

E-grievance System in local government: case study, Amsterdam, the Netherlands

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E-Grievance System in Local Government: Case Study, Amsterdam, the Netherlands

By

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This thesis is dedicated to my Mother and Father for their warmth,
appreciation and trust in me.

Abstract

Recently many governments embraced electronic means to engage with citizens in service provision and interacting with their citizens. Convenient service delivery, improved communication, cost reduction, efficient and effective ways of service provision are among promised notions of electronic government systems. In consequence, the study of e-government has gained rather considerable attention. E-government is defined as “the use of ICTs, and particularly the Internet, as a tool to achieve better government”. Unfortunately, many of the e-government studies focused on the supply side and how e-governments systems affect public organisations. This study has tried to breach that gap by focusing on the demand side of the e-government. E-grievance systems were the main theme of the research by being one of the main reasons citizens contact their governments. Local governments are considered as natural customers of public citizens. Many of Citizen’s Everyday needs relating to water/sewerage, electricity, roads, parking are linked to local governments. Local governments are also the point at which citizens seek: obtaining certificates, building permit, registering and subdividing plots of land are all important transactions that local government around the world often have the sole responsibility. Therefore, it is considered essential that processes of complaint redresal are clearly defined and publicly available. But little has been discussed about the development of an integrated system to handle citizen’s electronic complaints

The research methods used was case study which was conducted at Amsterdam Municipality, the Netherlands. The case study was based on collecting both qualitative and quantitative data. Different methods of data collection were used during fieldwork including interviews, questionnaires and documentary analysis. In addition, multiple databases were acquired to perform the quantitative and statistical analysis. The grievance database consisted of all grievances submitted to the municipality in the year 2008-2009 with in all districts of Amsterdam. In the empirical results, both qualitative and quantitative approaches were used to compliment each other basing on the complimentary approach of mixed methodology.

The results show that the e-grievance system in Amsterdam has evolved overtime and has grown up in a piecemeal wise. The planning of the system was not done at one shot. The piecemeal wise growing of the e-grievance system poses a concern which created to unify the e-grievance system. The system tends to gear up towards a fully fledged e-grievance system which allows citizen to Geo-tag locations in Google Map and uploading photos of the incidents by using ICT and GeoICT. We find out that the e-grievance system is more focused on efficiency rather than participation. The analysis suggests that the location of the grievances and the socio-economic status of the residence can offer a better understanding of the actual impacts or outcome of the e-grievance system. Our results show that the e-grievance system is mostly used by middle to high income, White and middle aged category of the society in Amsterdam. The interpretation of our statistical correlations and GIS visualisation methods indicate digital divide and number of divides can be observed from the results. Therefore the study proposes that the e-grievance systems should not only be focused on accessibility and processing of citizen grievances but the outcome and impacts of the system as well.

Key Words: E-government, E-grievance systems, complaint handling mechanisms, ICT, GeoICT, E-participation, citizen-initiated contacts

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1. Introduction To The Study

1.1. Introduction

Governments are increasingly using Information and communication technologies in their daily operations and businesses with the promise of more and convenient service delivery, improved communication, transparency and accountability, (Ciborra 2005), and citizen inclusion (Poelmans 2006). In consequence, the study of e-government has gained rather considerable attention. E-government is defined as “the use of ICTs, and particularly the Internet, as a tool to achieve better government” (OECD 2003b).

Therefore, the use of information and communication technology (ICT) has changed the way of interaction between governments and citizens. ICT not only provides the opportunities of government to be more efficient and direct citizens to their websites for information and application but also it allows citizens to take advantage of the internet to initiate their contacts with governments and to express their appeals, complaints, suggestions and opinions (Chorng-Shyong Ong and Shang-Wei Wang 2009). And in this case it has been considered that use of ICT in governments will increase citizen participation through e-government projects which are designed to facilitate community participation (Ian Kearns, Jamie Bend et al. 2002). The new phenomena of E-participation thus emerged as field of study in E-government.

Although citizen-initiated contacts have been a field of study in public administration before the introduction of the internet (Pieterson and van Dijk 2007) and also occupies great proportion of citizen involvement with local governments (Chorng-Shyong Ong and Shang-Wei Wang 2009). Much of the existing work of e-government has focused on its supply-side perspective (Reddick 2005b). Research on the topic of citizen-initiated contacts in the context of e-government is scarce (Pieterson and van Dijk 2007). The demand side explanation, which is relatively unexplored, examines citizen interaction with e-government and is the focus of this thesis particularly the citizen complaints.

Grievances are defined as suggested by UK Local government Ombudsman “an expression of dissatisfaction... about... action or lack of action or about the standard of a service” (Lynda Hance 2002). In other words, “it a claim by a person that he sustained injustice or undue hardship as a consequence of maladministration”. Therefore, e-grievances are the use of ICT in dealing with citizen complaints and grievances including the lodging of complaints through website or an E-mail, routing redresal officers to sending the feedback of the redresal decision or action to the citizen.

E-grievance or citizen complaints unleashes e-government’s true potential to change the way governments interact with citizens and businesses by giving anyone, regardless of race, class, religion, or gender, the opportunity to interact directly with government officials. It is an important tool, among others, to ensure that government officials are there to actually serve the people (UNDP 2005). In addition to that, E-grievance systems support also internal systems, efficient city

management, and provide new information on effectiveness (Wallack and Nadhamuni 2007). But little has been discussed about the development of an integrated system to handle citizen's electronic complaints (Chorng-Shyong Ong and Shang-Wei Wang 2009).

However, Martinez et. al (2009) acknowledge that more or less the discussion of the e-grievances are more focused on limitations that are related to scaling up the 'Technical infrastructure' of the e-grievance system rather than questioning whether the e-grievance systems are able 'to capture the requirements of the most deprived and influence policy and actions'. Moreover, the debate of exclusionary practices that the system may entail is absent (Martinez, Pfeffer et al. 2009). The concern of uneven geographies emerge from this last statement, which are found in developing countries (Martínez 2009) as well as the developed countries (Andersen and van Kempen 2003; Dekker and van Kempen 2004) particularly in the Netherlands (Musterd and Deurloo 2002; Van Marissing, Bolt et al. 2006).

In general it is believed that more and better information can enhance local governance in terms of more inclusion (Pfeffer, Baud et al.). The optimism towards information rests upon assumptions of a polity marked by citizens equally disposed to partake of these tools and that government is interested in forming inclusive cities (Martinez, Pfeffer et al. 2009). Furthermore, the idea that more information leads to more equitable outcomes is always assumed but never yet to be proven (Haque 2002).

In this research, we elaborated the e-grievance system using case study method of research in the city of Amsterdam, the Netherlands. E-grievance system, their evolutions and functions, the dynamics of the processes involved in dealing with complaints, the use of ICT and GeoICT, the actors involved in it and the way it effects government operations and policies and the outcomes of the system are a glimpse of what the research contains. To take benefit of the complaints database 2008-2009 in Amsterdam, quantitative analysis and Geographic information system (GIS) visualization techniques were used. In the next section, a brief background of the study was presented. Then we have discussed the research problem, hypothesis, research objectives and questions, research methodology. Finally, conceptual framework of the study was presented.

1.2. Background: Amsterdam E-Grievance System

Digital Locket Amsterdam (<http://www.loket.amsterdam.nl/loket/centraleStad.portal>), is the central input product and service information from the municipality of Amsterdam to citizens, entrepreneurs and employers. It allows citizens to initiate contacts and lodge complaints and notifications to local government in Amsterdam. The site consists of main site and individual sites for the 15 districts of Amsterdam. The site provides an orderly way through theme classification access to municipal information and products. Citizens can search through keyword to get information.

1.3. Problem Statement

A recent study by Trendview [(Fase 2003) Cited from (Leenes and Svensson 2005)], in the Netherlands, reports that the services most wanted by people with Internet access are: change of address (75 per cent) and filing complaints (70 per cent). This gives us the need for an e-grievance system, which handles the complaint of citizens in the Netherlands. Therefore, many of the municipalities adopted recently the electronic version of complaint redressal system.

As we have mentioned in the introduction, E-grievances increase the transparency, efficiency and monitoring city management effectiveness. However, the ways in which citizens' complaints, opinions and suggestions from the internet are handled may not be the same as those utilized for handling in the traditional modes. But, little has been discussed about the way how governments manage the handling of the contacts, especially in the context of e-government (Reddick 2005b; Pieterse and van Dijk 2007). In addition, it is yet to find whether the e-grievance systems capture the requirements of poor and deprived areas compared to the rich areas. Although, in their studies (Dasgupta and Wheeler 1996) found in their analysis that the higher-income areas should have more complaints per capita, it is still to be proved if that is the case in the Netherlands particularly, the case study area Amsterdam.

Therefore, little is known yet whether the concentration of complaints against local government and level of deprivation of those areas correlate or vice versa. To find out that we used a database of all complaints submitted to Amsterdam Municipalities of the years 2008-2009. Multiple databases were also used to measure the level of deprivations of Amsterdam districts mainly from the Statistics department of Amsterdam and National statistics office.

1.4. Research Objectives and Questions

The main objective of the research is to investigate the e-grievance system in local governments, their evolutions and functions, and the outcome of the e-grievance system. For this purpose the main objective is divided into three main sub objectives:

Sub Objectives

- I. To Review the mechanisms of e-grievance handling.
- II. To examine the impact of ICT and GeoICT use in the performance of the e-grievance system.
- III. To analyse the actual usage of E-grievance systems in terms of citizens' socio-economic status.

Sub Questions

Sub Objectives	Research Questions
I.	<ol style="list-style-type: none"> 1. How does the E-Grievance system evolved over time? 2. What is the current status of E-grievance system in Amsterdam?
II.	<ol style="list-style-type: none"> 3. What are the effects of using ICT in dealing with grievances? 4. What are the roles of GeoICT in terms of dealing with grievances?
III.	<ol style="list-style-type: none"> 5. How does the E-Grievance system correlate with different socioeconomic status of citizens spatially?

Table 1: Research sub Obejectives and Qustions

1.5. Research Methodology

This research design is based on a single case study of E-Grievance system in Amsterdam city. Mixed approaches were adopted to answer the research questions. First understanding the E-Grievance system in Amsterdam we conducted some in-depth interviews and Questionnaire with Complaint coordinators. Quantitative analysis is used to investigate the correlation between the concentration of complaints and socio-economic status. To visualize the quantitative analysis, GIS maps, SPSS and Excel Graphs were used. Furthermore, qualitative GIS were used to make the analysis plausible and more convincing.

1.6. Conceptual Framework

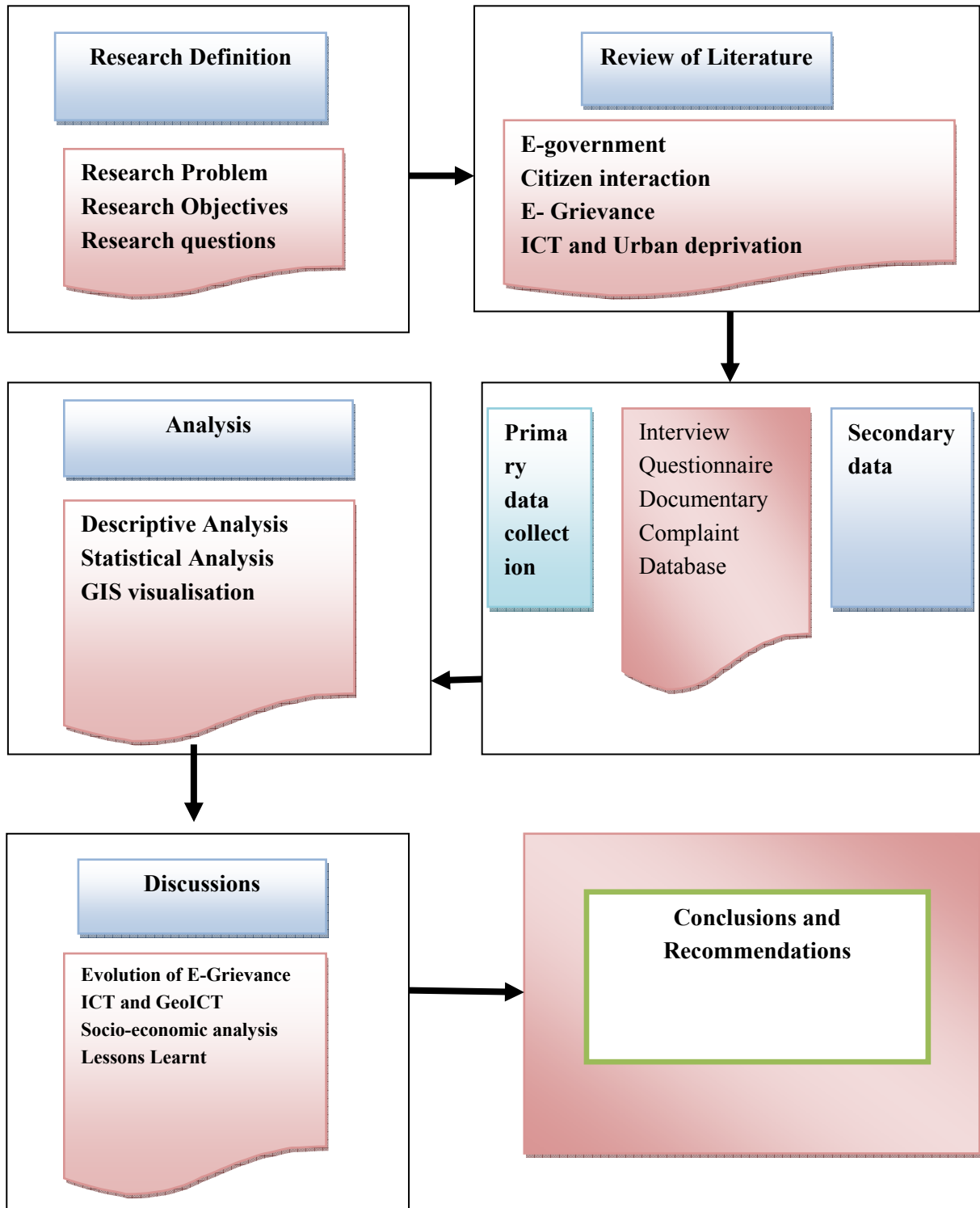


Figure 1: Conceptual Framework

1.7. Thesis Structure

Chapter 1: Introduction

This chapter consists of Introduction, Research background, Problem statement , Research objectives, Research questions, Methodology and the Period of the research study.

Chapter 2: Literature Review

This chapter consists of the works that have been done so far in the field of E-government and E-grievance. It includes concepts of E-government and its consequences, E-Grievances systems and how it functions and supports local governance. Also we will look at the spatial inequality in big cities and their effects.

Chapter 3: Conceptual Framework

The chapter reviews the literature on the current private-like public administration notions, and takes stance on the current dilemma by backing up with the literature. The theoretical framework is established through verifying with the literature.

Chapter 4: Methodology

The chapter presents the methodology processes carried out to accomplish the research objectives including the research techniques, source of data and collection methods.

Chapter 5: E- Grievance system in Amsterdam

This chapter describe about the functions and processes of e-grievance system in Amsterdam. The status and evolution of the system is discussed. Concerning the ICT use and GeoICT in the E-grievance system, the Amsterdam case is presented and how it functions. The last section presents the results of the socio-economic variables in relation to the complaints citizens' voice. Statistical analysis and GIS visualisation is used in this last section.

Chapter 6: Discussions and Interpretations

The Chapter presents the discussion of the Analysis against literature. Our findings are generalised using literature review by comparing and contrasting them.

Chapter 8: Conclusion and Recommendations

The chapter concludes by presenting the issues discussed in this research and future recommendations

2. Literature Review

2.1. Introduction

E-government and E-governance initiatives are common in most countries – industrialised as well as developing, as it promises a more citizen-centric government with reduced operational cost (Saxena 2005). To seize this promised opportunities, Governments worldwide are faced with the challenge of transformation and the need to reinvent government systems in order to deliver efficient and cost effective services, information and knowledge through information and communication technologies. Hence Development of Information and communication technologies catalyzed and led up to E-government (Fang 2002).

The rise of the information and Communication technologies in Government has led to major changes in citizen expectations and organisational structures, cultures and working processes. Many Governments will have to follow suite and adopt information society tools and working practices if they are to remain responsive to citizen needs. The OECD defines “e-government” as “the use of information and communication technologies, and particularly the Internet, as a tool to achieve better government”(OECD 2003a).

Explosive growth in Internet usage and rapid development of e-commerce in the private sector have put growing pressure on the public sector to serve citizens electronically, which is often known as the "e-government" initiative. The initiative is to provide public services and to empower citizens and communities through information technology, especially through the Internet. In the early 1990s, city governments began to use electronic mail, and the World Wide Web to deliver information and services. By the end of the 1990s, Web-based services were already an integral and significant part of a new “e-government” (Ho 2002).

The emergence of the Internet and parallel developments in processing capacity and data storage over the 1990s have significantly altered the environment for ICT use across society and in government. While the longer-term effects of this digital revolution are likely to be profound, these developments have already increased pressure on governments to perform and provided them the capacity to do so (OECD 2003a). The Internet began its explosive increase in 1993 at the beginning of the Clinton administration during the initial period of a major government effort, the National Performance Review, led by Vice President Al Gore. Having focused on creating a regulatory and legal regime conducive to e-commerce, the government turned to building digital government, in part through the strategy of creating virtual agencies (Fountain 2001a).

In this chapter, the concepts of e-government are reviewed, particularly citizen-initiated contacts. Followed by that is an in-depth review of one particular type of citizen-initiated contacts which is the e-grievance system.

2.2. E-Government: Concepts and Practices

E-government as defined in the first chapter is the use of communication and information technology to provide citizen and organizations with more convenient access to government information and services, and to provide delivery of public services to citizen by connecting the back offices of different organizations. Not only delivering services and information to citizens are considered in e-Government but the interaction and the feedback of citizens are considered a vital part of e-government systems (Reddick 2005b).

Using the Internet, government agencies can change the way they deal with citizens. The Internet empowers citizens, who are viewed as stakeholders in their government, to make decisions as owners of government. Using the Internet, routine government services are available 24 hours a day, 7 days a week, and their easy accessibility enables citizens to do online what in the past required standing in line. Not only internet has done that as channel, but the landscape of government and citizen interaction changed due to the internet channel and a research (Reddick 2005b) has found out an evidence that e-government has improved citizens' interaction with government.

Based on evolutionary phenomenon, (Layne and Lee 2001) proposed four stages of a growth model for e-government: Cataloguing, Transaction, Vertical integration, Horizontal integration. The first stage of growth entails the initial efforts of governments to establish an online presence and presenting information about their activities on the Internet. The second stage involves putting government databases online and allowing citizens to transact with the government through paying taxes, fines, or fee. The third and fourth stages involve "one-stop shopping" concept, which is based on the vertical and horizontal integration of government offices and department. The first two stages only are one way interaction and the last two stages involve two way interactions between government and citizens.

Based in literature review of the evolutionary stages of e-government (Reddick 2005b), two streams of e-government adoption have been identified, namely the supply side (e-government offerings) and the demand side (Citizen interaction with government). The supply side is well documented in the literature and is the main stream of e-government publications (Moon 2002; Edmiston 2003; Gil-Garcia and Martinez-Moyano 2007; Kumar, Mukerji et al. 2007). Perhaps most importantly, the survey results of (Moon 2002) showed that major advances into the transaction phase of e-government adoption were not evident. In similar study done by (Edmiston 2003), he found that most e-government adoption was primarily informational, although there is some initial movement into online transactions. In contrary to that (Ho 2002) finds out that e-government adoption passed the informational stage and was in advanced stage like vertical and horizontal integration.

According to (Cohen 2006; Pieterse and van Dijk 2007) the demand side of e-government adoption is less explored. An example of demand side perspective is Thomas and Streib's study of citizen interaction with e-government (Thomas and Streib 2003). The focus of this study is this stream and in the next section we will elaborate further the literature about the citizen-initiated contacts.

2.2.1. Citizen-Initiated Contacts

There is considerable research in the field of citizen contacts of governments (John Clayton 1982; Sharp 1984; Cohen 2006; Streib and Navarro 2006). Contacting government is common and citizens exercise this for different reasons. The reasons that citizens contact municipal government include perceived need for service, a sense of having stake in the city, physiological engagement, as well as other social and political involvement (Thomas and Melkers 1999; Thomas and Melkers 2001). Citizens usually contact governments for requesting service or information, lodging a complaint or voicing their opinions, and many more reasons. The contacts tend to be “ geared toward matters of everyday service delivery rather than large-scale policy”(Sharp 1984).

Good conducts in contacting governments is important to both citizens and governments. From government’s side, citizen contacts help establish lines of communication between citizens and government, allowing both to learn about each other. Government may learn about the concerns of its citizens, their contents and discontents, etc. From citizen’s side, citizens may learn of government services and benefits, how government functions, who is responsible for certain decisions. A satisfactory contact experience may improve also a citizen’s feeling of trust towards his government (Cohen 2006).

Van Deursen and Pieterse (2006) differentiated between four general channels of citizen-government interaction: Personal (e.g. counter), Electronic (e.g. the World Wide Web or e-mail), Printed or written (e.g. letters and faxes), and Telephone. In addition, they assert that the service channels differ in their characteristics; for example the central means of interaction. Personal service delivery relies on face-to-face communication, the telephone on telephony interaction, written services rely on written media and electronic services use multiple means: websites and e-mail are written media, but for example web-conferencing makes use of both audio and video and is therefore similar to video conferencing (van Deursen and Pieterse 2006).

Most of the research on citizen contact of government focuses on traditional forms of contact, such as letter writing, telephoning, or personally visiting a government office. In recent years, however, the internet has transformed citizen contacting, increasing the number of citizens contacting government and perhaps the contact experience itself (Cohen 2006). For example, the 2003 Pew E-Government Survey of 2,925 citizens shows that 42% of contacts to governments were by telephone while the web contacts were 29% and contacts via email accounted for 18% (Horrihan 2004).

Citizens’ use of governmental websites seems to represent a new form of citizen initiated contacts to their governments, and (Thomas and Streib 2003) differentiates two main differences between the web based contacts and traditional citizen initiated contacts. First, contacting via website may be easy and quicker than contacting by person or telephone especially as the use of internet is becoming widespread. Second, is the personal component which is inherent in telephone and in-person contacts and likely have greater personal component than web based contacts. He asserts that, the later difference may well cause to lower the movement of citizen contacts towards the web.

In addition to that, (Cohen 2006) also pronounces that a web based contacts have benefits over traditional citizen contacts, as web page contact may be at any time of the day or night, during

government operations hours or not, whenever it is convenient for the contactor to do so, the absence of queue that are apparent in traditional contacts and huge capacity to process communications simultaneously by a web based contacts.

2.2.2. Principles of Good Governance

Governance can be defined as the interaction of governments and its citizens. Governance is not synonymous with government. This confusion of terms can have unfortunate consequences. A public policy issue where the heart of the matter is a problem of "governance" becomes defined implicitly as a problem of "government", with the corollary that the onus for "fixing" it necessarily rests with government (Graham, Amos et al. 2003).

Governance is normally described as involving government, civil society and the private sector in managing the affairs of a nation, which means that the responsibility for managing the affairs of a nation is not limited to government alone, but includes a wide variety of stakeholders (Parigi and Leader 2004). In a democratic government, citizens and many different stakeholders can engage and interact with their governments in two way interaction. In the era of E-government, it is believed that information and communication technologies have changed the relationships between citizens and their government by facilitating the interaction and making it easy and convenient. E-governance can be perceived to be contextually inclusive of 'electronic democracy' (*e-democracy*) and 'electronic government' (*e-government*) (Okot-Uma and London 2000).

Although much has changed in ways of citizen-government interaction, the principles of good governance still remains the same. Principles of good governance contain: participation, Transparency, responsiveness, equity and inclusiveness, effectiveness, efficiency, and accountability (Parigi and Leader 2004). The diagram below will show the link of Principles of governance and the e-grievance (the main topic of the research paper which we will deal in the next section). The lower part of the diagram shows the principles of good governance. In citizen-government interaction, the participation principle must be fair and inclusive in all parts of societies. Fairness and impartiality is seen as sign of good governance. Next principle is transparency which is based on openness of governments to its citizens. Responsiveness deals with efficiency and how government responds to its citizen interactions. Last principle of good governance is the accountability principle, which is holding governments accountable for its decisions. E-grievance systems should encompass all these principles in the system.

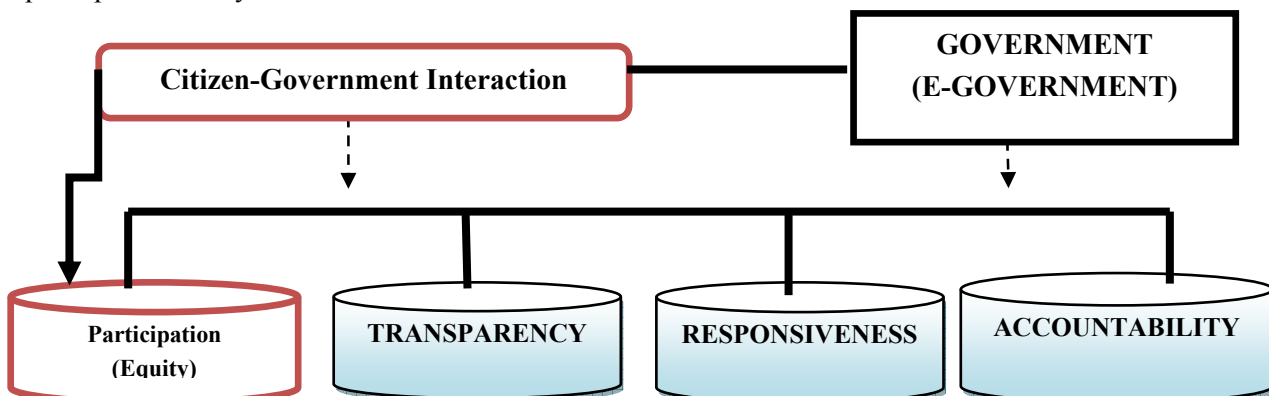


Figure 2: principles of good governance and E-grievance systems

2.3. E-Grievance Systems

Wrongdoing in local government has a long history (Menzel and Benton 1991) and Quality of service inside public administration is undoubtedly an important issue to take into account. This is especially true in local administration. Local governments in advanced democracies are interested in the citizens' opinion about their management (Penichet, Gallud et al. 2006a), therefore many countries adopted citizens' complaint or grievance handling mechanisms since long time to help citizens get fix what went wrong.

There is no single definition of Grievance Handling mechanisms in the world; – different countries and organisations have different approaches. In the literature, a reader may encounter many different words related to Grievance and it is worth clarifying it at the outset. Here in this research, E-grievance redresal systems (Ranganathan 2008; Martinez, Pfeffer et al. 2009) complaint handling mechanisms (Brewer 2006), citizens complaints (Mulgan 2000; Brewer 2006; Brewer 2007) and public feedback mechanisms (UNDP 2005) are regarded as synonymous and interchangeable hereafter. Therefore E-grievance systems always take care of correcting what has gone wrong in dealings of government with its citizens perhaps through delays in handling a matter, neglect or other failures to conduct business properly.

The main mechanisms for achieving redress currently in the world are: citizen complaints procedures; appeals and tribunals systems; references to independent complaints handlers or ombudsmen; and resort to judicial review (and other forms of legal action) (Ombudsman 2002; Bourn 2005). In this study we will focus on the citizen complaints and the Ombudsman which are integral parts of the local government redresal system, but for clarity purposes, Appeals are expressions of dissatisfaction with substantive decisions made by the department or agency. Appeals are not generally treated by departments and agencies as raising matters of administrative fault. For instance, an appeal may be the consequence of citizens' not supplying correct information or making a mistake in their initial application. And, of course, many appeals query decisions that are in fact correct, so that the case made by the appellant is rejected (Bourn 2005).

Recently, many governments have adopted electronic version of complaint handling. For example, in India's grievance redresal mechanisms, citizens register their complaints via the internet (Wallack and Nadhamuni 2007) and also using Short Message Service (SMS) over the mobile for urgent complaints (Wallack and Nadhamuni 2007). In Spain, it is also observed in a study of complaint management that, over 75% of citizens use the Web to put their complaint and suggestion but only over 63.91% of citizens prefer to receive the administrative response via e-mail (Penichet, Gallud et al. 2006a). In Taiwan, Taipei City Mayor's Email-box (TCME) was the most frequently used channel by citizens to file a complaint. TCME, together with classified letters to the mayor's office and meeting with the mayor, are complaints aimed to reach the mayor and they accounted for 53% of the total in June 2001. Post and facsimile letters account for one quarter of all the complaints media usage in June 2001. The third largest category of media usage is telephone and it covers 20% of the complainants. The last two categories, personal visits and letters to the editors of news media to express complaints constituted 7.6% and 3.65% (Chen, Huang et al. 2004; Chen, Huang et al. 2006b).

Information and communication technology (ICT) in the complaint handling are used because of the perceived benefits to increase citizen's service delivery which is mainly related about the internal efficiency. In the literature this is probably what one will find as the first motive of automating grievances (Shukla and Srinivasan 2005; Penichet, Gallud et al. 2006a; Janez Stare, Barbara Gruden et al. 2008; Ranganathan 2008). The second category is to make the tracking of the complaints more easier (Penichet, Gallud et al. 2006b; Martinez, Pfeffer et al. 2009). The third category has to deal with the interactions of the citizens with the government. It is believed that in general that the use of internet will increase citizen's participation (Ackerman 2004; Dinesh 2006; Poelmans 2006) and in particular to the complaint handling (Penichet, Gallud et al. 2006b). The last category, which is the least backed up by evidence from the literature, has to do with increasing transparency and accountability.

2.3.1. Why Grievance Systems in local governments?

Local governments are considered as natural customers of public citizens. Many of Citizen's Everyday needs relating to water/sewerage, electricity, roads, parking are linked to local governments. Local governments are also the point at which citizens interact most with the government. Obtaining certificates, building permit, registering and subdividing plots of land are all important transactions that local government around the world often have the sole responsibility. Therefore, it is considered essential that processes of complaint redresal are clearly defined and publicly available.

In general, Seneviratne and Cracknell (1988) have summarised four advantages of clearly defined procedures of complaint handling in local governments. The first advantage concerns with 'bottom up' accountability in which grievances can indicate trends which local governments can use to alter its policies and practices effectively and systematically. A second and related argument concerns the rational decision making of local governments. The third one being that the consumers of many public services cannot exercise exit options of business consumers therefore it was deemed as important to provide effective means by which citizens voice their dissatisfaction. The final advantage is the political nature of liberal democratic countries requires accountability which is fundamental to governments.

Therefore, Complaints are an important source of feedback to central departments and agencies about where things are perceived by citizens as going wrong. Hence they are a significant source of information on possible improvements in organizational arrangements. The Level of complaint are also seen as range of indicators including measures of customer satisfaction, and of accuracy, quality and reliability of services that together highlight whether citizens are getting the service that they need and want (Bourn 2005). This is well documented in the Environmental complaints where it is seen the complaint as the perception of environmental problems (Carvalho and Fidélis 2009a; Carvalho and Fidélis 2009b; Martinez, Pfeffer et al. 2009).

In addition to that, engaging citizens in policy-making is widely considered as core element of good governance (OECD 2003a). At a time when government emphasizes more on "governance" than "government," citizen participation at local governance is significant in three aspects. First, the local government must be responsive to the needs of citizens. Citizen participation is a means to reveal their collective preference to ensure that citizens' needs are appropriately matched by

government services and the service quality is satisfactory. Second, although citizens can reveal their preferences through normal channels such as local elections, recent trend has shown decreasing turnouts in elections at local level. Citizen participation through direct channels at local level becomes commonplace and it is strengthening representative institutions and enhancing democratic legitimacy (Chen, Huang et al. 2006a).

Among citizen participation initiatives employed by local governments in western democracies, citizen complaints mechanism is one of the most common practices. A research conducted by (Lowndes, Stoker et al. 1998) indicates that 92% of British local authorities use complains/suggestion schemes, highest among citizen participation channels. It is because of that characteristic that e-grievance redresal systems and public feedback mechanisms are considered “the key to increase transparency in e-government initiatives” (UNDP 2005). It is also widely recognized that efforts to reduce poverty should not simply involve improving material conditions, but also involve enhancing access to the judiciary, police, public administration systems, and institutions charged with ensuring justice.

2.3.2. E-grievance and Good Governance

As we have mentioned in section 2.2.2, e-grievance system should be built in the principles of governance like participation, Transparency, responsiveness, equity and inclusiveness, effectiveness, efficiency, and accountability.

Transparency ensures that enough information is provided and that it is provided in easily understandable forms and media (Parigi and Leader 2004). Good complaint procedures are considered those who have literature explaining on how the citizen can put his complaint to the right office and the right authority. Awareness creating is a main aspect here besides the routing and procedures of complaints in local governments. Procedures that are easily accessible, simple to invoke an operate are seen to be contributing to openness and transparency in governments (Brewer 2007).

There is a general positive few about the potentials and capacities that e-grievance have (Martinez, Pfeffer et al. 2009), in particular the way it is presented as an opportunity to increase openness and transparency within the public administration (Wallack and Nadhamuni 2007). It is because of that characteristic that e-grievance redresal systems and public feedback mechanisms are considered “the key to increase transparency in e-government initiatives” (UNDP 2005).

The more transparent the system is the improved accountability inherent in the system (Kierkegaard 2009). However, More traditional citizen-oriented complaints handling and appeals mechanisms, even if they contain inherent inefficiencies, their role in reinforcing good governance norms and values such as equity, social justice, due process, transparency, legality and fairness is important for ensuring public sector accountability (Brewer 2007). An increasing number of municipal governments and utilities in developing cities are also putting in place formal grievance redresal mechanisms that aim to hold government officials and public and private service providers to account (UNDP 2005).

The idea is that government officials are held accountable for the information and services that they provide. Citizens can after all, only complain about what they see and this ‘grievance’ has to be mapped to information that is relevant for a department to know what is wrong and what it can fix (Wallack and Nadhamuni 2007). If there no predefined accountability in place, it would be hard ‘to arm the citizens to hold citizens complaints’ that the e-grievance capacities promise. In an era of public sector reforms and New Public Management, combined with the traditional citizenship perspective, it appeared to have a considerable potential in improving the complaint handling and redress (Brewer 2007). In contrast to that he argues that, ‘accountability may be weakened when service recipients are defined less in terms of their citizenship and more on the basis of narrowly defined status as a marketplace consumer’.

Another concern is the result of weakened accountability could be that government will be more responsive only to certain groups in society (Meijer, Burger et al. 2009). People that don’t have Internet access may have less means to attract the attention of government agencies to the problems in their place. The study of (Schumaker and Getter 1977) presented the concept of ‘responsiveness bias’ which was defined as “the degree to which governments respond unequally to the preferences of various subpopulations in their communities.” While substantial community-to-community variation in differential responsiveness was found, “88% of all cities exhibit positive scores of differential responsiveness to income and racial subpopulations, suggesting that the vast majority of cities exhibit higher levels of responsiveness to high-income citizens and whites than to low-income citizens and blacks”.

The ‘responsiveness bias’ are what now called ‘Digital Divide’ which relates to the multifaceted concept of access (Van Dijk and Hacker 2003). Digital divides are about relative differences between categories of people and the differences between people who are connected and people who are not connected. Those of lower socio economic status, older age, with less education, female gender and from ethnic minority groups have been found to be less likely to be ICT and e-government users (Pang and Norris 2002; Thomas and Streib 2003).

Concerning the e-Grievances are recent issues, the concentration of grievances and their analysis are not found in literature except (Carvalho and Fidélis 2009aa; Carvalho and Fidélis 2009bb; Martinez, Pfeffer et al. 2009), which will form the basis and comparison of our analysis although the differences of local circumstances will be taken into account. But much of the literature on citizen initiated contacts have been documented the relevance of socio economic factors in government contacts (John Clayton 1982; Sharp 1984; Thomas and Streib 2003).

Carvalho and Fidélis (2009a), In their study they concluded that visualising and analysing complaints has an important role in management of environmental quality , and have a potential to reveal to researchers and technicians the perception of environmental quality in urban and peri-urban areas as well as the perception of environmental problems as seen by local actors. In addition, they mentioned that the tool of e-grievance may allow deeper understanding of the state of local environment and provide a useful instrument for development of suitable environmental policies. Their territorial analysis also enabled them to the combine their main parts of the study: qualitative and territorial.

In another study done in India by (Martinez, Pfeffer et al. 2009), they have found that complaints do not concentrate in the most deprived areas while they visualised in a map. In conclusion they argued that the possibility of e-Grievance tools would have on triggering pro-poor policies remains low in India given the limited citizenship or urban poor and first order governance priorities (Martinez, Pfeffer et al. 2009).

2.4. ICT and Urban Deprivation

A myth that prevails with regard to the Internet in particular is that the Web is supposed to be a global and open technology which allows all nations and societies to equally access the continuously expanding cyberspace to provide them with information, commercial opportunities and business relationships, to finally “usher into a new age of democracy, a socio-political utopia” (Gorman, 1998). Whether all people in all places are equally connected to ICT, however, remains an empirical question. However, Drewe and Fernández-Maldonado (2001) argue that there are always groups that having access do not connect for one or other reason.

(Drewe and Fernández-Maldonado 2001) points out that there exists a wealth of potential ICT applications that can serve as a source of inspiration for local ICT-related initiatives and activities. At national level, the European Union agenda provides guidelines for an integrated approach against urban deprivation and lists precise actions for an 'Information Society for All'. Most European countries have already developed ICT strategies against urban deprivation. These strategies are mainly focused on universal access: the access to the new technologies of population groups that might otherwise fall behind, with the lack of connectivity worsening their (deprived) living conditions (Drewe and Fernández-Maldonado 2001).

2.4.1. Urban Governance and Spatial Concentrations

The concept of “governance” is not new. It is as old as human civilization. Simply put "governance" means: the process of decision-making and the process by which decisions are implemented (or not implemented). Governance can be used in several contexts such as corporate governance, international governance, national governance and local governance. Participation is a key cornerstone of good governance. Participation could be either direct or through legitimate intermediate institutions or representatives. It is important to point out that representative democracy does not necessarily mean that the concerns of the most vulnerable in society would be taken into consideration in decision making. Participation needs to be informed and organized. This means freedom of association and expression on the one hand and an organized civil society on the other hand.

Urban governance indicators are measured through: Consumer satisfaction (survey/complaints), Openness of procedures for contracts/tenders for municipal services, Percentage of population served by services among others (Stewart 2006). Complaints are seen as direct indicator of urban governance because it is measures the dissatisfaction of citizens against their governments. UN-HABITAT also recognizes that good urban governance is characterized by the interdependent principles of sustainability, equity, efficiency, transparency and accountability, security, civic engagement and citizenship (UN-HABITAT 2004). On the other hand Citizen participation is seen as central to any assessment of good urban governance, which (Stewart 2006) argued that citizen participation is inextricably linked to good urban governance.

Martinez (2002) argues that better governance implies that policy makers and the public sector are aware of the needs and differences within the civil society, being equity one of governance elements. In addition to that he mentions that one of the reasons for local governments to introduce descriptive and monitoring studies of inequality is to subsequently target the disadvantaged areas and implement compensatory/remedy policies. Hence, there is a concern with what the city should be, and some form of redistribution/compensatory action. In this case the concern on inequality issues is very much related to a social justice perspective (equality as social justice) (Martínez 2002). In addition, Castells (1998) evokes the now-familiar image of an increasingly polarised society: a set of common causal mechanisms associated with new technology and the reshaping of occupational structures and opportunities, which are driving different groups towards opposite poles in terms of income, assets and lifestyles. Castells refers this to “truly fundamental social cleavages of the informational age”.

Because a divided city is generally not seen as a desirable situation, it is often associated with income polarisation, spatial segregation and spatial concentrations of low-income households in low-quality urban areas. These spatial concentrations are generally automatically linked to disadvantages for the people who live in those concentrations, and sometimes even for the city or the urban economy as a whole. Especially when income segregation is linked with ethnic segregation, the problematic aspects of such concentrations come to light and are sometimes followed by plans to reduce the degree of segregation and concentration (Kempen 1998). Often the dividing lines are sharper in cities than elsewhere, if only people in the extreme positions of the income distribution live in close proximity to each other.

Many national and urban governments in Europe fear for large spatial concentrations of immigrants who originate from non-industrialised countries. For example, Changes in the Dutch welfare state and ongoing globalisation, among other things, may have resulted in sharper and deeper (spatial) divisions over the most recent years (Musterd and Deurloo 2002). It is assumed that the potential and future participation of individuals from these groups in the wider society are seriously reduced by living in such concentrations (Deurloo and Musterd 1998). In many countries it is observed governments aiming at mixed ethnic areas to reduce or prevent ethnic spatial segregation. The disadvantages are rooted in the idea of the dual or divided city, a city consisting of two or more parts with strong social and geographical dividing lines between low and high income groups and ethnic categories. In the Netherlands, several policies have been used, to prevent either ethnic concentrations or to counteract the negative effects of living in poor living environments (Kempen 1998).

Research in the field suggests that the segregation of the population according to ethnicity or country of origin, is only moderate and hardly increasing in Europe (Rapportage Minderheden 1995; Musterd and Ostendorf, 1996). Public opinion, however, is that there are significant and increasing ‘ghetto-like’ concentrations of immigrant groups, with major negative effects. That opinion is partly based upon the rising share of the population in the large cities which has immigrated from abroad. During the past three decades, the Netherlands has experienced a steady influx of immigrants. Apart from immigrants from Dutch colonies, recruited labour migrants and refugees, many immigrants were reunified with their families, or came to the Netherlands to start a family (Deurloo and Musterd 1998)

2.4.2. Big City Policies in the Netherlands

To handle the problems of the divided cities in the Netherlands, it was introduced 'The Big Cities Policy'. Initially only the four major cities (Amsterdam, Rotterdam, Den Haag and Utrecht) were targeted, but over time many medium-sized towns have become part of the focus as well. The Big Cities Policy concentrates on deprived areas (Dekker and van Kempen 2004). An area-based approach is seen to lead to a long-term economic, physical and social improvements at the local level. The approach entails intensive contact and cooperation between residents, government bodies (local authority, police, and social welfare organizations), housing associations, and local employers (Van Kempen, 2000). There is a clear implication here that governance is an important aspect of the policy.

A new liberal/social democratic government was installed in 1994. With it, a new focus on the largest cities in the Netherlands was introduced. The idea grew that the cities are the motors of society but that these motors are stagnating. The de-concentration of employment to suburbs or even further away has caused unemployment to rise in the inner cities. More jobs in the Netherlands in general, and in the big cities in particular, was introduced as one of the main aims. The new Big Cities Policy offered employers cheap employees by subsidising newly created jobs for the unemployed. These subsidies created jobs for caretakers, town guards and cleaning personnel. The Policy is also aimed at improving the living environment, aspects of education, social security, and care. Contracts were signed between 25 cities and the government. These contracts contain very specific tasks, such as the reduction of crime rates by X percent in one year (Kempen 1998).

Clearly, the Big Cities Policy was - and still is - aimed at social solutions. First, the Big Cities Policy is aimed at the vitality of whole cities (although some neighbourhoods are paid special attention). The emphasis is on social and economic aspects. Second, the Central Government assumes the role of stimulator, but not of implementers. Moreover, it is generally acknowledged (at least by the big cities) as a positive aspect that money is reserved for the big cities. (Kempen 1998)

2.5. Conclusion

In this chapter, we have presented the issues of e-government, and its concepts. Citizen initiated contacts and the principles of good governance are discussed. Next we have touched upon the literature on ICT and how they help in dealing with urban deprivation. In line with this, urban governance and Tackling deprivations were dealt in the next section. At the end the E-grievance systems, Motives and their functions around the world is presented.

3. Conceptual Framework

3.1. Introduction

In chapter 2, we have touched upon the literature on E-government, particularly e-grievance, and ICT and its urban governance implications. The basic line of e-government initiatives were said to be increasing citizen orientation, reducing red tape, creating one-stop shops, and increasing citizen's trust in government (Homburg 2008) and the potential to strengthen social equality and make governments more responsive to the needs of their citizens (Yigitcanlar 2003). E-government as the second revolution (following Managerialism) is believed to transform the public sector by adopting a private sector management model which emphasises the accountability of managers and has a results orientation (Criado, Hughes et al. 2002).

Since 1995, the Dutch Government has been advocating the adoption of customer-oriented business models in various e-government programs and projects. It has actively promoted policy initiatives encouraging governmental organizations to make their public services available online and to provide information, communication, and transaction services [(MinBZK, 1995, 1998, 2000, 2004) cited from (Janssen, Kuk et al. 2008)]. In addition Janssen, Kuk et al. (2008), points out, the need to develop and apply e-government business models to continue e- government progress and accomplish customer-orientation. Yet the exact link between Web- based business models and e-government initiatives is unexplored.

Although it seems reasonable to achieve all above stated benefits, Fountain (2001a) argues that a caution should be exercised. She asserted that The growing replacement of the term “citizen” with “customer” and the idea that government agencies should be “customer-focused”—that is, that public managers should view their clients as customers and serve them using management concepts drawn from effective private sector service firms—demand close scrutiny (Fountain 2001b). In addition she notes that public organisations are not solely interested in service delivery but the multifaceted character of public organisations.

In this chapter, we will outline possible courses of action or approaches in this dilemma or paradoxes of replacing citizens to customer in public organizations. To ease our analyses in this case, we have adopted the theoretical framework of Fountain (2001b). Her approach is chosen because of the rich analytical approach that the article presents, the relevance of this notion to complaint management and the high number of citation of the article in e-government studies. We will argue that the importing the private sector customer focused approaches to public sector entails disparity/inequality and hence digital divide. First the proponents and the potential benefits promised in the new public management will be reviewed and next counter argument of that will be presented.

3.2. E-Government's Customer Orientation

Customer Relationship Management (CRM) has been in the private sector, with the aim of maximizing profits via long-term relationships with preferred customers. Companies in an e-commerce era are confronted with an increasingly sophisticated customer base that demands a higher level of immediate service across multiple access channels. To satisfy customer needs, companies have to maintain consistency across all interaction channels (such as the Internet, email, telephone, Web, fax, and so on) and across all areas of a company a customer interacts with (including sales, service, marketing, and other fields). To overcome this challenge, many organizations are considering adopting the concept of electronic Customer Relationship Management (e-CRM) (Pan and Lee 2003) and understanding the needs of customers, and offering added value services are recognized as factors that determine the success or failure of companies .

Incidentally, the premise of public administration is confronted with similar challenges posed by the aforementioned IT-inspired business transformations (Pan, Tan et al. 2006), and therefore, CRM concepts are also seen as relevant to the public sector (King 2007). Pang and Norris (2002) called for the advantages of applying customer relationship management (CRM) to public administration. Also, (Moura 2008), established the link between e-government implementation and total quality management (TQM) adoption by stating that they share an important set of core concepts and principles.

Among the many promises of the digital revolution of CRM is its potential by offering valuable insights into the elements of effective customer management in the context of e-government services (Pan, Tan et al. 2006), to strengthen social equality and make governments more responsive to the needs of their citizens (Yigitcanlar 2003), and, effective and responsive government (King 2007). Moreover, according to (Kelly 2005), he proposed market based mode of Public administration that can be improve customer satisfaction in public organisations.

Although, the concepts of CRM has been an eminent in the analysis of various national policy documents and is presented as pure image of new better government (Homburg 2008), and enhancing public accountability and effectiveness (Mulgan 2000), it is not without critics. The idea of customer-oriented government was criticized for a number of reasons including its effects on equity of service provision for citizens (Fountain 2001b), the conflicting notions of citizenship and private consumption (Mintzberg 1996), and the narrowing down of enlightened and multifaceted citizen in to the notion of consumer of public service (Homburg 2008).

Fountain (2001), has demonstrated an extensive counter argument of CRM in public sector in a metaphoric way. She argued that two key management challenges make translation of private sector customer service framework into governmental terms difficult. First, the identity of "the customer" in public sector is highly problematic and second upper bounds of effective customer service are not definable in any meaningful way in the absence of prices. In addition, she has also asserted the Political challenge of this notion. Service quality in private sector correlates highly with the socioeconomic status of customers, while in public sector equality is major characteristics.

Mintzberg (1996), also contested the notion that governments must become more like business. He mentioned that only a limited sphere is direct customer job for the state. When it comes to citizen and subject activities, he reckons to exercise prudence in straying beyond the state-ownership model. And above all, he asserted the need of balance among different sectors of the society. (Homburg 2008) also questioned the multidimensionality of citizen against the customer. He asserted that a focus on service delivery narrows the multidimensionality of citizenship and public administration and may therefore reduced legitimacy. In addition, he pointed out the challenge of e-government as to develop participative forms of electronic service delivery that address citizens at the same time as consumer, voter, and a Good Citizen or *citoyen*.

3.3. Major differences between CRM in the private and the public sector

In order to take a stance of the dilemma that we have presented in the above paragraphs, the differentiation of CRM in public and private sector is deemed necessary. Table (3) illustrates some major differences between in the private and the public sector after a brief literature review.

In private sector, competition among different companies implies that consumers can probably will find and use exit, while consumers in public sector don't have that option. The ability of customers to choose in a competitive market also gives them great power in the marketplace while in public sector it is only by jurisdiction. Public servants are not motivated by customer retention strategies. They have an obligation to provide services equitably.

Firms begin with market segmentation in order to identify profitable customers and serve them well. Although it is possible to customize service levels to various market segments, it has the potential to create or widen inequalities (Fountain 2001ba). For example, Builders can obtain inspection services and licenses faster if they are willing to pay more. It needs no explanation for the profit maximization nature of private firms. Firms can offer a higher quality to potential profitable customers.

Jorgensen and Cable (2002) identify three major differences between e-commerce and e-government: access, structure and accountability. In e-commerce, businesses are allowed to choose their customers; however, in e-government, agencies are responsible for providing access to information and services to the entire eligible population, including individuals with lower incomes and disabilities (Jorgensen and Cable 2002).. Warkentin et al. (2002) recognize the political nature of government agencies as a distinguishing feature of e-government from e-commerce. They also note another difference between e-commerce and e-government: mandatory relationships. Mandatory relationships exist in e-government (Warkentin, Gefen et al. 2002). Therefore, one can conclude the nature of public organisations widely diver from its counterpart, the private sector, which makes the implementation of business like public sector more challenging if not problematic. One of the challenging aspects is the digital divide which makes this task of providing universally accessible online government services challenging. As the 'exit' strategies of private sector is not evident in public sector and the obligation of governments to serve all categories of society equally makes the issue more problematic.

Private	Public
Competition	Monopoly
Market orientation	Jurisdiction/ by law
Customer Retention	Equality
Homogenous products and controllable (to some extent)	Heterogeneous products and uncontrollable due to political decision making
Market Segmentation (Pareto Rule 20-80)	Market segmentation Possible but no termination of unprofitable customers
Profit maximization	Democratic and wellbeing of customers

Table 2: Major Differences of CRM in public and private sector, Source (Fountain 2001b; Schellong 2005; King 2007).

3.4. Towards A conceptual Framework

Complaint handling, or service recovery, is central to customer service operations. Complaints comprise an important form of data and show firms where service quality falls below the standards of customers (Fountain 2001b). It is well documented in the private sector CRM and Theories, such as dissonance theory, exit, voice, and loyalty are used to explain causes and outcomes of customer complaining behaviour (Cho, Im et al. 2002).

However, several authors have criticised the application of customer notions from private sector-as shown in the previous paragraphs- especially, complaint handling (Fountain 2001b; Brewer 2007). We are in the conviction that the consumerist model that focuses on customer satisfaction weakens citizenship values of fairness and social justice (Brewer 2007) which Fountain (2001) calls on Weakening Political Equality. Customers who complain are likely to extract higher service levels from firms than those customers who suffer in silence. Similarly, service guarantees are useful only to those customers who use them. But this is not an acceptable practice to government organisations which makes it complex. Public service organisations have to be responsive for the entire society not to a particular group of customers.

Enhanced quality of service provision has been a major component of public administration reform over the last decades and the use of ICT to generate improvements has been a primary driver for E-Government activity (Jaeger, 2003; West, 2004; OECD, 2005; Bekkers & Homburg, 2007). Online public services are increasingly seen as part of a broader service (improvement) strategy, with important customer and efficiency benefits. As users of public services can be obliged to interact with their governments, user dissatisfaction with the quality of the services may quickly become a major political issue (Verdegem and Verleye 2009).

Fountain asked many questions concerned about complaint handling in public administration using customer focused ideas from private sector. To those customers who do not make special requests receive a standard level of service. Is it equitable to promote such practices in political institutions? Does responsiveness to complaints (or complainers) constitute better service to the public? When public servants are encouraged to “listen to the customer,” what arrangements will ensure that they listen to those customers less able to exercise voice, who cannot or do not express their preferences well or clearly, and who may receive poorer quality service if greater discretion is given to frontline

personnel? To what extent should public bureaucrats probe the implications of disparities of power among their various customers? And Are there ways in which a customer service focus ignores—or worse, exacerbates—inequalities among customers? And if a political institution ignores disparities of power among its clients, is it not legitimizing those disparities in its failure to address them?

It is these questions that Fountain (2001) notes is virtually ignored in much of contemporary public management. The analytical framework that we used here is based on the above mentioned concerns of public service delivery using private and customer focused backgrounds. The framework is simple and is based on the customer oriented public services which may entail disparity and responsiveness towards different segments of the market based on socio economic status of customers, as may be apparent in the private sector. The outcome therefore is undesirable to public organizations as the notion of citizenship is missing.

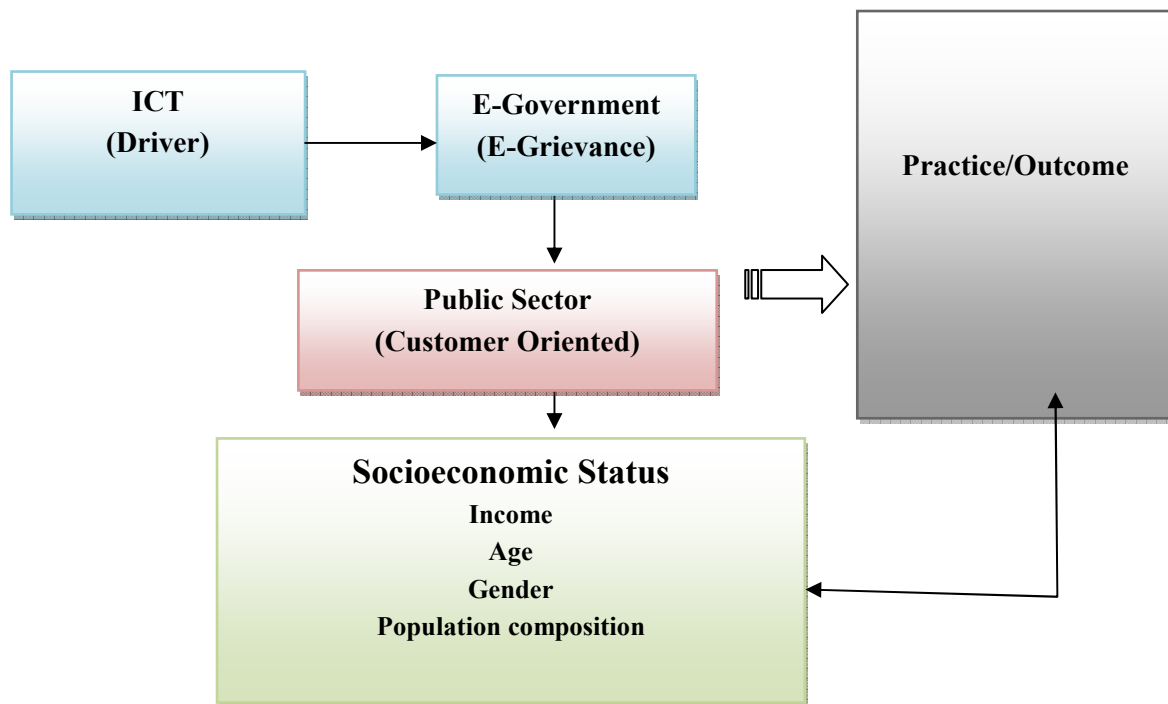


Figure 3: A Basic Framework for the Research

There fore we implement our framework using database of grievances in Amsterdam Municipality. Different segments of the population regarding their socioeconomic status are linked to the grievances that have been received and correlation analysis is performed to see whether there is disparity/digital divide in the outcome of the e-grievance system in Amsterdam.

4. Methodology

4.1. Field work and Data collection

After exploring the E-grievance system in the last chapter and how it functions, this chapter will give a detailed view of the methods used for data collection for the research. In this chapter, designing of interviews, questionnaires, and other data collection methods used are discussed. In the next chapter we will mainly discuss about the results and findings of the research. Since research on handling citizen-initiated contacts -e-Grievance systems- (Chorng-Shyong Ong and Shang-Wei Wang 2009), it is appropriate to adopt a case study approach to understand the dynamics with in single settings (Yin 2003). Qualitative and quantitative approaches have been adopted to understand the functions, processes and the outcome of the e-grievance in Amsterdam, the Netherlands. The rest of the chapter explores the case study and approaches of the data collection.

4.2. Study Area and its Administration

The field study was conducted in Amsterdam, the Netherlands. In the study Period, Amsterdam consists of 15 districts but the merging of some districts was actually being prepared to take place (see figure 1). Due to the effects of merging some district administrations, it is expected that the next years it will only be 7 administrative districts. For this Study, still the Districts are considered as 15 in the data collection and analysis as the effect of the merging was not implemented fully.

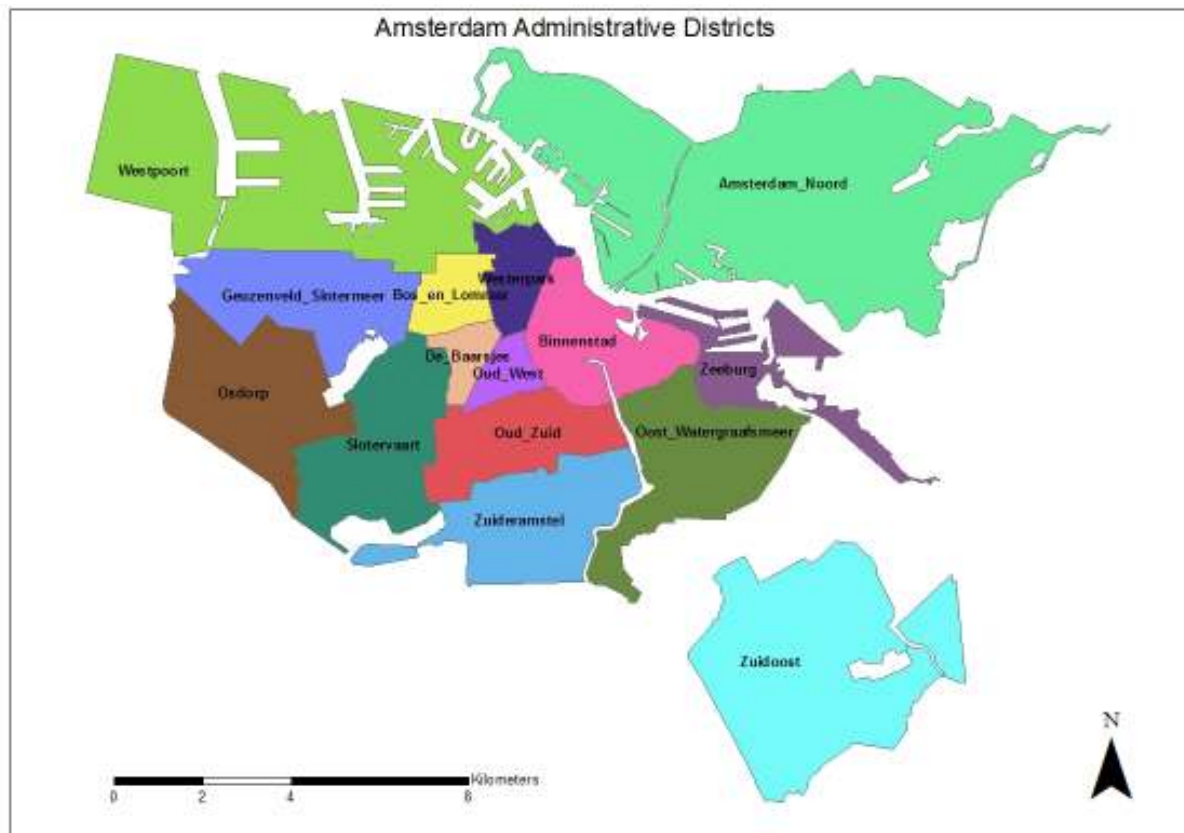


Figure 4: Study area, Amsterdam Administrative Districts

4.3. Data Collection

There are two major approaches to gather information about a situation, a person, problem or phenomena (Kumar 2006; pp 118) and these are:

Primary data: Data collected through sources such as questionnaire and interviews, etc

Secondary data: This is collected through sources of documents that already existed. It includes earlier researches, government publications, etc.

Both of the approaches are used in this research and in the next sections a detailed overview of the each method used is explained.

4.3.1. Primary Data collection

Before proceeding on fieldwork, questions were prepared and a list of contacts in the District dealing with complaints was pre-contacted. Mostly they were Complaint Coordinators (Klachten Coordinators).

4.3.1.1. Interviews

Questions of Interviews were prepared before starting the fieldwork. Questions were divided according to the subtopics to facilitate the analysis in the later stages and are aggregated in one form. Some questions were only for the District Interviews, others were for the Departments while some of them were to both of them. Together, the questions were 62. Not all of them were used in the same interview, but mostly the questions were general and before each interview adjusted to fit with the interviewee's position from the organization and his tasks (See Appendix 3).

As shown in the table Below, the Planning interview was prepared before the field work and sent the contacts who have replied at that time with the questions for the interview, the interested areas of the study and what data to expect from the interview to give a clear view of the study to the interviewees and prepare for the interview. In addition to the planned interviews, the Ombudsman office was interviewed and observations were done one day at the office of Ombudsman.

The interview of Central Administration and Four of the planned interviews in the districts were successfully conducted and the rest was either no answer from the contact person or h/she was not available for an interview. Concerning the planned interviews with the four departments, none of the departments answered and there was no interviews done in that case.

In order to compensate for the less response for an interview, Questionnaires were introduced and sent to the all other remaining districts and departments. In the next section we will elaborate the questionnaire method used in the study.

Data	Source (Organization)	Interviewees
Receiving Complaints	Front Office (Central Municipality Amsterdam)	Complaints Handling Officer
Receiving Complaints	Front Office (7/15 Amsterdam District)	Complaints Handling Officer
Processing Complaints	Back Office (Central Municipality of Amsterdam)	Coordinator of complaints
Processing Complaints	Back office (7 out the 15 Amsterdam Districts)	Complaint Handling officer
Land Lease Complaints	Land Lease Department	Complaint redressing (Solving) Employees
Building Permit Complaints	Building Permit Department	Complaint redressing (Solving) Employees
Physical Planning Complaints	Physical planning Department	Complaint redressing (Solving) Employees
Land/ Property Taxation complaints	Taxation Department	Complaint redressing (Solving) Employees

Table 3: Interview Plan

4.3.1.2. Questionnaire

Questionnaires were introduced believing that, it will be easier to collect some data through this method than the previous one. Eight of the District administrations were contacted via the general E-mail of the office. All of the E-mails were acknowledged and given an email where to send the questionnaire except two of them which were automatic acknowledgement. Three out of the six questionnaires sent were responded so far while the rest did not respond. A follow up was made also but no avail.

Concerning the department's questionnaire, an Email was sent to the four departments for their communication section. One of the departments acknowledged and the questionnaire was sent. All the others didn't acknowledge receiving the email. A follow up was made with a phone call to the departments. It took almost more than 15 minutes waiting in the line and there was no avail as well. After the three weeks of the field work in Amsterdam, again we tried to contact the department through some acquaintance in the list of interviewed persons. Questions in the questionnaire were mostly the same with the interview questions but modified and make fit to be more understandable for the respondent (See Appendix 2). Especially, the questions for the departments were made more closed ended questions.

4.3.2. Secondary Data collection

Secondary data was also collected during the field work to validate and support the primary data. It includes policy documents, annual reports, website addresses, statistics of complaints and Ombudsman reports.

4.3.2.1. Documentary

The documents collected were written in the Dutch language and to overcome that limitation, undergraduate student from Amsterdam University helped to translate those documents into English. The following table displays the details of the documents collected (See Table 4)

document name	Type & remarks
Annual report 2007 of the HVW-first line complaint service	Annual report: what are complaints? And how have they been treated?
complaint procedure Centrum-district	Complaint procedure act: the rules and procedures of complaints in the central Stadsdeel.
General administrative law act (current text as from 1 april 2007) Chapter 9 handling of complaints	the administrative law of complaints.
uitvoeringsregeling klachtbehandeling stadsdeel osdorp (vastgesteld dagelijks bestuur, 14 april 2009)	Complaint procedure act: the rules and procedures of complaints in the Osdorp Stadsdeel.
overview complaints 2003-2009	Centrum: type of complaint, dates, how was it treated in table format
Workshop Klachtherkenning	Presentation of the ombudsman to districts on how to deal with complaints
Jaarverslag 08 Gemeente op Afstand	Ombudsman report of 2008 about the complaints in the districts and departments of Amsterdam
Klagen Aan De Amstel Deel 1 Algemeen	Ombudsman report about the organization and implementation of complaint handling system in Amsterdam
Klagen Aan De Amstel Deel 2 Reacties en Samenvattingen	Ombudsman report about the treatment of complaints in Amsterdam districts
Fliers	Different fliers from different districts about their complaint handling

Table 4: Documents collected during field work

4.3.2.2. Statistics Data

Data from the Central Bureau of Statistics (CBS) for the neighbourhoods of the Netherlands (2007) were acquired. The neighbourhood of Amsterdam were extracted as subset of the database consisting of many variables related to the socio-economic aspects of the neighbourhoods. Database of grievances were acquired from the municipality of Amsterdam and in conjunction with the socio-economic database, this will form the basis of our analysis. Correlation analysis and overlaying techniques were used to associate and visualise those variables to our outcome (grievance per capita).

5. E- Grievance system in Amsterdam

This Chapter presents the results of the fieldwork including the primary data and secondary data that has been collected. It will present the answers to research questions. Research Question 1 and 2 are dealt with in section 5.1, while the answers of research questions number 3 and 4 are presented in section 5.2. Section 5.3 mainly deals with answering research question 5. The primary data is analysed through Weft QDA Software. The statistical analysis is done with SPSS, while Arc GIS have been used for mapping and visualisation.

At the outset, two terms need to be clarified in order to proceed for the results part. In Amsterdam, Complaint (Klachten) and Public Space Notifications (Melding openbare Ruimte -MOR-) are two overlapping terms, although they are represented in different systems. Anything related to Street, parks, or waste collection is considered as a *message* but not a complaint/.

A *complaint* is considered to be related to the attitude of government staffs and the malfunctioning of processes in the government services other than those mentioned above. Therefore it is something other than a *notification* or *message*, but the dividing line between both terms is not clear and sharp in all services (Gemeente Amsterdam 2008). The ombudsman believes that a repeated message is always regarded as a complaint also. In general, both types of grievances are regarded to be important to be dealt with in order to respond to the citizens' grievances. Therefore we use the term *grievance* to represent both the *complaint* and *notification* terms. In the empirical analysis, the two systems are kept separately because they represent two separate systems while in fact the two systems overlap and affect each other. For example, a citizen notifies that district that there is pothole in front of his house and he gets no response from the district. He lodges another notification and after this if he gets no response he can complain about the non response and path hole. Therefore, the two systems do not stand independently but rather interact and affect each other.

5.1. E-Grievance: Evolution and Current status

5.1.1. Public Space Notifications (MOR)

Public space is the concern of districts and its beauty. Citizens are encouraged to participate and notify the malfunctioning of public space to the district administration to fix it. In that respect, city administrators are confronted with an immediate problem which needs quick response. The public space notifications were open ended in the past, but recently the digital form is composed consisting of different categories and sub categories (See Table 6).

A citizen reported deficiencies in the public space need a response especially when it concerns immediate needs of citizen and his/her neighbourhood in general. An alert response and a clear procedure for the citizens to report problems will also encourage citizens to report faster. In turn this will improve the quality of public space and the confidence of citizens in the e-grievance system.

Categories	Sub Categories
Waste	<ul style="list-style-type: none"> • Underground containers • Not removed or incorrectly listed waste • Recycle Bins • Litter
Roads, traffic and street furniture	<ul style="list-style-type: none"> • Street lighting and traffic • Street furniture • pavement maintenance, street and bike paths • Playgrounds and sports facilities
Public Space and nuisance	<ul style="list-style-type: none"> • Wrecks • Pest and dog • Graffiti • Impeding objects Others nuisance
Public water and green	<ul style="list-style-type: none"> • Trees • Floating debris • Mowing and pruning

Table 5: Types of Notifications allowed in the Municipality Website interface

Citizens can lodge their concerns in the neighbourhood as digital form and submit to the municipality. The central database receives the notification and then routes directly to the concerned department. In the first quarter of 2010, a quick review of all the 15 districts digital form indicates that almost all of the forms are similar and standard. Besides notification of public space, the digital forms allow the citizen to indicate where exactly the notification is concerned in a Google map.

A generic digital form has been worked by the municipality to implement since the start of 2010. The establishment of the Public space notification system (MOR) was gradually implemented in different times for each district. Foreexample, Geuzenveld –Slotermeer was the first district to use of an advanced digital system of MOR where resident can notify and indicate the reports in Google maps and digital processing to be followed after that. On the other hand, Oost-Watergraafsmeer is the last district to adopt the digital form of public space notification. It is expected that MOR will also be used wider and made available on the mobile phones of enforcers.

5.1.2. Complaint Handling

Electronic Complaint handling systems are recent phenomenon, but the traditional handling of complaints existed a long time in Amsterdam. Its establishment ranges from two months to two years. It is believed that it has reduced the physical interaction of citizens and the front office. A fact that has been acknowledged is that the E-Complaint system coexists with other traditional means of complaint handling and that is only one extra service.

In 1991, the Internal Complaint Act was included in the General Administrative Law Act. The Law gave each and every person the opportunity to complain about the way that administrative body treats him/her. Previously complaints about the government were possible and certainly the Amsterdam citizens made use of it but it certainly lacked the legal procedure. Since the autumn of 2007, complaint coordinators of the platform worked on streamlining the complaint treatment in

Amsterdam, trying to formulate minimum conditions for a correct complaint treatment. This resulted in the Directive complaint treatment, which was declared binding for all services in June 2008 by the City Council. As the evolution entails, there was a concern of the piecemeal growing of the complaint handling with different speed and at various level. To overcome this piecemeal growing of Complaint systems in Amsterdam, the Ombudsman tried to form a complaint platform of the districts and departments.

5.1.2.1. Ombudsman's Research on Complaint Handling

The Ombudsman initiated a research on the organizational treatment of complaints in all the participating organizations of the platform. Questions of the research were about different aspects of complaint treatment. The following nine criteria were used to investigate the effectiveness of complaint handling in Amsterdam:

1. Form of information distribution to the telephonists and desk workers.
2. Proper information on the website.
3. Brochure.
4. Recognition of complaints.
5. Way of internal advice.
6. Feedback to workplace.
7. Report to management.
8. Position of the complaint coordinator.
9. Formation available for complaint coordinator.

The result of the research is organized into giving plus (+) or Minus (-) signs for each district regarding their results in the investigation (See Table 7). At the end the ombudsman study has declared the verdict of the investigation about the result by putting categories in each district like giving them the status of Improving or stagnant. The table shows that most of the districts are on track to effective complaint handling, while some of them are standing still without improvements in dealing with complaints. Geuzenveld-Slotermeer, Noord-Amsterdam, Oude West, Westerpark and Zuidoost are ranked as in Development for more or less their improvements over the years; While Slotervaart, Osdorp and Oost-Watergraafsmeer are ranked as the lowest with 'Standstill' for not improving their complaint handling system.

The dimensions that the Ombudsman's research reflected was mostly how to improve the complaint handling system and the platform by establishing an easy way to complain. What is missing from these discussions is who the actual users of the system are? How does the system affect the citizens? Who complains the most? These questions are not dealt with in the Ombudsman's research and it was evident from the fieldwork interviews that such mechanisms and analysis are missing from the complaint system. There were not regular meetings to analyse and report the patterns of complaints faced by organisations, and less is known the true impact that the e-compliant system have on the ordinary citizens.

Districts/Criteria	1	2	3	4	5	6	7	8	9	Verdict
Geuzenveld-Slotermeer	+	+	+	+/-	+	+/-	+/-	+/-	+/-	In Development
Noord	+	+	+	+/-	+/-	+/-	+/-	-	+/-	In Development
Oud West	+/-	+	+/-	+/-	+/-	+/-	+/-	+/-	+/-	In Development
Westerpark	+/-	+	+	+/-	+/-	+/-	-	+/-	+/-	In Development
Zuidoost	+/-	+	+/-	-	+/-	+/-	+/-	+	+/-	In Development
Oud Zuid	+	+	+	+	+	+	+	+/-	+	On track
Baarsjes	+	+	+/-	+	+	+/-	+/-	+/-	+/-	On track
Bos en Lommer	+/-	+	+/-	+	+	+/-	+	+	+/-	On track
Centrum	+	+	+	+/-	+	+/-	+/-	+	+	On track
Zeeburg	+/-	+	+/-	+	+	+	+	+	+/-	On track
ZuiderAmstel	+/-	+	+/-	+	+/-	+/-	+	+	+	On track
Oost-Watergraafsmeer	-	-	-	-	-	-	-	-	-	Standstill
Osdorp	+/-	-	-	-	-	-	-	-	-	Standstill
Slotervaart	+/-	+	+/-	-	+/-	+/-	+/-	+/-	+/-	Standstill

Table 6: Amsterdam and complaint handling development, source: (Gemeentelijke Ombudsman 2008)

5.1.3. Current Status of the E-Grievance

As it is apparent from the evolution of the E-Grievance system - both the Public space Notification and Complaint system- the system is not stagnant but rather developed over time. As the status of e-grievance system in Amsterdam divers across the districts, the adoption of e-grievance was not planned at one shot and implemented in similar ways across the districts but rather the cultural, political and organisational difference played an important role.

The recognition of complaints and notifications poses a critical view as there is a gap between the designer's view and the user's perceptions. A citizen may lodge a complaint believing it is legitimate complaint which the administration may disregard it as a complaint. Such misunderstanding and misconceptions are critical to the development of the system and day to day running of the e-grievance. In most cases, the recognition and registering of oral complaints have increased the number of complaints and put some pressure on the municipality to respond to citizen's grievances. In General, the future development of the E-Grievance system are said to be towards reducing the increasing number of complaints and reports by avoiding the lessons learnt to reappear in the future. This would only be possible if post analysis of the system is done and inserted into the policy of the organization.

Overall , we can see the systems is in its early stage but an evolving and growing towards serving citizens in the best and speedy way. In view of the actual status of E-Grievance in Amsterdam, obviously the further development and sophistication of E-Grievance as such remains a challenge for the near future. The development of Public space notification seems to be ahead than the complaint handling in using ICT to enhance the e-participation and operational efficiency.

5.2. E-Grievance system: Information and Communication Technology

There are varieties of ways citizens can complain and notify the local government in Amsterdam. Citizens can complain and notify by: by post mail, email, website form, visiting the front desk and filling complaint form, and calling telephone to the front office or directly to the complaint coordinator (See Figure 5). In addition, it was possible to notify to the environmental police if the problem has to do with the environmental problems.

Citizen's preference varies widely between the complaint handling and Public space notification. In complaint handling the most preferred channel is calling the help desk of district office. Next preferred channel by citizens is visiting the help desk which citizens come to complain in the municipality building (*Gemeente kantoor*). The Internet channel was the third preference of citizens to lodge their complaint. On the other hand, Public space notification system receives almost 80% of citizens reports in digital form, while the rest use the other means. The highly preference of the digital channel in public space notification lies in the speed of notification and convenience compared to other means. Citizens notify government to require solving a problem with in the shortest period; therefore, the internet may facilitate this as well.

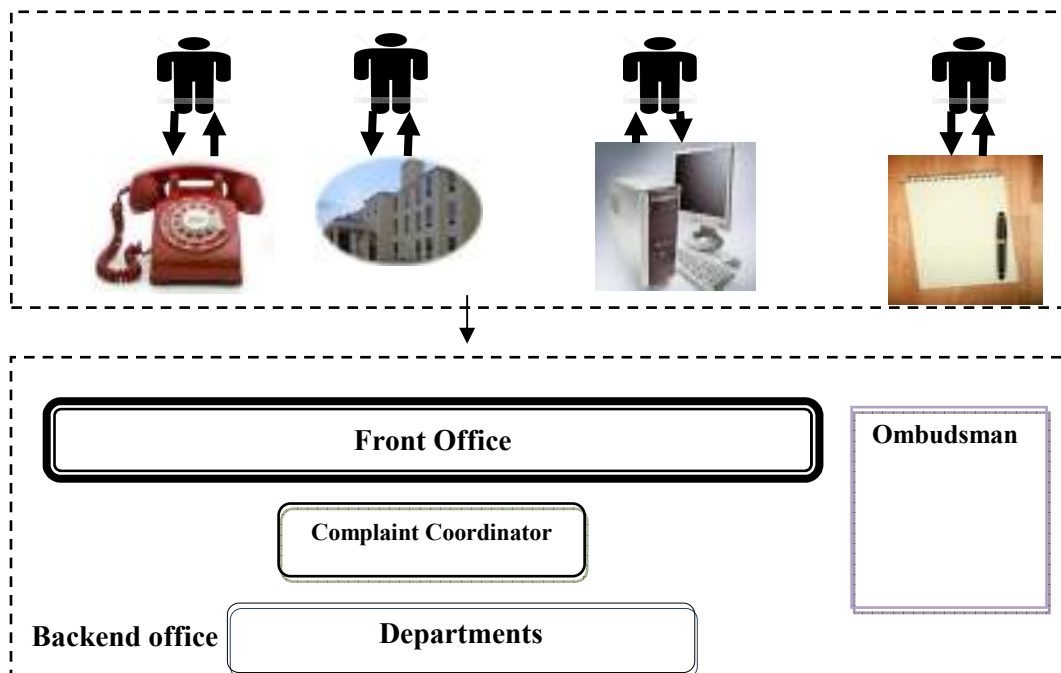


Figure 5: Citizen Channels and the Backend

5.2.1. Public Space Notification

In Public space notifications system both Information and communication technology (ICT) and GeoICT as well have been used. Standard and advanced digital form is available for citizens to report their problems since January 2010 in all districts. With the help of Google map also, citizens can point the location of the problem to help city administrators identify the place easily. The citizens can also upload photos of the incident like photos of uncollected waste in the neighbourhood or holes in the street (See Figure 6 and 7).

Figure 6: Digital form of the Public Space Notification, Standard one since 2010

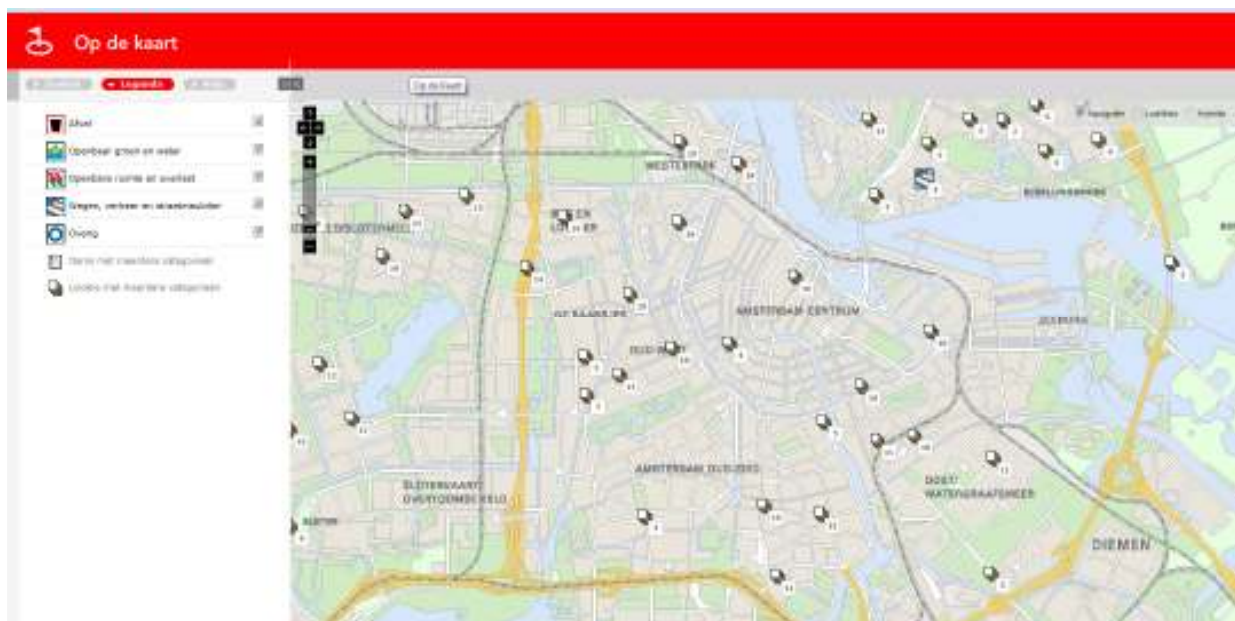


Figure 7: The Map Interface to Geo-tag for Notifications and Determine x, y Coordinates

The timeframe of handling a report is two working days which the ombudsman believes is not practical target as the results of last years suggest and he recommends changing the time frame into meaningful and reachable goal. The municipality of Amsterdam and the Civil Service code Amsterdam (SCA) in consultation with the departments and districts developed the standards of the report handling and what citizens can expect. The SCA promises that the reports of public space to be 95% directly examined in which 80% is handled with in two working days.

The use of ICT especially GeoICT have facilitated among others to reach the target of 80% of reports to be handled with in two working days. Geuzenveld-Slotermeer district is the first to implement the Google based Public Notification interface in 2007 and in that year it has reached the target, while the other two districts – Oostwatergraafsmeer and Debaarjes- that the Ombudsman researched in relation to the MOR have failed to reach the target due to absence of auto routing facilities and the Map element in their interface among others (See Table 8).

Year	Results
2006	78.98%
2007	80.86%

Table 7: Geuzenveld-Slotermeer District's Target of SCA target, source (Gemeentelijke Ombudsman 2009)

Here the GeoICT is used to facilitate the response time and pinpointing the exact location of the incident through more integrated approaches of spatial data management. Before the implementation of the standard digital form of Public space Notification in 2010, the citizen was required to describe the problem and to be specific in as possible with regards to the incident location. Once the notification is received by the district, employee attempts to identify the exact location of the incident with the help of the description of the citizen report which can be fairly time consuming. Once the location has been identified and the necessary information is collection the employee has to forward it to the relevant team or department. It can often take several days to deal with the problem particularly when sensing the details by email or a fax.

Public Space Notification system (MOR) has been streamlined lately at the beginning of 2010 to improve the ways in which citizens report their public space problems using a web-based mapping interface and auto routing facilities. This has allowed citizens to report their problems by pinpointing the precise place of the problem on a map rather than describing it written or verbally. There is also the feature of searching the location by street name or postcode. The postal address or coordinate lookup table spots the x, y coordinates to identify the exact location.

The advantages of the systems are also that the report directly goes to departments as well as the district providing the problem electronically. In addition the geo-referenced database can be used to develop management or policy. In most cases, the qualitative analysis, the number of notifications received in conjunction with the problem shows the extent of the problems. The results of the Geo-database is used as a tool for Operational policy as the (Gemeentelijke Ombudsman 2009) research found out, for example, optimising the waste collection routes.

5.2.2. Complaint Handling

Alongside the quality of an investigation and its outcome, the timeliness of action will be important both to the complainant and the organisation complained about. In Amsterdam, the time frame for answering a complaint is six weeks legally but it may take longer or shorter than that depending on the complexity of the case. Legally, the procedure can take a maximum of ten weeks which is the ultimate time frame for complaint redressal. The structural reason to prolong the answering period is when the complaint requires a committee more than three. Also it is possible that a complaint get lost in the system which makes some of the complaints pass the deadline of handling a complaint.

Perhaps when the complaint is concerned to a multiple parties is when it is the least efficient in terms of answering to the complainant. If the complaints involves the tasks and responsibilities of multiple organisations (for example, Amsterdam Port, Westerpark District and Water Management), than it becomes quite complicated for a citizen to get a proper answer and most of the time such a complaint concerning multiple organizations is not as efficient as the other complaints concerning one particular organization. This is most of the time same with contracted services (Uitbestede diensten). For example collecting parking fine's is officially the task and service of the districts. But, as almost all of the districts have an external contracted party for example parking authority (Stadstoezicht) it might sometimes be difficult for a citizen to know where he/she should complain and get efficient and speedy redressal.

In that case, Reminder tracking system (RTS) is seen as the most crucial link in the process of complaint redressal in terms of efficiency and effectiveness of the relief provided. Quite often, a complainant comes with a grievance seeking speedy redressal in comparison to the court of law. It is, therefore, essential that the time taken for redressal is kept minimum. To check the time frame and deadlines of complaints, some of the districts used the "Traffic Light System" which gives a green colour to complaints with in the deadline and red colours to the complaints which are due to be answered. The Traffic Light system is used internally to remind complaint coordinators and officers the time left to give an answer or decision to the complainant.

It is a common practice for the overburdened and inefficient public offices not to respond to letters of complaints. It is the follow-up with reminders and subsequently the summoning of the concerned officer that makes them accountable. In the absence of such a system, the complaint remains dormant for an indefinite period of time as no action can be taken on the same unless an explanation is received from the complainer. The RTS helps the complaint coordinators to keep note of the time-frame provided for response to each of the letters sent to the complainer in register, send reminders to the officers and keep track of the correspondence between the districts and departments.

The TRS is currently operating manually, and the increasing base of the complaints year by year may indicate the need for computer based automating system. When the number of complaints grow, there are difficulties in managing the files as well as getting information about the status of the complaints. Most of complaint coordinator, which were using Microsoft Excel program as TRS has acknowledged the fact that, such friendlier and sophisticated TRS would help them perform his job efficiently.

The Centrum District's Goal of the complaint procedure in treating complaints within 6 weeks was 80% but 67% was treated within 6 weeks. For the year 2009, the aim of treating complaints in time will be 85%, for 2010 it will be 90%. In the first months of 2009, 83% percentage of the goal has been achieved (see Table 9). It is clear that responsiveness of the particular district increased over the years as indicated in the last column of the Term Percentages dealt with in the specified period. On the other hand, other complaint coordinators specified that the follow up is the most crucial part of speedy complaint redressal and the fact suggests the need for tracking system to reach goals planned.

Year	Goal %	Achievement %
2007	69	44
2008	80	67
2009	85	84* 1
2010	90	?

Table 8: Centrum Complaint handling Goals in 2007 and 2008

5.3. Correlations and Spatial Analysis of the E-grievance System

A complaint handling system should take the needs of different social groups and, even in an era of rapidly increasing computer literacy, recognises that there are many people without access to the internet and/or the skills required to use it. In order to analyse this, we took benefit of different database including the Public space notification database. Each reported incidents' postcode was linked to the neighbourhood postcodes of Amsterdam map by using Arc GIS software. The complaints are counted and double-checked. The total number of complaints was 4429, but only 3415 were included in our analysis. The rest (1014) could not be linked to the neighbourhood postcodes. It may be that an officer has mistyped them or the citizen just put a wrong postcode. Nevertheless, they constitute 23% of our population, which is tolerable number in our studies.

The temporal analysis of complaints in our database shows that there is an increase of complaints. As we are relying on database starting from August 2008 – July 2009, the data could be influenced by seasonal elements. Due to the limited data we have, we could not compare between seasons. However, a fact that has been acknowledged throughout the interviews is the increasing number of grievances over the last years. The ombudsman also recognises the increasing nature of grievances and working out how decrease it. Whatever the case, we can conclude that Amsterdam municipality responds to large number of grievances each year and that the number was increasing over the years.

The results show that citizen's grievances vary widely depending on their perceived needs and the type of problems they faced. Waste collection takes the highest frequency with 27.3% of all the complaints submitted to the municipality. Road, traffic and street problems occupy the second highest percentage of all the complaints with 18.5%. The problems that citizens complain about are diverse

1 On going results, October 2009

ranging from refuse collection, green, playgrounds to environmental problems like pollution (See Appendix for the types of grievances percentages).

5.3.1. Territorial analysis of Grievances

The result of the Public Space Notifications is presented in two different geographical units. First, the analysis unit is based on neighbourhood level. Second, to cross check the result and compare, the results are presented at district level as well.

5.3.1.1. Neighbourhood Level

Analysing the concentration of grievances in relation to the demographic data relating to the neighbourhoods of Amsterdam (CBS, 2008), the territorial concentration of notifications show that there is no positive relationship between number of reports and the size of the residents in the population within the neighbourhood. Figure 8 shows the per capita distribution of grievances based on the measure $[(\text{number of grievances}/\text{resident population}) \times 100]$ as graduate symbols overlaid on the level of population density per neighbourhood as graduated colours. The results show that the highest reports are generated by the least populated areas in the green and light green colours. On the other hand, the from the yellow to the red colours which represent the highest densely populated area found not to be scoring high in the grievance per capita. For example, the whole neighbours in *Westpark* district happen to be in the peripheral areas Amsterdam with the least populated areas but they grievances that have concerned the particular neighbours are very high. Contrary to that you find districts near the city centre to fall under the fewer grievances per capita categories. The correlation results support as well by getting $-.253$ (see Table 3 for correlation results).

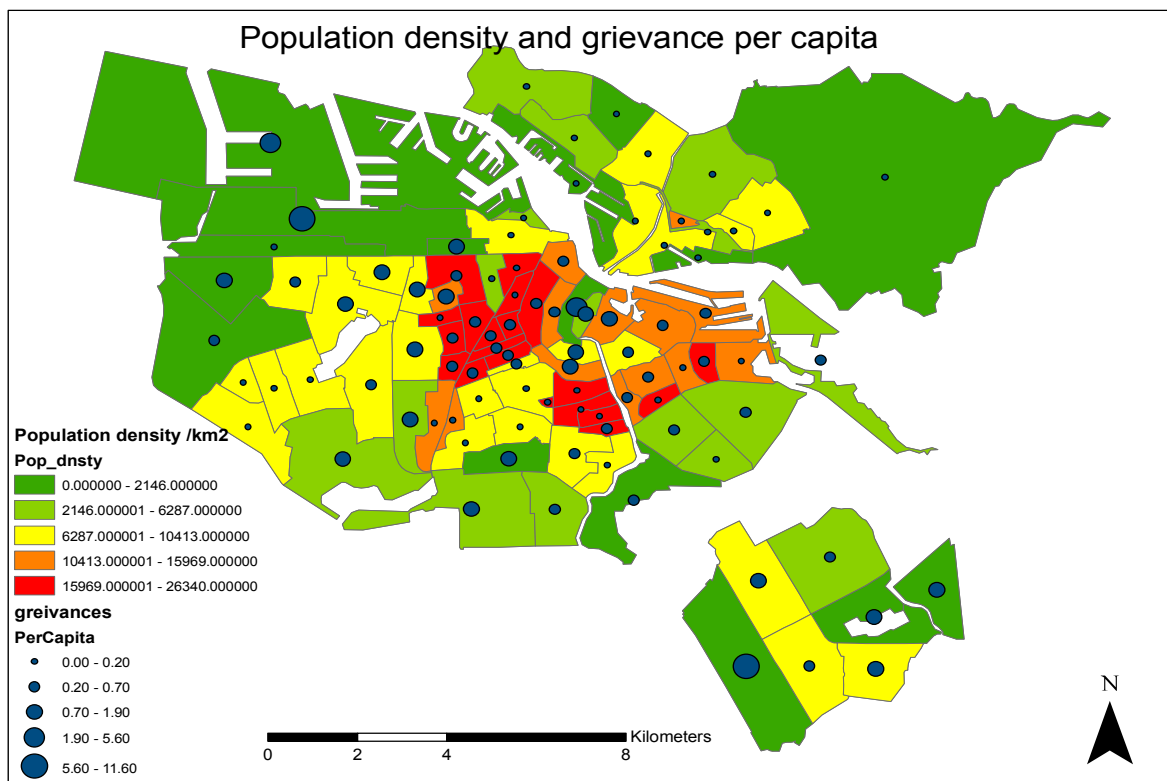


Figure 8: Population Density of neighbourhoods as graduate colour and the per capita of grievances per 100 people as graduated symbols.

Independent Variables	Outcome Variable (per Capita)	Significance Level
Pearson Correlation (N=94)		
Population Density km2	-.253*	.014
Gender		
Men %	-.246*	.017
Women %	-.258*	.012
Non-western %	-.084	.421
Average Income	.288**	.005
Age		
Yr_45-64 %	-.091	.384
Yr_0-14 %	-.166	.110
Yr_15-24 %	.137	.188
Yr_25-44 %	.190	.066
Yr_65 and More%	-.159	.125

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 9: Correlation results at Neighbourhood Level

Concerning the ethnic minority (non-western immigrants² in our case), the correlation results indicate negative correlation with the grievance per capita although it is not significant correlation. That is why one would find the results shown in the map to be mixed. In general, the grievances are lower in where we find high percentage of foreigners living in the neighbourhood. For example, most neighbourhoods in the green colour constitute higher percentages of grievances. The opposite pattern can be observed in the yellow and red colour neighbours, though some exceptions may be found (See Figure 9). The correlation results and the map visualisation tend to support each other as we find out that grievance per capita and the percentage of non-western immigrants negatively correlate although it is not significant (-.082).

Income was found to be positively correlated with the grievance per capita (.288*). Figure 10 tends not to support the correlation results as we can see that the light green and yellow parts constitute most high grievance per capita. The red colour neighbourhood in the *Centrum* district is the only high income neighbourhood found nevertheless it has high grievance per capita as well. Overall, we can say that income matters in grievances as there is positive correlation between income variable and grievance per capita at neighbourhood level. In this case, we can generally conclude that the income is associated with grievance per capita positively.

² Western/non-western (Definition from Central Bureau of Statistics (CBS) for the Neighbourhoods of the Netherlands (2007) the category 'non-western' includes foreigners from Turkey, Africa, Latin –America and Asia with the exception of Indonesia and Japan. On the basis of social-economic and cultural position foreigners from these two countries belong to the 'western' category. This group mainly consists of people born in previously called 'Nederlands Indie' (colonised Indonesia) and employees of Japanese enterprises and their families. The category 'western' includes foreigners from Europe, North-America, Oceania, Indonesia and Japan.

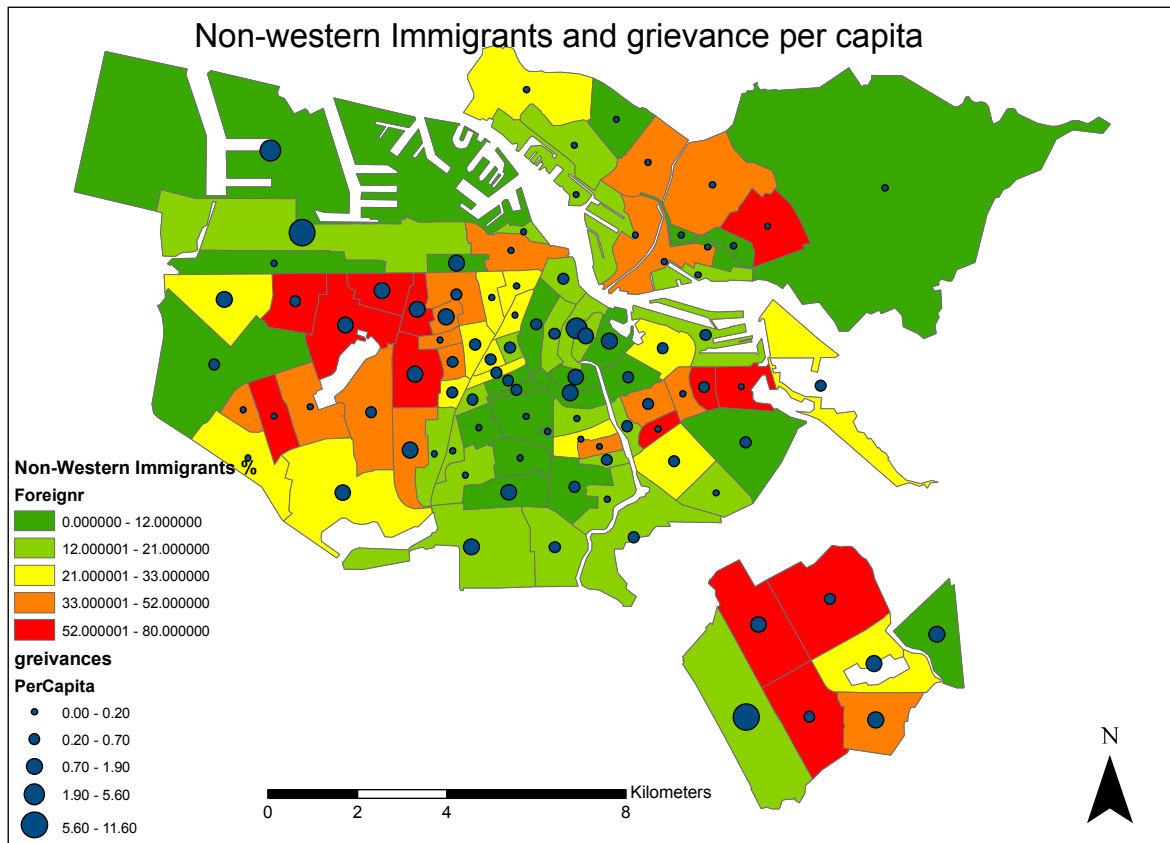


Figure 9: Figure 5: The percentage of Non-western immigrants as graduated colour and the per capita of grievances per 100 people as graduated symbols.

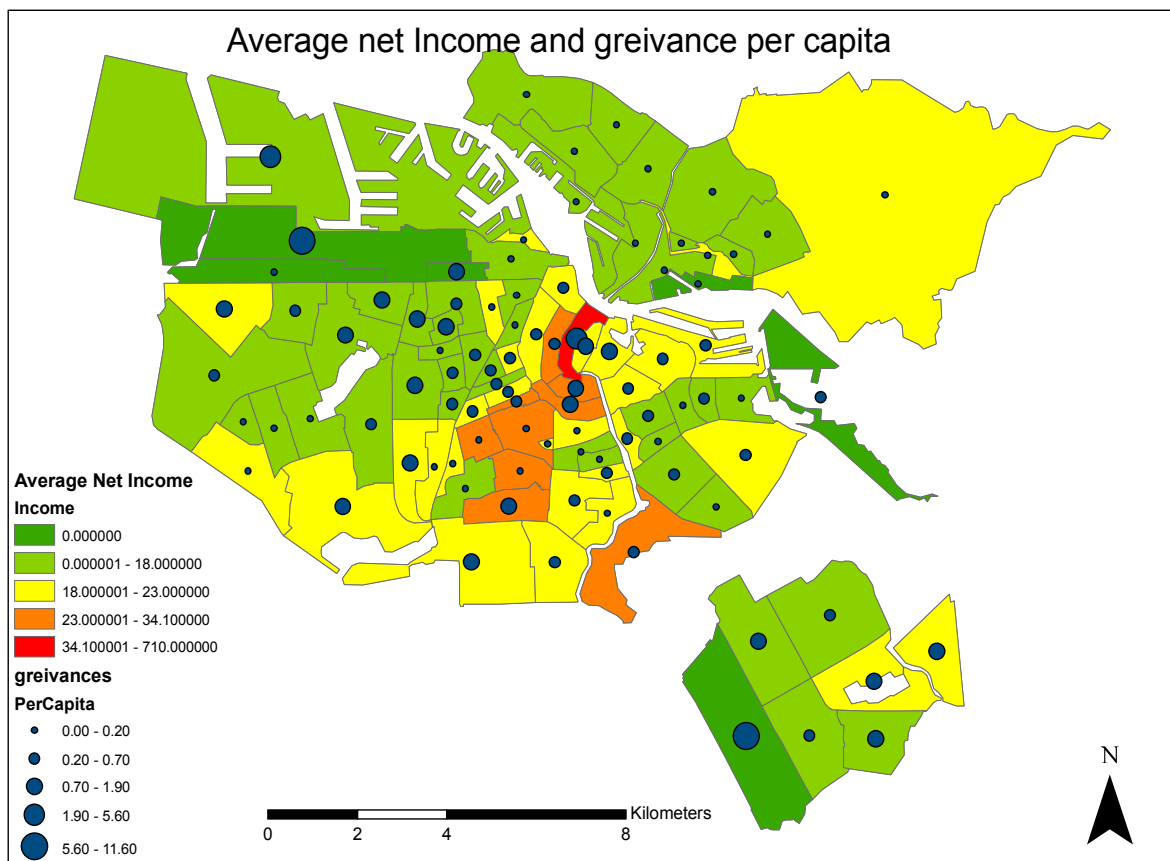


Figure 10: Income variable as graduate colour and grievance per capita as graduated symbol.

Gender variable was found to be negatively correlated with the outcome variable. Both male and female sex was negatively correlated with the grievance per capita, -.246 and -.258 respectively. All age categories have resulted not significantly correlated with the grievance per capita and in general we can conclude that age variable don't matter at least in neighbourhood level.

5.3.1.2. District Level

At district level, Analyses of the concentration of grievances in relation to the demographic data relating to the districts of Amsterdam (CBS, 2007), the territorial concentration of complaints shows that there is no positive relationship between number of grievances and the size of the residents in the population within the districts. Figure 11 shows the per capita distribution of complaints based on the measure $[(\text{number of grievances}/\text{resident population}) \times 100]$ as graduate symbols overlaid on the level of population density per neighbourhood as graduated colours. In this particular variable, the results are found still to be negatively correlated with grievance per capita as the case was at the neighbourhood level. The highest number of grievances is generated by the least populated are in the *westpark*, *Zuidoost* and *slotervaart* and *Geozonveld-slotervaart*. On the other hand, the higher the population in *Noord-Amsterdam* and *Oos-watergraafsmeer* happen to be one of the least generated grievances of all districts. The *Centrum* district is found to be one of the highly grievance percapita of all districts. The correlation shows that there is strong negative correlation between the two variables (See Table 4 for correlation results) and in that tends to suggest that almost the peripheral areas and central district are responsible for most of the complaints. Being near to the central district does not indicate to have any relationship with generating more grievances.

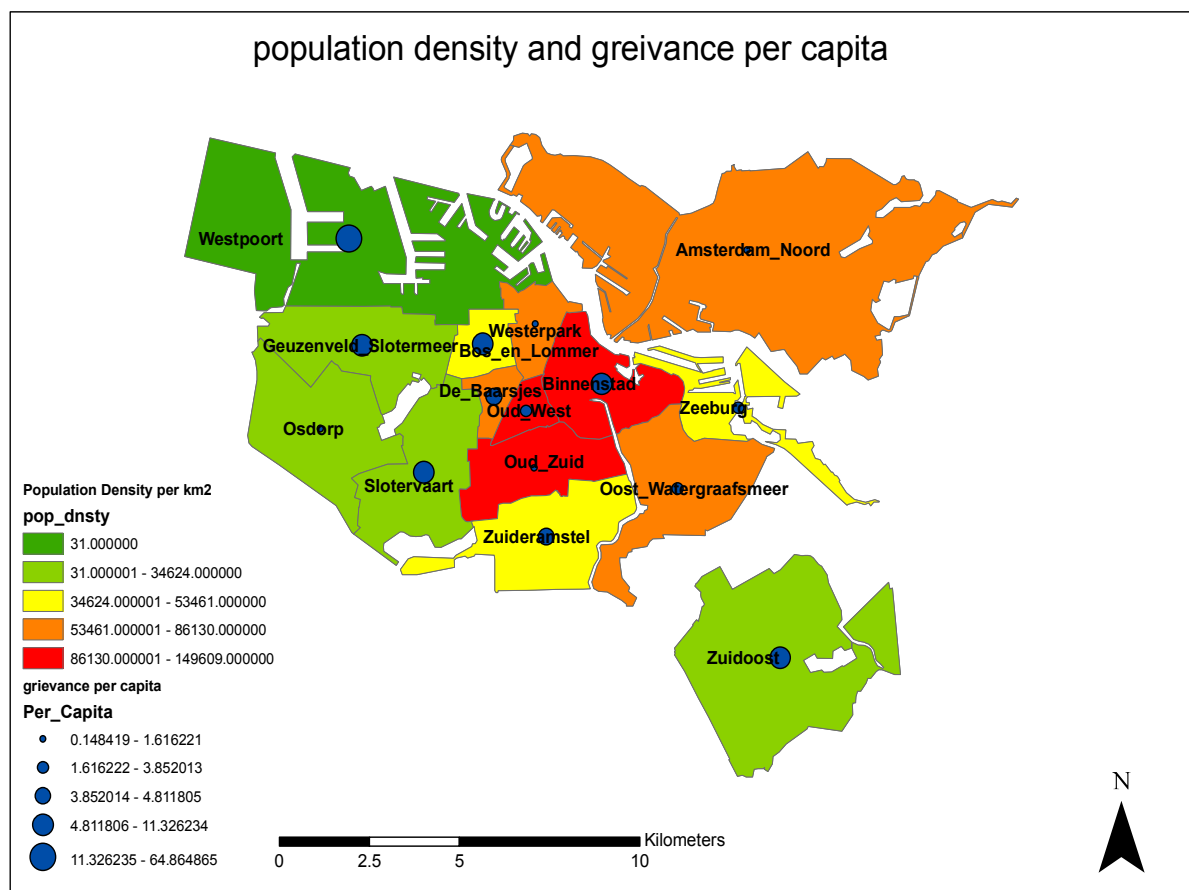


Figure 11: population as graduate colour and grievance per capita as graduated symbol.

Independent Variables	Outcome Variable (per capita)	Significance Level
Pearson Correlation (N=15)		
Population	-.581*	.023
Gender		
Men	-.574*	.025
Women	-.585*	.022
Foreign	-.324	.238
Income	-.460	.084
Age		
Yr_45-64	.535*	.040
Yr_0-14	-.451	.091
Yr_15-24	.133	.635
Yr_25-44	.107	.705
Yr_65 and More	-.129	.646

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 10: Correlation results at District Level

Income variable is found not to be significantly correlated with the grievance per capita. In contrast with the neighbourhood level which we found out that income has strongly positive correlation with the grievance per capita, at district level our results show that income is negatively correlated with grievance per capita although it is not significant (-.460). Figure 13 shows that most of highest grievance per capita happens to be in the districts with the least income districts except *Amsterdam-Noord* District, while those categories of high average income districts like Oudzuid and Oudwest etc, happen to be those with the least grievance per capita. As the result of the correlation is not significant we find it difficult to interpret in conjunction with the GIS map. They tend to converge each other.

Our Ethnicity variable still results to be insignificantly and negatively correlated with the outcome variable. In addition, Gender Variable was consistent with the results of the neighbourhoods as there is still negative correlation with both genders and grievance per capita. But the age variable has demonstrated variance as we find at district level, the age category of (Years between 45-64) have strong positive correlation with the outcome variable while the rest of categories still have an insignificant correlation with the grievance per capita (See Table 11 for correlation results).

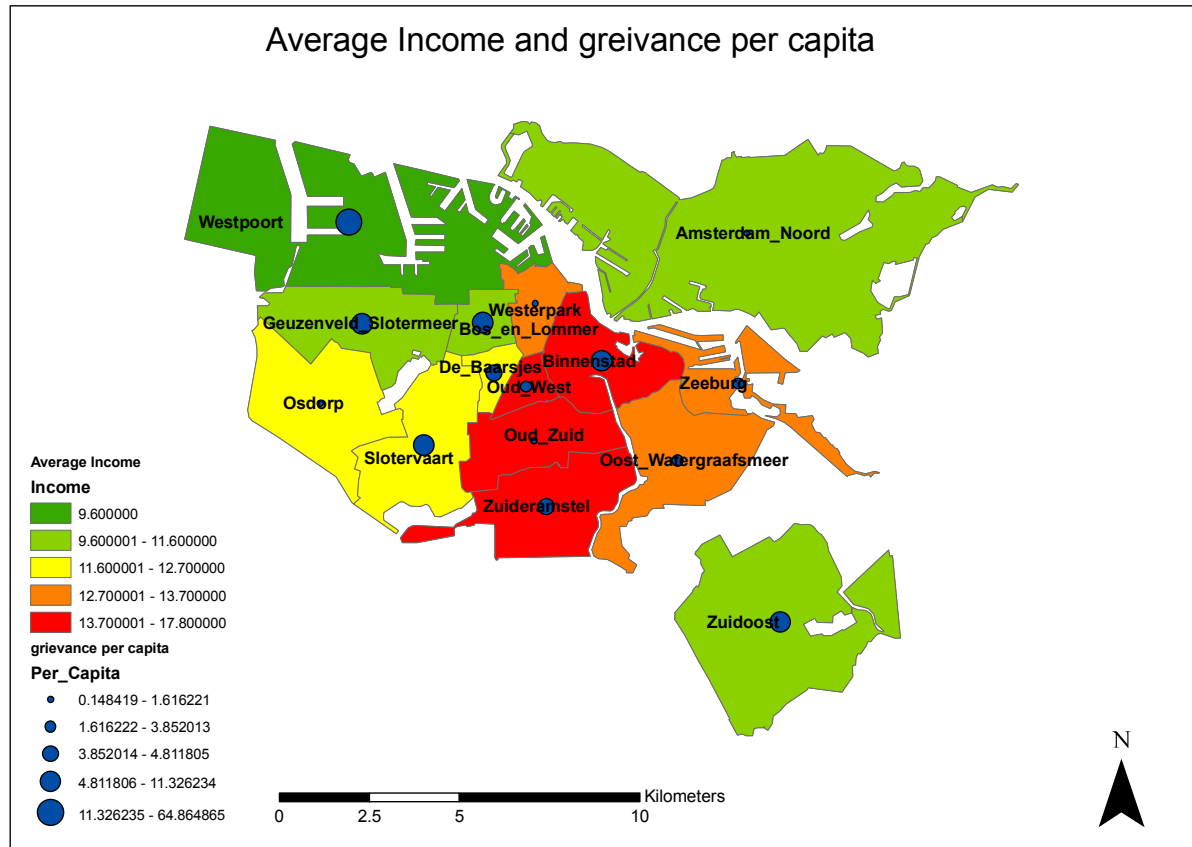


Figure 12: Income as graduate colour and greivance per capita as graduated symbol.

Pulling these strands together, overall results show that the e-grievance system is biased towards middle to high income, young and middle aged, and western by origin groups of the society. Adding these variables together reveal that, the system correlates with those categories of the society which are not disadvantaged in terms of income and origin. The age results show that also the old people are left out in the system and mostly it is used by the young to middle aged groups. It is early to say that completely the e-grievance system is excluded from the disadvantaged groups like old and non western origin part of the society. It needs a research to do in this particular aspect to find out why the reason is for non-western, poor and old people not to be using the system.

6. Discussions and Interpretations

6.1. Introduction

In chapter 5, the empirical data have been presented by answering the research questions. This chapter discusses results against literature. Section 6.2 discusses what the literature has mentioned about the development of e-grievance systems with the interpretation of our case in Amsterdam. Section 6.3 deals with ICT and GeoICT role in the e-grievance system and its implications to the e-grievance systems. Network analysis and impacts of the system is discussed in section 6.4 and last but not least we will discuss about implications of the study and lessons learnt.

6.2. E-grievance system in Amsterdam and its Notions

As section 5.2 discusses the evolution and the current status of e-grievance, The development of e-grievance systems are neither static, nor planned and achieved in one shot (Chorng-Shyong Ong and Shang-Wei Wang 2009). Rather it is incremental, emerging and evolutionary (Moon 2002; Gil-Garcia and Martinez-Moyano 2005). The e-grievance system in Amsterdam is not an exception. The systems currently in place have developed overtime and were developed in a piece meal wise.

Concerning the over time evolution of the system, the number of complaints and notifications that municipality faced later years have increased considerably. Perhaps more openness, improvement in dealing with complaints, more awareness creation and easy accessibility have contributed to this increase. On the other hand, more problems and poor government service may have caused it. The first notion is well established in literature and may be rightly applied to the Amsterdam case, as the Ombudsman believes. Worrall's (2002) findings of a survey in 700 law enforcement agency suggest that improvements in citizen complaint procedures result in higher incidence of complaints.

Since early 1990s, successive governments have stressed that modern public service organisations need to be more pro-active in resolving complaints at an earlier stage. In the Netherlands, the e-citizen charter promised better redress of citizens complaints and their right to complain (Poelmans 2006). The new Public Management with its government's customer focused organisations approach pronounced that a more active management of complaint redress procedures may allow for the dissemination of better practices, improved quality of service for its citizens (Dunleavy, Loughlin et al. 2005). In the results we have seen that most of the discussions go around how to boost the infrastructure of the e-grievance system by giving citizens more access and improving internal affairs. The ombudsman's research on the complaint platform was addressed issues related to the development of the complaint platform. The same happens in the development of Public Space Notification as the focus is concerned on efficiency of the system and how to improve the handling of citizen notifications at fastest and easiest way.

The three aspects that were looked upon in the Ombudsman's research criteria were namely: *Informational*, *Internal treatment* of complaint, and *Reporting and feedback*. Most of the criteria were directly related to the *Informational* aspects like information on the telephone, website and brochures.

Administration's accessibility of public agencies are emphasised here and this dimension fits well with one of the objectives of E-Government that is to make the government provide citizens quicker and better access to public information (Heeks and Bailur 2007). The next criteria were somehow related to *internal arrangements* of the complaint handling system like position of the complaint coordinator and internal advice. This has to do with increasing the efficiency and effectiveness of the system. The last criterion used in the ombudsman's research was *reporting and feedback* to management with the analysis of complaints. It is this last criterion that most of the districts performed poorly and we can say in general that the focus of such a system was mainly making services more responsive, accessible, and convenient to citizens or customers. We find that in this issue, it is similar to the practices of customer relationship management that have found in private sector (King 2007).

As it is apparent in preceding paragraph, it is not surprising to find out the 'information' and 'Internal management' focused e-grievance system as it is can be seen in other cases around the world. Martinez, Pfeffer et al.(2009) have noted that e-grievance is focused on limitations that are related to scaling up the 'Technical infrastructure' of the e-grievance system. A quick overview of recommended applications of e-grievance system in the literature also reveals that they focused on the technical aspects of the system (Local Government Customer Service Group 2005; Penichet, Gallud et al. 2006a).

In a similar analysis of an effective complaint handling, (Dalrymple and Donnelly 1997) have noted the characteristics of effective complaint handling are said to be *accessibility*, *processing* and the *outcome* of the system. We can say the accessibility roughly corresponds to our *informational* category, while the *processing* characteristics match with the *internal treatment* of complaints. The *outcome* characteristics perfectly match with our *reporting and feedback* mechanisms. The outcome characteristics have fallen behind then the other two for most of the time, as the values of customer retention in private sector is not directly applicable to the public sector.

For the most part, we can conclude that the development of the E-grievance systems is mainly towards developing an efficient and responsive system by taking benefit of the ICT development. These explicit goals of E-government policies can be seen also not to be limited to internal efficiency and effectiveness, but also concern the relationships between government and the public. For instance, (Komito 2005) inserts that continual interactions with local authorities on the provision of services such as road maintenance, lighting repair, public amenities such as parks and so on provide evidence that local authorities listen and respond to citizens on community issues as well.

6.3. ICT (GeoICT) and E-Grievance Systems

We have argued in section 5.2 that, Information and communication technology performs a key role in facilitating the communication between the public and local governments in terms of citizen's participation. In the city government, it was evident that the internet was used as medium to engage with citizens and improve the quality of the neighbourhoods. In addition, we have inserted how the ICT would influence the E-grievance system by giving the citizen efficient responses to their grievances. In this section, the empirical results are discussed in line with the literature.

As (Brewer 2007) argues, The notion of using ICT in New Public Management (NPM) complement the already well understood mechanisms and processes of effective citizen complaint handling and redress systems by emphasizing efficiency and giving greater attention to the felt needs of service recipients. Grievance handling systems thus could borrow from the ideas of customer complaint handling which is based on efficient and speedy handling of complaints. In our case, the Purpose of using the ICT is to provide tangible means to help city administrators monitor and respond the citizen problems and needs.

The ability of the e-grievance system to embed the organization chart of the government and auto route complaints to the appropriate redress officer helps efficient management of citizen grievances (Wallack and Nadhamuni 2007). Hardly, any complaint coordinator used an effective method of tracking system which could really foster efficient response to citizen's demand. Although, complaint coordinators have acknowledged the use of ICT improved their dealing with complaint coordinators, the adoption was not prevalent. On the other hand, the public space notification system's auto routing was introduced recently to all the districts.

Nevertheless, both complaints and Public Space Notifications should be managed in a collaborative way in the District management. ICT (GeoICT) enabled system with auto routing and tracking system can play an important role to help public administration reach a higher level of quality and efficient handling of citizen grievances. The main collaborative aspects be managed in this system are the coordination between different civil servants to attend a Complaint or Notification and the communication between public administration and citizens. Reasonably, avoiding many notifications to pass into a complaints level would reduce a huge backlog and increase the quality of responding efficiently to citizen's complaints in the higher level.

One interesting aspect in our results is the place-based problems which the GeoICT plays a key role. Place and locality are important in determining who is interested in a decision problem and why. A problem or issue is local to the people in the virtue of their geographical position (Carver 2001). Therefore, citizen's problems in dealing with public space are found to be directly related to the people living in the surrounding area. One would not expect a citizen to notify the local government a broken light or waste not collected unless it affects in the geographic context he/she lives.

Kingston (2007), asserted that central to the tools of e-grievance is the digital map. In similar system found in Manchester, he found out that one of the keys to citizen engagement in solving problems, like garbage collection and street lighting, is the interactive web-based mapping. Our results support this genre of argument. The E-grievance system in Amsterdam developed a web-based mapping interface recently to enhance the citizen initiated contacts. The system allows citizens the option to search a location by street name or postcode. Automatically the look up table identifies the x, y coordinates of the postcode.

In our case, the map is found to be relevant and important at least in three ways: First, citizens could look out the map before they notify the local government and find out if the same case have notified earlier. This would help city administrators not to deal with the same problem and hence avoid duplicates. Second, the web-based map facilitates to pinpoint and locate the position of the incident.

This would save the time to locate the position by city administrators and hence reach there easily. Third, monitoring the city problems would be much easier. The system generates a geo-referenced database which allows the city administrators to monitor the types of problems being reported and look into the larger trends and patterns in the problems faced by the city. The real time generation of those reports could be used to investigate persistent problems and target resources to appropriate parts of the city.

So far, the E-grievance system in Amsterdam appears to be similar to many other E-government systems (Although the diffusion level of ICT (GeoICT) differs). There are also initiatives outside government agencies to pool the citizen's grievances using GeoICT. Few examples exist of such systems, like the one found in the Netherlands and UK: Verbeterdebuurt (Enhanced Neighbourhood) and Fix My Street, respectively. Although such systems have been criticized on simply duplicating existing government online channels (King and Brown 2007), they are bottom up approach for which can emphasize accountability and act as citizen surveillance system.

6.4. Territorial analysis of Grievances

Grievance handling system should take the needs of different social groups and, even in an era of rapidly increasing computer literacy, recognises that there are many people without access to the internet and/or the skills required to use it. Therefore an over reliance on information technology can be a powerful form of indirect discrimination (Dunleavy, Loughlin et al. 2005). As the e-grievance database entails, all the complaints are submitted through internet, we used socioeconomic status to explain the contacting of government as former studies did (John Clayton 1982; Sharp 1984; Thomas and Melkers 2001).

Contrary to the findings of (Carvalho and Fidélis 2009a), we find out that there is negative correlation between the resident size and number of grievance per district. In their findings they found out in Aviero city that there is greater concentration of complaints in the parishes closer to the urban centre. They argued that in peripheral areas environmental complaints tend to be less diversified and generate lower intensity of complaints while in highly populated density areas will get greater shares of complaints. In our case, the opposite happens to be true. Results show that the highest generated grievances are responsible by the least populated areas mostly in the peripheral areas, after standardising the number of grievances according to the size of residents. Westport District wit the least populated areas in the peripheral area happens to bear the highest per capita grievance of all the district while in the opposite Amsterdam-Noord district with the highest population size happens to be the least per capita grievance district of all. This suggests that there are negative relationships between the number of residents and the number of grievances, which our correlation results also support.

Our results in the income variable tend to contradict each other at district and neighbourhood level. At neighbourhood level, we find that there is close correlation between the citizen reports and the level of the neighbourhood income. As many results in citizen initiated contacts (Thomas and Melkers 1999; Thomas and Streib 2003), especially complaining (Dasgupta and Wheeler 1996), our findings tend to support that there is gap in the income when it comes to contacting government, especially in the electronic means which may exclude some part of the society especially the poor. The results in

the district level tend to contradict the one in the neighbourhood level; nevertheless the correlation in the district level happened to be insignificant which we can ignore. However the case is, the e-grievance channel is used mostly by high income groups, while the low income groups may use other channels. Here the concern of the e-grievance accessibility to urban poor groups seems to exist. The poor may depend on other channels mostly or more informal grievance redressal procedures as found in India (Ranganathan 2008)

The ethnicity variable is found to be negatively correlated with the grievance outcome although it is not significant. Most of the results in citizen initiated contacts have found to be biased towards white ethnic groups (Thomas and Streib 2003; Reddick 2005a) which our results also tend to support. We can generally say that ethnic groups matter but we find out that there is negative relationship between the non-western immigrants and the propensity to lodge report over the internet. This means that the higher the reports the lower the non-western group in the district or neighbourhood. The non-western immigrants lag behind the white and western immigrants in using internet as channel.

Our findings related to Gender tend to conflict with the findings Van Dijk and Hacker (2003) and support the findings of (McNeal, Hale et al. 2008). We find gender to be unrelated to complain in online e-grievance system. Research on traditional means of contact report that women were less likely than men to contact government and this notion was believed to carry over the internet era. Bimber (1999) found out that men were more likely to initiate a contact with officials than women. The relevance of the gender variable may be is diminishing over time as (McNeal, Hale et al. 2008) asserted as a result of changing attitudes, cumulative exposure to the internet and related technological advances.

The correlation between age and grievance is weak. Our results in five scale age groups have been found to be negatively associated with 3 categories at neighbourhood level (0-14, 45-64 and More than 65 years) although all of the association is insignificant. The other two categories (25-44 and 15-24) found to be correlated positively with the per capita of grievances. On the other hand, at district level, age category 45-64 has significant correlation, while the rest is found to be insignificantly correlation with the outcome. The literature on traditional forms of contacting governments finds that older individuals are more likely to contact government than their counterparts, the young, presumably they possess greater civic skills than younger individuals (McNeal, Hale et al. 2008). The findings are not consistent in somehow, as we find the there is no linear increase in contacting and age. Technological skills may be highly prevalent in young and middle age groups and that is why we find age group 25-44 and 44-65 is positively correlated to report incidents rather than more than 65 age groups which are negatively associated with contacting.

Drawing these strands together, one can deduce that the e-grievance system is mostly used by middle to high income, White and middle aged category of the society in Amsterdam. The level of penetration of ICT tools in e-grievance systems, in terms of citizen uptake and administrative utility is shaped by socio-economic inequalities, and traditional modes of politics, administration and street level delivery. Therefore, it is not surprising to see cases of exclusion and inclusion of different socio-economic groups of the society. The fact suggests that over relying on ICT tools would not bring citizens and government closer but rather the gap increases.

As we can notice from the interpretation above indicates digital divide and number of divides can be observed. One interpretation is given by (Van Dijk and Hacker 2003) which noted that the digital divide is connected not only material resources like computers but also *informacy* or digital skills. The fact that many poor less educated old aged people will be left behind in government citizen interaction over the internet, bears that most probably even if they are connected, the digital skill will hinder them using the internet. For sure there is no absolute divide but rather slight divide in terms of socio-economic status. Van Dijk and Hacker (2003) concluded that skill and usage digital divides will continue and the future task is to prevent structural inequalities in skill and usage of ICT. We believe that the future task of the e-grievance system is to reduce this gap.

On the other hand, most complaint handling researches reveal that most complainers tend to be from higher income family and formal years of schooling (Miewald and Comer 1986). As the case of the e-grievance that have been outlined here, and even in the traditional complaint handling, complainers tend to be higher in the socio-economic status. Awareness levels vary across different socio-economic groups and the higher socio-economic status tend to be widely aware than their counterparts which makes them complain more. The e-grievance combines these two disadvantages in terms of the lower socio-economic groups and in theory there tends to be a gap which caused by the awareness and digital skill.

The view that participation in e-grievance system would be accessible to all and decrease the gap between citizens and government indicates that those goals may be far reaching than the administrators initially have contemplated. A great deal policies and work needs to be done to reduce this gap between different socio-economic groups in the e-grievance system.

6.5. Implications

This paper sought to explore the development of e-grievance system and the outcome of the system with the correlations of five factors: population density, income, non-western population, age, and gender. Findings on the use of e-grievance system tend to support previous work that higher income and younger people always use the internet more to interact with government, while immigrants are those groups who use less to communicate internet with the government.

This research has started to address the e-grievance aspirations specifically the issue of handling and redressing citizen grievances. In congruence with the e-government plans of the Netherlands, the e-grievance system in Amsterdam offers customer-centred grievance redressal by enabling citizens to play more participative role in dealing with their dissatisfactions and problems via spatially enabled e-participation. The development of the system sketched above is focused on the Amsterdam city; however it is scalable and can be expanded to include the whole Netherlands cities and other cities in general. In fact many other cities in the Netherlands are using similar system. In reality the system can work in any place by changing the spatial data to the appropriate location.

This empirical study has a number of useful implications in local government contacting in electronic age, especially complaining. Previous studies of E-grievance systems have provided insights regarding mechanisms that should be made to address citizen problems (Seneviratne and Cracknell 1988;

Brewer 2006; The British and Irish Ombudsman Association 2007). This study proposed that handling customer complaints should not only be limited to the improving and enhancing grievance handling procedures, but post analysis of the complaints in terms of the actual usage is also an important element missing from the such systems. The outcome of the system is more crucial to look into the actual impacts of the system and to check whether some part of the society is excluded from the system.

This result has implications for how e-grievance systems should manage citizen complaints effectively. Web based complaint handling could give much faster responses and more transparent practice if auto routing and tracking systems were used in such a system. This study found that the current E-grievance system reviewed in this study, the Amsterdam case, is growing toward well function e-grievance but a lot of things yet is to be done. The system should further strive to digitize and even integrate all channels of citizen grievances. For example, citizen complaints coming from all channels may be digitized before they are processed inside public agencies. It is believed that better citizen participation and public management in general will be enhanced through this comprehensive improvement from digital toolkit.

As the issue of digital divide penetrates all aspects of e-governance, the empirical results concerning the e-grievance system reported above should be carefully interpreted. In the first place, the municipality have to note that the submissions of grievance in the e-grievance system are mostly from those who have the digital skill, capability and accessibility of internet. At least one implication should be noted considering the digital divide issue. The other channels of the grievance submission should be strengthened. It should be avoided to unfairly allocate administrative resources with the e-grievance system versus grievances in letters, faxes, and telephones and so on.

7. Conclusion and Recommendation

7.1. Introduction

This research is carried out addressing the main objective of the research which was to investigate the e-grievance system in local governments, their evolutions and functions, and the outcome of the e-grievance system. For this purpose the main objective is divided into three main sub objectives and here the results of the three sub objectives is summarised.

Sub Objective I: To Review the mechanisms of e-grievance handling

The research revealed that there are two type of grievance handling in our case. One particularly deals with the complaints against of the treatment administrative bodies for citizens and the inherent service processes. The other type was mainly concerned with the public space notifications which citizens can notify the local municipality about the waste, traffic and lights and public spaces. The two mechanisms were implemented in different systems; nevertheless the two systems found to be affecting hierarchal. Therefore both were called in our case as e-grievance system. The adoption of E-Grievance was not planned at one shot and implemented in similar ways across the districts but rather the cultural, political and organisational difference played an important role. The systems currently in place have developed overtime and were developed in a piece meal wise. The status of e-grievance practice in Amsterdam divers across the districts. To overcome piece meal wise growing of the e-grievance system, there has been concerns for creating platforms which unites districts and steers towards unified methods of e-grievance system. The e-grievance system has many challenges to deal with before it comes to fully fledged e-grievance system.

Sub objective II: To examine the impact of ICT and GeoICT use in the performance of the e-grievance system.

The two system of the e-grievance system under our case study showed a great difference when it comes to using ICT and GeoICT in their interaction with citizens. The public space notification system (MOR) is found to be ahead of using ICT in general and GeoICT in particular than the complaint system in Amsterdam. MOR system has been streamlined lately at the beginning of 2010 to improve the ways in which citizens report their public space problems using a web-based mapping interface and auto routing facilities. This has allowed citizens to report their problems by pinpointing the precise place of the problem on a map rather than describing it written or verbally. The advantage of the systems is also that the report directly goes to departments as well as the district providing the problem electronically. In addition the geo-referenced database can be used to develop management or policy. In most cases, the qualitative analysis, the number of notifications received in conjunction with the problem shows the extent of the problems. The results of the Geo-database is used as a tool for Operational policy as the (Gemeentelijke Ombudsman 2009) research found out, for example, optimising the waste collection routes.

The other system was lagging behind in using ICT in terms of the interface and the processing of complaints. Interesting though is the recognition of the administrators that automated Reminder tracking system (RTS) would facilitate efficient and timely response to the citizen complaints. The

results also support that the district who have used such a system have managed to meet their goals in dealing timely with citizen complaints while the rest have fallen behind their annual goals.

Sub Objective III: To analyse the spatial variations of E-grievance systems in terms of citizens' socio-economic status.

We have chosen five variables for our analysis in relation to spatial variations of the citizen notifications and socioeconomic differences of the citizens. Income, ethnicity, age and gender were among those variables used in our analysis. Pulling these variable results together, overall results show that the e-grievance system is biased towards middle to high income, young and middle aged, and western by origin groups of the society. Adding these variables together reveal that, the system correlates with those categories of the society which are not disadvantaged in terms of income and origin. The age results show that also the old people are left out in the system and mostly it is used by the young to middle aged groups. It is early to say that completely the e-grievance system is excluded from the disadvantaged groups like old and non western origin part of the society. It needs a research to do in this particular aspect to find out why the reason is for non-western, poor and old people not to be using the system.

7.2. Recommendations

The research opens up a number of questions that need further investigation through academic research. We have tackled how e-grievance systems evolved overtime, the relevance of ICT and how the systems affect different socioeconomic groups. Our analysis was purely relied on the official records of the system and interviews made with the system managers. Therefore one area of interest in the research could be how citizens see such systems. As citizens are the intended users of the e-grievance system, it would be relevant to map their perceptions and analyse how many people actually participate using tools of e-grievance systems? Why do they prefer e-grievance? Etc...

Another area of interest in research could also be the actual impacts of the e-grievances systems to the poor and disadvantaged citizens. As our results suggest, there were a biasness of the system towards the middle to high income with western origins. Therefore, it would be pertinent to research on the uses of the e-grievance system to different groups of society by combining citizen's perspective and administrations' perspective. In this way, one can find the gap between the designer's view on the system and the end user's view. One can question here the effects the e-grievance system on legitimacy and 'being representative' of government when disadvantaged groups are left out in the system.

Lastly an investigation may be carried out on how different e-grievance systems have the potential in improving citizen participation. This can be done through longitudinal analysis in different cases. As the new development of e-grievances system and their popularity increases, the potential and actual benefits need to be explored and studied. An interesting line of investigation is the new initiatives of the involvement of market actors like Google maps and private sector which pool the citizen grievances in the e-grievance system and submit to the authority and their actual effects to citizens.

8. Reference

- Ackerman, J. (2004). "Co-Governance for Accountability: Beyond "Exit" and "Voice"." World Development **32**(3): 447-463.
- Andersen, H. T. and R. van Kempen (2003). "New trends in urban policies in Europe: evidence from the Netherlands and Denmark." Cities **20**(2): 77-86.
- Bimber, B. (1999). "The Internet and citizen communication with government: Does the medium matter?" Political Communication **16**(4): 409-428.
- Bourn, J. (2005). Citizen Redress: What citizens can do if things go wrong with public services. London, National Audit Office (NOA).
- Brewer, B. (2006). Delivering Better Service to Citizens Addressing Citizens Complaints Effectively: What? How? Why? . The CAPAM 2006 Biennial Conference Rising to the Challenge: Enhancing Public Sector Capability Sydney, Australia
- Brewer, B. (2007). "Citizen or customer? Complaints handling in the public sector." International Review of Administrative Sciences **73**(4): 549.
- Carvalho, D. and T. Fidélis (2009a). "The perception of environmental quality in Aveiro, Portugal: a study of complaints on environmental issues submitted to the City Council." Local Environment **14**(10): 939-961.
- Carvalho, D. S. and T. Fidélis (2009b). "Environmental complaints in Aveiro, Portugal: actors, concerns, territorial pattern, and resolutions." Sociedade & Natureza (Online) **21**: 51-70.
- Carver, S. (2001). Participation and Geographical Information: a position paper, Citeseer.
- Castells, M. (1998). End of Millennium., Oxford:Blackwell.
- Chen, D.-y., T.-y. Huang, et al. (2006a). Citizen Participation, E-government, and Public Management: A Case of Taipei City Mayor's E-mail Box International Symposium of Digital Divide and Digital Opportunity 157.
- Chen, D., T. Huang, et al. (2004). Citizen Participation, E-government, and Public Management: A Case of Taipei City Mayor's E-mail Box.
- Chen, D., T. Huang, et al. (2006b). "Reinventing government through on-line citizen involvement in the developing world: a case study of taipei city mayors e-mail box in Taiwan." Public Administration and Development **26**(5): 409.
- Cho, Y., I. Im, et al. (2002). An analysis of online customer complaints: implications for Web complaint management, Citeseer.
- Chorng-Shyong Ong and Shang-Wei Wang (2009). "Managing citizen-initiated email contacts." Government Information Quarterly **26**(3): 498-504.
- Ciborra, C. (2005). "Interpreting e-government and development." Information, Technology & People **18**(3): 260-279.

- Cohen, J. (2006). "Citizen satisfaction with contacting government on the internet." Information Polity **11**(1): 51-65.
- Criado, J., O. Hughes, et al. (2002). e-Government and managerialism: a second revolution in public management.
- Dalrymple, T. and M. Donnelly (1997). "Managing and evaluating customer complaint procedures in local government." Total Quality Management **8**(2): 130.
- Dasgupta, S. and D. Wheeler (1996). Citizen Complaints as Environmental Indicators. PRDEI.
- Dekker, K. and R. van Kempen (2004). "Urban governance within the Big Cities Policy: Ideals and practice in Den Haag, the Netherlands." Cities **21**(2): 109-117.
- Deurloo, M. and S. Musterd (1998). "Ethnic clusters in Amsterdam, 1994-96: A micro-area analysis." Urban Studies **35**(3): 385.
- Dinesh, C. (2006). Defining e-government: a citizen-centric criteria based Approach. 10th National Conference on e-Governance,, Bhopal, Madhya Pradesh, India, UNPAN.
- Drewe, P. and A. Fernández-Maldonado (2001). Focusing on the least connected in cities of Europe.
- Dunleavy, P., M. Loughlin, et al. (2005). Citizen redress: what citizens can do if things go wrong in the public services. London LSE Research Online.
- Edmiston, K. (2003). "State and local e-government: Prospects and challenges." The American Review of Public Administration **33**(1): 20.
- Fang, Z. (2002). "E-government in digital era: concept, practice, and development." International Journal of The Computer, The Internet and Management **10**(2): 1-22.
- Fountain, J. (2001a). Building the virtual state: Information technology and institutional change, Brookings Inst Pr.
- Fountain, J. (2001b). "Paradoxes of public sector customer service." Governance **14**(1): 55-73.
- Gemeente Amsterdam (2008). Richtlijn Klachtbehandeling: Taken, verantwoordelijkheden en procedures bij het vormgeven van het beleid over klachtbehandeling.
- Gemeentelijke Ombudsman (2009). Meldingen openbare ruimte. Stadsdeel Geuzenveld-Slotermeer, Stadsdeel De Baarsjes and Stadsdeel Oost-Watergraafsmeer. Rapport Gemeentelijke Ombudsman RA0943559. Amsterdam.
- Gil-Garcia, J. and I. Martinez-Moyano (2005). "Exploring e-government evolution: The influence of systems of rules on organizational action." National Center for Digital Government (NCDG): 05-001.
- Gil-Garcia, J. and I. Martinez-Moyano (2007). "Understanding the evolution of e-government: The influence of systems of rules on public sector dynamics." Government Information Quarterly **24**(2): 266-290.
- Graham, J., B. Amos, et al. (2003). "Governance principles for protected areas in the 21st century." A discussion paper, phase 2.

Heeks, R. and S. Bailur (2007). "Analyzing e - government research : perspectives, philosophies, theories, methods, and practice." In: Government information quarterly, 24(2007)2, pp. 243-265.

Ho, A. (2002). "Reinventing local governments and the e-government initiative." Public Administration Review: 434-444.

Homburg, V. (2008). Understanding e - government. London etc., Routledge.

Horrigan, J. (2004). "How Americans get in touch with government." Pew Internet & American Life Project: 9.

Ian Kearns, Jamie Bend, et al. (2002). E-participation in local government, Institute for Public Policy Research.

Janez Stare, Barbara Gruden, et al. (2008). "The Management of Complaints in Slovene Public Administration."

Janssen, M., G. Kuk, et al. (2008). "A survey of Web-based business models for e-government in the Netherlands." Government Information Quarterly 25(2): 202-220.

John Clayton, T. (1982). "Citizen-initiated Contacts with Government Agencies: A Test of Three Theories." American Journal of Political Science 26(3): 504-522.

Jorgensen, D. and S. Cable (2002). "Facing the challenges of e-government: A case study of the City of Corpus Christi, Texas." SAM Advanced Management Journal 67(3): 15-21.

Kelly, J. (2005). "The dilemma of the unsatisfied customer in a market model of public administration." Public Administration Review 65(1): 76-84.

Kempen, R. v. (1998). Divided Cities in the Netherlands: Ethnic Segregation, Urban Problems and the Policy Agenda METROPOLIS INTER CONFERENCE -International Conference on Divided Cities and Strategies for Undivided Cities... Göteborg, Sweden,.

Kierkegaard, S. (2009). "Open access to public documents - More secrecy, less transparency!" Computer Law & Security Report 25(1): 3-27.

King, S. and P. Brown (2007). Fix my street or else: using the internet to voice local public service concerns, ACM.

King, S. F. (2007). "Citizens as customers: Exploring the future of CRM in UK local government." Government Information Quarterly 24(1): 47-63.

Kingston, R. (2007). "Public participation in local policy decision-making: The role of Web-based mapping." Cartographic Journal, The 44(2): 138-144.

Komito, L. (2005). "e-Participation and Governance: Widening the net."

Kumar, V., B. Mukerji, et al. (2007). "Factors for successful e-government adoption: a conceptual framework." The electronic journal of e-Government 5(1): 63-76.

Layne, K. and J. Lee (2001). "Developing fully functional E-government: A four stage model." Government Information Quarterly 18(2): 122-136.

- Leenes, R. and J. Svensson (2005). Local eGovernment in the Netherlands. New York, London,, Routledge,.
- Local Government Customer Service Group (2005). Customer Complaints Guidelines for Local Authorities.
- Lowndes, V., L. Stoker, et al. (1998). Enhancing Public Participation in Local Government. .: DETR. T. a. t. R. Environment. London, UK.
- Lynda Hance (2002). (How) Are You Being Served?A Good Practice Guide on Complaints Handling in Housing Association. Housing Corporation. Tottenham
- Martínez, J. (2009). "The use of GIS and indicators to monitor intra-urban inequalities. A case study in Rosario, Argentina." Habitat International **33**(4): 387-396.
- Martínez, J. A. (2002). "Better governance by monitoring intra - urban inequalities with GIS and indicators : extended abstract." In: GISDECO 2002 proceedings : Governance and the use of GIS in developing countries, ITC, Enschede, 15-18 May 2002. pp. 21-1.21-2.
- Martinez, J. A., K. H. Pfeffer, et al. (2009). "capacity of e-government tools : claimed potentials, unnamed limitations." In: Proceeding of The 10th N-AERUS conference : Challenges to open cities in Africa, Asia, Latin America and the Middle East : shared spaces within and beyond, 1-3 October, 2009, IHS Rotterdam. 11 p.
- McNeal, R., K. Hale, et al. (2008). "Citizen–Government Interaction and the Internet: Expectations and Accomplishments in Contact, Quality, and Trust." Journal of Information Technology & Politics **5**(2): 213-229.
- Meijer, A., N. Burger, et al. (2009). "Citizens4Citizens: Mapping Participatory Practices on the Internet." Electronic Journal of e-Government **7**(1): 99-112.
- Menzel, D. and J. Benton (1991). "Ethics Complaints and Local Government: The Case of Florida." Journal of Public Administration Research and Theory **1**(4): 419.
- Miewald, R. and J. Comer (1986). "Complaining as Participation: The Case of the Ombudsman." Administration & Society **17**(4): 481.
- Mintzberg, H. (1996). "Managing government, governing management." Harvard Business Review **74**: 75-85.
- Moon, M. (2002). "The evolution of e-government among municipalities: rhetoric or reality?" Public Administration Review: 424-433.
- Moura, P. (2008). "E-Government implementation and Total Quality Management adoption: an empirical study in the Portuguese Municipalities ".
- Mulgan, R. (2000). "Comparing accountability in the public and private sectors." Australian Journal of Public Administration **59**(1): 87-97.
- Musterd, S. and R. Deurloo (2002). "Unstable Immigrant Concentrations in Amsterdam: Spatial Segregation and Integration of Newcomers." Housing Studies **17**(3): 487 - 503.
- OECD (2003a). The e-Government Imperative. OECD. Paris.

OECD (2003b). E-Government Imperative - Policy Brief.

Okot-Uma, R. and C. London (2000). "Electronic governance: re-inventing good governance." Commonwealth Secretariat, London.

Ombudsman, H. (2002). (How) Are You Being Served? A Good Practice Guide on Complaints Handling in Housing Associations.

Pan, S.-L., C.-W. Tan, et al. (2006). "Customer relationship management (CRM) in e-government: a relational perspective." Decision Support Systems **42**(1): 237-250.

Pan, S. and J. Lee (2003). "Using e-CRM for a unified view of the customer."

Pang, L. and R. Norris (2002). "Applying customer relationship management (CRM) to government." Journal of Government Financial Management **51**(1): 40-45.

Parigi, V. and W. Leader (2004). "Ushering in Transparency for Good Governance."

Penichet, V., J. Gallud, et al. (2006a). "Web Management of Citizens' Complaints and Suggestions." Lecture Notes in Computer Science **4154**: 341.

Penichet, V., J. Gallud, et al. (2006b). Web Management of Citizens' Complaints and Suggestions. Groupware: Design, Implementation, and Use: 341-348.

Pfeffer, K., I. Baud, et al. "The role of Spatial Information Infrastructure in addressing urban deprivations in Indian cities."

Pieterse, W. and J. van Dijk (2007). Channel Choice Determinants: An exploration of the factors that determine the choice of a service channel in citizen initiated contacts, Digital Government Society of North America.

Poelmans, M. (2006). The e-Citizen Charter as an Instrument to boost e-Government, Exploiting the Knowledge Economy: Issues, Applications, Case Studies, Amsterdam: IOS Press.

Ranganathan, M. (2008). Grievance Redressal Processes in Urban Service Delivery: How Effective Are They? ADB The Governance Brief **17**, 2008.

Reddick, C. (2005a). "Citizen-Initiated Contacts With Ontario Local E-Government: Administrator's Responses to Contacts." International Journal of Electronic Government Research **1**(4): 45-62.

Reddick, C. G. (2005b). "Citizen interaction with e-government: From the streets to servers?" Government Information Quarterly **22**(1): 38-57.

Saxena, K. (2005). "Towards excellence in e-governance." International Journal of Public Sector Management **18**(6): 498-513.

Schellong, A. (2005). CRM in the public sector: towards a conceptual research framework, Digital Government Society of North America.

Schumaker, P. D. and R. W. Getter (1977). "Responsiveness Bias in 51 American Communities." American Journal of Political Science **21**(2): 247-281.

- Seneviratne, M. and S. Cracknell (1988). "Consumer Complaints in Public Sector Services." Public administration **66**(2): 181-193.
- Sharp, E. B. (1984). "Citizen-Demand Making in the Urban Context." American Journal of Political Science **28**(4): 654-670.
- Shukla, A. and R. Srinivasan (2005). "The Uttar Pradesh Lokayukta: Efficient Redressal of Citizen Grievances." VIKALPA **30**(3): 121.
- Stewart, K. (2006). "Designing good urban governance indicators: The importance of citizen participation and its evaluation in Greater Vancouver." Cities **23**(3): 196-204.
- Streib, G. and I. Navarro (2006). "Citizen demand for interactive e-government: the case of Georgia Consumer Services." The American Review of Public Administration **36**(3): 288.
- The British and Irish Ombudsman Association (2007). Guide to principles of good complaint handling - Firm on principles, flexible on process, British Library.
- Thomas, J. and J. Melkers (1999). "Explaining citizen-initiated contacts with municipal bureaucrats: Lessons from the Atlanta experience." Urban Affairs Review **34**(5): 667.
- Thomas, J. and J. Melkers (2001). "Citizen contacting of municipal officials: Choosing between appointed administrators and elected leaders." Journal of Public Administration Research and Theory **11**(1): 51.
- Thomas, J. and G. Streib (2003). "The new face of government: Citizen-initiated contacts in the era of e-government." Journal of Public Administration Research and Theory **13**(1): 83.
- UN-HABITAT (2004). Tools to Support Transparency in Local Governance.
- UNDP (2005). "The key to increasing Transparency in e-Government deployments. Public Feedback Mechanism " APDIP e-Note 3/2005 UNDP.
- van Deursen, A. and W. Pieterse (2006). The Internet as a service channel in the Public Sector.
- Van Dijk, J. and K. Hacker (2003). "The digital divide as a complex and dynamic phenomenon." The Information Society **19**(4): 315-326.
- Van Marissing, E., G. Bolt, et al. (2006). "Urban governance and social cohesion: Effects of urban restructuring policies in two Dutch cities." Cities **23**(4): 279-290.
- Verdegem, P. and G. Verleye (2009). "User-centered E-Government in practice: A comprehensive model for measuring user satisfaction." Government Information Quarterly **26**(3): 487-497.
- Wallack, J. and S. Nadhamuni (2007). "User Innovation and eGovernance Design." forthcoming in Hidden Successes: Urban Reforms in India, MIT Press, Cambridge, MA.
- Warkentin, M., D. Gefen, et al. (2002). "Encouraging citizen adoption of e-government by building trust." Electronic Markets **12**(3): 157-162.
- Worrall, J. (2002). "If you build it, they will come: Consequences of improved citizen complaint review procedures." Crime & Delinquency **48**(3): 355.

Yigitcanlar, T. (2003). Bridging the gap between citizens and local authorities via e-government, Citeseer.

Yin, R. K. (2003). Case study research : design and methods. Newbury Park etc., Sage.

9. Appendices

9.1. Appendix 1: types and frequencies in Amsterdam 2008-2009

Types	Frequency	Percent	Cumulative Percent
Advertising	1	.0	.0
Animals / vermin	31	.7	.7
Arts	2	.0	.8
Bridges / docks / shore / water	25	.6	1.3
Environmental police and nuisance	284	6.4	7.7
Environmental police and nuisance	29	.7	8.4
Green and parking	313	7.1	15.5
Green and water	233	5.3	20.7
Noise	3	.1	20.8
Nuisance illegal items	8	.2	21.0
Other	399	9.0	30.0
Other green features	24	.5	30.5
Paving, street furniture, green	405	9.1	39.7
Paving, street furniture, green	28	.6	40.3
Pollution / environment	37	.8	41.1
Refuse Collection	50	1.1	42.3
Roads, traffic, street furniture	821	18.5	60.8
Sanitation	84	1.9	62.7
Sewers	3	.1	62.8
Sidewalks / streets	65	1.5	64.2
Street furniture	29	.7	64.9
Street Furniture / Art	57	1.3	66.2
Streets / roads / squares	146	3.3	69.5
Traffic	34	.8	70.2
Trees	22	.5	70.7
26	34	.8	71.5
Waste	1208	27.3	98.8
Water, playgrounds and artwork	27	.6	99.4
Wrecks	27	.6	100.0
Total	4429	100.0	

9.2. Appendix 2: Questionnaire for the Districts

Electronic Grievance Redresal: A case in Amsterdam, the Netherlands.

Introduction

The aim of this study is to study the citizen complaints at the Municipality, how its functions, the processes and the consequences of it. The fieldwork is part of this research project above mentioned and a requirement for an MSc degree in Land Administration at ITC. We are committed to keep privacy of all the information provided by the respondent and the information will be used for study purposes only.

Personal Data

Interview No. _____

Name of the respondent: _____

District (Stadsdeel): _____

Respondent's position: _____

Questions

1. Describe the process of receiving complaints? Receiving channels
2. How does the front office record complaints – E.g. in a logbook or directly in the computer?
3. How are the complaints get redressed? Describe how it goes through the offices?
4. What are the frequent types of complaints you receive? (average per year/ month/ day)
5. Is there a definite trend discernible in the nature of grievances (Klachten) you are receiving now as compared to earlier years?
6. Is it increasing (number of complaints)? Is it decreasing number of Complaints? Is it Different nature of complaints?
7. How the Electronic option of complaint handling reduced municipal help desk visits?
8. If the complaint maker is informed that his complaint has been rejected, is he also informed of the reasons for rejection? Grounds on which his complaint was found unacceptable?
9. Does the Stadsdeel make yearly report of complaints? Is it available publicly?
10. Who are the Main key players in the complaint handling system in Amsterdam?
11. Does the Stadsdeel adopt E- Citizen's Charter (Burger Service Code) as Standard in your organization?
12. What is the nature of the front office relationship with the back office? How does it work?
13. Is there any cooperation between the Central Help desk and District Help desks?
14. Do the Districts report to the central Administration each complaint received every day?
15. If Yes why? And, if not why not?
16. How does the nature of the decentralized, autonomous agencies and departments affect the complaint handling procedures? Positive or Negative?
17. What are the hierarchies and the various institutional relationships in Amsterdam Complaint handling?
18. How does the Stadsdeel keep track of which complaints are attended to?

19. How well does your organization keep citizens informed during the process?
20. Is there a fixed time limit for giving a reply to the grievance (Klachten) maker that his complaints has been accepted or rejected?
21. Are there collective reviews to gain insight into the nature of complaints being received and how to prevent them in the future?
22. Is the Ombudsman part of solving complaints? What is the role of Ombudsman?
23. Have the employees responsible for review and analyses exercises been identified for the purpose?
24. Is grievance reviewing a fruitful exercise, or one that adds to the unsavoury burden on officials that deters them from encouraging this aspect of governance?
25. Has a separate time schedule been framed for employees to attend to complaints at specific levels?
26. What are the mandates of the stadsdeel to solve complaints in general? Is it autonomous or interdependent with other organizations?
27. What are the arrangements in case the mandated authority/ organization do not comply to solve complaints?
28. How does the nature of the decentralized, autonomous agencies and departments affect the daily complaint handling procedures?
29. What do you think is the most challenging in building unitary complaint handling in Amsterdam?
30. What are the problems/ bottlenecks do you see in complaint handling at the back office?
31. Any further thing that I did not mention and you want to share with It.?

The End

Thanks For Your Time and cooperation

9.3. Appellix 3: Interview Questions

1. What are the arrangements of receiving and solving complaints from citizens?
2. Describe the whole process of receiving complaints?
3. How does the organization manage to receive grievance in different channels? -receiving by phone, by email or by visiting?
4. How does the organization record these complaints – E.g. in a logbook or directly in the computer?
5. How are the complaints get redressed? Describe how it goes through the offices?
6. How many complaints does the organization receive a day? In a month?
7. What is the distribution of complaints in a typical month?
8. What are the most frequent complaints the organization receive?
9. What are the most frequent complaints you receive particularly related to Land?
10. Is there a definite trend discernible in the nature of grievances (Klachten) you are receiving now as compared to earlier?
11. Is it increasing (number of complaints)? Is it decreasing number of Complaints? Is it Different nature of complaints?
12. How is Electronic complaint handling reduced municipal help desk visits?
13. What are the problems/ bottlenecks do you see in the front/back office?
14. List the constraint(s) in institutionalizing the Electronic complaint handling system in Amsterdam?
15. How does the organization keep track of which complaints are attended to?
16. How well does your organization keep citizens informed during the process?
17. Are the procedures for grievance (Klachten) publicly available to citizens?
18. Is there a fixed time limit for giving a reply to the grievance (Klachten) maker that his complaints has been accepted or rejected?
19. Do sometimes citizens get the redresal of their complaint late?
20. If yes, Point out the reasons of delay in taking actions required for timely/desired redress of grievances (Klachten)?
21. Are there any cases pending right now?
22. Why are these cases pending?
23. If the complaint maker is informed that his grievance has been rejected, is he also informed of the reasons for rejection? Grounds on which his grievance was found unacceptable?
24. Do you make yearly report of complaints? Is it available publicly?
25. To whom is the Report submitted?

26. Are there collective reviews to gain insight into the nature of complaints being received and how to prevent them in the future?
27. Are there meetings at regular intervals to analyse such reviews?
28. Who are the Main key players in the complaint handling system in Amsterdam?
29. What are the arrangements if the complaint is rejected?
30. Is the Ombudsman part of solving complaints? What is the role of Ombudsman?
31. Does the department have any preventive measures for future rectification? provide details
32. If such exercises are not done, specify the constraints involved?
33. Have the employees responsible for review and analyses exercises been identified for the purpose?
34. Is grievance reviewing a fruitful exercise, or one that adds to the unsavoury burden on officials that deters them from encouraging this aspect of governance?
35. What are the Motives of using Electronic lodging of complaints?
36. How easy is it for citizens to make a complaint?
37. How well do the organization respond to citizens complaint?
38. Do you think your department/organization is responsive to citizen's complaints?
39. What is your perception about the efficiency of the work despite the fragmented nature of the work?
40. Has a separate time schedule been framed for employees to attend to grievance redressal at specific levels?
41. Is there any competition between municipalities in the Netherlands on how to handle complaints?
42. What are the mandates of the organization/agency/ department to solve complaints in general?
43. Is it autonomous or Interdependent with other organizations?
44. What are the arrangements in case the mandated authority/ organization do not comply to solve complaints?
45. Do you adopt E- Citizen's Charter (Burger Service Code) as Standard in your organization?
46. What is the nature of the front office relationship with the back office?
47. Is there any cooperation between the Central Help desk and District Help desks?
48. Do the Districts report to the central Administration each complaint they received every day?
49. If Yes why? and, if not why not?
50. What are the organizations/agencies involved in land related complaints?
51. How does the nature of the decentralized, autonomous agencies and departments affect the daily complaint handling procedures?

52. What are the hierarchies and the various institutional relationships in Amsterdam Complaint redress?
53. What do you think is the most challenging in building unitary complaint handling in Amsterdam?
54. What is the relationship the central municipality have with the districts?
55. Does the organization/agency/department consult any other organizations when solving land related complaints? Like Kadaster?
56. What is the cooperation between the building department and Physical planning department?
57. To what extent the Building permit department use Maps of zoning to solve building permit complaints?
58. How are maps an integral part in solving Physical planning complaints?
59. Does the department have close relationship with the Dutch Cadastre to solve any complaints?
60. How do you deal with complaints related to Overvalued property?
61. When do you receive most of the complaints? Beginning of the year or at the end?
62. What is the department relationship with the Dutch Kadaster?
63. Finding all the land in Amsterdam fall under leasehold. What are the most complaints received under land lease?

Thanks for Your time

The End