Personalized electronic service delivery in Dutch municipalities: the variation explained?

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EGPA Conference 2009
"The Public Service Delivery in the Information Age"
Saint Julian's, Malta
2-5 September 2009

0. Introduction

In this paper, an overview will be given of the ongoing research into the variety in personalized electronic service delivery in Dutch municipalities. First, the motivation and theoretical background for this research will be discussed. Second, the design and used methods will be explicated. Third, a first overview of the empirical results will be presented.

1. Motive and research question

Public service delivery is one of the few direct points of contact between citizens and the government. Not surprisingly, the nature of this contact in terms of quality, extent and accessibility has been under close scrutiny in various governmental action programs, such as *OL2000* and *Andere Overheid*. These programs aim to improve public service delivery and bring it up to standard to the current demands.

A great deal of public service delivery in the Netherlands takes place at the level of the municipality. The provision of licenses, travel documents and public information are just a few of the services which are the responsibility of the municipality. At the same time one can see a rise, due to decentralization tendencies, in the amount of services which are brought under the realm of the Dutch municipalities. Specific examples of local electronic service delivery can be the way via which municipalities put forms at the disposal of the public, the possibility to follow an application for a permit, or the manner in which the public is kept up to date with public information. Interestingly, although the Dutch municipalities have, in general, the same set of tasks and authorities, great differences can be seen in the way these local government bodies deploy their public service delivery. More traditional ways of providing paper forms which a citizen must fill out for the application of a permit in municipality A, coexist alongside advanced tracking and tracing systems via which citizens in municipality B can follow the same kind of application.

A recent development in this field is the integration and consolidation of various systems and services in a single electronic counter. Via this integral electronic counter, citizens have a single point where they can acquire services and information. More often than not, these electronic counters enrich their services by combining available personal information about the citizen, such as name, social security number, address and the traditional service, to come to a personalized way of service delivery. Personalized service delivery is seen here as a kind of service in which existing information of the citizen is combined with information from municipalities, or other bodies of government, to enrich a specific service. A tendency which is only strengthened by recent laws, forbidding municipalities to ask the same information multiple times. Often this is done by providing a Personalized Internet Page (PIP), on which citizens can authenticate themselves by providing their DigiD, a kind of digital key, provided by the national government. On these pages, a rising number of services can be found. For instance, the application of a permit, but also specialized news based on the postal code from the visitor, or notifications about expired travel documents. It comes as no surprise that these personalized pages which bundle various services to come to an integral supply of public service, demand a lot of effort from the local municipality. Not only in terms of ICT deployment, but also in the alignment of various processes in the back offices of these municipalities. On the other hand, numerous benefits on the side of the internal streamlining of processes, efficiency and reduction of costs are to be gained. Therefore, it is interesting to see that in the field of Dutch municipalities which have, as already stated, more or less the same set of tasks and responsibilities, a great variety in the provision of these specific personalized services can be seen. Therefore the main question of this research is how this variation in personalized service among Dutch municipalities can be explained.

The relevance to come to an answer to this question is twofold. First of all, the societal relevance of this answer lies in the knowledge which will be gained about the way public organizations, such as municipalities, come to the development and deployment of ICT services

and how these processes can be streamlined to avoid costly mistakes. The theoretical relevance of this research is aimed towards gaining insights which broaden our understanding about the development and deployment of strategic ICT processes in the public sector, such as electronic service delivery, and help to further the existing theories in this field. In this research, two approaches are taken into consideration which gives a first understanding about the development and deployment of ICT processes. In the next section these two approaches will be briefly discussed.

2. Theoretical framework

The underlying theoretical questions and anticipated theoretical relevance of this research touch upon the way in which public institutions bring about ICT innovations. In this section two distinct visions are discussed. A more linear model of ICT development and deployment will be contrasted with the more incremental model of the information-ecology approach. Both models strive to give an explanation for the way in which ICT innovations are developed and deployed within organizations.

2.1 Linear models of ICT development

A common vision on ICT development and deployment is one of being it a linear process in which certain phases and qualitative jumps can be distinguished (Bekkers & Homburg, 2005: 6). The process of ICT development is in this vision made up from recognizable phases, which have to be development and deployed in a certain sequence to come to a successful integration in the organization. Concrete examples of these models are abundant, see for instance the Capability Maturity Model (Paulk, Curtis, Chrissis, & Weber, 1993), a two stage model on E-Government growth in local governments (Reddick, 2004), a four stage model for developing functional E-Government (Layne & Lee, 2001) and Gartner's four phases of E-Government (Baum & Di Maio, 2000). All models have in common that they view the process of ICT development as a

process of sequential steps and phases, in which certain characteristics have to be in place to move on to the next phase. Passive, supply oriented information services logically precede more complex interactive services, which in turn precede transaction services which require the integration of working routines, data-bases, etc. (Bekkers & Homburg, 2005: 7) The number of phases varies, as can be seen from the examples above, but most of these models distinguish four to six phases. The problem with most of these models is twofold. First, these models are partly descriptive, partly predictive and partly normative (Coursey & Norris, 2008). Second, the sequential character of these models suggests a linear and progressive trajectory. However, this linear and progressive nature is questionable. More recent literature points out that the development of E-Government is less sequential and more chaotic than these linear models suggest.

2.2. The ecology approach to E-Government

A valid alternative to the linear models of E-Government is the approach of the information-ecology. This approach holds the idea that the development of E-Government, is not a straightforward evolutionary process, but rather a process which depends heavily on contextual factors (Davenport & Prusak, 1997). An information ecology can be described as a system of people, practices, values and technologies in a specific local setting (Thaens, 2006: 35). From this definition it is apparent that this approach denies the existence of general approaches towards, and standard ways of, developing E-Government. After all, only very few local settings can be compared to each other. This also means that the constellation of several clear cut phases and prescribed steps as seen in the more linear approaches towards E-Government would lack the power to explain the observed variation among personalized electronic service delivery systems. A more accurate explanation would be conceivable when these contextual factors would be taken into account in the search for this explanation. Hence, without dismissing the more linear approaches towards the development of E-Government, this research also takes more contextual

factors into account. The theory of the information ecology, as developed by Davenport and Prusak, is further explicated in section 3.2.2., as part of the operationalisation of the research.

3. Methods

Before venturing into the phase of empirical data collection, two problems had to be overcome. First of all, the municipalities in which the research would be conducted had to be selected. Second, a valid case-study protocol had to be developed to guarantee that the various findings would come about in the same way and would be comparable. Only in this way the empirical data would be comparable and explanations could be derived from this coherent set of data.

3.1 Case selection

3.1.1 Empirical variation?

To come to a valid case selection, a number of characteristics of all Dutch municipalities were mapped. By doing this, a number of important insights would be gained. First of all, it would show the exact variation in public service delivery among Dutch municipalities. After all, without this step the variation would be not more than a first observation based on a random check performed early on in the research process. The gathered data then gives a much more valid overview of the precise variation in electronic public services provided the Dutch municipalities. By consistent and meticulously mapping these services, the supposed variation is empirically supported. Unfortunately, it proved not possible to work with an elaborate operationalisation of these characteristics, or for that matter, a classification of a number of abstract levels of service delivery as discussed in section 2.1. The variation among the observed services was of such a wide range that when mapping these, only a marginal operationalisation and limited definitions were used. Second, by mapping these services and certain characteristics of the municipality, it would become possible to see whether certain independent factors, such as

the number of inhabitants of the municipality, would correlate with the observed amount of services. When this was indeed the case, it would become apparent that certain factors would determine the amount of services in a given municipality. Next to the question how these factors influence the amount of electronic services, it would also mean that indeed the more linear models of E-Government, as discussed in section 2.1. tend to be correct in their assumption that certain independent factors would be of influence to the development of E-Government.

Al in all, five specific services were mapped. First of all, the presence of a personalized and integrated counter via which a number of services are disclosed to specific citizens was searched for. Often, these counters identified themselves via a web address in the form of *my.municipality.nl.* Citizens can log on to these sites and be confronted with a number of services which use previous gathered data, such as their address, to personalize the process of service delivery. Until now, this is one of the most far-reaching ways in which municipalities personalize their service delivery. It is also the most demanding way of personalized service delivery, since a wide range of processes of various departments, have to be brought together on a single place. The second service is the possibility of electronic notifications. Citizens can sign up for notifications about events or information in which they are interested, or which is applicable for the area they live in. For this, personal information such as the interests and postal code from a citizen are coupled to come to a personalized delivery of news and notifications. Often, these notifications are coupled to an integrated counter, but it turned out that these services also exist on their own. The third service which was searched for on the website of the municipalities was the possibility to follow an application or request submitted by a citizen. A number of municipalities show the progress in the handling of the various applications which they receive. By logging in, or otherwise authenticating themselves, citizens can follow their application for, for example, a felling permit, or construction permit. The fourth service holds less personalized technology, but gives an insight in the way the website is constructed. The vast majority of Dutch municipalities are, when providing services via their website, still focused on the supply of their

own services which they offer to the public, instead of focused on the demand for certain services from their citizens. Apart from the reasons for this dominant perspective, an interesting countermovement can be seen on various websites. These websites offer, often next to the traditional supply driven interface, via life cycle events other ways of finding the desired service. These life cycle events represent certain events in the life of a citizen such as a notification of birth, a marriage, moving, or a notification of decease. By organizing these services by life cycle events, citizens do not have to search for separate services, but are presented an overview of various services, duties and accompanying forms which go together with a single life event. This way, common events are made accessible and are integral presented to the citizens. The last service which was looked at in order to map the variation in electronic service delivery, was the possibility to pay online for requested permits or records. In more and more municipalities, this service is offered. The usual payment methods would be by credit card and iDeal, a popular online payment method offered by Dutch banks. Apart from being it a very visible, direct and customer friendly service, the possibility of online payment is also an indication of the amount of effort municipalities have put in their website, systems and gearing of their processes towards third parties, such as banks, who supply this service.

3.1.2 Significant variables?

Apart from the variation in services, five specific characteristics of the municipalities were mapped. The idea behind this second set of data, was to find out whether certain characteristics would offer an explanation for the assumed variation. A high number of personalized services among the municipalities with large populations, or with an outspoken mission in the area of technical innovation could hint at the direction in which the explanations for this variation were to be sought. These five variables were taken from previous literature on electronic service delivery (Zouridis, Thaens, & Vrijling, 2005). The idea for all of the following

characteristics is that they could have a direct influence on the extent, form and amount of personalized services offered by Dutch municipalities.

First of all, the population of the Dutch municipalities was coupled to the gathered data. This is by far the most clearly visible characteristics of a city, and determines a great deal of the size in administrative machinery and the size of the overall budget. Apart from that, municipalities of the same size, tend to share the same degree of complexity in their processes of service delivery. More staff, more departments, more institutional borders, etc. The larger budget of larger municipalities is also an indicator of the amount of resources which a municipality can allocate for the development for their electronic services, whereas smaller municipals lack this financial room.

The second characteristic which was taken into account was the presence of a technical university. We assume that municipalities with a technical university are more likely to have a more technical and innovative outlook than cities without a technical university. Direct relationships between the city council and the management of this university, but also more indirect relationships as a result from aldermen with a technical education or a relative high number of technical and innovative spin-offs from this university, could color the attitude toward electronic ways of service delivery and create a favorable atmosphere toward such developments.

The third characteristic searched for in the lay-out of the municipalities is the presence of an alderman with an explicit responsibility towards electronic service delivery. The presence off an alderman with such an explicit responsibility is an important indicator for the political involvement and political support towards this way of service delivery. Compared with the situation in which a municipality does not have an alderman for electronic service delivery, we assume that municipalities which have allocated this task and mention this in the description and distribution of the various responsibilities, are more inclined to develop this specific way of service delivery.

The fourth characteristic which is taken into account as a possibly explanation for the encountered services is an explicit ambition to become a municipality which is know for its innovative tendencies. The empirical research showed that these tendencies are often put forward in a mission paper, or in the political agenda which is published on the start of a new coalition. In a few municipalities, this drive towards innovation is deeply rooted in the tradition of a municipality. For instance, Eindhoven, the fifth city of the Netherlands, is since 1891 the home of Philips, the biggest technical company of the Netherlands. The activities from this company, accompanying industriousness and spinoffs have colored the local setting in such a way that a drive towards innovation is an integral part of the mindset of this city. It is assumed that an explicit ambition towards becoming a municipality which is know for its positive attitude towards innovative activities or has an ambition in the realm of becoming a centre of knowledge has a positive effect on the development and deployment of advanced ways of public service delivery.

The fifth and last local characteristic which is sought after is the explicit ambition in the realm of electronic service delivery in the political agenda published on the start of a new coalition in a municipality. This ambition is a clear indication of the political will to come to new ways of electronic service delivery. It would explain why in certain municipalities a well developed set of electronic services is deployed. During the gathering of these characteristics it became apparent, that this support is not unambiguous, but rather more diverse in its appearance. Nevertheless, an ambition in this field could often quickly be identified.

3.1.3 Analyses of gathered empirical data

The gathered data was analyzed by statistical means. Three possible scenarios were developed beforehand, which hold several consequences for the final case-selection. In the first scenario, the supposed variation in electronic service delivery would not be visible. All municipalities would have more or less the same way of providing services to their citizens. This would seem a very unrealistic result, especially considering the main motive for this research.

Still, this possibility was not wholly ignored. It would mean that the question of variation would turn into a question of explaining why all municipalities, big and small, with and without a technical university, with and without an outspoken ambition for electronic service delivery, offer the same set of electronic services. The second scenario would be an outcome in which a significant correlation between a characteristic of the municipality and the observed electronic ways of service delivery would exist. This would hint at the possibility that certain factors, such as the number of inhabitants, would predict a certain amount of electronic service within municipalities. In this case, the case selection would not be at random, but would hold a correction for this significant factor. The third scenario would hold a total lack of significant correlations between the different indicated factors. This would mean that there is no linkage between the characteristics of a municipality, or the amount of electronic services which they offer. In this scenario, the municipalities would be chosen at random.

It turned out to be that there is in fact a low, but significant correlation between the number of inhabitants of a city and the amount of services which the Dutch municipalities offer. This correlation is taken into account when selecting the ten cases where the empirical research would be conducted. Five sets consisting of two municipalities of similar size, but with diverging amounts of electronic services were selected to conduct the research.

3.2 Methods: Gathering qualitative data

To find an explanation for the observed variation in electronic service delivery, ten municipalities were selected for a case study to be carried out. The case study is made up of a number of interviews with key persons in the organization. These persons were selected during first talks with the contact person of each municipality. Shared quality of these intended respondents was the question whether they could give insights into the considerations which were made, and are made, during the process of development of the electronic services which their municipality provides to the public. These considerations play at all levels of the municipality.

They range from operational considerations which play at the more technical level, tactical considerations concerning design and means to perform the various services, and strategic considerations, for instance the question which service concept a municipality is striving for. Therefore, the scope of respondents for the interviews was quite wide. Technical employees and ICT-managers were interviewed, but also managers of the department of service delivery and alderman were asked the same set of questions. Basis for this set of questions were four theoretical frames. More than the two broad visions on ICT development, as discussed in the second section of this paper, these theories are made up of clear theoretical concepts, for which a series of indicators could be found. These four theories which make up the operationalisation of the research will now be discussed.

3.2.1. Innovation Capacity and Innovation Attitude

First of all, to map the attitude of a municipality towards innovational processes in general, the theory of Rogers about innovation readiness and innovation capacity is operationalised (Rogers, 1995). The reason for this is that this theory, with the right indicators attached, will give a thorough impression of the way in which municipalities deal in general with processes of innovation. A more conservative attitude would hinder the development of new ideas and techniques, whereas a more open attitude towards innovation could very well foster new innovations such as personalized forms of service delivery. Apart from attitude, the degree to which an organization is capable to innovate in the first place has to be taken into consideration. After all, when a municipality would have a low capacity to innovate compared to other municipalities, it would perhaps be part of the answer why this municipality did not have advanced ways of service delivery.

All in all, Rogers identifies eight conceptual themes to measure the attitude towards innovation and the capacity for innovation in an organization: the attitude of the responsible manager, the degree of centralization in a organization, the degree of formalization of an

organization, the degree of complexity of an organization, the degree to which organizations are internally connected, the degree of slack within an organization the size of the organization, and last the degree of organizational openness.

3.2.2. Information Ecology

Next to the more objective criteria about innovation capacity and attitude in general, there are also more specific questions about the development of ICT innovations in organizations imaginable. To cover these more specific questions, the theoretical model the Information Ecology is used (Davenport & Prusak, 1997). Key concept of this theoretical model is that every organization has a particular way of designing, fitting out and managing their information environments. These environments are made up off the various processes, systems, applications, and information sources which are necessary to come to an electronic delivery of services. Therefore, these information environments play a vital part in the way new methods of electronic service delivery are developed and deployed. To come to an assessment of the way the various municipalities have designed their information environments, this theory gives a clear set of conceptual themes. Thereby, this theory contributes to the more abstract assessments of innovational attitude and capacity as develop by Rogers. As with the theory of Rogers discussed in section 3.2.1, the theory of the Information Ecology is analyzed to come to a set of conceptual elements. Again, to these conceptual elements, indicators were attached. For the measurement of these indicators, specific questions developed. Davenport and Prusak identify six elements which make up their model.

The first conceptual theme is the role of the information strategy which an organization has in place. Unlike a more general strategy, an information strategy focuses on choices around the use and deployment of information to fulfill the various goals of the organization. Second, the element of information politics is mapped. The access, use and application of information in an organization is always interwoven with political considerations (Davenport & Prusak, 1997: 67).

The third element of this theoretical model is the information culture. Davenport and Prusak see an information culture as the patterns of behavior through which the orientation of an organization towards information is expressed (Davenport & Prusak, 1997: 84). The fourth element is the information employee. Although the rise of electronic systems might suspect otherwise, people are still a vital element in the process of development, maintaining and creating data. Therefore, the behavior and attitude of the information employee is seen as a key conceptual element when mapping the information ecology in an organization. The conceptual model encompasses the information processes in an organization as the fifth element. In these processes, requirements to, the storage of and the way in which information is distributed throughout the organization are defined. Last element is the information architecture an organization has in place. An information architecture can be defined as a set of tools which bridge the gap between information supply and information demands in an organization (Davenport & Prusak, 1997: 156). By mapping these six conceptual themes, again, along a series of indicators and connected interview questions, we try to make a, non-normative, assessment of the information ecology an organization has in place. By comparing the different information ecologies we try to find factors which could explain the differences and similarities in the way the various municipalities deliver their services to the public.

3.2.3. Isomorphism

Apart from the conceptual elements, indicators and interview questions designed to map the context in which ICT-innovations such as electronic service delivery are developed, a second outlook is formed by two theories which focus on the origins of the innovation. This approach stems from the idea that innovations, such as new ways of electronic service delivery, are not developed on their own, but that they arise from a process in which other municipalities and businesses are taken as example. These theoretical notions focus both on the motive for deploying these, often radical and complex innovations, as the origin of the innovation. The concept of

isomorphism is one of the two theoretical concepts which make up this approach. Isomorphic processes could be of great importance as part of the explanation why some municipalities tend to strive for the same way of service delivery. Isomorphic processes are processes in which organizations model themselves to resemble another similar organization (Powell & DiMaggio, 1983). As already stated in the previous sections, their turned out to be quite a lot of variation among public service delivery arrangements, but it was also noted that a tendency towards certain ways of providing these services via a personalized counters could be seen. By taken the processes of isomorphism into consideration, we not only explain the variation in public service delivery, but also the similarities which can be seen. Powell and DiMaggio, identify three main types of isomorphic processes: Coercive Isomorphism, Mimetic Isomorphism and Normative Isomorphism (Powell & DiMaggio, 1983).

Political influence and considerations around legitimacy lay at the basis of coercive isomorphism. In this process, organizations experience a formal or informal pressure exerted by organizations on which they depend and by cultural expectations in the society in which the organization functions. This pressure can be clearly visible, but also very subtle. For instance, a direct government mandate is an explicit example of coercive isomorphism, but the expectations to establish a hierarchy in an organization to be able to deal with other hierarchical organization is a very subtle form of coercive isomorphism. However, both processes are seen as being of a coercive nature. Mimetic isomorphism is the process in which organizations model themselves on other organizations due to reasons of uncertainty or ambiguity. Borrowing techniques and practices can be of great help when organizations face problems with ambiguous courses or unclear solutions. Mimicking other, successful organizations can be a way to overcome this stage of ambiguity and uncertainty. Normative pressure, often resulting from professional standpoints and convictions, is the third and last source of isomorphic change. Shared convictions and standpoint in a group of professionals influence the members of this group and in result the organizations in which they function. Based on the notions of isomorphism, we can construct a

part of the motive for innovations in the field of service delivery. The logical next question would be where the ideas for certain innovations have their origin. The last element of the operationalisation focuses on this question.

3.2.4. The traveling of ideas

To explain both variation and similarities in personalized electronic public service delivery, the theoretical concept of the traveling of ideas is taken into consideration. This fourth theoretical approach focuses on the way in which new ideas and innovations travel around, are picked up and are deployed (Czarniawska & Sevon, 2005). Core concept in this theory is the notion that innovations are not invented, developed and deployed in a single organization alone. Instead, parts of existing new technologies and processes are combined to form new innovations. This process does not limit itself to a single organization, but tend to involve other actors, which in their turn get infected by these new ideas. The way in which these innovations are shared, translated and implemented is the main focus of this theory. Four elements are eminent within this approach. First element is the carrier of the idea between organizations. This could be an inspired employ, or a consultant which visits similar organizations. Second, the context of the transfer. This element focuses on the degree of pressure towards adopting an idea. This element has a lot of overlap with the ideas of isomorphism as discussed in section 3.2.3. The specific characteristics of the innovation are the third element of this conceptual approach. The tangibility of an innovation, the degree to which an innovation can be transferred and to which extent the innovation can be fitted into existing processes are characteristics which determine how suited an innovation is to be transferred and implemented into another organization. The fourth and last element is the manner of contact between the different organizations which offer an innovation and organizations which want to adopt an organization. A single moment of contact will have less influence than contact which is of a more continual nature. These four conceptual elements shed light at the origin of the innovation. By mapping the origins of the different public service

arrangements in the various municipalities, we tend to explain the sometimes striking similarities between different municipalities and at the same time map the role, function and impact of networks and workgroups aimed at innovation in service delivery, which seem ubiquitous among Dutch municipalities.

4. First Empirical Observations

In this section, the first preliminary results of the empirical research are presented. After conduction the interviews in half of the selected municipalities, first observations can be made. The most striking observations will be discussed.

The most visible concepts of the complete operationalisation concern the motive and the origin of the innovation. Three main motives can be identified. First of all, most respondents point out that the main motive for adapting new ways of service delivery stems from the demand of citizens. Most respondents point out that citizens are very accustomed to 24 hour electronic services from banks and other cooperation's, so they tend to demand the same level of service from the municipality. Moreover, the majority of respondents feel, because of the monopoly which municipalities have in their service delivery, that they face a normative obligation to meet these demands and even excel them. Few respondents dare to say the opposite, but it does happen. Their argumentation is that citizens only have a limited amount of contact with a municipality. Once every 24 months is an average which is heard often. Therefore, they say, it makes no sense to develop and pay for advanced ways of service delivery. The trouble is just not worth the effort. However, these respondents are a minority, moreover since there are two more motives which exert pressure on the development of electronic services. A very strong source of normative pressure stems from benchmarking and the resulting peer-pressure. Each year various benchmarks are conducted within municipalities and the results, although they are primarily meant to inform the public, they seem to be of greater interest to the municipalities. The clear cut grades which the various benchmarks hand out, offer a very visible verdict on the service delivery

and are also a good way to compare the service delivery among municipalities. Although most of the respondents are able to nuance these marks, they do find it very difficult to ward of political questions from the city council or political motivated inquiries from alderman. Therefore, the influence of these benchmarks must not be underestimated. Their importance is acknowledged even more, when one considers that these benchmarks are played by the municipalities. The frame of reference of these benchmarks is often analyzed and turned into a checklist to perform better in the next benchmark. Incremental changes can account for a substantial amount of points and the grades will therefore change accordingly. The last, but surprisingly enough, not most commanding source of pressure comes from the central government. Demands in the form of legislation, action programs and special commissions to come to new ways of service delivery are in place, but are not always regarded as compelling enough to change the existing way of business. The respondents of only one municipality indicated that they have always been very focused on complying with the wishes of the central government. The reason for this tradition of complying lay, according to the respondents, in the strong position lawyers have had in this municipality. The rest of the respondents saw these action programs and legislation more as a given with which they would have to comply at some point in the future, than a more explicit form of pressure.

The second set of most visible empirical notions concern the origins of the new ways of service delivery. Two observations stand out. First of all, the initial assumptions about the abundant presence of platforms, networks and meeting groups aimed at a range of aspects related to innovative processes within Dutch municipalities turned out to be true. These platforms are rampant and cover a wide variety of subjects. Futher distinctions between these various platforms can be seen in the participants attending these meetings. There are separate platforms and network groups for technical employees and employees on the managerial level, up to platforms which consist of only aldermen and alderwoman. This range of actions also varies between the very abstract, resulting in talks about strategy and mission, to very concrete, resulting in the

joined development of services. A second notion about the origin of innovations can be made regards the role of idea brokers. These people, whether they are consultants, employees from municipalities which visit other municipalities regularly or employees which have a professional background in other municipalities or a different service related organization, often prove to be invaluable for the initiation of new ideas in the organization. They tend to bring with them ideas about the way service delivery can also be developed and prove, when certain other factors to bring about innovative change are in place, often vital for these processes.

Other factors about innovational attitude and capacity, as well as the concepts from the theory of the information ecology as develop by Davenport and Prusak are less visible at this point in the research. However, this may be more of a matter of pure visibility, since these concepts are rather abstract. It is expected that with all the empirical data gathered, the indicators for these concepts will provide sufficient data to draw conclusions about the influence these factors have on the development and deployment of new ways of public service delivery among Dutch municipalities. Clues towards this conviction spring from the necessary efforts to bring forth these new innovations in a municipality. Therefore, it is still assumed that bringing about new innovations such as personalized electronic service delivery in a organization, goes far beyond the pure technical matter and that aspects of culture, values and politics do have a role of great importance in these processes.

5. Conclusions and outlook

A rigid operationalisation, with clear conceptual themes, derived indicators and logical interview questions has, thus far, proven to be extremely useful in gathering coherent and comparable empirical data. With this data in hand, not only can we explain the variations in personalized public electronic service delivery, that we have seen and mapped in the first part of the empirical research, but it also helps to further the ideas about the way in which public organizations bring about innovational change. A clear limitation to the research so far is the lack

of a coherent analyses of the gathered empirical data. This will be the main point of focus for the months to come.

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