and inhibits public managers to implement crowd innovation.

Key words: innovation process, publicness, Web 2.0, crowd innovation.

Introduction

Innovation in the public sector and specifically policy innovation have been addressed sufficiently in the literature especially in the last three decades (Berry, 1994; Grady, 1992; Osborne & Brown, 2005; Windrum, Koch, & Koch, 2008). Innovations are complex processes, which can be created internally, caused externally or generated collectively with stakeholders. Traditionally, many studies described innovation processes as linear and one-dimensional. More recently authors have argued that innovation processes are open, dynamic and fuzzy, and, therefore, unpredictable and impossible to control (Røste, 2004; Thamhain, 2003). Across both schools, most authors agree that the development of an innovation can be illustrated by three process phases: idea generation, idea design, and idea implementation (Osborne & Brown, 2005; Roberts & King, 1996; Tushman, 1977).

Crowd innovation addresses the innovation process, suggesting broad participation especially when it comes to idea generation. This article adds to existing work on innovation processes and innovation management in the public sector by providing insights into two aspects: First, we conceptualize crowd innovation. Second, we analyze obstacles of its implementation and provide insights why public organizations still reject the new practice of crowd innovation. Our research focuses on the question what role institutional factors play in the selection and implementation of crowd innovation processes in the public context. In order to study this exploratory research question, we chose a comparative case study approach. We selected six case studies within the field of regional planning conducted in Germany. Three of the case studies employ concepts similar to crowd innovation while the other three case studies use traditional ways of closed-innovation flanked by limited information and communication practices.

On one side, our results unveil how crowd innovation is used to achieve citizens' acceptance of major changes, to improve service and customer orientation, and to introduce a dynamization of public sector innovation processes. With higher means of public trust and accountability and a greater number of citizens served, crowd innovation can even be a chance to reform public innovation management towards enhanced publicness. On the other side, our study sheds light on important hurdles of the implementation of crowd innovation. Based on case studies, our study has its limitations concerning transferability and representativeness. However, our concept of crowd innovation and the identification of factors that cause uncertainty and may hinder the implementation of crowd innovation contribute to the existing literature on innovation management in the public sector.

This paper has been divided into five parts. The paper begins with a brief overview of innovation and innovation processes in the public sector, resulting in the conceptualization of crowd innovation. The second part outlines the research design and the methods we used. The third part describes the case

studies and our results. The results are discussed in the fourth part of the paper. Finally, we will conclude the paper with remarks on crowd innovation and notes on further research.

Innovation, Innovation Processes and Crowd Innovation in the Public Sector

Rogers (1995, p. 35) definition of an innovation as “an idea, practice of object that is perceived as new by an individual or another unit of adoption” is widely acknowledged. According to this definition, innovation is socially constructed and embedded in an enclosing frame (Newman, Raine, & Skelcher, 2001). With the rising interest in innovation in the public sector, several definitions of innovation and innovation typologies evolved and can be found in the public sector literature. More recently, definitions have emphasized implementation, usage, and repetition as important characteristics of an innovation. The authors argue that without the focus on implementing an idea and repeating its implementation in different situations, the idea would not develop into an innovation (Damanpour & Schneider, 2008; Fuglsang, 2010).

The increasing interest in innovation in the public sector led also to a decline of hypotheses stating that public sector organizations in general were less innovative than private sector organizations (Windrum, 2008). Instead, authors focused more on certain success factors of public sector innovation. Many authors have concentrated on the role of leadership and public entrepreneurs (Bartlett & Dibben, 2002; Bason, 2010; Mack, Green, & Vedlitz, 2008). However, reality does not have much in common with the romantic appeal of the lone entrepreneur fighting against all odds. Most authors acknowledge that this idealistic image is difficult to sustain in our complex interdependent world (Roberts, 2006).

Other authors have emphasized the relevance of institutional and environmental factors like organizational aspects or politics (Bernier & Hafsi, 2007). Favorable institutional and environmental factors have been described as support from the top, rewards and awards, sufficient resources, a diversity of perspectives, initiatives from middle managers and front-line staff, and a culture of continuous learning from good practice and experimentation (Borins, 2001). Therefore, for realizing innovation in the public sector it needs both: a favorable environment as well as public entrepreneurs who deal with uncertainty (Bason, 2010; Roberts, 1999, 2006).

Windrum (2008, p. 8) identified the following six major categories of innovation in the public sector:

- Service innovation
- Service delivery innovation
- Administrative and organizational innovation
- Conceptual innovation
- Policy innovation, and
- Systemic innovation

Service innovation and service delivery innovation focus on new products and new or altered ways of delivering the services to the customer. Administrative and organizational innovation addresses

changes of organizational structures and routines. Conceptual innovation encompasses strategies or rationales that are lying behind structures and routines. Policy innovation involves changes of thought or behavioral intentions. Systemic innovation, the last category, has been described differently. While Chesbrough and Teece (1996, p. 128) refer to systemic innovation as an innovation “whose benefits can only be realized in conjunction with related, complementary innovations”, Windrum (2008, p. 10) describes systemic innovation as “new and improved ways of interacting with other organizations and knowledge bases”. However, both descriptions have a process view on innovation and emphasize its complexity.

Accordingly, innovation processes do not develop in a linear fashion but are naturally complex and evolve incrementally (Rossi, Russo, Sardo, & Whitford, 2010). Moreover, innovation processes, as a result of interaction between various economic and social processes and enhanced by IT solutions and globalized practices, are a complex task to manage. The impossibility to predict or plan critical developments, which influence the organization but are out of reach from top managers, calls for a different understanding and new ways of managing innovation processes.

In this paper, we understand crowd innovation as a management practice that has its roots in the concepts of open innovation (H. W. Chesbrough, 2003) and crowdsourcing (D.C. Brabham, 2008) and makes use of Web 2.0 technologies. While open innovation allows for the integration of stakeholders beyond organizational boundaries (H. W. Chesbrough, 2003) the focus of crowdsourcing is on the use of the wisdom of the crowd (Howe, 2008; Surowiecki, 2004). Various authors have argued (e.g. Manley, 2002) that aggregating ideas from many will lead to decisions and solutions that are better than it could have been done by a single entity. Consequently, openness and transparency are the two main principles of crowd innovation (Gassmann, 2010). Crowd innovation can be organized in a formal or informal way and may involve clients, customers, research organizations, regulators, and related organizations beyond organizational boundaries (fig.1) (Manley, 2002).

Figure 1 about here

With observations of alternate ways of idea generation and design, different concepts emerged like high involvement innovation (Bessant, 2003), democratization of innovation (Von Hippel, 2005), crowd collaboration (Brown, 2007), and collaborative innovation (Bommert, 2010). With our conceptualization of crowd innovation we do not want to come up with another buzz word trying to integrate all other terminologies. The reason behind choosing this term lies in our understanding of the two elements “crowd” and “innovation”. The concepts of open innovation and crowd sourcing in the public sector have been described from a citizen-centric perspective (e.g. Bason, 2010). In practice though, when implementing crowd innovation not only citizens are involved but all people interested in the public domain. We decided to choose the term crowd to express that Web 2.0 technologies make it possible to interact and collaborate easily in the innovation process beyond jurisdiction

boundaries. Turning towards the term innovation, we follow Fuglsang (2010) and see repetition and impact as key preconditions for speaking of innovation. This means that an innovation has to contain some elements that can be used in different contexts in order to be meaningful. Furthermore, an innovation has to have the potential to be implemented and accepted in an organization, at the market, or in society.

With the rise of Web 2.0 technologies it is easy to reach large numbers of external actors by now. Motivations for introducing crowd innovation vary between reacting to increased actor complexity, new participatory practices from citizens, or lack of trust in government (e.g. Nam, 2010). Further proactive motifs are harnessing scarce resources, improving problem solving, attaining representation and legitimacy, or increasing innovativeness and creativity (e.g. Bason, 2010). Benefits of the concepts of crowd innovation are described in the literature as a faster, more effective, and cheaper initiation of the innovation process whilst getting to know customer needs (Daren C. Brabham, 2009; Fuglsang, 2008). Four different main fields exist where crowd innovation is seen as an opportunity: Idea generation, product development, problem solving, and collaborative creation (Gassmann, Daiber, & Muhdi, 2010).

The generation of ideas in a broad manner is adequate for determining the public opinion or a trend. The relation between the organization using crowd innovation for the generation of ideas and the crowd is mainly not binding. Examples are ideas competitions realized online using simple Web 2.0 solutions like Twitter or Facebook. Participants will not only get the opportunity to enter an idea but also to evaluate ideas from other actors.

The initiation of a new product, its development and design, already asks for more interaction between the crowd and the organization. The same is true for the solution of a given problem that the organization works on. In general, the threshold to participate is higher for product development and problem solution compared to the generation of ideas. In most cases these fields already inquire more time and expert knowledge from the crowd. However, (IT) solutions exist that can guide actors through the development process without requiring specific knowledge but their interest in the solution.

The area of collaborative creation demands more engagement from the crowd since the organization and the crowd develop a product together. Most examples can be found in the common creation of knowledge like wikis where content is user generated and the organization is mainly moderating the process.

Realizing crowd innovation is a far-reaching management paradigm shift and develops with the number of people who participate in the process. Three fundamental challenges exist for public organizations in applying this concept:

- finding creative ways to exploit internal innovation,
- incorporating external innovation into internal development, and
- motivating outsiders to supply an ongoing stream of external innovations (West & Gallagher, 2006).

Among those organizational behavioral patterns that need to be changed are a) breaking rules and conventional management routines, b) becoming accustomed to upside-down thinking to amplify organizational boundaries, c) process facilitation, d) developing sophisticated networking evolution skills, e) establishing an effective stakeholder management system (Hafkesbrink & Scholl, 2010).

For the realization of an interactive crowd innovation process the organization has to decide beforehand which processes should be created openly or where internal resources are adequate. Furthermore, for the sustainability of the approach it is beneficial if it is realized in a permanent manner and not for a unique event. In addition, the organization can consider integrating the best spin doctors of the crowd into a closed co-creation process (Slowinski & Sagal, 2010).

Research Design and Methods

Regional planning is one of the first fields where crowd innovation has been implemented (Daren C. Brabham, 2009). In Germany the legal basis already asks for a transparent planning process. According to the federal Town and Country Planning Code (BauGB) municipalities have to inform citizens early about the objectives, consequences, and alternatives of new regional planning projects. The general town planning scheme has to be presented to the public. During a period of one month, citizens can express their opinion and have the option to hand in written responses. The public entity in charge of the regional planning project has to analyze all regular responses and inform each claimant about the official decision (§ 3 part 1 and part 2 BauGB) (Battis, Krautzberger, & Löhr, 2002).

More recently, public managers of regional planning entities on the local level started to implement new approaches to extend participation using information technology and Web 2.0. Since these first attempts of crowd innovation describe a new phenomenon in the public sector, we chose an exploratory research design and a comparative case study approach for our study. This approach allowed for an explanation of factors that support or hinder the implementation of crowd innovation. Three of the case studies employed concepts similar to crowd innovation while the other three case studies had not used crowd innovation for regional planning projects. The data collection and analysis lasted from September 2010 until February 2011.

Based on the literature review we made the following assumptions: First, crowd innovation is particularly interesting for large cities and key projects since major regional planning projects affect a large number of people. Second, experiences regarding crowd innovation diffuse within public administrations.

In order to identify six consistent case-studies we followed a three-step approach. First, we developed a list with all major German cities above 500.000 inhabitants (13) and their main regional planning projects realized within the last 10 years (from 5 up to 12 per city). Second, we called every project manager to examine the status of the project and if crowd innovation activities were used. Third, we selected three cities where crowd innovation has not been implemented in major projects and three case studies where crowd innovation has been applied. Since our second assumption was that experiences regarding crowd innovation diffuse, we checked those cities without crowd innovation experience additionally to make sure no crowd innovation projects existed in general. Our selection criteria enabled a comparison of the findings across the case organizational contexts while offering a degree of generalizability in the findings (Eisenhardt, 1989).

We began our data collection with gathering documents like political decisions, protocols, project descriptions, project evaluations, media reports, newsletters, comments in internet blogs, and general data. In addition, we conducted twelve semi-structured interviews with all project managers and further important project actors. Two researchers were coding the transcripts from the semi-structured interviews and evaluated the results from the literature analysis. This approach was taken to enhance the creative potential of the study and to enhance confidence in the findings (Eisenhardt, 1989).

For the coding procedure we developed descriptive codes first. The descriptive codes were related to motivations, opinions, influences and arguments concerning decisions and activities in the innovation process. We then reduced these codes to interpretative clusters (Miles & Huberman, 1994), according to whether they were qualitatively similar or different in character and purpose (Jarzabkowski, 2008).

Questions we asked considered the project managers and their role during the project, important political decisions, the overall process of the project, the project planning procedure, and the role of other actors throughout the process (e.g. architects, citizens, consultants, researchers). The questions that we asked interviewees from projects with crowd innovation differed to some extent in order to gather information about the practice of crowd innovation.

Case Study Description and Results

The first case GER A was executed in a city with about 600'000 inhabitants. GER A was one of the first large projects to use crowd innovation. The topic was the construction of a new public swimming pool and the remodeling of the surrounding area. In 2004, the city government decided to renew the by then 80-year-old pool. In order to generate ideas about the new pool and the area crowd innovation was used. The only requirements for the new pool were lower operational costs compared to the old public pool. The decision for using crowd innovation was made in February 2004 before the city decided upon further project details. The crowd innovation process was made possible by an online forum hosted by the city. The crowd innovation process lasted five months and led to about 50 substantial ideas. The people interacting in the online forum had diverse backgrounds: teens,

professional swimmers, parents, elderly people, neighbors or just interested people. The online forum was supported by press releases, media events, public discussions, and intense workshops. A group of the city's most important associations and interest groups, in total 26 members, was responsible for coordinating process and editing the content. The group met once a month and was also involved into the later decision-making process. From the beginning of 2006 until August 2006 the pool was reconstructed and redesigned according to suggestions from the whole process.

The city of GER B has more than one million inhabitants. The main focus of the project was the new construction of the city's university, which needed new buildings and more space. Four scenarios illustrating possible locations for the new University with general remarks on the number and height of buildings had been designed by experts. These four general scenarios were discussed and evaluated by the crowd. The participation process lasted from April 6 until April 29 in 2009. The 221 users who registered on the online-platform posted 756 ideas.

The city of GER C has more than 1 million inhabitants. The project described was about the usage of a former airport and its surrounding area. The reason why crowd innovation was used was to gather information on the citizens' needs and interest and to react to widespread criticism on the political decision to close the airport. The crowd innovation process was separated in two online project phases: a citizen's survey and a moderated discussion of ideas. Both were conducted in 2007. In the first phase more than 1.000 interested individuals registered and submitted more than 900 ideas. In the second phase, 1.400 individuals registered and proposed 400 new ideas, revised more than 560 ideas, left about 1.600 comments, 10.000 ratings and 860 links.

The city of GER D has about 600.000 inhabitants. The project was about transforming a former freight depot into a new neighborhood area. After the city bought the area for a very high price in 2001, they initiated an architecture competition and decided in favor of a mixed type of use including apartments and business buildings. Due to the high costs in the beginning, financial demands existed regarding the cost-effectiveness of a neighborhood area. Instead several politicians and top managers preferred the idea of a business park. As a result, political legitimacy decreased after the architecture competition. Since the political support and support from top public managers was not stable, crowd innovation or even broad participation was seen as hindering.

The city of GER E has also about 600'000 inhabitants. The project deals with the construction of a new part of the subway in the city. The political decision for realizing the subway was done in the 1990s. The decision and also its realization were supported by all governmental parties. Due to the political consensus, detailed planning, and intense information activities parallel to the construction, no need was seen for crowd innovation. The planning activities began in 1999. After a competition for architects in 2006, the city started the constructions in January 2008. Several so called information officers dealt exclusively with immediate neighbors of the construction site.

The sixth case GER F was employed in a city with again more than one million inhabitants. The project is the development of a new neighborhood area with apartments and business buildings. The political decision about using the area was made more than 40 years ago. It was argued that people were ever since aware of the project plan so there would be only few critical arguments against it. While interaction is basically concentrated on planning activities together with architects and landscape architects, more information activities for the citizens were thought to be integrated after the decision of the architecture competition.

Describing the results of our case study analysis, first, we illustrate the reasons that led to the implementation of crowd innovation in the case studies GER A, GER B, and GER C. Afterwards we compare these results with the results from the case studies GER D, GER E, and GER F (table 1).

In all three case studies that used crowd innovation some experience with broad participation approaches and processes similar to crowd innovation existed. Experience did not necessarily occur within the same entity but public managers shared knowledge between entities. Due to their experience, project managers acknowledged several risks about involving the crowd into the innovation process. However, interviewees described their agencies, the municipal administration, and the project managers as eager to try something new.

In all three case studies political support for using crowd innovation existed. Especially, in GER B political support was almost seen as granted. In GER A political support increased over time due to the engagement of one senior member of the government. In GER C political support was granted from the governing coalition. The members of the government expected that the crowd innovation approach would lead to further legitimacy of their decision to close the airport.

Not least, the concernment of citizens was seen as high in all three projects. Therefore, project managers as well as politicians regarded crowd innovation as a way to become aware of citizens' needs and to foster broad acceptance of the project. Further arguments were the opportunity to demonstrate "something positive" and the general interest in citizens (GER C). Important was also the recognition of citizens' moods and the chance to get decision-making support (GER B). Moreover, project managers acknowledged that the project concerned a public area with great meaning for the community (GER A).

In all three projects transparency, continuous information, and detailed documentation was seen as key. Therefore, crowd innovation led to high expenses and additional costs even though concrete figures were not available or incomplete. However, project managers from all three cities emphasized that it was worth the effort. Top managers of other public entities in the three cities acknowledged the results and saw the projects as good practices of crowd innovation. The project managers themselves stated that they would do everything exactly the same way again.

Table 1 about here

Turning towards the results of the case studies without crowd innovation, it becomes obvious that project managers did not regard crowd innovation as necessary (table 1). Reasons for not introducing crowd innovation was based on the opinion of project managers that the task was seen as inappropriate for using crowd innovation. Interviewees from GER D held the view that not everyone's interest could have been satisfied and that it was "too early in the process" because political support was lacking. In the project GER E accurate planning, political support, and intense information activities were described as sufficient. Therefore, crowd innovation was regarded as obsolete. Interviewees from GER F stated that the decision to develop a new neighborhood would exist already in everybody's mind so that citizens were aware of the fact that apartments and office buildings would be constructed as soon as more space was needed. Therefore, the project manager of GER F regarded formalized participation during the official city planning procedures as adequate.

All interviewees (GER D, GER E, and GER F) knew about crowd innovation approaches in other cities and criticized the way most crowd innovation approaches were implemented. Their understanding was that projects first have to reach an advanced planning phase when most elements are already concretized. The opinion dominated that the crowd would not be able to contribute anything advantageous if the question was too exposed.

All project managers of the six projects were aware of the public pressure and the effects their projects had on individuals. In all projects a large amount of information was accessible via internet, newspapers, events, and personal networks of the project managers. However, besides similarities regarding the provision of information, the design of the innovation process was different. Besides information activities that all project managers regarded as key, some public managers decided to use crowd innovation. The institutional factors that were supporting their decisions as well as the individual motivations of project managers differed to a large extent from projects that did not use crowd innovation. The cities GER A, GER B, and GER C had experimented with crowd innovation for several years by now. They had started with small projects, tried out new technologies and experienced the dynamic forces of open innovation processes. Managers of these projects were aware of risks and costs. They realized that topics with limited discretion were as inadequate as demands that were too excessive like offering details that can be understood only by specialists like landscape architects, ecologists, or road agents.

Most important was, however, the position of the project managers within the organization and certain discretionary powers granted by chief executives and politicians. In general, all project managers were highly respected within their agency. In the case GER E the project manager was granted political support. However, as an external project manager coming from the private sector he was appointed by the municipal government in order to implement an already developed project plan within an existing

cost and time frame. Therefore, even if the project manager would have argued in favor of crowd innovation it would have been impossible to change the project plan afterwards. With regard to the other two cases GER D and GER F the project managers had limited discretionary power. In case GER D not only politicians raised concerns against the project as a whole but also the department of finance. In case GER F the project manager was newly appointed and was in the need for political support as well as support from chief executives.

Discussion

The decision for the implementation of crowd innovation did neither rely on an initiative from the political system, nor new leadership personnel, an external crisis, or internal problems. Crowd innovation was experienced as something positive, which project managers wanted to try out. Following the descriptions from Borins (2001), a mix of new opportunities and the wish for broad acceptance and legitimacy were dominating. However, high thresholds to the implementation of crowd innovation became also obvious.

In the public sector, where more obligations, accountabilities, and objectives exist than in the private sector, formalization, clarity, and transparency are important to illustrate that public managers' actions are legitimate. Legitimacy is gained through institutions like routines, beliefs, norms, cultural rules or ideas (J. March & Simon, 1993). For public managers compliance with norms is important to maintain legitimacy with external key stakeholders, politicians, and citizens (Jas & Skelcher, 2005). Public managers adopt practices “[. . .] they believe their institutional environment deems appropriate or legitimate” (Campbell, 2004, p. 18). Therefore, they may implement practices and craft innovation processes simply because it is required by a legislative or central executive mandate or they may operate with little discretionary space under constraints that significantly limit their autonomy (Poister, Pitts, & Hamilton Edwards, 2010). Nutt and Backhoff (1993) argue that autonomy and flexibility are generally lower in public organizations causing weaker power bases and less authority.

Consequently, public administrators often face higher barriers for introducing innovative concepts into the organization. In our study, these authority limits can be seen as diminishing the publicness of public organizations. Taking a normative stance, publicness is about the political role of public organizations and the challenge to make use of it to fulfill the public interest (Pesch, 2008). According to Haque (2001), publicness is diminishing since public trust, among other factors, is decreasing. Crowd innovation, though, has the potential to improve the publicness of public organizations since it enhances public sector principles like equality, openness, and the central role of the common good (Haque, 2001).

Therefore, low discretionary power diminishes the chance to realize crowd innovation for increasing the publicness of the public administration. Deriving from the case studies, we identified three key institutional factors that influenced the discretionary power of project managers: the position of the

project manager within the organization as well as the support by politicians and chief executives. However, public managers instead of being totally constrained by their accountability to legislature and chief executives have some freedom to respond to changing demands. Every public manager has discretion within limits and must obey legislative, executive, clientele, personal, and organizational desires in executing it. The public manager is “a participant in the political process, a politician in that he must engage in conflict resolution, exercise discretion, and make decisions affecting competing claims” (Lambricht, 1971, p. 333). Without discretion public managers were not able to cope with current nor future challenges which would undermine government’s capacity for responsiveness (Hibbeln & Shumavon, 1983).

We agree with Multon (2009) that in addition to research on publicness, numerous theories can be applied to study regulative influences and responding behavior, including principal–agent theory, resource dependence theory, and even neoinstitutional theory. The central notion of all these theories is that institutional influences do not result in direct linear causation, of behavior; rather, organizations have the ability to strategically respond to such influences. Public managers have a great difficulty with the concepts of openness, interaction, and transparency and how they should relate to it. By now, (new) public management has simply dealt with it by emphasizing the need for customer orientation. Following Evans and Wamsley (1999), it is necessary to recognize the interconnectedness between politics and political institutions and public administration and to find ways in order to deal and cope with the uncertainty of new paradigms like crowd innovation.

Conclusion

Lately, some major approaches similar to crowd innovation have been perceived negatively: at worst as an image campaign used by attention seeking politicians and at best as a random idea-generating technique. Inadequate implementation, i.e. negligence of either the role of participation, trust, or openness, could be named as reasons for the unfavorable perception of attempts similar to crowd innovation. In this paper, we demonstrated that there are more barriers to the implementation of crowd innovation. Especially in the beginning of new innovative projects when project managers have to decide if crowd innovation would fit their needs and the requirements of the project, they need discretionary power to be able to make the decision. We identified the position of the project manager as well as political and managerial support as crucial factors that can cause uncertainty and limit discretion. However, since it is a new management practice that acknowledges the complexity and openness of innovation processes crowd innovation itself creates uncertainty.

Crowd innovation is the corollary to the rise of a New Public Service (Denhardt & Denhardt, 2000). Public administrations are challenged with a new concern for democratic values emphasizing the need for dialogue and participation. These days, the role of government is not only to design and implement policies as in traditional bureaucracy or to act as a catalyst to unleash market forces as in New Public

Management. In contrary, government is negotiating and brokering interests among citizens and community groups; public servants attend to law and political norms but also to community values and citizen interests. Even though the new understanding of the role of government is based upon the merits of its predecessors it differs in its challenges for contributing to society. Under these circumstances, public managers will continue to face uncertainty that is caused by institutional and environmental factors. However, they will also find new ways of coping with them in order to achieve benefits on both sides: organization and society.

This paper sheds light on some individual factors that are important for the implementation of crowd innovation. While the empirical basis is limited, our study contributes to the groundwork of further analyses on the favorable environment of crowd innovation. Since this paper illustrates the first step within a current research project, the results of this paper will be enhanced by outcomes from three longitudinal case studies. The longitudinal studies will help to analyze the actual influence of institutions on public managers' decision to implement the crowd innovation paradigm. With deepening our analysis we will be able to enhance the validity of our results regarding the influence of certain institutional factors on the implementation of crowd innovation in the public sector.

Tables and Figure

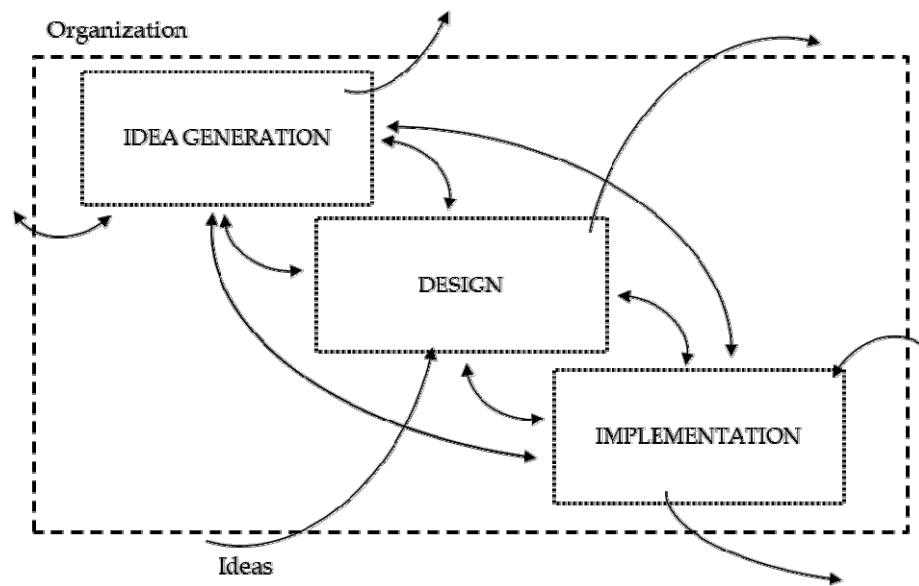


Figure 1: The Flow of Ideas between Phases of the Crowd Innovation Process

Table 1: Overview on Case Studies and Important Facts and Results

Name	Theme	Crowd Innovation/ Interaction	Motivation (pro/contra implementation)	Influencing Factors (encouraging/restraining)
GER A	Public Swimming Pool	Online-Platform: 50 ideas, intense information; Offline: several workshops, intense information and collaboration		
GER B	University	Online-Platform: 756 ideas, intense information, communication Offline: workshops, intense information and communication	Citizen-centric Image Legitimacy for political actions/ decisions	Experience Knowledge Sharing Risk-Awareness Political Support No focus on costs
GER C	Airport	Online-Platform: 900 ideas (1 st phase) 400 ideas (2 nd phase); intense information, communication Offline: workshops, intense information and communication		
GER D	Neighborhood Development Area	Online-Platform: No Crowd Innovation Approach, intense information Offline: events, intense information	Inappropriate No thorough satisfaction possible	Lacking political support Missing chief executive support Cost pressure
GER E	Subway	Online-Platform: No Crowd Innovation Approach, intense information Offline: events, intense information and communication	Inappropriate Information and communication as adequate	New position Completed Planning Activities – Appointment for construction
GER F	Neighborhood Development Area	Online-Platform: No Crowd Innovation Approach, intense information; Offline: workshops (experts), intense information	Project acceptance assumed Formalized procedure as adequate	Lacking supportive network (political/chief executive) New position

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