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Assessing the e-governance maturity level of Dutch municipalities through the analysis of municipal websites.

Does municipality size have an effect on website maturity level?

Master's Thesis MSc Public Administration

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Abstract

This study provides a public administration perspective into the issue and performs an evaluation and assessment on the e-governance maturity level of Dutch municipalities through the analysis of municipal websites in 2015. The study is inspired by research done in 2003, 2005, 2007, 2009, 2011-12 and 2013-14 by Holzer & Kim. The study differs from the studies performed by Holzer & Kim by adjusting the scoring system to its own purpose. A different viewpoint is provided by adding the institutional and benchmarking theory, contributing to a better understanding of this topic. Subsequently, the size of municipalities is presented as a potential explanatory factor for the variation in website scores.

This thesis elaborates of what the governmental objective encompass and how to define e-government or e-governance. As both definitions look alike and no clear distinction is to be found, additional research is done to analyse sources that mention the difference between the two. Apart from a few arguments and assumptions, for example that e-governance is applicable to the governance of corporations or governance of major non-profit organization, while e-government is strictly about government or were e-governance entails engaging citizens and stakeholders and letting them co-produce public services while e-government views citizens largely as consumer of these services, it seems to be a matter of interpretation as there is no clear boundary between the two definitions and future research is necessary to see what the causes are.

Subsequently, the current state of the municipal website is analysed and relevant data is shown in table 4.1. The most important result is that the size of a municipality does influence and has an effect on the overall (SUM)score of the maturity level in digitalization and scores between small and large municipalities do differ. As such, the size of a municipality does influence and has an effect on the overall score. Of further notice, different scores were observed, suggesting that municipalities hold on to their own agendas and possibilities. The cause of this could be for many reasons and is also destined for future research.

The variables included in this research such as outsourcing or time/money all take part in the institutionalization of an actor. The environment of an actor influences how an organization is set up and how easily it adapts to new things. The results of this study clearly suggest that municipalities and the way in which they implement the newest technologies or possibilities of digitalization differs and seems to be troubling the closing deadline.

Although the governmental objective or target is not consequential, some of the municipalities really lack in adapting to the digital possibilities that are existing today. The benchmarking theory made it possible to compare the municipal websites but is limited to the variables used. The more information one could get, the more intense and complex but more evident the benchmarking of these municipal websites become, especially if one uses valuation in studying municipal websites. The subject of personal value, experience is excluded and is food for thought and further future research.

The outcome of this research can be beneficial for 1) future objectives and research, 2) national government (as in knowing how and why municipalities perform and act) and 3) other municipalities to see why some are more successful in implementation than others. Performance evaluation could serve as a reference for them in their future allocation of resources. This paper is to present a novel approach for assessing the e-Governance maturity of municipalities based on analysing how electronic public services are delivered through municipal websites to citizens living in different populated areas. It is, therefore, an inviting prospect of how Dutch municipalities want to organize services and their websites.

Keywords:, Municipalities, size, digitalization, comparing, level, websites, motives and factors, e-governance, assessing, criteria, benchmarking, institutionalisation.

Preface

As a public administration project on a topic that measured the current e-governance maturity level of municipal websites (with an approaching deadline), this Master's thesis has proven both interesting and challenging to compile. These fascinating results made the project more than worthwhile for me, despite its early and ongoing challenges.

For her continued support as main supervisor and advice on the main public administration element of the project, I would, first of all, like to thank Dr. V. Junjan for her guidance and support and Prof. Dr. Boogers for being the second supervisor. I would also like to thank Dr. M. Grandia for her advice and help she offered me. Finally, I would like to thank my parents, brother, sister and other relatives for the support (and the admirable amount of patience) that was required to see me through this master degree.

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1. INTRODUCTION

This study - in some way - mirrors a survey that is completed in 2003, 2005, 2007, 2009, 2011-12 and 2013-14 (Holzer & Kim, 2005, 2014), albeit different as this thesis focuses on municipalities in the Netherlands only in 2015. The present survey evaluates the practice of digital governance in Dutch municipalities in 2015. It focuses on the evaluation of current practices in government, and the emphasis in this research is on the evaluation of each municipal website in terms of digital governance (Holzer & Kim, 2005, p.13) and comparing the scores of each website with the population stats (size). Digital governance includes both digital government implying the delivery of public service and digital democracy, which implies citizen participation in governance (Holzer & Kim, 2005, p.13). In previous studies 1) security, 2) usability, 3) content of websites, 4) the type of online services currently being offered and 5) citizen response and participation through websites established by city governments, were analysed.

1.1 SHORT INTRODUCTION

This introductory chapter will discuss the goals, research design, methodology and relevance of the research project.

The constitution within the Netherlands consists of three governmental layers. Each layer has its own democratic foundation and responsibilities, which makes it an independent authority. The municipality as one of the three layers experiences digitalization and an approaching deadline in 2017, where it is desired by the national government to have a full digital governance. This, in turn, has an effect on how municipalities organize their front office services and websites. The front office is responsible for the disclosure of information between the public and municipalities (Holtkamp, 2006; Roovers e.d., 2007, Portal e-Overheid, 2008).

Municipalities are responsible for a wide range of services and policies at a municipal or small regional level who possesses discretionary power and an autonomous democratic legitimacy. This indicates that the Netherlands is decentralized (Rijksoverheid, 2015, Vng-international.nl, 2007). They use their power to define tasks and policies, ensuring they do not conflict with the laws and regulations of the higher level (de Geeter, 2008). Dutch municipalities have their own constitutional responsibility for developing and executing policies (Denters & Rose, 2004). In addition, they partly provide the administration of national services and product. Municipalities are accountable for over 70% of all government interaction with citizens and businesses (Leenes & Svensson, 2005) and are increasingly performing tasks mandated by the national government. (Jans, 2015, p.41).

In the Netherlands, municipalities differ from each other. One way to illustrate the difference is by making the distinguishment between walk-in hours at city halls on appointment or not. They differ in regard to the provision of services to their citizens and this also accounts for their websites. Although, this is the assumption. Some only provide services by appointment, others when asked or being visited. For example, the municipality of Zwolle allows citizens to visit their city hall without making an appointment during working days (Zwolle, 2015). The municipality of Enschede however, provides service only after citizens make an appointment at their city hall (Enschede, 2015), whereas the municipality of Groningen combines both of these policies with different desk locations (Groningen, 2015).

Nowadays, in many of the participating municipalities, there is the possibility to arrange a visit to the 'public counter/office'. In some municipalities, this is even the only option and one cannot come walk in freely. In recent years there has been an increase in the proportion of visitors who come by appointment; In 2010 and 2011 it was 15 percent and 16 percent respectively. In 2012, this share has risen to 20%, and in 2013 a quarter of the visitors made an appointment in advance. In larger municipalities, the visitors more often come over by appointment at a public office than in the smaller municipalities (Binnenlandsbestuur, 2015). Although larger communities/municipalities work more by appointment, the average waiting time there is longer. This is just one of the mention worthy differences between municipalities. As municipalities design or organize websites

themselves other differences are assumed to get attention and could say something about the adoption of e-governance among municipalities.

1.2 PROBLEM DESCRIPTION AND RELEVANCE

1.2.1.1 TOWARDS A DIGITAL ENVIRONMENT

In 2007 a report from the foundation 'A+O fonds Gemeenten' (van Heel, Paul, de Bruin, 2007, p.5) stated that there is a wide variety of digitalization processes that municipalities want to establish. These include the introduction of the digital counter rather than the front office's desk, digitalization of the documentary of information provision and the use of digital information in enforcement.

Consequently, in 2013, the Dutch coalition agreed that the service provided by the government should be better or improved. Thus, businesses and citizens in 2017 should be able to do their business and arrange matters with the government digital. reinforced by the Minister of Internal Affairs Ronald Plasterk in 2013, municipalities had to adapt towards a full digital government in 2017 (Binnenlandsbestuur, 2015; Tweede Kamer, Kamerstuk 26643, 2013).
The aim is that citizens can find the government more quickly and easily and that they can do business or arrangements at the place and time that suits them best (Binnenlandsbestuur, 2015).

1.2.1.2 VERENIGING VAN NEDERLANDSE GEMEENTEN (VNG)

Along with all the municipalities, the 'Vereniging van Nederlandse gemeenten' (VNG) is a service organization and provides a platform for opinion formation and renewal. The VNG also promotes the interests of all municipalities and is thus an important partner for other governments and civil society organizations. The VNG only takes questions in progress from its members, the municipalities (VNG, 2015). Briefly said, the VNG unites and covers all municipalities.

In 2005 the Vereniging van Nederlandse gemeenten (VNG) published the report: Public services, professional communities vision 2015. It is about their vision and ambition[1] about public services within municipalities. It is a vision that should be applied by all municipalities, whereas the municipalities themselves strive for that vision.

As a portal of the Dutch government, municipalities should ensure that citizens, businesses, and institutions can use and purchase all services directly or get them by using the government as a mediator, delivered by partners situation (VNG, 2005, p.6, e-overheid.nl, 2011). However, municipalities remain critical whether or not the portal function adds value to the citizen.

Municipalities define the quality of their Services less voluntary than it is the case. Self-standardization means that municipalities bind themselves to the service standards and connects to the necessary developments to achieve the defined quality. In addition to self-standardization, municipalities should be transparent about which service standards are applied and whether those standards are met. The choice of the standards that a municipality wants

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[1]

> Within 10 years, municipalities offer driven and demand-driven work: the customer is central
> Within 10 years municipalities apply multi-channeling to serve their customers. Municipalities make sure that as much as possible (web) self-service is used.
> Within 10 years ICT is a production factor of services. There is knowledge and expertise on ICT applications and should fully and necessary be used.
> Within 10 years, municipalities work together optimally, with both public- and private partners.
> Within 10 years municipalities use Shared Services (2005, p.2-3):.

to apply is always a political choice by the city council. And each municipality must ensure that the established norms are clearly communicated to its client groups when it is about quality development (VNG, 2005, p.9).

A committee of the VNG determined a number of insights and principles of municipal services that have been leading in the formulation of the objective and the nature of the vision (VNG, 2005, p.7-8). The first to mention is that customers of public services demand that they meet the core principles: fast, accessible, good and cheap and expect a friendly treatment (VNG, 2005, p.7). Secondly, a good quality and affordable services is a necessary condition to improve the image of the local government. A well-performing or failing services has an impact on the image and autonomy of municipalities (VNG, 2005, p.7). Subsequently, in the last few years, municipalities made noticeable improvements in public services (VNG, 2005, p.7).

Another point to mention is that municipalities developed community activities to improve front office services (VNG, 2005, p.7). A fifth mentioned point is that governments as partners are accountable for improving and innovating the quality of public services. This leads to additional visions that are put in policies or reports (VNG, 2005, p.8). Lastly, institutions hint local governments when their public services lack quality or underperforming. For example, the duration of a process (VNG, 2005, p.8).

Apart from these positive signals and initiatives, there is yet more to improve and more innovation is needed to increase the quality of public services, but with low costs. Therefore, it is desirable to develop or undertake new initiatives that can be implemented elsewhere among, within the government or related partners.

1.2.1.3 *ADAPTATION*

Having the task to improve and digitalize the services and with a few more years to go, municipalities have given their own interpretation to meet the 2017 target, including the design and organization of their websites. There are major differences in response, objectives, subjects, approach, process and progress (van Heel, Paul, de Geel, 2007, p.9). This may lead to differing rates of digitization between municipalities, where each municipality chooses an approach that suits its change process and has different internal or external stimulus.

Therefore the main research focus is to assess the e-governance maturity level of municipalities through the analysis of their websites, having the goal in 2017 and tasks to digitalize as much as possible. In addition, the scores of each municipal website are compared with the size of a municipality. Given the goal of 2017 and wishes and desires towards more digitization, studying municipal websites could give an understanding - based on the criteria and variables of previous studies - on how municipals adapt to e-governance and how they perform. It is assumed that the decision or objective for 2017 as digitalization has an effect on municipal websites.

Under the guise of digitalization, this study looks at the effects of this digitalization on different municipalities and adoption through websites. An outcome may contribute to understanding how well and fast municipalities are able to adapt to certain input and objectives, which can be beneficial for future objectives, national government; as in knowing how municipalities perform and act and other municipalities to see how some are more successful in implementation than others of which they can learn. The paragraph objectives and limitations of previous studies should also give an idea what the purpose and value of this study entail. It is thereby an inviting prospect of how Dutch municipalities want to organize services and their websites. Similarly, the VNG also have to deal with this deadline and therefore drafted own goals and sharing's with municipalities that they have to deal with. Subsequently, a comparison is made between small and large municipalities to see if certain patterns appear implying that size does matter on how municipalities score on the level of digitalization of municipal websites.

The opinion of their citizens are excluded in this thesis as this study focuses on the organization level and related choices municipalities made with the 2017 deadline approaching. Abstractly given, this study is looking for effects of a macro decision on micro organization level and choices. As was stated in the studies done by Holzer & Kim, the contribution of this paper is to present a novel approach for assessing the e-Governance maturity of

municipalities based on analysing how electronic public services are delivered through municipal websites to citizens living in different populated areas.

1.3 RESEARCH QUESTIONS AND OBJECTIVES

1.3.1 RESEARCH OBJECTIVES

This study has several objectives that contribute to the value of this study. The first objective is to find out what digitalization entails and how digitalization affects municipal websites.

The second objective is to determine what the goal in 2017 explicitly means and getting a full understanding of what the term 'digitalization' or 'e-governance' means.

The third objective of this study goes a bit further than the first one and is to analyse what a full digital government means for the municipalities in relation with designing or organizing websites. What have been the results due to the given goal? How do municipalities deal with this governmental goal?

A fourth objective is comparing the scores - after assessing the e-governance maturity level of municipal websites - with the size of municipalities. Does the size of a municipality have an influence on the degree of maturity of digitalization of a website? Does the testing criteria result in variations between website scores? How must the outcome of this analysis be interpreted?

As discussed in the previous paragraph, this thesis may contribute to understanding how well and fast municipalities are able to adapt to certain input and objectives and how these are reflected to their websites.

Additionally, this paper is to present a novel approach for assessing the e-Governance maturity of municipalities based on analysing how electronic public services are delivered through municipal websites to citizens living in different populated areas.

1.3.2 RESEARCH QUESTIONS

This paragraph discusses the research questions at issue followed by an outline of the structure of this report. This study is based on a number of research questions, consisting of the main research question and four sub-questions in order to fulfill the objectives. The sub-questions consist of theoretical and empirical questions, as there is a difference between the literature study and the phase in which empirical data is gathered.

The main research questions is as follow:

What is the current e-governance maturity level of a municipal website in 2015 after the announcement of a deadline entailing full digital government in 2017 by the Dutch government, and to what extent does size affect the e-governance maturity level of a municipal website?

In order to answer the main research question of this thesis, the following sub-questions are established.

> ➤ *What does the deadline, digital government, and e-Governance encompass?*

The first sub-question focuses on getting a thorough understanding of what a 'full' digital e-Governance encompass. What does digital government or e-Government mean? This question supports answering the third sub-question and subsequently, answering the main research question of this thesis.

> ➤ *What are the similarities and differences in municipal websites and to what extent are these websites shaped?*

The second sub-question focuses on the design of municipal websites. In order to get an answer to the main research question, it is needed to distinguish municipal websites and determine how these are shaped by the municipalities for fulfilling goals. In order to distinguish websites and assess the common e-governance maturity level, it is vital to have criteria for assessing the maturity level, analysing websites. It is assumed that the decision or objective for 2017 as digitalization has an effect on municipal websites and causes different shaped websites. Same as the previous question, this question has a supportive role in answering the third sub-question and main research question.

➢ *What are the criteria to assess the websites e-governance maturity level and do they ensure differences or variations in the score?*

This third sub-question focuses on the actual analysis of municipal websites after determining the criteria. As there is the assumption that digitalization has an effect on municipal websites and causes different shaped websites the criteria for analysis should give a score list or indication on how websites are organized and how mature the e-governance implementation is.

➢ *Which municipality seems to adapt most to e-governance and which municipality the poorest?*

The fourth sub question contributes in determining what the current e-governance maturity level of municipal websites in 2015 is by focusing on the websites that scored highest and lowest.

➢ *Is there a relationship between the size of a municipality and the e-governance maturity level of municipal websites?*

This last sub-question entails the discussion to see whether or not the size of a municipality and the e-governance maturity level of municipal websites are related to each other. This study involves small and large municipalities in order to see differences between them. The assumption is made that larger municipalities score better in how mature the e-governance implementation is, compared to the smaller ones.

The main research question in this thesis is an explanatory and explorative question, with focus on decision-making at micro organization level; looking for factors that influence the decision to opt for a particular way of organizing the contact with the public through websites, and looking into similarities and differences in the way websites are organized among large and small municipalities. To sum up, this study is about the impact and effect of e-government/digitalization on municipal websites and assesses the e-Governance maturity level through the analysis of small and large municipal websites.

The research starts with an analysis of the current state of provided services and organizations involved. A thorough analysis is expedient in order to be able to get a better understanding of the actors, decisions, choices and organization involved, leaning cautiously towards answers for the first sub-question, supporting the others.

Chapter 3 'Methodology' continue by operationalizing the concepts, discussing the research design and case selection, followed by naming the variables within this study.

The design and the way this research measures the variables (criteria) are presented first in chapter 3. Quantitative data are used, where the literature study and theoretical framework support the interpretation of quantitative data as with the outcome of the analysis. Combining the quantitative data with a literature study suggest the use of the multi-method research design. Chapter 3 then continues with the sample selection process.

While this research treats the municipalities as the unit of analysis, the units of observation or measurement are their websites. This study uses an ordinal (3-point) scale for data (0,0.5,1).

As will be elaborated in chapter 3, ten large and ten small municipalities (purpose of sampling, explained in chapter 3) are approached and selected for the purposes of data collection and analysis. Websites are being checked with

reference to criteria used in the surveys of 2003, 2005, 2007, 2009, 2011-12 and 2013-14 (Holzer & Kim, 2005, 2014). A standard list of questions, derived from the criteria of previous studies done abroad, is made and verified in advance preventing deviations in focus of answering the questions. In chapter 3 'Methodology' this is more elaborated. After the methodological issues, the analysis and discussion follow up.

Chapter 5 takes a closer look at the best practices and compares the findings with the benchmarking theory and institutional theory.

1.4   LIMITATIONS OF PREVIOUS STUDIES

Another reason for executing this study - apart from the objectives - is that previous or current studies fail (lack information) in explaining why municipalities differ in implementing and adapt to digitalisation. To be more precise, differences occur and exist as municipalities differ for instance in providing some of their services by appointment (online) or immediately (reality), whereas a target is set in 2017 for a full digital government. This target means, providing all possible services fully digital. However, the implementation differs among municipalities.

As the objective and topic are concentrated on the Netherlands and based on the given time aspect (a new objective), articles related to this objective do not refer and focus on the topics discussed in this thesis. For instance, the Final report of impact analysis & scenario exploration discusses the differences between the classic and new, digital processes within the government (PBLQ, 2013). In addition, the impact and challenges are discussed, but leaving the question that is raised in this thesis apart. The same applies to a report published by the VNG about personal causes of digitalization within municipalities (van Heel, Paul, de Geel, 2007) or the newsletters published about the digital government by the government itself. So far, none of the mentioned actors and publishes mention the topic being discussed in this thesis, that is; how the policy objective of the Dutch government to provide full digital governance in 2017 affect the municipal websites and what is the common e-Governance maturity level of these municipal websites, as they only discuss the effect of digitalization overall.

Subsequently, this thesis looks for factors and motives that influence the choice for municipalities, which so far are not put on paper. A view and perhaps opinions of municipalities towards a full digital government is yet to study or to be brought publicly. Unfortunately, even with the written literature and advice of today, that is not enough to understand municipal choices.

Lastly, the surveys that do matter and are done in the past 2003, 2005, 2007, 2009, 2011-12 and 2013-14 (Holzer & Kim, 2005, 2014) lack vital information about how the results are put on paper. To start with, the studies fail in describing - apart from mentioning the index's name - how the scores of their survey are determined and scored. Secondly, it is unclear which and how criteria were measured as there is a distinguishing made in using a 4-point scale and dichotomy questions. But no information which criteria is measured with the 4-point scale is missing. Last but not least, the previous study have a list of criteria that expanded each year but lack information and substantiation why some criteria are added to the list. Basically, there is no strong foundation for the criteria list used for their surveys. Therefore, this study differs from these previous studies as the methodology is more thorough and an attempt is made at making the criteria more accountable and grounded. Subsequently, limitations of previous studies show that this study is relevant, contributes and adds to the public interest.

1.5   SUMMARY

This report analyse and assesses the e-Governance maturity level through the analysis or evaluation of twenty municipal websites in 2015 and link the findings to the benchmarking plus the institutionalization theories and the policy objective of the Dutch government to provide full digital governance in 2017 affect the different front office services provided by the municipalities.

2 GOVERNMENT & SERVICES

A theoretical framework contributes to getting a better understanding of this topic and is useful to get along with topics discussed in this thesis. In addition, the discussed material in this chapter supports the data analysis and discussion, where outcomes can be further explained.

First, the organization of municipal services is discussed including the theory of policy cycles, institutionalisation and benchmarking, followed by the VNG and its influence on municipalities. Secondly, the concept of human (public) services is elaborated. Third, the modernization of public services is discussed which eventually lead to the concept of digitalization of the government. Fourth, the different office services provided by municipalities are examined and finally a short comparison is made with the market side of providing services.

Subsequently, the same analysis encompasses two theories at issue that may explain some of the results of this thesis. First, the benchmark theory. This theory assumes that organizations pass through a series of steps or stages as they change; Explains how organizations develop new goals, programs, technologies, and ideas. The ability of organizations to manage and survive change is becoming increasingly important in an environment where competition and globalization of markets are ever intensifying (Cao and McHugh, 2005: 475). Secondly, the institutionalisation theory which states that organizational change may occur under certain conditions. It tells something about the relation between institutions and municipalities and how the organization seems to adapt to changing institutions. Both theories are related to improving performance and adapt to changes (or not) like digitalization, may lead to organizational change.

It is assumed that discussing these concepts are helpful for answering the first sub-question and give a better and supporting understanding for answering the third one, resulting in answering the main research question of this thesis. The theoretical framework can be used to investigate public sector benchmarking, focussing on municipal websites.

A thorough analysis is expedient in order to be able to get a better understanding of the actors, decisions, choices and organization involved.

2.1 MODERNIZATION OF PUBLIC SERVICES

This paragraph discusses the difference between traditional face-to-face communication and new means of communication, such as social media. The focus in this study does not reach the ability of social media, but rather compares the somewhat 'old' fashioned way of services and providing these with the 'new' desired digital way.

Nowadays, there are more communication means and instruments than ever before. ICT or more specific; social media, is one of the important aspects of our society due to the intensive use of Internet, and is getting more and more desirable and is becoming a standard. Communication nowadays is defined by social media. Citizens do need these communication means, such as the Internet, in order to make appointments at their city halls. The rapid growth of Internet use in general, and of municipal web pages in particular, suggest that this technology has reached critical mass, making it unlikely that it will fade (Musso, J., Weare, C., Hale, M., 2000). However, most municipal websites lack a clear mission and provide few of the features that might affect meaningful improvements to local governance (Musso, J., Weare, C., Hale, M., 2000). In practice, the implementation of such applications does not live up to the promise regarding internet services (Musso, J., Weare, C., Hale, M., 2000) such as interaction through the use of the internet (Steyaert, 2000).

Municipalities increasingly use the Internet to communicate with their residents. On the other hand, the oldest and most original way of communication is face-to-face or mouth-to-mouth communication, without using any instruments or means and is still being used today. Nevertheless, local communities and municipalities play an increasingly important role in our everyday lives and will continue to do so in the future information society (Steyaert, 2000, p.14).

That does not mean that traditional communication is completely forgotten. It still has advantages over new means of communications. First of all, it can be said that face-to-face communication is cheaper (with exceptions like distribution) and can be felt more personal. As in, getting the idea that you are taken seriously. New communication methods lack body language and other non-verbal signals. In addition, a person gets faster feedback and in some occasions, help can be given immediately without waiting for it, or making appointments. However, it must be said that visual expressions are not always beneficial as expressions can be good or bad.

Communication by the government towards their citizens or the other way around is done by several means. Governmental organizations, such as a municipality, use several instruments to communicate with their citizens. (Goubin, 2004). With the use of communication instruments, the government aims for a specific form of participation by citizens. The service or communication that a government uses can be qualified.

The concept of Social Media is top of the agenda for many business executives today, where it can also be used by governmental organizations (Bertot e.d. 2012). Social Media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content (Kaplan, Haenlein, 2009, p. 61). Using social media can be executed by different goals and aims. One can be for communication. Social Media is a very active and fast-moving domain. Using Social Media is not an easy task and may require new ways of thinking, but the potential gains are far from being negligible (Kaplan, Haenlein, 2009, p. 67). It is a medium uniquely capable of integrating modes of communication and forms of content (DiMaggio, Hargittai, Neuman, Robinson, 2001).

A recurrent theme across domains is that the Internet tends to complement rather than displace existing media, communication and patterns of behaviour (DiMaggio, Hargittai, Neuman, Robinson, 2001). The government aims for more service online and more means are available for this, subsequently uses social media due to new technologies and is being supported by many as it connects people and everyone can participate. In addition, a municipality should have the flexibility to connect the quality of public services with new social developments and challenges (VNG, 2005). A municipality should, therefore, possesses management skills existing of a set of attitudes and instruments. Subsequently, municipalities innovate earlier when their council is political-ideologically more similar to the national government mandating the innovation (Jans, 2015).

2.2 ORGANIZATION OF MUNICIPAL SERVICES

This paragraph discusses public service organizations 'governance' structures, mechanisms and critical areas that need further attention in order to get an understanding of the organization of municipalities and their provided services. First, we start conceptualizing public services, followed by subparagraphs about the organization of it and the governance of public services.

2.2.1 PUBLIC SERVICES.

Grout and Stevens define a public service as: any service provided for large numbers of citizens provided by government, in which there is a potentially significant market failure (broadly interpreted to include equity as well as efficiency) justifying government involvement in production, finance, or regulation (Grout and Stevens 2003; Calabrò, 2011, p.11). Public services are not necessarily financed and delivered by the public sector, although the public sector is likely to be involved in some way (Grout and Stevens 2003) as certain services should be available to all.

The role of the government is transforming from being based on constitutional power towards functioning as a facilitator and cooperative partner (Hysing 2009; Lundqvist 2001; Pierre 2009; Sorensen 2006; Calabrò, 2011, p.11). It shows the high-level political, policy and scholarly interest across a large number of countries (Ferlie et al. 2003).

Nevertheless, the major problem to deliver public services is that those who delivering them can have far better information than the government (Grout and Stevens 2003). This disparity allows them to pursue goals that may not be aligned with society objectives (Calabrò, 2011, p.12).

It should be made clear that public service organizations are different from private sector organizations, and therefore should not be treated like business entities (Calabrò, 2011, p.12). It distinguishes itself by the diversity of objectives and management structures in the former (Calabrò, 2011, p.12). In addition, the public sector comprises the economic activities controlled by the government, many of which are public services (Calabrò, 2011, p.12).

There are a few mentionable developments concerning the developments and transformations of public services. Citizens become more and more informed and the technological development changes completely the understanding of public services (Torres et al. 2005; Calabrò, 2011, p.11). In addition, hybrid models of governance pop up or exist that are characterized by the co-existence and interaction of hierarchical, market-based and network frameworks (Ranade and Hudson 2003; Osborne 2009). A third development is that lines of accountability become less clear (Calabrò, 2011, p.12).

Achieve local access for the population and building up opportunities for citizens' involvement (Calabrò, 2011, p.12). This is an essential component of the public service ethos and mission (Rhodes 2002).

Public organizations relate to several political principals and there can be a mix of representative, delegate, and direct democracy around the core policy-making process (Calabrò, 2011, p.12).

Apart from public services, human services is also an used term that involves municipalities. Human services are referred to as an interdisciplinary and applied social science discipline, involving that involves the study of social technologies, service technologies, and social innovations. Human services are designed to correct problems and enhance the quality of life of individuals, families, and communities (Herzberg, 2015). This will be further explained and elaborated in paragraph 2.8.

2.2.2 PUBLIC SERVICE ORGANIZATION

Public service organizations have come under increasing pressure from deregulation and the continuous comparison with the private sector (Calabrò, 2011, p.7). So far, they have made considerable efforts to improve their efficiency by reducing costs with downsizing and rationalization, new managerial concepts, tools and by being more responsive to citizens (Pollitt 2009). Public service organizations are facing competition and an increasing demand for privatization (Boyne 2003) and it is difficult to distinguish between public services and public sector because of the uncertainty of the boundaries of these concepts (Meier 2007). Public service organizations are forced to adapt to new challenges and conditions (Reichard 2006; Calabrò, 2011). Public organizations experience many changes in how to govern complex public services. At the same time, citizens become better informed, which changes the understanding of their role in public services (Torres et al. 2005; Calabrò, 2011, p.8) as is discussed earlier.

Democratic government was traditionally organized in which officials act impartially, accept clear lines of accountability and supervision, and define their day-by-day activities through rules, procedures, and confined discretion. These were centralized, slow and rigid hierarchies (Calabrò, 2011, p.8). However, recent organizations with the focus on networks are well suited to meet the challenges of increased differentiation (Esmark 2009). Another development is that public service organizations are once more seen as interesting to study (Ferlie et al. 2003). All those aspects are associated with an increasing and larger cultural contest over the importance of terms such as public interest and public value (Alford and Hughes 2008; Perry 2007; Calabrò, 2011, p.8). Especially local accessibility and accountability of public services seem to become important and fundamental (Bozeman 2009; Jorgensen and Bozeman 2007; Calabrò, 2011, p.8).

Public (service) organizations are forced to create necessary conditions and infrastructure (Hartley et al. 2008), in leading and governing local communities and managing complex interrelationships between the government, citizens and businesses (Benington 2000; Calabrò, 2011, p.10).

When experiencing these difficulties, the management of public service organisations is often distinct and derived from other type of organizations, because it operates in a complex policy and political environment, under the formal control of politicians, and is subject to a high degree of scrutiny and accountability (Ferlie et al. 2003; Calabrò, 2011, p.10). Public service organizations do not aim to make a profit but rather public value for citizens and communities (Bozeman 2009). Eventually, what should not be forgotten is that the relationship among ideas, practices, and organizations is different between the public and the private sectors (Moore and Hartley 2008; Calabrò, 2011, p.10).

The municipal council holds an important role in determining the general approach and framework conditions, such as the timing and financial resources. Within the civil service the involvement concerns from alderman to employees (van Heel, 2007). All municipalities are committed to informing the staff about changes; creating support for changes is high at stake and is an important agenda point (van Heel, 2007). The worker's council is involved in all cases. The actual redefining of processes and digitization is allocated to a much smaller group (van Heel, 2007).

The role of the municipal differs in practice. In some cases, the municipal secretary is predominantly present as initiator and stimulator (van Heel, 2007).

Where one municipality works with a program manager, another one works with team managers in order to redefine work processes or delegates the needed work to experts (van Heel, 2007). The responsibilities differ per municipality when working on a program of change. In 2007 a report was published mentioning improving services and the compulsory introduction of the basic administrations. Municipalities have a large number of internal and external stimuli to work on digitization. Basically, there was already a discussion about digitalization and the need for it, before the letter of minister Plasterk was published.

Another factor that influences the way municipalities organize and plan changes (in public services) is their assigned budgets, which should be taken into account when analyzing municipalities in the chapter 'Analysis', especially when it assumed that budgets decrease as a cause of cutbacks in spending's but simultaneously is in need for digitalization (van Heel, 2007).

2.2.3 GOVERNANCE

In this subparagraph the definition of governance is elaborated and linked to public service organisations. Concerning governance, there are three different ways - or as Thompson et al. (1991) names it - routes to governance: hierarchy, markets and networks (Thompson et al. 1991; Calabrò, 2011, p.10). Having these three different ways of governance mentioned, one can look at the history or organisation of public service delivery (Calabrò, 2011, p.10).

Concerning hierarchy, till the 1970s, hierarchy, this was the dominant route of the delivery of public services (Calabrò, 2011, p.10-11). Features such as a distinctive bureaucracy, vertical integration, clearly spheres of authority, command-and-control leadership, and the emphasis on rules, routines and procedures were inevitable (Ranade and Hudson 2003).

During the 80s and 90s the failings of bureaucracy led to an emphasis on markets and competition within the public service organisations (Calabrò, 2011, p.11). Large parts of the public (service) sector was privatized and quasi-markets were setup (Snape and Taylor 2004). However, market and competition structures did have their downside as well (Ranade and Hudson 2003; Robinson 2007). Strong hierarchical controls or performance targets expected from actors in the market are just a few examples (Ranade and Hudson 2003; Calabrò, 2011, p.11).

Eventually, this mode of coordination and organisation resulted into networks with a variety of public, private and voluntary providers (Calabrò, 2011, p.11). The break-up of bureaucracies introduced more actors into the policy arena (Hudson and Lowe 2004) and made the whole system more difficult to steer in any coherent direction (Calabrò, 2011, p.11). It was argued that competition promoted self-interested behaviour rather than the public interest (Bozeman 2009). By the late 1990s, the emphasis changed to networked governance and partnerships as the dominant mode of coordination (Klijn 2008; Osborne 2006, 2009; Pestoff 2009; Ranade and Hudson 2003).

Services provided online are part of the more global public services, which can be illustrated by examples such as law enforcement, refuse collection, utilities outcomes, and primary education. These would be regarded as public services (Calabrò, 2011, p.11).

2.3 THE ORGANIZATION OF WEBSITES

In 2013, the Dutch coalition agreed that the service provided by the government should be better or improved. Thus, businesses and citizens in 2017 should and must be able to do their business and arrange matters with the government (such as applying for a permit) digital. The intention is given by the Minister of Internal Affairs, Ronald Plasterk towards a full digital governance in 2017.

Part of achieving this is provide and offer those services through the means of the internet, using a website. Municipalities develop and change their websites constantly, with several goals and wishes in mind based on objectives or environmental input within guidelines. As discussed later in this thesis, a website should at least take into account aspects such as security/privacy, usability, content, service, and citizen participation. Subsequently, the organization of websites is something to be taken into account. Within the terminology, outsourcing as insourcing are both relevant.

2.3.1 OUTSOURCING AND INSOURCING

2.3.1.1 OUTSOURCING

Outsourcing of ICT has grown significantly in recent decades. Analysts attribute this growth to the change in the nature of ICT. From custom-made software, there is an increasingly switch towards standard software. There is also a trend toward specialization in the ICT suppliers, so companies often hire several IT companies for specific tasks (JMD, 2000; Kok, 2003, p.7) like:

➢ development and management of computer centres
➢ software development
➢ software management
➢ Network Management
➢ User support (friendly)

The decision to outsource ICT are often made by the top-down decision making within the organization and by the general and financial management rather than the ICT management. Although these layers talk with the ICT management but not let them make the decision. It is a decision on ICT, but not by the ICT (Hirscheim, 2000).

There are three elements that merit further discussion. The first is that an outsourcing process, from the initial considerations of management, must be seen and treated as a project, with all management implications. The second element is that the organization facilities and / or? (business) processes will transfer to third parties and thus becomes dependent on outside services. This requires a contract. The third element is that after an outsourcing process has been successfully completed, the internal organization must be able to control the outsourced processes or facilities (managementkennisbank.nl, 2015).

In addition, an outsourcing project should focus on two key aspects: outsourcing or divestment of ICT activities (outsourcing) and the hiring of services (insourcing). Only through thorough preparation, support, and

management of a planned outsourcing process, the basis for the desired results can be laid (managementkennisbank.nl, 2015). The nature of an ICT outsourcing process is that this kind of knowledge is not available in most organizations. Outsourcing is a good way to improve control over IT developments and thereby reduce worries.

Subsequently, to do so, preparation of the organization on the result of the project is necessary. Additionally, outsourcing comes with pros and cons as well like weak management, inexperienced staff, delay in skills, costs, lack of direct communication (managementkennisbank.nl, 2015).

2.3.1.2 *INSOURCING*
Albeit shortly introduced, insourcing implies outsourcing a business activity (e.g. customer service), to a specialist that operates at the location of the client/customer. Insourcing is the practice of evaluating the outsourcing option, but confirming the continued use of internal IT resources to achieve the same objectives of outsourcing (Hirscheim, 2000, p.100).

Private and public sector organizations worldwide have outsourced significant portions of their IT functions. The determinants of outsourcing research generally show that companies most likely to outsource on a large scale are in poor financial situations, have poor IT functions, or have IT functions with little status within their organizations (Lacity, 1993; Lacity, 1995; Hirscheim, 2000, p.100). This does not imply that insourcing is the better option. There is no good or wrong in outsourcing or insourcing.

2.3.2   GUIDELINES AND TARGETS

To develop, plan and organize websites feedback is used from the users of these websites. Surveys are sent to residents and visitors (digital) under the guise of customer reviews. The citizen or visitor of the website has the opportunity to give feedback. The municipality or related organ (Outsourcing or Insourcing dependent) can if possible, use that feedback to shape, organize or develop the website to keep or make customers and residents happy.

In addition, there are guidelines to which a website such as, for example, a municipality must meet. They are based on international standards for quality and accessibility and proven solutions from professionals. This enables a good foundation for a municipal website.

Even though there are indirect and often unsolvable safety and stability problems, the municipality has sufficient resources to provide a website in such a way that it meets the expectations and functionality.

The next section will discuss the policy process. Problems, decisions, and outcomes are not as obvious and undergo multiple steps and processes that are associated with time (consuming)

2.4   THE POLICY PROCESS
Public Administration is concerned with the organization of government policies and programs. The goal of 2017 and the organization of digital services is of great concern for a public administration approach. The organization of municipalities experiences policy processes, or policy cycle or policy phases. All just mentioned definitions refer to a process. Policy shaping is a process. It takes time interconnected time activities (Hoppe, 2008; p.33). There is a trajectory. Each process within the policy shaping is composed of several design routines. Characteristic of the rational approach is the linear and cyclic character of the different policy processes which are distinguished; policy processes that are defined as phases in the policy cycle.

Policy generates certain processes. These processes are part of the policy cycle (Bekkers, 2007, p.21). If the policy is to have an effect then it is important that a schedule of activities is separated relatively recent, sub-processes and trajectory. The cycle begins with the appearance of a (social) problem whose effects are felt to be undesirable

and therefore can be considered to be a 'public' problem (Vázquez & Delaplace, 2015). However, social problems, or those that may affect many people, cannot always be considered public problems (Vázquez & Delaplace, 2015) as public agendas constantly change. Rubington and Weinberg (2011) mentioning a social problem as "an alleged situation that is incompatible with the values of a significant number of people who agree that action is needed to alter the situation" (Rubington & Weinberg, 2011; p3). It is addressed by at least one governmental institution or actor. Although, it is questionable whether or not to name an objective for 2017 to be a 'problem', the implementation of digitalization of processes encounters the same policy cycle. Within the municipalities, the problem here is the deadline and need for changes that make the policy cycle relevant. The municipalities face the same policy processes.

A problem or issue must obtain a place on the agendas of different actors such as politicians, managers etc. The problem must be recognized that needs to be a political solution. These actors are given the task to come up with policy proposals. In preparing these proposals, causes of a problem must be identified. Eventually, the question is raised about what tools are available as there are often plenty choices to make. Eventually, actors agree and comply to which measures are taken and who performs it.

After an unknown period of time, the measure(s) are checked, whether these have had an effect on the problem. This phase is the evaluation phase. Then the outcome of this section is fed back to the relevant actors. This may result in that this can be put on the agenda again (Bekkers, 2007, p.60-61). The public policy process can follow these steps, but it is not always and not necessarily the case. The links can merge and intertwine and the step-by-step process can become less clear as it is a process that never ends; it is a cycle that is constant and systematic (Vázquez & Delaplace, 2015). Below is a model of the policy making process.
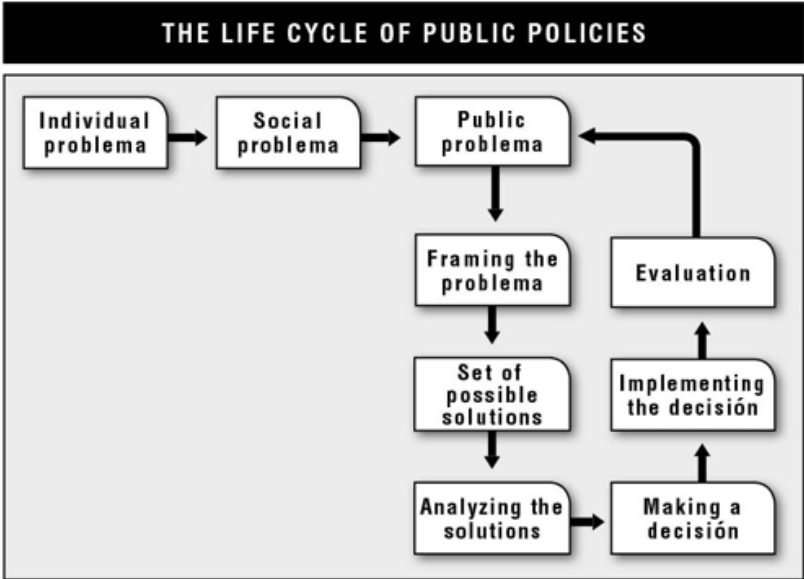
Figure 1. The life cycle of public policies (Vázquez & Delaplace, 2015).

The cycle is comprised of seven processes: the entry of the problem into the public agenda, framing of the problem, designing possible solutions, analysis of the pros and cons, decision-making, implementation, and evaluation (Vázquez & Delaplace, 2015, 2015; Bekkers, 2007, p.60; Hoppe, 2008, p.34-35).

Although Policy making does not perfectly comply with the models developed to explain it, such models are useful in separating the process into different stages, and generically understanding the influences that act upon each stage (Bennett & Jessani, 2011, p.63) such as dialogues, arguments, influences, and conflicts.

2.5 DEVELOPMENTS THAT MATTER

This subparagraph discusses the developments that, according to the committee, are relevant for the future of providing services, including the organization and developing of websites.

The first development mentioned is that citizens are (becoming) more demanding and claim quality (Rondinelli, 2007, p.1). Citizens, businesses, and institutions as customers expect high-quality services for a low price and know by experience that this is possible in the private market. Due to their experiences in the private sector, customers claim that their needs and wishes are highly important and rightful towards the public service. Demand orientation is, therefore, an important orientation point when improving and organizing public services (VNG, 2005).

The second development is that citizens are demanding for ease of use. Complexity, time-consuming, devious and unnecessary administrative burdens are no longer accepted by citizens, businesses, and institutions (Medeni, 2009). User interfaces should be more simplistic, to make sure customers can enjoy public services. In addition, customers of public services demand that they meet the core principles: fast, accessible, good and cheap and expect a friendly treatment (VNG, 2005). According to the committee, a lot of work is needed to handle this development (VNG, 2005). But Another point to discuss is the consequence by digitalization that certain groups experience a lack of skills to be able to work with digital services for instance (van Deursen, 2009).

A third development is individualisation in the network society. Due to individualisation, citizens get more difficult to understand and get less easy to grasp. Within the network society, a range of actors and relations is inevitable where municipalities are just one of the actors within a network. Citizens do or cannot understand that public services are organised, parceled or formed by overgrown constitutional relations in the past. This conflicts with the current development and ideas (VNG, 2005).

Fourth and very relevant, ICT and self-service are mentioned, as the call to place citizens central in the process of public services due to the possibilities of ICT. Thanks to the development of ICT and the compliance of people, there are great chances to digitalize contact between government and citizens and to organize public service organizations based on self-service concepts. ICT makes it possible to make use of services independent of time and places.

The downside is, is that citizens get used to this and find it normal that ICT can provide their needs, whereas self-service concepts cannot be implemented everywhere (Meuter et all, 2000). There are reasons to provide personal-related services when for example certain citizens are not capable of using ICT. In addition, there are public services that remain physical dependant because of certain laws that must be obeyed (or prescribes) and certain services are too complex to make it self-service (van Deursen, 2006). For example, providing identification cards. Although the first steps are made, a lot of facilities are needed. These facilities rely on confidential communication between citizens, businesses, and the government, on the unlocking of information and security of the quality of that information and on connecting the front and back office systems. ICT makes standardisation of administration possible. Because the necessary technology can be offered independent of location and organization, it is quite possible that these municipalities takeover external service providers.

A fifth development concerns ICT and shared services. Self-service as a target for the establishment of service chains provides opportunities for all back office is needed to provide the services, organize according to the efficiency principle. Scaling and collaboration between stakeholders are needed. Then numerous activities are accommodated in shared services. A prerequisite for such sharing is that municipal processes and systems are standardized. Municipalities seem increasingly willing to standardize processes and systems. They are less fearful than before that this would undermine the autonomy of municipalities.

The last mentioned development is about municipalities experiencing pressure. Municipalities have noticed that for quite some time, the National government have a lack of trust in the functioning of municipalities and, **especially in** decentralized states, are increasingly performing tasks mandated by the national government. (Jans,

2015, p.41). The variety and plurality of implementing rules, performance agreements and monitors are developed due to a lack of trust of the National government towards municipalities. This results in a limitation of policy space of municipalities. One way to turn the tide is to allow municipalities to make their own agenda, firmly commit and achieve visible results (VNG, 2005). To accomplish this, the VNG could support municipalities by facilitating (knowledge), stimulating the outcome or by protecting the agenda. Even the government can facilitate after application, for example, by removal of restrictive laws or regulations to take into account when making laws regulations (or goals) implementing municipal policy on public services (VNG, 2005).

In addition, municipalities will become the main governmental point of contact for the public. Municipalities will not always execute the requested services: they can be performed by other governmental organisations or agencies. This means that municipalities need to integrate with other governmental organisations that provide these services (de Geeter, 2008) like developing websites.

2.6 THE VISION OF THE ROLE OF MUNICIPALITIES IN PUBLIC SERVICES IN 2015

Apart from the development that matter, this subparagraph discusses the assembled four end targets of the VNG and the ambitions of municipalities according to the VNG committee concerning public services within municipalities.

Municipalities have the following ambitions according to the VNG (2005):

➢ Within 10 years, municipalities offer driven and demand-driven work: the customer is central
➢ Within 10 years municipalities apply multi-channeling to serve their customers. Municipalities make sure that as much as possible (web) self-service is used. There are one central phone number and physical counters remain. SMS and Videophone will be used to serve specific audiences or target groups.
➢ Within 10 years ICT is a production factor of services. There are knowledge and expertise on ICT applications and should fully and necessary be used.
➢ Within 10 years, municipalities work together optimally, with both public- and private partners.
➢ Within 10 years municipalities use Shared Services: there are far-reaching agreements made on standard processes and -products on the method of cooperation to Share and about joint commissioning.

The public service relation between citizens and municipalities are furnished and organized from the logic of the citizen, business, institute as buyers of products and services. That means that individual citizens, businesses, and institutions should have simple and customer-oriented access to the municipality as a service provider. That also means that the municipality, the demand for products and services must be ordained in a transparent and organized manner so that the customers have a clear sight on what products and services are meant for them (VNG, 2005). The products and services of the municipality are approachable in different ways with the use of ICT. In addition, to make sure that coherent combination of one or more products / services on behalf of one or more target groups are provided according to a particular mode of operation (VNG, 2005).

A municipality must become the first contact point for citizens, businesses or institutions for the joint service of Dutch governments. As portal or front office of the National government, the municipality makes sure that citizens, businesses, and institutions can purchase all products and services directly, or that they are delivered through its "mediation" by other governments or chain partners, even when it concerns products from other governments (VNG, 2005). In the European context, one also speaks of a 'no wrong door' or 'single point of contact' (VNG, 2005, NoraOnline, 2013). Eventually, access to public services should become easier.

To work according to the customer perspective, it is necessary that households and basic records are in order and in a way that does justice to the principle of one-time data delivery (VNG, 2005). Nevertheless, systems that provide electronic services are alright.

Front office services are set up by municipalities for handling the interaction with the public (de Geeter, 2008). This front office covers physical and semi or non-physical channels through which the public can communicate or perform transactions with the municipality. The front office is responsible for the disclosure of information between the public and municipalities (Holtkamp, 2006; Roovers e.d., 2007, Portal e-Overheid, 2008). That raises the question what services can be provided.

Organizing services from customer perspective can be done best by organizing public service organizations according to the principle of the (web) self-service. Customers can do business with a municipality at any time and place through the use of a digital portal. As mentioned before, this principle cannot be applied to all services and products. But this principle forces to rationalize and justify the exemptions and these services eventually should be covered digitally as much as possible, available on websites.

Eventually, the digital public services must be improved. Citizens and businesses should make arrangements with the government, digitally in 2017. Examples are applying for a license or submitting an appeal. For those who want to, non-digital alternatives remain. By government, include all the governing bodies such as central government, municipalities, provinces and water agencies. The aim is that citizens can find the government more quickly and easily and that they can do business or arrangements at the place and time that suits them best (Binnenlandsbestuur, 2015). Although 2017 is the target time of the national government, there is a delay in the implementation as municipalities differ in providing services and their websites.

Subsequently, a good quality and affordable services is a necessary condition to improve the image of the local government. A well-performing municipal government, moreover, paves the way to strengthen local autonomy. Conversely, failing services are disastrous for the image and autonomy of municipalities (VNG, 2005). There is yet more to improve and more innovation is needed to increase the quality of public services, but with low costs. Therefore, it is desirable to develop or undertake new initiatives that can be implemented elsewhere among, within the government or related partners (VNG, 2005).

Initiatives of the municipality are not independent or self-evident. Governments as partners are accountable for improving and innovating the quality of public services. This leads to additional visions that are put in policies or reports (VNG, 2005). Taking into account the visions or goals from related actors (institutions) and the developments that matter it can be said that municipalities get anxious or pressured in organizing public services (websites). It is, in addition, a good example showing the importance and relevance of the institutionalization theory.

2.7 QUALITY OF MUNICIPALITY COMMUNICATION SERVICE.

This paragraph looks into qualifications for a proper communication and which factors decide when service is qualified as good. It only affects the moment where citizens or residents are helped and not why municipalities choose for walk-in hours or offer their services on appointments. Although, some factors could diminish the quality of service due to an increasing barrier prior to helping citizens. In some cases, citizens are obliged to make extra steps before they can be helped. Therefore, the qualifications or quality indicators for communication are nevertheless shortly discussed.

These different means of communication can be compared to each other in quality. Although quality is a vague term, it is used by many and must be elaborated more. In the next paragraph, the possibilities and limitations of the different means of communication are discussed according to Van Dijk (2001).

Civil servants, organizations and citizens communicate and collaborate in a network on the local level (Wijngaert,, 2013) Many municipalities are struggling to find a way to deal with the combination of these new responsibilities and a small budget. Municipalities are forced to limit themselves to their core tasks and to collaborate with the organizations in their community. Local organizations and citizens will also need to become more responsible and independent for their own wellbeing (Wijngaert, , 2013). As a consequence of the central governments' plans for a lean, strong and efficient governance, municipalities have a need to act more as a director, a facilitator rather than as a player in the field. (Wijngaert, 2013). Municipalities, therefore, can make their own policy concerning community services that could be qualified differently due to digitalization.

2.8 HUMAN SERVICES

This paragraph discusses the meaning of human services and the importance of well qualified and trained personnel in order to meet human needs. A municipality should possess management skills existing of a set of attitudes and instruments in order to adapt or work with new methods and instruments. To do so, standards are developed. These are discussed briefly.

First, the definition or term is distinguished from the term; public services. As these terms look alike, human services can be referred to as an interdisciplinary and applied social science discipline. It promotes a practice that involves cooperating and working simultaneously at all levels of society in order to promote the autonomy of people, making human services (and related systems) more efficient and effective.

The field of Human Services is broadly defined, uniquely approaching the objective of meeting human needs through an interdisciplinary knowledge base, focusing on prevention as well as remediation of problems, and maintaining a commitment to improving the overall quality of life of service populations (NationalHumanServices, 2015). Practitioners of Human services strive to advance and improve the autonomy of service users. Within the profession of human services the goal is to improve service delivery systems by addressing 1) the quality of direct services and 2) by seeking to improve accessibility, accountability, and coordination among professionals and agencies in service delivery.

To accomplish good community support as human services, the National human services (2015) introduce the community support skill standards. These are used to create pathways in career regarding Human Services Framing Competencies for Direct Service Workers.

The Community Skill Standards define the competencies used by direct service workers in a wide variety of service contexts in community settings across the nation. Designed to be relevant to diverse direct service roles (residential, vocational, therapeutic, etc.), the standards are based upon a nationally validated job analysis involving a wide variety of human service workers, consumers, providers and educators (NationalHumanServices, 2015; Human services research institute, 2015) In addition, Van Dijk (2001) have several indicators that can help in defining quality of municipality communication services. This will be discussed later.

Due to a shift in focus of human services away from large institutions to increasingly decentralize, neighbourhood based, community settings has placed new demands on human service providers and workers. Workers should now be skilled in working with consumers and families providing community resources, specialized assistance, and natural supports to promote well-being, empowerment and community membership (NationalHumanServices, 2015).

2.9 INSTITUTIONAL THEORY

This paragraph discusses institutionalisation as it may have an effect on how municipalities organize their websites and how well they integrate e-governance standards.

According to Ossewaarde (2006) an institution is 1) a concept from the 'verstehende' sociology or 2) from functionalism. The functionalist definition shows that "social structures of shared ideas and emotions"

(Ossewaarde, 2006) exist which then allow people to understand each other's signals. The verstehende definition shows that institutions have a social structure of shared sense of purpose or meanings. This joint idea in the minds of members of the relevant society may then be used to grant sense, meaning, or standards to symptoms or signs. The latter conceptualization is the most applicable to an analysis of the environment of an organization and is therefore in the remainder of this thesis the considered definition when mentioning institutions. The verstehende definition is most useful because it makes it clear that a phenomenon (including an organization or part of the environment of an organization) can be normatively valued by reference to relevant institutions or possibly by institutionalizing the phenomenon. The definition seamlessly fits with Selznick's analysis of institutionalized organizations.

Selznick indicates that there are two stages take place in the process of institutionalization of an organization. First, the formal establishment and structure of an organization, and second, an informal process where the goals, activities, and processes of the organization are laden with normative judgments and ideas of the concerned Members (Boin, 2006).

Institutions work both stimulating and limiting for an organization. The promotional aspect implies that the legitimacy that results from a positive value judgment about an organization, may be essential for the survival and continued success of an organization (Boin, 2006; DiMaggio, 1983). The limiting aspect has to do with the assumption that an organization is generally not in a position to disregard the rules of an institutional environment without consequences (Dimaggio, 1983). Consequently, an organization is typically forced to adapt to the institutions in its environment. Subsequently, governments are surprisingly slow in adopting new technologies (Meijer 2015, p.198).

The behaviour of organizations is determined by different types of institutional pressures exerted by, for example, the government, professional groups, interest groups and the general public (combination of neo-institutional and resource dependence theories). Neo-institutional theory or isomorphism (i.e. neo-institutional sociology; DiMaggio and Powell, 1983; Brignall and Modell, 2000; Helden en Tillema, 2005, p.343) emphasizes the importance of compliance with external rules and standards. For this reason, it is important to make an analysis of the various institutions in the area of municipalities.

For instance, a notable institutional framework is the municipalities and her actors. Apart from being the fact that municipalities are public authorities to a large extent depended on organizations like ministries, provinces, and citizens. In addition, municipalities have to operate within relevant legislation.

The positive law is ideally a coagulation of feelings and opinions from society through democratic institutions. This means that important legislation is inherently loaded with attitude, beliefs, values and norms of the society in question and is defined as an institution.

The change in social institutions towards repression clearly illustrates the isomorphic character of organizations. It is clearly recognizable that organizations adapt to prevailing institutions and that they are trying to achieve this in a legitimacy way.

However, it is still questionable whether such changes are actually implemented in the organization itself. Indeed, it is conceivable that the organization itself becomes somewhat recalcitrant by the institutionalization process as described by Selznick and members of the organization have institutionalized the processes themselves (Boin, 2006). We may thus prove tension between different institutions.

Furthermore, one should take into account that the municipality must fulfill expectations as a subordinate organization, both in its area of responsibility as to organizations that provide resources. So municipalities can only have a say on the basis of consultation results on what is agreed. Dissatisfaction with other organizations or environment (as institutions) can bring about much influence for a subordinate organization. For example, an inadequate goal achievement through institutions such as the States-General and the Department of Justice may

lead to action. This again shows the power balance between the higher authorities and municipalities, and the possession of power source such as finance from the government.

The government sees its position in relation to municipalities strengthened by the relevant legislation. As mentioned before, herein lies the basis for funding, and the demarcation of the area of responsibility of municipalities. This gives municipalities an important incentive to (formally) conform to the laws and orders of government for possible external coercion. It is assumed that the analysis tells something about the relation between institutions and municipalities and how the organization seems to adapt to changing institutions (isomorphism) (Dimaggio, 1983) as the theory of institutionalizing itself granted use a great insight which organizational change may occur under which conditions.

To sum up, the theory explains that digitalization has been adding more technological and organizational sophistication as a result of both institutional isomorphism (La Porte, Demchak, & Friis, 2001; Gil-Garcia, 2007, p.267) and pressures from businesses, citizens, politicians, interest groups, and other stakeholders (Kuk, 2003; Reddick, 2004; Salem, 2003, Gil-Garcia, 2007, p.267). Additionally, if local governments evolve from national politics and become more responsive to citizens' needs, the situation described above may imply a change from self-imposed initiatives searching for solutions, to externally imposed requirements by businesses, citizens, and other stakeholders (West, 2005; Gil-Garcia, 2007, p.267) that shows the essence and relevance of this theory.

2.10 BENCHMARKING

This paragraph discusses benchmarking as comparing municipal websites itself is part of a benchmarking study, but also because the theory behind it may have caused differences in municipal websites.

Benchmarking is based on ideas about managing organizations and improving their performances. These ideas include 'organizations want to copy ''best practices''' and 'performance comparison results in performance improvement' (Camp, 1989; and Bruder and Gray, 1994; Helden en Tillema, 2005, p.337). Not only is benchmarking of great importance within the private sector. Nowadays public sector benchmarking is of increasing importance too (Helden en Tillema, 2005, p.337). Organizations compare their performances to reveal differences and ways of improving performance. Within the benchmarking, there are both economic and institutional reasoning. In this paragraph first, the economic reasoning is discussed, followed by the institutional reasoning in the next paragraph as it is considered as relevant as the overruling concept of benchmarking itself.

Concerning the use of economic reasoning of benchmarking, the focus lays on effectiveness and efficiency, which are closely related to the performance improvement goal of benchmarking dealing with effectivity and efficiency (Helden en Tillema, 2005, p.338). On the other hand, institutional reasoning is used, because public sector organizations are strongly embedded in regulations, values and traditions dealing with the motivations and processes. Benchmarking itself is applicable as a mechanism for economic and social legitimacy (Helden en Tillema, 2005, p.338). Institutional reasoning broadens the scope of a public sector benchmarking theory because it provides insights into the reasons why public sector organizations take certain decisions that are related to benchmarking (Helden en Tillema, 2005, p.341). The most basic explanation of benchmarking is that consumers compare attributes of products from different suppliers and then choose the supplier that best suits their preferences in which they are free to choose to switch from supplier to another. In this thesis, the product is the municipal websites.

However, concerning municipal websites, 'customers' cannot easily move from one area to another and normally will not switch to another. In these circumstances, however, performance measurement such as benchmarking can offer a useful substitute for consumer choice (Potter, 1988, p. 152; Helden en Tillema, 2005, p.340) because comparing performance characteristics may change the suppliers in favour of the clients. That is, it can provide consumers with the information that they need in order to have a say in the way in which public services are run (Potter, 1988, p. 153; Ogden and Anderson, 1995). It triggers the municipalities to organize their websites according to wishes, favours and such, resulting in performance increasements.

The absence of consumer choice implies that negative performance gaps are not a direct threat to the survival of public sector organizations (Helden en Tillema, 2005, p.340). In the short term, public sector organizations must show an acceptable level of performance in order to preserve the support of these stakeholders. In the longer run, negative performance gaps may actually endanger the survival of public sector organizations, because higher authorities may decide to place poorly performing organizations under their direct supervision, or to contract out failing services to alternative service providers (Bowerman and Ball, 2000, Helden en Tillema, 2005, p.340).

Looking at the institutional side of reasoning, the behaviour of organizations is determined by different types of institutional pressures. Basically, benchmarking can be an incentive to improve the performance or to show a certain degree of conformist behaviour (Moriarty, 2011, p.590; Helden en Tillema, 2005). Because municipalities as target groups correspond with each other, which makes benchmarking useful for getting a better insight.

2.11 GOVERNMENT AS MONOPOLIST

So far, the public service is discussed and elaborated. Within this analytical review and apart from the benchmarking theory, the public service is often compared with the services provided in markets. This paragraph discusses the private sector concerning the government as a monopolist.

Monopolies distort the market, because as a customer, you have no alternative. The government is one example. There is a monopoly situation if the customer has no alternative and cannot distinguish among the provision of the service (or product) desired (Mussa, 1978). Looking for alternatives is difficult, although one could move towards a different municipality in which prices are cheaper. As municipalities differ in costs. One is more expensive than the other.

In the absence of a customer focus at service providers, policy plays an important role. Politicians usually determine the budgets and the rules which governing organizations must meet. To secure the funding, they are forced to guide and steer purely on the basis of cost (efficiency). And often the rules are not set on a structural basis, but based on incidents and can even be customer unfriendly (ZBC, 2015).

And the customer has no controlling means; he often pays for services indirectly in the form of tax to the competent institutions (ZBC, 2015). Then the politics decide how the customer's money is distributed among the service providers. In short, for the customer, this means that customers or citizens are also victims of spending cuts. Since the cash flows do not directly run from the client to the service provider, the customer is, in fact, dependent on politics and of the manner in which they strongly commit to the customer of the system (ZBC, 2015; Yilmaz, 2008, p.24).

2.12 SUMMARY

To sum it up and albeit unrelated at first, the primary theories discussed in this chapter refer to benchmarking and institutionalisation. These, in particular, are used and linked to the outcome of the data analysis.

The institutionalisation theory explains that digitalization has been adding more technological and organizational sophistication as a result of both institutional isomorphism (La Porte, 2001; Gil-Garcia, 2007, p.267) and pressures from third parties (Kuk, 2003; Reddick, 2004; Salem, 2003, Gil-Garcia, 2007, p.267). If municipalities evolve from national politics and become more responsive to citizens' needs, the situation described above may imply a change from self-imposed initiatives searching for solutions, to externally imposed requirements by businesses, citizens, and other stakeholders and shows the essence and relevance of this theory (Garcia, 2005, p.3). The deadline of 2017 is considered as a pressure point for municipalities to which they have to adapt, referring to organizational change. The design and organization of their websites is one way to adapt and manifest in a study in which the websites are exposed to a list of criteria.

The institutionalisation theory tells something about the relation between institutions and municipalities and how the organization seems to adapt to changing institutions. It implies that digitalization may lead to organizational

change. Institutions work both stimulating and limiting for an organization. The promotional aspect implies that the legitimacy that results from a positive value judgment about an organization, may be essential for the survival and continued success of an organization (Boin, 2006; DiMaggio, 1983). The limiting aspect assumes that an organization is generally not in a position to disregard the rules of an institutional environment without consequences (Dimaggio, 1983). Consequently, an organization is typically forced to adapt to the institutions in its environment where governments are surprisingly slow in adopting new technologies (Meijer 2015, p.198).

The benchmarking theory is relevant as this study is benchmarking municipal websites. No clear definition is given to what benchmarking entails. This theory assumes that organizations pass through a series of stages as they change; explains how organizations develop new goals, programs, technologies, and ideas. The ability of organizations to manage and survive change is becoming increasingly important in an environment where competition and globalization of markets are ever intensifying (Cao, 2005, p.475). The main aspect of benchmarking: regularly comparing the performance, aspects and processes of an observation unit with others in that same circuit, is most important and relevant. Benchmarking is based on ideas about managing organizations and improving their performances. These ideas include 'organizations want to copy ''best practices''' and 'performance comparison results in performance improvement' (Camp, 1989; Bruder, 1994; Helden, 2005, p.337).

However, concerning municipal websites, 'customers' cannot easily move from one area to another and normally will not switch to another. In these circumstances, however, performance measurement such as benchmarking can offer a useful substitute for consumer choice (Potter, 1988, p. 152; Helden, 2005, p.340) because comparing performance characteristics may change the suppliers in favour of the clients. It triggers the municipalities to organize their websites according to wishes, favours and such, resulting in a performance increase.

Subsequently, this chapter entails a discussion of the modernization of public services, focussing on new means of communication and service offering, including the adaptation necessary and used by municipalities due to an allotted deadline. Dealing with new modern ways of communication and services, the organization of municipal (public) services are also at stake. In order to fully understand public services and similar, definitions and differences in these definitions are given and further elaborated in this chapter. For instance, the difference between services and public services can be considered significant. Almost inevitable, the introduction and discussion of governance arise, referring to the act or manner of governing the code of conduct and monitoring organizations.

Apart from above, the organization of websites is shortly mentioned and discussed. Municipalities are free to develop, design or organize their own websites. Such labor can be outsourced or insourced. In addition, when building websites, several targets and guidelines must be taken into account which obstruct or direct the way in which municipalities or third parties (outsourcing) develop, design, organize or build their websites.

The organization of municipalities and websites, experience policy processes (policy cycle) that may have an influence on the maturity level of websites. Policy generates certain processes and includes time activities. These processes are part of the policy cycle (Bekkers, 2007, p.21). The cycle is comprised of seven processes: the entry of the problem into the public agenda, the framing of the problem, designing possible solutions, analysis of the pros and cons, decision-making, implementation, and evaluation (Vázquez, 2015; Bekkers, 2007, p.60; Hoppe, 2008, p.34-35). The maturity level of a website may be dependent on how fast or smooth the policy cycle is experienced and which process is taking place. Subsequently, small or large municipalities may differ in dealing with these policy cycles.

Additionally, there are certain developments that matter for municipalities. One of the occurring developments is that citizens are (becoming) more demanding and claim quality (Rondinelli, 2007, p.1) and ease of use (Medeni, 2009). Each municipality may react differently to these developments, influencing the maturity level of their websites. Subsequently, municipalities have noticed that the National government have a lack of trust in

the functioning of municipalities and increasingly mandate tasks to municipalities. (Jans, 2015, p.41). On top of that, the VGN assembled targets and ambitions concerning public services within municipalities. This is to show how dependent and influence-sensitive municipalities are.

Certainly, the provided services (on websites) much reach goals and quality standards. It implies the importance of well qualified and trained personnel in order to meet human needs. More often, attention is paid to customer-focused organizations and management, as how municipalities must perform when considering them as non-profit service organizations and monopolists where knowledge is of great importance. Economic variables as certain developments may influence the choices municipalities make that can be reflected to the maturity level of their websites. In addition, the size of a municipality may be of importance in responding to economic variables or developments.

Last but not least and after the introduction of the benchmarking theory, the service providing of municipalities is compared with a more economic point of view. Attention is paid to customer-focused organizations and management, as how municipalities must perform when considering them as non-profit service organizations and monopolists where knowledge is of great importance. Economic variables may influence the choices municipalities make.

3 METHODOLOGY

In this chapter and at this point of the research, the methodology used to execute this multi-method study is described and introduce the empirical basis of this report and highlighting several factors of this study which will recur in the discussion of the research findings and results. Firstly, the general outline of the research design will be presented. Subsequently, the chapter will describe the individual methods utilized to analyze municipality e-governance. The final section of this chapter will be devoted to discussing the sampling.

3.1 INTRODUCTION

The research design is the framework used to answer the research questions. The selected municipalities will be studied through two methods: 1) a quantitative analysis of municipal websites, 2) the definition of a digital government. The quantitative data will mainly be used to answer research questions two and three, whereas a literature study is used to answer research sub-question one, subsequently adding additional information on all research questions. As de Bruijn (2002) cautiously states, pure quantitative data in itself is meaningless and should always be supplemented with an analysis of how a given score was achieved.

The methodology or research design presented is designed as a multi-method study. The main advantages of multi-method research are (Tashakkori and Teddlie 1998; Esteves & Pastor, 2004, p.69) 1) triangulation – seeking to validate data and results by combining a range of data sources, methods, or observers, 2) creativity – discovering fresh or paradoxical factors that stimulate further work; and 3) expansion – widening the scope of the study to take in contextual aspects of the situation. Qualitative and quantitative methods should not be viewed as polar opposites (Van Maanen 1983; Esteves & Pastor, 2004, p.69) since their combination introduces both testability and context into the research (Kaplan and Duchon 1988; Esteves & Pastor, 2004, p.69). Collecting different kinds of data by different methods from different sources provides a wider range of coverage that may result in a fuller picture of the unit under study than would have been achieved otherwise (Bonoma 1985; Esteves & Pastor, 2004, p.69-70).

The first step of the multi-method research is the literature study (qualitative), subsequently followed by quantitative data gathering and analysis. The literature study refers to the theoretical framework and background of the topic. The quantitative section of the research is comprised out of a medium N sample study analysis, in which each website will be submitted to a detailed, in-depth and structured evaluation process. This last element

used regards to the evaluation and quantitative analysis of municipal websites mainly to answer the third subquestion and main research question, where comparing websites results and contribute to a better understanding of how well municipal websites meet the modern and composed criteria list, used by previous/other studies.

3.2 VARIABLES

The independent variable, which is often indicated as a cause or as the treatment, is the size of a municipality. The dependent variable, which is proposed to vary in response to the independent variable are the municipal websites.

3.3 OPERATIONALIZATION

This paragraph is dedicated to the way in which the variables are measured and analysed. The research will analyse the relationship between the degree of maturity of municipal websites and the size of municipalities.

3.3.1 INDEPENDENT VARIABLE

For the Independent variable, public databases - with up-to-date data - are used to get data about the size of municipalities and the average age of residents. The selected municipalities, which is discussed later in paragraph four, are subject to a quantitative analysis. The results from this analysis are linked to the size of municipalities.

3.3.2 DEPENDENT VARIABLE

The municipal websites are analyzed by the author and two other coders. This strategy is aimed at achieving a high intercoder reliability, which means that scores are based to a certain extent to which independent coders evaluate a unit and reach the same conclusion (Tinsley, 2000, p. 98). Involving two other students for checking the same websites on the same criteria, should not harm the validity of the research considering that the questions are verified up front. Differences are discussed with the other evaluators. Nonetheless, a score is allocated if two out of three coders come to the same result.

One questionnaire is used for analyzing the websites of municipalities. In addition, the analyzed literature data and theoretical framework are used in order to understand and support the findings and topic (sub-question one). This study - in some way - mirrors a survey that is completed in 2003, 2005, 2007, 2009, 2011-12 and 2013-14 (Holzer & Kim, 2005, 2014), albeit different as this thesis focuses on municipalities in the Netherlands only in 2015. The present survey evaluates the practice of digital governance in Dutch municipalities in 2015. It focuses on the evaluation of current practices in government, and the emphasis in this research is on the evaluation of each website in terms of digital governance (Holzer & Kim, 2005, p.13). The next paragraph discusses shortly the used research survey design in the previous studies in order to get an understanding of how this design is mirrored and why additional methods are assigned. Additional methods are used as there are some critics. These are elaborated after.

3.3.2.1 PREVIOUS RESEARCH SURVEYS DESIGN

The latest version of the executed survey study by Holzer & Kim utilizes 104 measures, of which 43 are dichotomous. For each of the five e-governance components, the research applies 18 to 20 measures, and for questions which were not dichotomous, each measure was coded on a four-point scale (0, 1, 2, 3; see Table 2-3 below) (Holzer & Kim, 2014, p.24-25). Furthermore, in developing an overall score for each municipality, they have equally weighted each of the five categories so as not to skew the research in favour of a particular category (regardless of the number of questions in each category) which is also used in this study.

Scale	Description
0	Information about a given topic does not exist on the website
1	Information about a given topic exists on the website (including links to other information and e-mail addresses)
2	Downloadable items are available on the website (forms, audio, video, and other one-way transactions, popup boxes)
3	Services, transactions, or interactions can take place completely online (credit card transactions, applications for permits, searchable databases, use of cookies, digital signatures, restricted access)

Table 3.1. E-governance scale used in the surveys of Holzer & Kim (2014, p.22)

Holzer & Kim instrument placed a higher value on some dichotomous measures, due to the relative value of the different e-government services being evaluated. For example, evaluators using our instrument in the "service" category were given the option of scoring websites as either a "0" or "3" when assessing whether a site allowed users to access private information online (e.g. educational records, medical records, point total of driving violations, lost property) (Holzer & Kim, 2014, p.24-25). "No access" equated to a rating of "0." Allowing residents or employees to access private information online was a higher order task that required more technical competence, and was clearly an online service, or "3," as defined in Table 2-3. On the other hand, when assessing a site as to whether or not it had a privacy statement or policy, evaluators were given the choice of scoring the site as "0" or "1." The presence or absence of a security policy was clearly a content issue that emphasized placing information online and corresponded with a value of "1" on the scale outlined in Table 2-3.

The differential values assigned to dichotomous categories were useful in comparing the different components of municipal websites with one another. To ensure reliability, each municipal website was assessed by two evaluators, and in cases where significant variation (+ or – 10%) existed on the weighted score between evaluators, websites were analysed a third time.

3.3.2.2 CRITICS ON PREVIOUS STUDIES

The research done in the past 2003, 2005, 2007, 2009, 2011-12 and 2013-14 (Holzer & Kim, 2005, 2014) lack vital information about how the scores of their survey are determined and scored. Secondly, the studies lack in describing which criteria was measured dichotomy or not as there is a distinguishing made in using a 4-point scale and dichotomy questions. No information is given which and why criteria are measured with the 4-point scale. Last but not least, the previous study have a list of criteria that expanded each year but lack information and substantiation why some criteria are added to the list. Basically, there is no strong foundation for the criteria list used for their surveys, albeit understandable and accurate. Therefore, this study differs from these previous studies as the methodology is more thorough and an attempt is made at making the criteria more transparent to the reader.

3.3.2.3 METHODS OF CURRENT STUDY

The methods used in this study are a structured questionnaire and literature study. The questionnaires include closed format questions for gaining quantitative data, whereas the literature study refers to qualitative data. With closed format questions, researchers are restricted to choose among any of the given multiple choice answers. In this case, the questionnaire contains three options to answer. The questionnaire contains 'importance' rating/scale questions (verified in advance). These questions are considered ideal for calculating scores. The quantitative data should be able to show which municipal website get the highest or lowest scores, referring to the degree of maturity (digitization) of these websites.

3.3.2.4 OPERATIONALIZATION OF THE DEPENDENT VARIABLE

Concerning gathering quantitative data, the extracted information has to remain objective. An issue of outsourcing analyses is that he or she handles information. This information is often affected by subjectivity or interpretation and affects thus reliability and validity. In order to do so, the analysis and the additional criteria list will be as objective as possible by just focusing on the question on the survey. A short introduction is given to the analyst in advance. It is stated that the list with criteria functions as guidance. No sub-questions are asked and no unnecessary comments. Due to closed questions on the list, unclear, unrelated and poor answer are excluded.

In addition, it is taken into account that the first few analysis may be experienced as strange and things are learned in the beginning, with pros and cons for the next analysis. However, since no other way of retrieving the wished data is possible.

SPSS was utilized to perform the various operations. Data is stored in accordance with a three-point scale, which includes the options: 1 functionality not present, 2. functionality partly available, 3. functionality present. The three-point scale sounds intuitive (rather than a 5-point scale), but the results are not as fine-grained. The good thing about the three-point is that it is much clearer and easier for readers to fill. Everything remains a subjective assessment.

Involving two other students for checking the same websites on the same criteria and that the usage of a survey method with rigid questionnaire structure should not harm the validity of the research, considering that the questions are verified up front. When the outcome - of total three analysis - differs, the differences are discussed with the other evaluators. Nonetheless, when no discussion is needed, the score is given when two out of three is applicable. The quantitative analysis is adequate as this research is explorative to a large extent giving a first insight into the dynamics and organization of municipal websites and the concept 'digitalization' followed by well-fitting theories.

Appendix A shows the list of criteria used for retrieving quantitative data. The different criteria are examined whether it is available or not on municipal websites.

3.3.2.5 SCORES & SPSS

SPSS was utilized to store data in accordance with a three-point scale, which includes the options: 0 functionality not present, 0.5. functionality partly available, 1. functionality present. The quantitative data makes it possible to show how well the municipalities design their websites and to see whether or not municipal size is related to the degree of maturity of municipal websites, as there claimed to be a positive relationship between population and e-governance capacity at the local level (Moon, 2002; Moon and deLeon, 2001; Musso, et. al., 2000; Weare, et. al. 1999) (Holzer & Kim, 2005, p.16). When data is normally distributed, a chi-square test in SPSS is used in order to confirm or discard the positive relation between size and degree of maturity. When data is not normally distributed, the Fisher's exact is used.

3.3.2.6 E-GOVERNANCE CATEGORIES & SURVEY DESIGN

Moon (2002) developed a framework for categorizing e-government models based on the following components: information dissemination, two-way communication, services, integration, and political participation. The previous studies used these components; however, added an additional factor, security (Holzer & Kim, 2005, 2014). That additional e-governance factor was grounded in recent calls for increased security, particularly of the public information infrastructure. Concern over the security of the information systems underlying government applications has led some researchers to the conclusion that e-governance must be built on a secure infrastructure that respects the privacy of its users (Kaylor, 2001; Holzer & Kim, 2005, p.18-19).

The E-Governance Performance Index for evaluating city and municipal websites consists and covers the five components by Moon (2002): 1. Security and Privacy; 2. Usability; 3. Content; 4. Services; and 5. Citizen Participation. The numerical values obtained by municipalities allow comparing their degree of e-Governance

maturity and ranking them accordingly, using these components. The maturity of a website depends on how well a websites scores. The scores and criteria (see Appendix A) relate to a variety of options and content a visitor and features a website has. The higher the score, the more 'mature' the website can be considered. Table 2-2 summarizes the measures used in this research to assess a website's capabilities in each of those five categories.

E-governance Category	Key Concepts	Raw Score	Weighted Score	Keywords
Security/ Privacy	18	25	20	Privacy policies, authentication, encryption, data management, and use of cookies
Usability	20	32	20	User-friendly design, branding, length of homepage, targeted audience links or channels, and site search capabilities
Content	20	48	20	Access to current accurate information, public documents, reports, publications, and multimedia materials
Service	20	59	20	Transactional services involving purchase or register, interaction between citizens, businesses and government
Citizen Participation	20	55	20	Online civic engagement, internet based policy deliberation, and citizen based performance measurement
Total	98	219	100	

Table 3.2. E-government performance measures (Holzer & Kim, 2005, p.20).

3.3.2.7 What Are the Measurement Characteristics of the Questionnaire?

This refers to the reliability, validity, and structure of the measures used in the thesis. Reliability refers to the ability of a measure to produce consistent results. Validity indicates that a measure, in fact, measures what it purports to measure. Structure refers to the number and meaning of subscales contained in a given instrument (Rudestam, 2014).

There is one risk. Although the list of criteria is published, there is no existing or retrievable questionnaire. This forces to interpret and when necessary add (modify) and create questions to a validated instrument to facilitate its use. Especially, the interpretation of criteria and how to perform the measurement are at stake. Such changes may make the norms invalid and may affect both the reliability and validity of the instrument. It is often advisable to use an existing instrument in conjunction with a new instrument of the student's design. Even if the student feels that his or her instrument is better, the use of multiple measures of a single concept can be very useful when establishing the reliability and validity of a new instrument. Students need to be cautioned about the potential problems of relying on archival data (Rudestam, 2014). As table 2.2 indicates, different raw scores perceived. Luckily, the weighted score ensures that each category is valued the same. This is not so much the problem. However, an increase or decrease in the raw score may influence the score that eventually is being weighted to 20. This makes adding or modifying the questionnaire, not something to neglect. By designate and mentioning modifications and additions the changes made should be accountable. Subsequently, changes are discussed with the supervisor.

Due to the absence of a retrievable questionnaire the ratings for several questions or criteria are all changed to one three-point scale as explained in the operationalization section. In total, there are 65 questions or criteria points. By changing the ratings, the raw score changes as well. Although several changes are mentioned, it is decided to give each category the still existing weighted score. The goal of the questionnaire is to give scores to municipal websites. The changes made eventually, do not influence the score that can be given to a municipal

website whether or not a website consist or meets the criteria. After all, the maturity of e-governance of a website is measured by these criteria. The more criteria added (supported), the better the score could tell whether or not a website is 'mature' and the greater the variety in scores may be, improving the identification of weaker ones apart from the better performing and designed websites.

Adding criteria do change the raw score but improve the accuracy and when empirical substantiated do no harm the validity of the outcome. Additional criteria are mentioned the following paragraph.

3.3.3 E-GOVERNMENT PERFORMANCE MEASURES AND (CRITERION) VARIABLES

In this paragraph, the measures and indicators used in the previous surveys and to a large extent of this study are more elaborated. Appendix A gives an overview of the measures used. The criteria used are derived from previous years but are used with a different method. Earlier discussed in paragraph 3.3.2.6. the survey is based and developed on five components that are considered good indicators to measure the degree of e-governance maturity of a governmental website (Holzer & Kim, 2005; Moon 2002). The descriptions and foundation or substantiation for the survey is mentioned below. As this study uses the same substantiation of the criteria, the test is adopted. Additional information is well mentioned below the sections.

3.3.3.1 SECURITY AND PRIVACY

In examining municipal privacy policies, we determined whether such a policy was available on every page that accepted data, and whether or not the word "privacy" was used in the link to such a statement. In addition, we looked for privacy policies on every page that required or accepted data. We were also interested in determining if privacy policies identified the agencies collecting the information, and whether the policy identified exactly what data was being collected on the site.

Our analysis checked to see if the intended use of the data was explicitly stated on the website. The analysis examined whether the privacy policy addressed the use or sale of data collected on the website by outside or third party organizations. Our research also determined if there was an option to decline the disclosure of personal information to third parties. Furthermore, we examined privacy policies to determine if third party agencies or organizations were governed by the same privacy policies as was the municipal website. We also determined whether users had the ability to review personal data records and contest inaccurate or incomplete information.

In examining factors affecting the security and privacy of local government websites, we addressed managerial measures that limit access to data and assure that it is not used for unauthorized purposes. The use of encryption in the transmission of data, as well as the storage of personal information on secure servers, was also examined. We also determined if websites used digital signatures to authenticate users. In assessing how or whether municipalities used their websites to authenticate users, we examined whether public or private information was accessible through a restricted area that required a password and/or registration.

A growing e-governance trend at the local level is for municipalities to offer their website users access to public, and in some cases private, information online. Other research has discussed the governance issues associated with sites that choose to charge citizens for access to public information. We add our own concerns about the impact of the digital divide if public records are available only through the Internet or if municipalities insist on charging a fee for access to public records. Our analysis specifically addresses online access to public databases by determining if public information such as property tax assessments, or private information such as court documents, is available to users of municipal websites. In addition, there are concerns that public agencies will use their websites to monitor citizens or create profiles based on the information they access online. For example, many websites use "cookies" or "web beacons" to customize their websites for users, but that technology can also be used to monitor Internet habits and profile visitors to websites. Our analysis examined municipal privacy policies to determine if they addressed the use of cookies or web beacons (Holzer & Kim, 2005, p.26-28).

In order to test the criteria 'secure server', four online tools are used: Norton, Scan Url, SSL certificate and Google transparency rapport. These online accessible tools indicate whether or not a website can be considered as safe and up to date (to safety standards). The URL's and short descriptions of these online tools are put in Appendix B.

3.3.3.2 USABILITY

This research also examined the usability of municipal websites. Simply stated, we wanted to know if sites were "user-friendly." To address usability concerns we adapted several best practices and measures from other public and private sector research. Our analysis of usability examined three types of websites: traditional web pages, forms, and search tools.

To evaluate traditional web pages written using hypertext mark-up language (HTML), we examined issues such as branding and structure (e.g. consistent colour, font, graphics, page length etc.). For example, we looked to see if all pages used consistent colour, formatting, "default colours" (e.g. blue links and purple visited links) and underlined text to indicate links. Other items examined included whether system hardware and software requirements were clearly stated on the website.

In addition, our research examined each municipality's homepage to determine if it was too long (two or more screen lengths) or if alternative versions of long documents, such as .pdf or .doc files, were available. The use of targeted audience links or "channels" to customize the website for specific groups such as citizens, businesses, or other public agencies was also examined. We looked for the consistent use of navigation bars and links to the homepage on every page. The availability of a "sitemap" or hyperlinked outline of the entire website was examined. Our assessment also examined whether duplicated link names connect to the same content.

Our research examined online forms to determine their usability in submitting data or conducting searches of municipal websites. We looked at issues such as whether field labels aligned appropriately with field, whether fields were accessible by keystrokes (e.g. tabs), or whether the cursor was automatically placed in the first field. We also examined whether required fields were noted explicitly and whether the tab order of fields was logical. For example, after a user filled out their first name and pressed the "tab" key, did the cursor automatically go to the surname field? Or, did the page skip to another field such as zip code, only to return to the surname later?

We also checked to see if form pages provided additional information about how to fix errors if they were submitted. For example, did users have to re-enter information if errors were submitted, or did the site flag incomplete or erroneous forms before accepting them? Also, did the site give a confirmation page after a form was submitted, or did it return users to the homepage? Our analysis also addressed the use of search tools on municipal websites. We examined sites to determine if help was available for searching a municipality's website, or if the scope of searches could be limited to specific areas of the site. Were users able to search only for "public works" or "the mayor's office," or did the search tool always search the entire site? We also looked for advanced search features such as exact phrase searching, the ability to match all/ any words, and Boolean searching capabilities (e.g. the ability to use AND/ OR/ NOT operators). Our analysis also addressed a site's ability to sort search results by relevance or other criteria (Holzer & Kim, 2005, p.28-29).

3.3.3.3 CONTENT

Content is a critical component of any website. No matter how technologically advanced a website's features, if its content is not current, if it is difficult to navigate, or if the information provided is not correct, then it is not fulfilling its purpose. When examining website content, our research examined five key areas: access to contact information, public documents, disability access, multimedia materials, and time sensitive information. When addressing contact information, we looked for information about each agency represented on the website. In addition, we also looked for the availability of office hours or a schedule of when agency offices are open. In assessing the availability of public documents, we looked for the availability of the municipal code or charter online. We also looked for content items, such as agency mission statements and minutes of public meetings.

Other content items included access to budget information and publications. Our assessment also examined whether websites provided access to disabled users through either "bobby compliance" or disability access for deaf users via a TDD phone service. We also checked to see if sites offered content in more than one language.

Time-sensitive information that was examined included the use of a municipal website for emergency management and the use of a website as an alert mechanism (e.g. terrorism alert or severe weather alert). We also checked for time sensitive information such as the posting of job vacancies or a calendar of community events. In addressing the use of multimedia, we examined each site to determine if audio or video files of public events, speeches, or meetings were available (Holzer & Kim, 2005, p.29-30).

3.3.3.4 SERVICES

A critical component of e-governance is the provision of municipal services online. Our analysis examined two different types of services: (1) those that allow citizens to interact with the municipality, and (2) services that allow users to register for municipal events or services online. In many cases, municipalities have developed the capacity to accept payment for municipal services and taxes. The first type of service examined, which implies interactivity, can be as basic as forms that allow users to request information or file complaints. Local governments across the world use advanced interactive services to allow users to report crimes or violations, customize municipal homepages based on their needs (e.g. portal customization), and access private information online, such as court records, education records, or medical records. Our analysis examined municipal websites to determine if such interactive services were available.

The second type of service examined in this research determined if municipalities have the capacity to allow citizens to register for municipal services online. For example, many jurisdictions now allow citizens to apply for permits and licenses online. Online permitting can be used for services that vary from building permits to dog licenses. In addition, some local governments are using the Internet for procurement, allowing potential contractors to access requests for proposals or even bid for municipal contracts online. In other cases, local governments are chronicling the procurement process by listing the total number of bidders for a contract online, and in some cases listing contact information for bidders.

This analysis also examined municipal websites to determine if they developed the capacity to allow users to purchase or pay for municipal services and fees online. Examples of transactional services from across the United States include the payment of public utility bills and parking tickets online. In many jurisdictions, cities and municipalities allow online users to file or pay local taxes or pay fines such as traffic tickets. In some cases, cities around the world are allowing their users to register or purchase tickets to events in city halls or arenas online (Holzer & Kim, 2005, p.30-31).

3.3.3.5 PARTICIPATION

Finally, online citizen participation in government continues to be the most recent area of e-governance study. As noted in 2003, the Internet is a convenient mechanism for citizen-users to engage their government, and also because of the potential to decentralize decision-making. We have strengthened our survey instrument in the area of Citizen Participation and once again found that the potential for online participation is still in its early stages of development. Very few public agencies offer online opportunities for civic engagement. Our analysis looked at several ways public agencies at the local level were involving citizens. For example, do municipal websites allow users to provide online comments or feedback to individual agencies or elected officials? Our analysis examined whether local governments offer current information about municipal governance online or through an online newsletter or e-mail listserv.

Our analysis also examined the use of internet-based polls about specific local issues. In addition, we examined whether communities allow users to participate and view the results of citizen satisfaction surveys online. For

example, some municipalities used their websites to measure performance and published the results of performance measurement activities online.

Still, other municipalities used online bulletin boards or other chat capabilities for gathering input on public issues. Most often, online bulletin boards offer citizens the opportunity to post ideas, comments, or opinions without specific discussion topics. In some cases, agencies attempt to structure online discussions around policy issues or specific agencies. Our research looked for municipal use of the Internet to foster civic engagement and citizen participation in government (Holzer & Kim, 2005, p.31-32).

3.4 DATA AND SAMPLING

This paragraph shortly elaborates on the data used and sampling method utilized for the purposes of this research and the types of municipalities analysed.

3.4.1 DATA

The primary source for this research are the municipal websites. Additional white papers, theses, published articles, books and databases are used to underpin the research empirically or complement the collected data and information.

3.4.2 SAMPLING

This study uses a purposive sampling technique. Purposive sampling is a type of non-probability sampling technique, which focuses on sampling techniques where the units investigated are based on the judgment of the researcher or empirical substantiation. It is often used when the sample is relatively small and a particular characteristic of a population is of interest.

The municipal websites evaluated and analyzed are from the ten largest and ten smallest (population) municipalities in the Netherlands, based on figures of the CBS of 2015. The rationale for selecting the largest municipalities stems from the e-governance literature, which suggests a positive relationship between population and e-governance capacity at the local level (Moon, 2002; Moon and deLeon, 2001; Musso, et. al., 2000; Weare, et. al. 1999; Holzer & Kim, 2005, p.16).

It is appropriate to select samples in accordance with the variables, and to cover as much as possible of the existing heterogeneity of the actors studied (Campbell, Cook & Shadish, 2002, p.23-24).

A number of ten smallest and ten largest municipalities may be sufficient enough to show the differences. Having 20 websites is both feasible and sufficient for quantitative analysis but should be interpreted with caution, although different quantitative techniques result in different assumptions about sample size (Chi-square or Fisher's). If the website was not live, it was excluded from evaluation and the closest municipality in terms of population was chosen instead.

City:	Population:
Schiermonnikoog	926
Vlieland	1103
Rozendaal	1509
Ameland	3590
Terschelling	4827

Renswoude	4976
Haarlemmerliede &	5574
Baarle Nassau	6599
Noord Beveland	7433
Ten Boer	7452
Amsterdam	821752
Rotterdam	623652
Den Haag	514861
Utrecht	334176
Eindhoven	223209
Tilburg	211648
Groningen	200336
Almere	196932
Breda	180937

Table 3.3 Municipalities selected 2014, 1 January (CBS, 2015).

In this research, the main city homepage is defined as the official website where information about city administration and online services are provided by the city. This research evaluated the official websites of each city selected. If the website was not live, it was excluded from evaluation and the next municipal was chosen that has the highest population cap.

3.5 RESTRICTIONS AND VALIDITY / RELIABILITY THREATS

Inevitably, this study does have some restrictions and/or validity and reliability threats that are discussed here. First, it must be said that a complete measurement of the degree of maturity of a municipal website is a utopian thought. Which entails that the measurement will never be perfect. The question can be asked whether or not the information retrieved from analyzing websites could tell something about the degree of e-governance maturity of municipal websites. In addition, taking into consideration two additional analysers it must be taken into account that these must also be neutral and accurate in analysing the websites (Babbie, 2007, p.265-280) or at least make an attempt in giving neutral and objective answers. By involving more than just one analysing person, the risk of this bias is reduced. Subsequently, although the list of criteria is published, there is no existing or retrievable questionnaire. This forces to add (modify) and create questions to a validated instrument to facilitate its use. Subsequently, the interpretation of criteria and how to perform the measurement are also at stake. Such changes may make the norms invalid and may affect both the reliability and validity of the instrument. It is not possible to make a final, objective and perfect evaluation of the maturity of a website, especially when taking into account that this study as derivative needed adjustments.

Secondly, The N in this study is not large so it could be that there is no representative sample, and unique samples are excluded from the sample. The results become more valid and generalizable if more municipal websites are analyzed and are proportionally distributed in frequency.

Third, a limitation is that the information gathered from analyzing municipal websites does not give a complete view of all the processes that can take place. There could be (useful) data or criteria measures missing. Therefore, it must be said that data gained from the analysis leaves room for adjustments.

Fourth and moreover, the theories and criteria points may be outdated because municipal websites and the software, features and such changes constantly. Future research should be aware and include any recent developments. The theory presented in this thesis is a good basis for research. As this study focuses solely on municipal websites and just one comparison is made in the size of municipalities, the validity can be criticized as studying municipal websites (although the focus is explicitly mentioned) partially highlights how municipalities cope with the deadline and how well they adapted to e-governance .

Fifth, because of previously named limitations, the findings are not completely generalizable. The findings that could be generalized should be generalized with caution. It is important that Positive/ Negative Connotation and hypothetical questions are avoided. For this reason, the questionnaire is verified in advance by both supervisors of this report.

Sixth, a noteworthy limitation is that this study is primarily an observational one. No research is done to why municipal websites score high or low based on the criteria. Future research could indulge in explanatory questions and look for the intention to use online provided services.

3.6 SUMMARY
The different aspects of the research methodology have been highlighted in this chapter. The methodology or research design used is a multi-method study, containing a literature study and quantitative data gathering and analysis. In this study, the independent variable is the size of a municipality whereas the dependent variable is the municipal websites.

Subsequently, this chapter discusses the previous study as this study is a derivative of the study by Holzer & Kim (2005). However, the previous study has some critics where the main issue is that it is quite unclear about how data is collected and scored. Therefore, some changes are introduced. These are elaborated in the operationalization section of this chapter. Data is retrieved by two additional evaluators and data is stored in SPSS for statistical reasons (comparing the size of municipalities with the degree of e-governance maturity of municipal websites).

Data is stored in accordance with a three-point scale, which includes the options: 1 functionality not present, 2. functionality partly available, 3. functionality present. In addition, the e-government categories are presented on which the criteria are based. These are 1. Security and Privacy; 2. Usability; 3. Content; 4. Services; and 5. Citizen Participation and are considered to adequately say something about the degree of e-governance maturity of a municipal website. In total, there are 58 criteria points. When necessary criteria are added to make sure a variety in scores is increased. Furthermore, the chapter includes the section of data sampling. Whereas it is decided to analyze 20 municipalities, which are selected on population figures. All of the changes and decision lead to certain limitations and threats which are discussed in section 3.5.

Chapter 4 will be devoted to the analysis of the data gathered through the different measurements put forth in this chapter.

4 ANALYSIS
This chapter treats and answers the research questions that are central to this study. The first question asked is discussed first. The discussion entails the distinction making between confusing and overlapping terms. Clarifying

the differences between the terminology helps to understand and answering the question what 'full' digital governance and the given deadline encompass.

Subsequently, this chapter continues by answering the remaining questions that focus on the more quantitative data analysis. Data outcome is presented in this chapter, using and mentioning scores and SPSS stats.

4.1 DIGITAL GOVERNMENT

This paragraph embodies the discussion of what 'full' digital governance and the given deadline by the Dutch national government encompass and include a study analysis on the matter. What does digital government mean? This question supports answering the main research question of this thesis. Subsequently, information derived from the literature study could contribute to adjusting and add criteria for analysis. By making a distinction in different but often mixed definitions the content becomes clearer and contributes in answering the first question: *What does the deadline and digital government or e-governance encompass?* After making the distinction, the process that is called 'digitization' is discussed. Furthermore, the deadline in 2017 is elaborated to see what is desired and seen as 'full' digital government by the national government to which municipalities have to adapt.

4.1.1 DIGITAL GOVERNMENT

Digital governance or digital government seem alike. In this study, both terms are mentioned or referred too and could have caused confusion or unclearity. There are many scientific studies conducted by many researchers on conceptualization definitions digital government and digital governance (Norris, 2003; Garson, 2006; Lane, Pabriks, Purs, Smith, 2002; Macintosh, 2008; Yildiz, 2007; Rhodes, 1997; Dearstyne, 2001; Bovaird , 2003; Fang, 2002; Jaeger, Thompson, 2003; Asgarkhani, 2005; Saparniene, 2013; Di Maio, 2013; Shailendra, Palvia, Sharma, 2007; Torres, 2006; Toregas, 2001; Marche, 2001; Ivan, 2016; Anttiroik 2007; Fraga, 2002; Bedi, Singh and Srivastava, 2001; Holmes, 2001; Okot-Uma, 2000; Kettl, 2002; Keohane & Nye, 2000).

It cannot be denied that considerable confusion exists in explaining e-government and digital government and that they look alike resulting in food for thoughts and discussion. They both refer in some way to 'government' and to some matter, the difference between 'e' and 'digital' is not clear and seems to be often mixed up. The discussion is ongoing whether or not digital government is just a rebranding of e-government. Di Maio (2013) argues that digital government is not a rebranding of e-government, but is little else than making e-government work. Di Maio also argues that some of their objectives are not so different from each other.

A second party that distinguishes the two is the United Nations. They state that digital government is the employment of the Internet and the world-wide-web for delivering government information and services to the citizens." (United Nations, 2006). While on the other hand, e-government is the utilization of IT and ICT, and other web-based telecommunication technologies to improve and/or enhance the efficiency and effectiveness of service delivery in the public sector. The difference here is using ICT for delivery of information and the utilization to improve or enhance services.

But focusing on the possible differences between the two – underpinned by one or two sources - may provide a distorted view. Despite these significant scientific discussions, it is evident, that the multiplicity of e-government and e-governance definitions supposes demand for further researches (Saparniene, 2013). For now, the following definition is used and commonly accepted: e-government. The definition of e-government is given in next section.

4.1.2 E-GOVERNMENT

In the simplest of terms, e-government is electronic government, or the use of digital technology in the management and delivery of public services, predominantly through the Internet (Edmiston, 2003, p.20). E-government is defined by other sources (actors) as follows:

World Bank (www.worldbank.org) definition: "E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government.

United Nations (www.unpan.org) definition: "E-government is defined as utilizing the Internet and the world-wide-web for delivering government information and services to citizens.

Global Business Dialogue on Electronic Commerce - GBDe (www.gbde.org) definition: "e-Government refers to a situation in which administrative, legislative and judicial agencies digitize their internal and external operations and utilize networked systems efficiently to realize better quality in the provision of public services."

Gartner Group's definition: "the continuous optimization of service delivery, constituency participation, and governance by transforming internal and external relationships through technology, the Internet, and new media."

Definition of the Working Group on E-government in the Developing World (www.pacificcouncil.org): E-government is the use of information and communication technologies (ICTs) to promote more efficient and effective government, facilitate more accessible government services, allow greater public access to information, and make government more accountable to citizens. E-government might involve delivering services via the Internet, telephone, community centers (self-service or facilitated by others), wireless devices or other communications systems."

The United Nations (UN) and the American Society for Public Administration (ASPA) defined e-government as "utilizing the Internet for delivering government information and services to citizens" (UN/ASPA, 2002,p.1)
E-government is defined by the Organisation for Economic Cooperation and Development (OECD) (2003) as the use of ICTs, and particularly the Internet, as a tool to achieve better government. It is defined as online service delivery. it entails the capacity to transform public administration using ICTs to introduce the concept of e-governance (Torres, 2006, p.).

While definitions of e-government by various sources may vary widely, there is a common theme. E-government is the use of information and communication technologies (ICTs) and related means by local, state and federal governments to promote, support and digitize more efficient and effective government, facilitate more accessible government services, allow greater public access and interaction to information, and make government more accountable to citizens, businesses and other governmental agencies.

4.1.3   E-GOVERNANCE

Various definitions are to and can be found in reports and other researches. This section discusses the different mentioned and worth able definitions first, followed by a closer analysis in which ways the definitions differ or agree with each other. Lastly, this paragraph sketches a definition derived from the mentioned definitions by others.

The European Commission's (2001) definition of governance entails the rules, processes, and behaviour that affect the way public administrations function, that is, the organization and culture of public administration. E-governance includes e-government plus key issues of governance such as online engagement of stakeholders in the process of shaping, debating, and implementing public policies" (Torres, 2005, p.6). For Oakley (2002), e-governance is a set of technology-mediated processes that are changing both the delivery of public services and the broader interactions between citizens and government. e-Governance allows this transformation although social and political frameworks could condition the outcome of the e-governance systems (Torres, 2006, p.278).

e-Governance is defined by other sources as follows: 'Digital or electronic governance (e-governance) is a term that is used to emphasize the application of ICTs in governance systems and processes and can be seen as providing citizens with the ability to choose the manner in which they interact with governments (Asgarkhani, 2005, p.476). The aim is to reform the theory and practice of legitimate decision making and policy formulation to meet the demands of the knowledge society where ICT-enabled solutions are introduced to improve both the flow of information and citizen to government relationships' (Asgarkhani, 2005, p.476). Marche (2003, p.75-76) claims that e-governance can be considered as 'an evolution from e-government towards more complex interactions, one that goes beyond public administration and begins to engage agenda setting and policy determination', adding the usage of electronic means for the delivery of government services and information to the public. According to Ivan (2016), e-governance is a broader term than e-government since e-governance is applicable to the governance of multiple organizations, but e-government is strictly about government (Ivan, 2016).

Other sources such as the International Centre of e-governance (IceGov, 2016) describe governance as a process: "Governance is not government, nor is it the act of governing. It is more usefully seen as a process: the process by which institutions, organisations, companies and societies 'guide' themselves". In addition, the source adds that governance is also about how these bodies interact with each other. They summarize with the note that governance about 'how society organises itself for collective decision making, and also provides transparent mechanisms for seeing those decisions through.' Eventually, linking governance to the era in which ICT is of great importance the source mentions that g-governance is a shorthand term for the use and impact of technology (ICT) in governance systems.

Similarly, the e-governance Institute of Rutgers University (Rutgers University, 2016) states: "e-governance involves new channels for accessing government, new styles of leadership, new methods of transacting business, and new systems for organizing and delivering information and services." In addition, it refers to the use of information and communication technology to provide and improve government services, transactions, and interactions with citizens, businesses, and other arms of government (IEEE, 2009).

According to the Commonwealth Centre for Electronic Governance (Riley, 2001): "e-governance is a tool. And like any other tool, it has limited value and relevance in itself. Its value arises from its application to specific goals and objectives. e-Governance is really about choice. It is about providing citizens with the ability to choose the manner in which they wish to interact with their governments, improving governmental processes (Milakovich, 2012; Tapscott, Williams, & Herman, 2008)." "E-governance is the commitment to utilize appropriate technologies to enhance governmental relationships, both internal and external, in order to advance democratic expression, human dignity and autonomy, support economic development and encourage the fair and efficient delivery of services" (Riley, 2001)

Allen et al (2001, p. 94) state that governance is about effective coordination in a dynamic environment where both knowledge and power are distributed. Every organization is built on governance. The rise of e-governance refers to the new patterns of decision making, power sharing and coordination (with ICT). She adds that ICT allow governance to be redefined in new ways (Allen et al, 2001, p. 94).

To summarize, e-governance is about using new information and communication technologies to help government to strengthen interactions with citizens and societal actors to solve societal problems collectively (Dawes, 2008; Dunleavy, Margetts, Bastow,& Tinkler, 2006; Milakovich, 2012; Saparniene, 2013) by engaging citizens and stakeholders and letting them co-produce public services. This means that e-governance is about using technologies to position government in an external network with citizens and stakeholders to cooperate in the production of policies and services (Meijer 2015p.199).

It has been noticed that, and supported by Finger (2003, p.58-60), that e-governance and the related concepts can be categorized.

- e-governance as processes and interactions
- e-governance as customer satisfaction
- e-governance as tools for government

The list of definitions found can go on and on. After processing all the definitions and information the following definition covers up most of the mentioned substance;

e-Governance is a broader term comprising a range of relationships and networks in the government, related to the use and application of ICT to execute their functions of supervising, planning, organizing, coordinating, and staffing effectively at various levels of the government and the public sector and beyond, for the purpose of enhancing governance. It covers the entire range of government steps develop and administrate, and to ensure successful implementation of e-government services offered to the public (improving governmental processes). It emphasizes the application and impact of (new) ICTs and new technologies in governance systems and processes and can be seen as a tool to strengthen interaction and providing citizens with the ability to choose the manner in which they interact with governments. It is about governing; how to architect the government, making government more accountable, transparent and effective and future research should use this definition to prevent uncertainties and confusion.

4.1.4 THE DIFFERENCES

So far, having two definitions, no clear distinguishes are found. Both definitions, derived from other sources stress the importance of the use of ICT for several purposes in order to improve or enhance them. This forces to look at differences between government and governance. The assumption is made that this is a confirmation that definitions are mixed up easily and there is no clear difference between the two. Of course, a lack of information or good sources may also cause troubles in finding the differences between the definitions. In order to react to this situation, additional sources and information are added to see whether or not differences can be found.

According to Asgarkhani (2005), e-government can be considered as a 'strategic tool for public management reform whereas governance' can be considered as a process'. Notice the difference in the words government and governance. Governance stresses the way in which decisions are made, while government stresses the way in which these decisions are carried out. Governance involves the appropriate engagement of the citizen at the policy level and technology may influence the shape and size of such engagement (Toregas, 2001, Marche, 2003)

e-Governance involves a public investment in ICT to strengthen governance processes and allow/enhance interaction with the public (Ivan, 2016; UNDP, 2016) while e-government has been employed to mean everything from 'online government services'' to 'exchange of information and services electronically with citizens, businesses, and other arms of government'. Traditionally, e-government has been considered as the use of ICTs for improving the efficiency of government agencies and providing government services online. According to Ivan (2016), the framework of e-government has broadened to include the use of ICT by the government for conducting a wide range of interactions with citizens and businesses as well as open government data and use of ICTs to enable innovation in governance (Ivan, 2016; UN PACS, 2016). What assumes to be a valid argument is that e-governance is applicable to the governance of corporations or governance of major non-profit organization, but e-government is strictly about government (Ivan, 2016).

Other sources add that e-governance is a broader term comprising a range of relationships and networks in the government, related to the use and application of ICT and bring about a change in the way citizens relate to governments and to each other (Anttiroik, 2007). E-government is a more restricted area associated with the development of direct (online) services to citizens, paying greater attention to such government services as e-taxes, e-education or e-health. The concept of e-governance can be used as an umbrella concept combining the prospects of e-government and e-democracy (Saparniene, 2013, p.2)

Anttiroiko (2007) comes with a rather good distinction as she describes e-government and e-governance as two completely different concepts (Saparniene, 2013, p.2) where e-governance entails engaging citizens and stakeholders and letting them co-produce public services while e-government views citizens largely as a consumer of these services.

Apart from accepting the differences in the definitions government and governance, it seems to be a matter of interpretation as there is no clear boundary between the two definitions and authors have been inconsistent about defining the concepts. Although Anttiroiko (2007) comes with a rather clear distinction, further research is necessary.

4.2 MUNICIPAL WEBSITES

The retrieved data is categorized as non-parametric data as there is no normal distribution. Although non-parametric tests are less powerful, they are more justified. The data is unpaired and ordinal scaled. The sample size consists of 20 units and is retrieved by stratified sampling where stratification entails dividing members or units of the population into homogeneous subgroups before sampling. The table on the following page shows each given score to the mentioned municipality, the size (whether it is small or big) and population. Several remarkable scores are discussed here. Before jumping to conclusions, the first noticeable thing is that the total sum of the scores is higher with larger municipalities. Looking at the smaller municipalities, the minimum score is lower than the lowest score of the larger municipalities (34 to 37,5). Regarding the maximum scores, the maximum score within the larger municipalities is higher than the highest score of the smaller municipalities. Overall based on the scores, Breda scored highest and Vlieland the lowest. This entails that the highest score is not necessarily achieved by the largest municipality when looking at the population. In every category, the sum is higher with larger municipalities.

Recalling the different categories within the list of criteria there is the possibility to look at which categories municipalities score better than others, apart from the overall score that is discussed earlier in this paragraph. There are five different categories mentioned. These are 1. Security and Privacy; 2. Usability; 3. Content; 4. Services; and 5. Citizen Participation. Although not every score weighs equally to another category, differences between municipal websites can be shown by using and presenting these categories as well.

Based on table 4.1, the assumption can be made that participation and service mode is low on average, whereas the content is high on average. Lowest and highest possible score per category are not directly linked to the size of a municipality. It seems that the overall score is dependent for the drawn conclusion in the previous paragraph. Subsequently, small municipalities are doing well in terms of content but need to pay more attention to participation and service.

Muncipality	Size	Population	Security and Privacy	Usability	Content	Service	Participation	SUM score
Schiermonnikoog	0	926	7,5	5	13	7,5	3,5	36,5
Vlieland	0	1103	6	5,5	13,5	6,5	2,5	34
Rozendaal	0	1509	8,5	6	11,5	7	3	36
Ameland	0	3590	6,5	5,5	12,5	7	3,5	35
Terschelling	0	4827	6,5	5,5	12,5	7	3,5	35
Renswoude	0	4976	13	6,5	14	8,5	4	46
Haarlemmerliede &	0	5574	12	7	12,5	6,5	3,5	41,5
Baarle Nassau	0	6599	11	6,5	12	6,5	3	39
Noord Beveland	0	7433	10	6,5	13	7,5	3,5	40,5
Ten Boer	0	7452	9,5	5	12	7,5	3	37
Sum			90,5	59	126,5	71,5	33	380,5
Amsterdam	1	821752	11,5	6	14	9	7	47,5
Rotterdam	1	623652	12,5	6	14	9,5	6,5	48,5
Den Haag	1	514861	12,5	7	14	11	4,5	49
Utrecht	1	334176	13	7	14	9,5	6	49,5
Eindhoven	1	223209	14	6,5	15	9,5	3,5	48,5
Tilburg	1	211648	10,5	6	11,5	7,5	2	37,5
Groningen	1	200336	10,5	6	13,5	6,5	2,5	39
Almere	1	196932	12	7	13,5	6	4,5	43
Breda	1	180937	13,5	6	15	10	6,5	51
Nijmegen	1	170681	12,5	6,5	14,5	6,5	5,5	45,5
Sum			122,5	64	139	85	48,5	459
Mode			12,5	6	14	6,5	3,5	42,5
Maximum			14	7	15	12	10	58

Table 4.1 Overview results

To substantiate the data - that is put in SPSS – it is desired to show the significance that the size of municipalities have an effect on the SUM scores, where larger municipalities intent to score higher than smaller ones. Following the data description, the Mann-Whitney U test and the Kolmogorov-Smirnov are used. The Mann-Whitney U test is a non-parametric test that is useful for determining if the mean of two groups are different from each other (it does not require the assumption of normal distributions and can be used with ordinal data), whereas the two-sample K–S test, tests whether two underlying one-dimensional probability distributions differ.

Executing the Mann-Whitney U test with SPSS resulted in the following outcome. At first, the rank table is plotted, including the mean rank and sum of ranks between small and large municipalities.

Ranks

	size	N	Mean Rank	Sum of Ranks
SUM	small	10	6,45	64,50
	large	10	14,55	145,50
	Total	20		

Table 4.2 Rank table SPSS

The table above is very useful because it indicates which group can be considered as having the higher scores, overall; namely, the group with the highest mean rank. In this case, the large municipalities had the highest scores. The next table shows the different means of the two selected groups of municipalities.

Statistics

small	N	Valid	10
		Missing	0
	Median		36,7500
large	N	Valid	10
		Missing	0
	Median		48,0000

Table 4.3 Means table SPSS

Next, the outcome of SPSS shows the actual score of the Mann-Whitney U test and the 2-tailed exact significance score. Before interpreting the scores, the requisite is that when $P = <0,05$ there is a significant difference between the small and large municipalities. The null hypothesis assumes there is no difference (and therefore an equal score) between small and large municipalities. If the score is lower than 0.05, the null-hypothesis is rejected and the assumption can be made that size does have an effect on the SUM scores.

Test Statistics[a]

	SUM
Mann-Whitney U	9,500
Wilcoxon W	64,500
Z	-3,065
Asymp. Sig. (2-tailed)	,002
Exact Sig. (2-tailed)	,001
Point Probability	,000

Table 4.4 Mann-Whitney U test SPSS output

Looking at the table above, the most relevant score to look at is the Exact Sig. (2-tailed) score of 0.01. As P=0.01<0.05 it can be said that at the 0.05 level of significance, there is enough evidence to conclude that size does have an effect on the SUM scores. Better formulated, there is a relationship between the size of a municipality and the e-governance maturity level of municipal websites. In addition, the score came close to the significance level of p <0.01, which means that almost the most stringent use of the general significance levels have been reached.

In order to conclude whether or not the scores between small or large municipalities do differ, the (the two-sample) Kolmogorov-Smirnov test in SPSS is used. Once again, the Null hypothesis assumes there is no difference in SUM score between large or small municipalities. If rejected (when p<0,05), the assumptions is made that the scores between small or large municipalities do differ. The following table illustrates the outcome of the test in SPSS.

Test Statistics

		SUM
Most Extreme Differences	Absolute	,700
	Positive	,700
	Negative	,000
Kolmogorov-Smirnov Z		1,565
Asymp. Sig. (2-tailed)		,015

Table 4.5 Kolmogorov Smirnov SPSS output

The most important score or number to look at is the Asymp. Sig. (2-tailed) score. As the score indicates 0,015<0,05 it can be stated that at the 0.05 level of significance assume there is enough evidence to conclude that the scores between small or large municipalities do differ.

5 DISCUSSION

In this section of the report the various discussion points, limitations, and recommendations will be presented.

To answer the first question, the purpose and objectives of this study will be repeated. The objectives of this study are:
- ➢ The first objective is to find out what digitalization is all about and how digitalization affects the municipalities, specifically their websites.
- ➢ The second objective is to determine what the goal in 2017 explicitly means. Getting a full understanding of what the term 'digitalization' or 'e-governance' means in governmental spheres.
- ➢ The third objective of this study goes a bit further than the first one and is to analyse what a full digital government means for the municipalities in relation with designing or organizing websites. What have been the results due to the given goal? How do municipalities deal with this governmental goal? Analysing websites could give partial answers to these questions.
- ➢ A fourth objective is comparing the scores - after assessing the e-governance maturity level of municipal websites – with the size of municipalities. Does the size of a municipality has an influence on the degree of maturity of digitalization of a website or vice versa and what can we tell based on the outcome? In

addition, complementary of this objective is to find out whether or not the testing criteria result in variations of scores and how to interpret the outcome of this analysis.

- ➢ As discussed in the previous paragraph, an outcome may contribute in understanding how well and fast municipalities are able to adapt to certain input and objectives and how these are reflected to their websites. This could be beneficial for 1) future objectives, 2) national government; as in knowing how municipalities perform and act and 3) other municipalities to see how some are more successful in implementation than others of which they can learn. Performance evaluation could serve as reference for them in their future allocation of resources. In order to fulfill the objectives, several questions are formulated. These are mentioned in the following paragraph.

- ➢ Additionally, this paper is to present a novel approach for assessing the e-Governance maturity of municipalities based on analysing how electronic public services are delivered through municipal websites to citizens living in different populated areas.

What ought to be helpful in fulfilling these objectives is set up research questions and answer them. Giving plain answers in this section on the research questions support achieving the objectives of this study, give an answer to the main research question and give food for thought for a discussion as the theoretical framework presented earlier may or could help in explaining the outcome of the analysis or answers on the research questions.

Considering the question of what the deadline, digital government and e-governance encompass, in the previous section it is noted that digital or e-government is the use of information and communication technologies (ICTs) and related means by local, state and federal governments to promote, support and digitize more efficient and effective government, facilitate more accessible government services, allow greater public access and interaction to information, and make government more accountable to citizens, businesses and other governmental agencies.

Subsequently, e-governance is generally considered as a wider concept than e-government (evolution) comprising a range of relationships and networks in the government, related to the use and application of ICT to execute their functions of supervising, planning, organizing, coordinating, and staffing effectively at various levels of the government and the public sector and beyond, for the purpose of enhancing governance. It covers the entire range of government steps develop and administrate, and to ensure successful implementation of e-government services offered to the public (improving governmental processes). It emphasizes the application and impact of (new) ICTs and new technologies in governance systems and processes and can be seen as a tool to strengthen interaction and providing citizens with the ability to choose the manner in which they interact with governments. It is about governing; how to architect the government, making government more accountable, transparent and effective.

The deadline stated by the national government is discussed and elaborated. In 2013, the Dutch coalition agreed that the service provided by the government should be better or improved. Thus, businesses and citizens in 2017 should and must be able to do their business and arrange matters with the government (such as applying for a permit) digital. The intention is given by the Minister of Internal Affairs, Ronald Plasterk towards a full digital governance in 2017. It is desired by the national government to have a full digital governance.

Table 4.1 shows the answer to the second research question, where one could see the similarities and differences in municipal websites (and how these are shaped), whereas concerning the criteria used to assess the websites and e-governance maturity level is shown in appendix A. The scores indicate that the assessment ensured differences and variations in scores.

This resulted in the question to see which municipality adapt most to e-governance and which municipality the poorest. Once again, table 4.1 shows the answers to this research question. The municipality of Breda seems to be most adapted and does have the highest measured e-governance maturity level of municipal websites.

The last sub-question to see whether or not a relationship exists between the size of a municipality and the e-governance maturity level of municipal websites, resulted in the assumptions that there is enough evidence to conclude that the scores between small or large municipalities do differ and that size of a municipality does have an effect on the SUM scores.

The main research question of this study is:

What is the current e-governance maturity level of a municipal website in 2015 after the announcement of a deadline entailing; full digital government in 2017 by the Dutch government, and to what extent does size affect the e-governance maturity level of a municipal website?

The answers given to the sub-questions contributed in partly answering the main research question. Table 4.1 supports the assumption that municipal websites are affected by the deadline as they are obligated to adapt, resulting in different maturity levels. The reason for this is third variables that need to be studied in future research. Table 4.1 also shows the common e-governance maturity level of the analysed municipal websites. Subsequently, it is noted that size does have an effect on the SUM scores and that scores between small or large municipalities do differ. Noted is that some municipalities still have plenty of work to do in order to meet the desired standard that is discussed in the letter regarding the desired full digital governance in 2017.

Subsequently, this study contained several objectives. Below, each objective is discussed briefly and determined whether or not an objective is achieved.

The first two objectives are to find out what digitalization is all about and how digitalization affects the municipalities, specifically their websites and what the goal in 2017 explicitly means. Both objectives are achieved. Not only is digitalization and the goal in 2017 fully discussed, this study also compared and distinguished the definitions e-governance and e-government (digital government). In addition, scores in table 4.1 show the effects of digitalization and how municipalities adapted to it.

The third objective of this study goes a bit further than the first one and is to analyse what a full digital government means for the municipalities in relation with designing or organizing websites. What have been the results due to the given goal? How do municipalities deal with this governmental goal? Analysing websites could give partial answers to these questions. This objective is achieved, considering the variables that are used in this study. The results are shown in table 4.1.

A fourth objective is comparing the scores - after assessing the e-governance maturity level of municipal websites - with the size of municipalities. Does the size of a municipality has an influence on the degree of maturity of digitalization of a website or vice versa and what can we tell based on the outcome? In addition, complementary of this objective is to find out whether or not the testing criteria result in variations of scores and how to interpret the outcome of this analysis. The scores indicate that the assessment ensured differences and variations in scores and there is enough evidence to conclude that the scores between small or large municipalities do differ and that size of a municipality does have an effect on the SUM scores. Therefore, this objective is achieved too.

An outcome may contribute in understanding how well and fast municipalities are able to adapt to certain input and objectives and how these are reflected to their websites. This could be beneficial for 1) future objectives, 2) national government; as in knowing how municipalities perform and act and 3) other municipalities to see how some are more successful in implementation than others of which they can learn. Performance evaluation could serve as a reference for them in their future allocation of resources. Cautiously said, this objective is achieved as well, as answers can be found in this chapter and third parties can benefit or learn from this study.

Additionally, this paper is to present a novel approach for assessing e-governance maturity of municipalities based on analysing how electronic public services are delivered through municipal websites to citizens living in different populated areas. It is harsh to assume this objective is achieved, as other approaches can be developed as well.

Although, this study seems to be helpful in getting the better view of how municipal websites or municipalities adapted to the idea of digitalization and it's possibilities. Concerning, different populated areas, more research is needed. For example, the average age of a population or municipality may be of importance on how municipalities should adopt to new digital standards.

5.1 LINKING THE THEORIES

In this paragraph, the results from sub question three and four is and can be linked to the theoretical framework presented earlier. More specifically, the institutional and benchmarking theory attempt to give reasons for the outcome of the study.

Knowing that based on selected municipal websites difference in sizes does influence and have an effect on the overall (SUM)score of the maturity level in digitalization, institutionalization can be of relevance.

As there is a difference in scores it is assumed or suggested that municipalities hold on to their own agendas and possibilities. Adapting to the deadline and the possibilities of digitalization are not easily implemented. The cause of this could be by many reasons, such as outsourcing or time/money related variables. But these few summed up variables all take part in the institutionalization of an actor. The environment of an actor influences how an organization is set up and how easily it adapts to new things. Think of the organization capacity in comparison with the number of residents. The results of this study clearly suggest that municipalities and the way in which they implement the newest technologies or possibilities of digitalization differs and seems to be troubling the closing deadline.

It is notable that a larger municipality should by definition have more problems with adapting. From this perspective, one can arguably give several reasons of why the outcome of the analysis is contrary to what the theory suggest. The assumption is in the contrary, that the larger municipalities seem to adapt or implement (to) the new digital possibilities easier than the smaller ones. It awakens the suggestion that with a little thinking; money, expertise and time is of influence and are the most abstract but important third variables that influenced the scores.

On the other hand, looking at the deadline of 2017 in general, one could say that institutionalisation is holding back the municipalities and how they score. Must be noted that the deadline is not consequential, but with the deadline closing in, some of the municipalities really lack in adapting to the digital possibilities that are existing today.

As definitely more variables and mainly research is needed for explaining the differences in outcome of the municipal websites, future research is of great importance.

The benchmarking theory was basically prior to the analysis rather than explaining the possible outcomes of the analysis itself. However, having the scores summed up and compared to the municipalities and size, benchmarking is possible but limited to the variables such categories, size given. The more information one could get, the more intense and complex the benchmarking of these municipal websites become. After all, benchmarking is not a summation per se, as variables can be valued differently. And when valuation becomes part of it, it becomes personal as one find variable x more important than variable y. In this study, the valuation or normative variables are excluded. Once again, future research could fill in the gaps where for example studies can be executed to see which municipal websites are experienced as 'better'. The subject of personal value, experience, and use is food for thought and further future research.

5.2 LIMITATIONS OF THIS STUDY

The research design utilized by this project was to a large extent explorative. A combination of social science literature, legal literature, and a quantitative study was used to answer the questions within this thesis. Executing the study has led to several insights into the strong and weak points of the research design, that can also be useful

for similar future endeavours. The main positive aspect of the research design was its combination of quantitative and qualitative research methods – its multi-method approach. Subsequently, points that are left unaddressed or under-researched will be discussed here.

A noteworthy point is that the analysis of municipal websites is executed by a small number of observant. To exclude faults in observations or analysis a larger number of observant results in a more accurate and reliable means of scores. The limitation there is that with only two or three observant scores could differ, meaning the outcome could be adversely affected. This thesis tried to suppress this risk by making the list of criteria plain and simple so mistakes are by definition ruled out. However, regarding point two of the limitations, the list could contain certain criteria that could have led to different interpretations or scores. Even when conspicuous and clear differences in scores are discussed, the risk of making faults is not excluded. Subsequently, although the list of criteria is derived from previous research, the modifications done could influence the score and outcome of the analysis.

Another limit of this research design is that its findings cannot easily be generalized. With only a sample number of twenty municipal websites, it is, without doubt, a small amount of observed units to generalize the results and to conclude that the size of municipalities does affect the digital maturity level of municipal websites. An underlying risk is that most municipal websites are developed and organized by third parties with their own design. If some of the municipalities (due to budget) contacted the same website developer, the differences or similarities in scores could be caused by the developer rather than the municipalities (their influence), and it is them to take the responsibility too.

Considering the definitions given to digital government (e-government) and e-governance, one could say that the number and sources of information in order to formulate or define these terms do have influence. This means that when certain sources of information are left out (unconsciously), the definitions could be biased or to a certain degree invalid or incomplete. Although the number of sources seems legit, one could not rule out the risk of formulating faulty definitions due to interpretation errors.

Another point to address is that other theories or a different theoretical framework for highlighting the results with different perspectives could lead to other patterns or causes. Therefore, the discussion or conclusion making connections and links with a certain set of theories should not be generalized and be considered as the only reason for the outcome. Subsequently, because of previously named limitations the findings are not completely valid.

5.3 RECOMMENDATIONS

In this paragraph, the commendations concerning future research as for municipalities are discussed, following by concerns which are derived from this study and should be noted for municipalities. There might be some overlap between the sub-paragraphs as municipalities should have the same interest in recommendations for future research.

5.3.1 RECOMMENDATIONS FOR FUTURE RESEARCH

Concerning recommendations for future research. the assessment should identify reasons in which situation or setting municipalities choose for which option, whether this is due to an organizational need (capacity)or for their own convenience (composition of the population). Overall, municipalities tend to be more innovative when they have sufficient resources and enough motivation (Jans, 2015).

So far, this study focused on the institutional and benchmarking perspective and assumptions are made (budget dependent, organizational capacity, knowledge, etc.). It is recommended that the horizon should be broadened as in, using other theories for highlighting the results with different perspectives that could lead to other patterns or causes. Using the different perspectives lead to a better understanding of the correlations, relations and results.

A second recommendation is adding more and new criteria to the list in order to look for data or patterns in more detail (when possible), increasing the validity of the analysis. Therefore it is recommended to keep up with developments and published documents or research to keep the list of criteria up to date or even improve it. Subsequently, it is questionable or arguable to what extent a municipal website can be considered digitally mature. More research or better boundaries are recommended as well.

Another point to address is executing a network analysis, which implies investigating social structures. It focuses on relationships and interactions that could also influence the maturity of municipal websites. Basically, the recommendation here is to look for other variables that influence municipal websites and eventually the given scores and outcome.

Considering a limitation of this study and concerning the definitions given to digital government (e-government) and e-governance, one could say that the number and sources of information in order to formulate or define these terms do have influence and should, therefore, get more attention. Giving definitions of government and governance seems to be a matter of interpretation as there is no clear boundary (mix up) between the two definitions. Future research is necessary.

Arguably the most important point or recommendation is analysing or observing more municipalities for a better research foundation (reliability and validity). This way, the outcome could perhaps be generalized and can be helpful indeed. Other samples may lead to different results.

5.3.2 RECOMMENDATIONS FOR MUNICIPALITIES

Concerning advice - hence recommendations - for municipalities, the results and outcome of the study suggest there are differences. Using a few theories may not cover all reasons and causes for the measured differences. Therefore it is recommended to –which also links to the previous recommendation mentioned for next research purposes - to execute further research. The assumption is now made that differences are caused by different municipal budgets, capacities, and expertise. Often, the expertise is from a third party that also costs money. More resourceful municipalities, that is, with better past e-government performance, that are better informed, and included in more extensive policy networks were more likely to adapt this innovation relatively early. (Jans, 2015, p.41). It is up to municipalities to decide and make policy in order to improve their websites. But the costs should outweigh and be accountable for the outcome, naturally/obviously. These municipalities have to decide on their own (if possible). But the deadline in 2017 remains and with the measured differences it implies that most municipalities are not ready yet and a great impulse can be given through budget changes. It is questionable who is responsible and accountable for the changes that need to be done. One could say the national government is responsible for the current situation and changes that must occur.

Secondly, as small municipalities experience more difficulties (lower score) with municipal websites, it is recommended that the lack of knowledge or executive functions could be reduced by improving the knowledge of municipalities or employees. One could think of receiving training or absorb knowledge, hiring professionals or web developers. In addition, an improvement in networking or sharing with other municipalities could be beneficial and may support the municipalities in accomplishing goals for 2017. Basically, the recommendation here refers to seeking help, whereas the municipalities that gained high scores could support the smaller ones. Although this is based on own interests; networking, sharing or communication among them could arguably improve the conditions. Concerning communication, improvement is recommended too. Especially, the communication from top down or bottom up towards the national government is of essence. As the deadline approaches and municipalities may indeed meet the requirements, the maturity degree and the way in how citizens experience websites should not be underestimated. As at least one assumption is made that the municipal websites are budget driven, the national government should communicate with his municipalities and vice versa. Clarification and understanding among the two parties are essential.

Focussing on the entire sample selection, municipalities should improve or work on service and participation as the median score is quite lower than the maximum score. Subsequently, small municipalities are doing well in terms of content.

5.3.3 CONCERNS

Apart from recommendations, there are a few concerns that can be derived from the outcome of the analysis. First of all is the approaching deadline. While municipalities may meet the requirements of this deadline, the differences among them in terms of quality or content may be significantly due to their own implementation pace and strategy. It is questionable how citizens deal with these differences. The question arises on how the requirement is met and in which manner. It is not desirable when websites are developed solely on meeting those requirements rather than on what actually is needed. Questions can be asked on how the national government presents goals and how municipalities solve this in their own way. Are the goals realistic enough? May a national government demand something from municipalities when it is assumed to be budget driven/dependent? These questions can also be added to the topic of future research.

6 SUMMARY AND CONCLUSION

In this final section of the report, a summary is given including the conclusion that can be derived from this study. At first, it is useful to refer back to the main research question this study is based on. The main question is: *What is the current e-governance maturity level of a municipal website in 2015 after the announcement of a deadline entailing; full digital government in 2017 by the Dutch government, and to what extent does size affect the e-governance maturity level of a municipal website?* Due to a deadline that was stated by the Dutch national government, by the Minister of Internal Affairs Ronald Plasterk to be more precise, municipalities had to adapt towards a full digital government in 2017. In order to answer the main research question, a study is done to see what the current level of digitalization is of municipal websites is in 2015. This study focuses on the evaluation of current practices in government, and the emphasis in this research is on the evaluation of each municipal website in terms of digital governance. The study is inspired by research done in 2003, 2005, 2007, 2009, 2011-12 and 2013-14 by Holzer & Kim, albeit different by adjusting the scoring system to its own use and a different focus on the material. A different focus is created by adding a theoretical framework contributing in getting a better understanding of this topic and is useful to get along with topics discussed in this thesis. Topics such as Organization of municipal services and websites, policy process, developments that matter, the vision of the VNG helped in getting a better understanding. In addition, the discussed material and the institutional and benchmarking theory supports the data analysis and discussion.

Apart from studying the current level of municipal websites, this study entails several sub-questions in order to answer the main question and fulfill the objectives. Discussing the whole digitalization of municipalities and the desires of the national government, one would like to know what the deadline encompass and how to define e-government or e-governance. Whereas, e-government is the use of information and communication technologies (ICTs) and related means by local, state and federal governments to promote, support and digitize more efficient and effective government, facilitate more accessible government services, allow greater public access and interaction to information, and make government more accountable to citizens, businesses and other governmental agencies. e-governance is generally considered as a wider concept than e-government (evolution), since it can bring about a change in the way citizens relate to governments and to each other and encompass a broader term comprising a range of relationships and networks in the government, related to the use and application of ICT to execute their functions of supervising, planning, organizing, coordinating, and staffing effectively at various levels of the government and the public sector and beyond, for the purpose of enhancing governance. It covers the entire range of government steps develop and administrate, and to ensure successful implementation of e-government services offered to the public (improving governmental processes). It is a term

(or tool) that is used to emphasize the application and impact of (new) ICTs and new technologies in governance systems and processes and can be seen as strengthen interaction and providing citizens with the ability to choose the manner in which they interact with governments, ICT-enabled solutions are introduced to improve both the flow of information and citizen to government relationships' It is about governing; how to architect the government, making government more accountable, transparent and effective. As both definitions look alike and no clear distinction is to be found between the both, additional research is done to see what other sources mention the differences between the two. This lead to additional information that e-governance is applicable to the governance of corporations or governance of major non-profit organization, while e-government is strictly about government. And where e-governance entails engaging citizens and stakeholders and letting them co-produce public services while e-government views citizens largely as a consumer of these services. Besides accepting the differences in the definitions government and governance, it seems to be a matter of interpretation as there is no clear boundary between the two definitions and future research is necessary.

Subsequently, the current state of the municipal website is researched and relevant data discussed. Several answers can be given. Arguably the most important result is that sizes of municipalities does influence and have an effect on the overall (SUM)score of the maturity level in digitalization and scores between small or large municipalities do differ. Subsequently, a difference in scores was measured (shown in table 4.1), assuming or suggesting that municipalities hold on to their own agendas and possibilities. The cause of this could be for many reasons and is also destined for future research. The few summed up variables such as outsourcing or time/money in this thesis all take part in the institutionalization of an actor. The environment of an actor influences how an organization is set up and how easily it adapts to new things. The results of this study clearly suggest that municipalities and the way in which they implement the newest technologies or possibilities of digitalization differs and seems to be troubling the closing deadline. Although the deadline is not consequential, some of the municipalities really lack in adapting to the digital possibilities that are existing today. Besides the institutional theory, the benchmarking theory was performed prior to the analysis rather than explaining the possible outcomes of the analysis itself. Having the scores summed up and compared to the municipalities and size, benchmarking is made possible but limited to the treated variables. The more information one could get, the more intense and complex the benchmarking of these municipal websites become, especially if one uses valuation in studying municipal websites. The subject of personal value, experience, and use is food for thought and further future research.

The outcome of this research may be beneficial for 1) future objectives, 2) national government; as in knowing how municipalities perform and act and 3) other municipalities to see how some are more successful in implementation than others of which they can learn. Performance evaluation could serve as a reference for them in their future allocation of resources. Additionally, this thesis is to present a novel approach for assessing e-governance maturity of municipalities based on analysing how electronic public services are delivered through municipal websites to citizens living in different populated areas.

Lastly, it is clear that future research is necessary and of great importance to fully understand the definitions here and to see how well municipalities have adapted and succeeded in obtaining the desired target or deadline the national government has given them. Other theories, more municipalities, different measurements in time, new criteria and variables, network analysis, the why's, communication and understanding surely result in different data and add additional content on this topic.

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8 APPENDIX

APPENDIX A

Privacy/ Security	
1-2. A privacy or security statement/policy 3-6. Data collection 7. Option to have personal information used 8. Third party disclosures 9. Ability to review personal data records 10. Managerial measures 11. Use of encryption	12. Secure server 13. Use of "cookies" or "Web Beacons" 14. Notification of privacy policy 15. Contact or e-mail address for inquiries 16. Public information through a restricted area 17. Access to nonpublic information for employees 18. Use of digital signatures
Usability	
19-20. Homepage, page length. 21. Targeted audience 22-23. Navigation Bar 24. Site map	25-27. Font Color 30-31. Forms 32-37. Search tool 38. Update of website
Content	
39. Information about the location of offices 40. Listing of external links 41. Contact information 42. Minutes of public 43. City code and regulations 44. City charter and policy priority 45. Mission statements 46. Budget information 47-48. Documents, reports, or books (publications)	49. GIS capabilities 50. Emergency management or alert mechanism 51-52. Disability access 53. Wireless technology 54. Access in more than one language 55-56. Human resources information 57. Calendar of events 58. Downloadable documents

Service	
59-61. Pay utilities, taxes, fines 62. Apply for permits 63. Online tracking system 64-65. Apply for licenses 66. E-procurement 67. Property assessments 68. Searchable databases 69. Complaints 70-71. Bulletin board about civil applications	72. FAQ 73. Request information 74. Customize the main city homepage 75. Access private information online 76. Purchase tickets 77. Webmaster response 78. Report violations of administrative laws and regulations
Citizen and Social Engagement	
79-80. Comments or feedback 81-83. Newsletter 84. Online bulletin board or chat capabilities 85-87. Online discussion forum on policy issues 88-89. Scheduled e-meetings for discussion	90-91. Online survey/ polls 92. Synchronous video 93-94. Citizen satisfaction survey 95. Online decision-making 96-104. Performance measures, standards, or benchmarks