MASTER THESIS

HOW TO REACH EVERYONE?

FACTORS INFLUENCING THE USE OF DIGITAL SERVICES IN THE AREA OF PUBLIC HOUSING BY ELDERLY PEOPLE

Kristy Nijland

COMMUNICATION STUDIES
MEDIA & COMMUNICATIONS
JANUARY 2017

EXAMINATION COMMITTEE
Prof. Dr. Wolfgang Ebbers
Dr. Willem Pieterson

UNIVERSITY OF TWENTE.

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Master thesis

University of Twente
Faculty of Behavioral, Management & Social Sciences (BMS)
Communication Studies - Media & Communication

Student: Kristy Nijland
Student number: s1477021

Supervisor: Prof. Dr. Wolfgang Ebbers
Co-reader: Dr. Willem Pieterson

Date: January 2017
Place: Enschede, The Netherlands

Abstract

Introduction
The internet is an increasingly important part of our daily lives. Many organizations have digital services. Digital services are online services of an organization. More and more information and services of these organizations are now (only) available through the internet. Even though the Netherlands has a high level of internet penetration, not everyone can perform all the tasks on the internet by themselves. The level of internet skills of certain Dutch people is low, especially the skills of elderly people. Combining the internet skills of elderly and the trend of organizations communicating more digitally, it seems that the elderly are a vulnerable group that could have trouble with the digitalizing world. This study focuses on the factors that influence the use of elderly of digital services in the area of public housing in the Netherlands.

Methods
A literature review identified the variables that influence the use of digital services. Factors that have been included in this study are demographic factors (e.g. gender, age, level of education and household composition), level of internet experience, internet attitude, channel use, awareness of the digital service, use of the digital service and the attitude towards the digital services.

A study is performed in cooperation with a large housing association which is located in the eastern part of the Netherlands. The elderly users and non-users of their digital service were the target group for this study. The sample included the elderly tenants renting a house from the housing association, who are older than 65 years. 5.101 letters, with an offline questionnaire have been distributed under the elderly tenants. In addition, there was the possibility to complete the survey online. In total, 1437 questionnaires were returned, 1360 surveys per post and 77 surveys online. The response rate of this study is 28.2%.

Results
Overall, the level of internet experience, internet attitude and the usage of the digital service were very low under this population. Based on this research you could say that elderly people renting a house in the public area are people with a low level of internet experience. Task-related factors did not influence the channel choice of elderly. Their preferred channel in every mode is the telephone. Results shows that age, degree of internet experience, internet attitude and website use influence the use of digital services. When a person is younger with a higher level of internet experience, internet attitude or website use, results show that the use of the digital service is higher.

Conclusion
This study indicates that the level of internet experience of this group elderly people is concerning and that the digital divide is still reality. Even though other research discussed that the level of internet experience under elderly people is increasing, this study shows there are some specific groups where this is still not the case.

Keywords
#digital services #elderly #internet experience #channel choice

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1. Introduction

The internet is an increasingly important part of our daily lives (Van Deursen, Van Dijk & Ten Klooster, 2014). This does not only apply to people, organizations' use of the internet is also increasing. Many organizations have digital services, not only commercial organizations but also non-profit organizations for instance the government. Digital services are online services of an organization (Van Dijk, Ebbers & Van de Wijngeart, 2014), for example corporate websites or log-in portals.

With some organizations people can choose if they want to apply their tasks online, by telephone or even face-to-face. There are different communication channels. But more and more information and services of these organizations are now (only) available through the internet. For example the Dutch Tax Office (De Belastingdienst) announced in 2015 that they want to work more digitally and will stop with sending letters in the future (Belastingdienst, 2015).

Several reasons exist for this push of service delivery towards the online channels. According to the European Commission (2015) a digital service increases efficiency (cost reduction), effectiveness (24/7 delivery, greater reach of services), coordination (service integration) and democratization (e-participation). Because of all these potential benefits organizations try to steer their consumers to their digital services. But are they reaching everyone with their online channels?

According to the CBS (2016) 92% of the Dutch households have internet access. Even though the Netherlands has a high level of internet penetration, not everyone can perform all the tasks on the internet by themselves. Not only internet access, but also motivation to use and internet skills are important (Van Dijk, 2003). According to Van Deursen and Van Dijk (2011) there is an digital inequality. Based on their research, they concluded that the level of internet skills of many Dutch people are low, especially the skills of elderly people.

Combining the internet skills of elderly and the trend of organizations communicating more digitally, it seems that the elderly are a vulnerable group that could have trouble with the digitalizing world. Recent studies show that the internet skills of elderly are increasing (Van Deursen & Helsper, 2015 & Van Deursen & Van Dijk, 2015). However, no research has been carried out yet about the problems elderly experience when using digital services or communicating with organizations digitally. It is important to know more about the use of digital services by elderly. Research on the reasons for non-use of digital services can increase the knowledge in the field and might improve the current services.

This research will therefore address the question: What are factors influencing the use of digital services in the area of public housing by elderly people in the Netherlands?

First, this thesis will identify the factors that influence the use of a digital service. Second, the research question is elaborated and a conceptual model is made. Third, the research design, methods, reliability and validity and response of the study will be explained. Fourth, the results of the survey will be showed and analyzed through correlations, regressions and model testing. At last, the thesis will end with a conclusion and discussion of the results.

2. Theoretical framework

In this section the relevant theories for this study will be discussed. There are different theories that explain the use of a new technology. To understand the use of those technologies it is interesting to look first to the factors that influence use and how they can be used for this study on influencing the use of digital services.

2.1. Theory of Diffusion of Innovations

According to Rogers (1962) there are four stages in the adoption process to use a certain technology. The first stage is knowledge, the social system variables and the receiver variables are influencing this process. In the second stage of persuasion, the characteristics of innovations (relative advantage, compatibility, complexity, triability and observability) are important. If these characteristics are perceived as positive than the persuasion is likely to take place. The third stage is the decision, this means an adoption (use) or rejection (non-use) of the technology. If the person at first adopts the technology, there is still a discontinuance possible by replacement or disenchantment. If the person first rejects the technology there is also a possibility that the adoption still comes later on in time or the technology will be continued to be rejected. The last stage is confirmation, here the usage is continued. This gives some first inside of how the adoption process of a technology takes place.

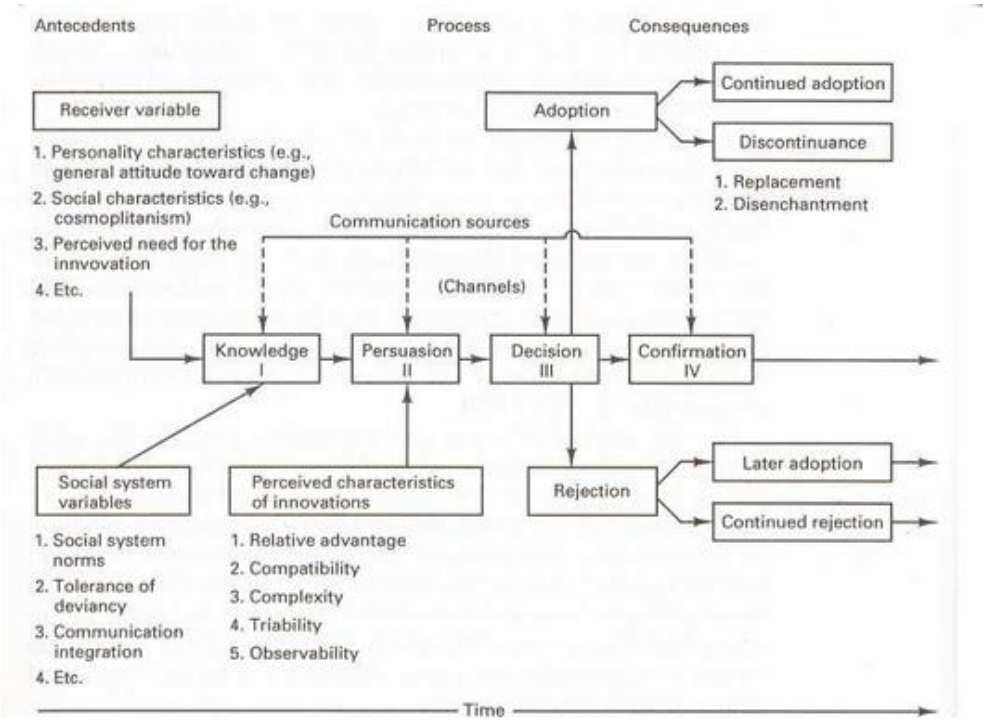


Figure 1: Theory of diffusions of innovations (Rogers, 1962)

For this study the theory of diffusions of innovation can detect relevant variables. For example, it shows that the first stage of the adoption process is knowledge. In light of this study it is important to research the knowledge that people have of the digital service. This awareness of the digital service can influence the process of using the digital service. The second stage persuasion shows that people need to see the perceived characteristics of the service. So, the attitude towards the digital service could also influence the process of using. At last, the receiver variable influence the process of using a technology. The receiver variable contains personal factors that together makes how a person thinks about the technology. For example social status and perceived need for the innovation, but also demographics like age, gender, household and education. These personal factors might influence the process of use of digital services.

2.2 Technology Acceptance Model (TAM)

Another theory that focuses on the adoption of a new technology is the Technology Acceptance Model (TAM). TAM focuses on attitude as a concept for behavioral intention to use a new technology. Attitude can be measured with two variables: perceived usefulness and perceived ease of use (Davis,

1989). Perceived usefulness is the degree to which someone believes that using the new technology helps him or her to do it better or faster. Perceived ease of use is the degree to which to new technology is difficult or easy to use. These variables explain peoples attitude towards using and behavioral intention. According to Davis (1989) behavioral intention to use will lead to actual use.

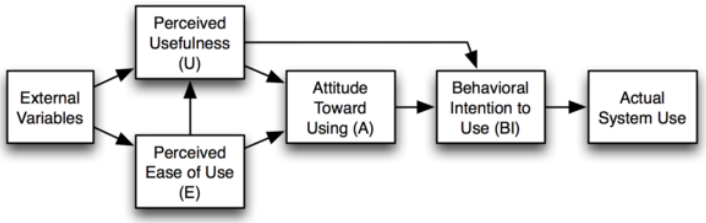


Figure 2: Technology Acceptance Model (Davis, 1989)

TAM explains, just as the theory of diffusions and innovations, that attitude towards using is influencing the use of a system. Attitude is influenced by the perceived usefulness and the perceived ease of use of the system. Hubona and Whisenand (2000) claim that several studies have discussed the influence of external variables in the TAM, for example personal factors (age, gender, education, cognitive abilities and computer experience) and task-related factors (complexity). The technology acceptance model states that the influence of these external variables is not direct, but mediated. These external variables could also have a mediated effect on the usage of a digital service.

2.3 Unified Theory of Acceptance and Use of Technology (UTAUT)

In their study, Venkatesh, Morris, Davis and Davis (2003) discovered four predictors which can be considered direct determinants of usage of technology. The constructs that play a role in acceptance and usage behavior are performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). The variables gender, age, experience, and voluntariness of use are moderating the impact of the four key constructs on usage intention and behavior.

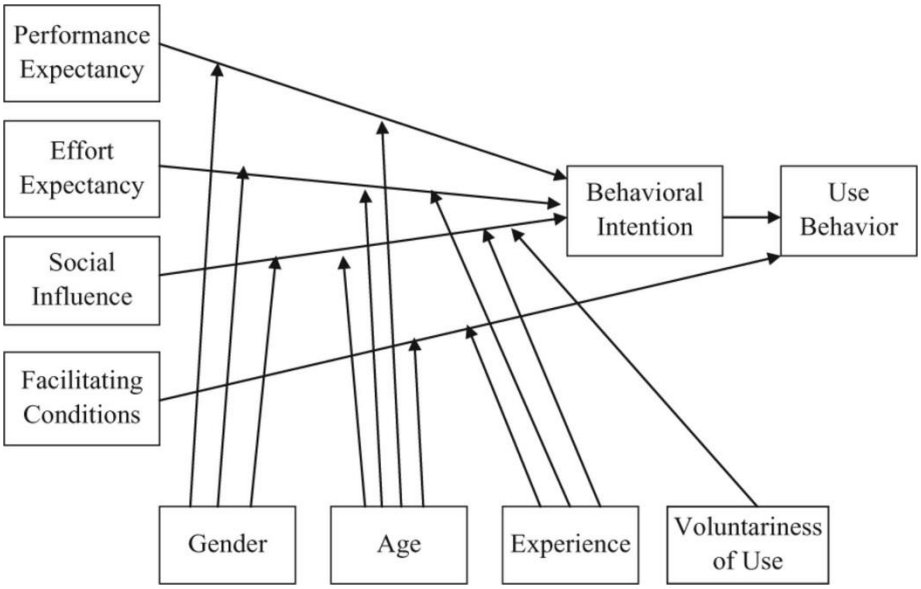


Figure 3: Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003)

In the UTAUT the personal factors (gender, age, experience and voluntariness of use) are moderators of the process of use. For this study the variable experience might be important to analyze. The level of experience could influence the use of the digital service. Gender and age might also, just as the UTAUT states, influence the process of use of digital services. Voluntariness of use is not relevant for this study as people themselves search contact with an organization trough their digital service.

2.4 Digital divide

The digital divide describes the different kinds of access that are required for using the internet, for example digital services. Van Dijk (2010) states that there are four kinds of access that are obligatory to have when working with a specific digital technology. The types of access follow on top of each other, the first variable is necessary for the next one. The process restarts with a new digital technology.

The first variable, motivational access, is the level of motivation that someone has for using a new technology. According to Van Deursen and Ebbers (2006) “this mental barrier varies from little interest in or need of the technology, to real computer anxiety” (p. 271). The second variable is material access, in this condition people need the right equipment for performing the task. For example people need a smartphone with the latest updates. This can form a barrier if people don’t have the right hardware, software and services. People also need a level of digital skills to handle the technology in case. For example the internet skills defined by Van Deursen, Courtois and Van Dijk (2014). People need operational skills (e.g. button knowledge), formal skills (e.g. browsing and navigating), information skills (e.g. searching information), strategic skills (e.g. use medium to achieve personal goals) and the last added communication skills (e.g. communicate on the internet). The last variable is usage access. Van Deursen and Ebbers (2006) stated that “this primarily means the number, type and diversity of applications used. When someone has a computer and Internet access, and is able to work with them, it is not at all granted that this person will actually use them’’ (p.272).

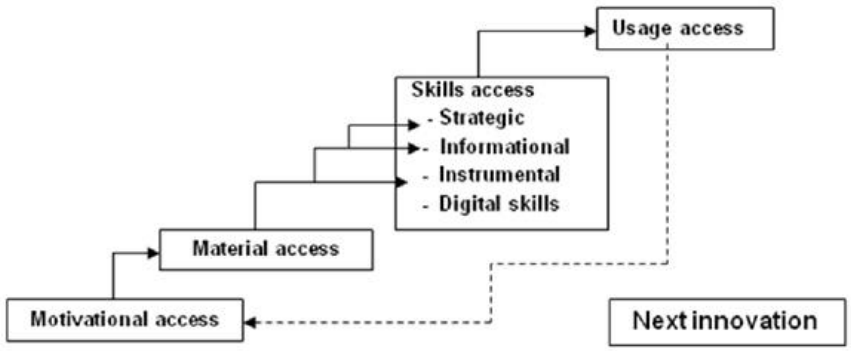


Figure 4: Model of successive kinds of access to digital technologies (Van Dijk, 2003).

Important for this study on elderly is that probably not everyone has all types of access to use the digital service. For example people need an internet connection at home and they must know how to work with a computer or tablet and the internet. Logging in to a digital service is a more difficult task than sending an e-mail for instance. The level of internet experience is for this study an important variable. Besides the experience, people need motivational access and need to be willing to use the internet and the digital service. This depends on their attitude towards the internet.

2.5 Basic model of channel behavior

Channel choice can be defined as “an individual’s specific decision to use a medium in a particular communication incident” (Trevino, Webster & Stein, 2000). Channel behavior is a complex process, many factors are influencing it. In the basic model of channel behavior (Pieterson, 2009) the three important steps of channel behavior are visualized. First channel choice, then channel usage and at last channel evaluation.

Pieterson (2009) indicates that a person’s first experience with a channel is influencing their channel behavior. After the use of a channel an evaluation takes place (Pieterson, 2009). This evaluation has influence on a person’s channel choices in the future.

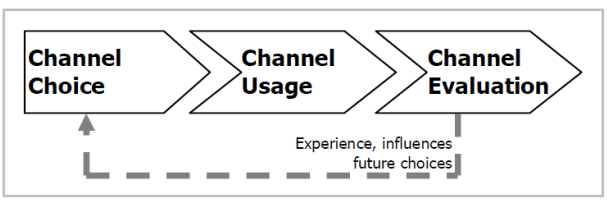


Figure 5: Basic model of channel behavior (Pieterson, 2009).

A digital service is one of the channels from an organization. Besides online services there are (most of the time) also offline channels as telephone or front-desk. Channel choice is an important variable for studying channel usage in this case the usage of digital services. In the next chapter channel choice is further elaborated with different factors that influence this process like task-related factors.

2.6 Conclusion

The different theories show that many factors are involved with the usage of a technology. To study the factors influencing the usage of digital services by elderly the following variables will be taken into account: personal factors, internet experience, internet attitude, channel choice, awareness, attitude towards the digital service and usage of the digital service. In the next chapter these variables will be further explained.

3. Literature review

In this section the relevant variables for this study will be discussed, based on previous research and relevant theories.

3.1 Digital services

Digital services are online services of an organization (Van Dijk, Ebbers & Van de Wijngeart, 2014). Corporate websites, online forms or log in portals are different types of digital services. In this study the digital services in the area of public housing are analyzed. Public housing organizations are semi-governmental agencies in the Netherlands. Because of the non-commercial character of these organizations their digital services could be compared to e-government services.

Use of public digital services

The European Commission (2014) states in their report that 54% of the Dutch people is using public digital services. This is above the average of 46% usage of the other EU countries. The efficiency and impact from Dutch e-government lags a bit behind with the rest of Europe.

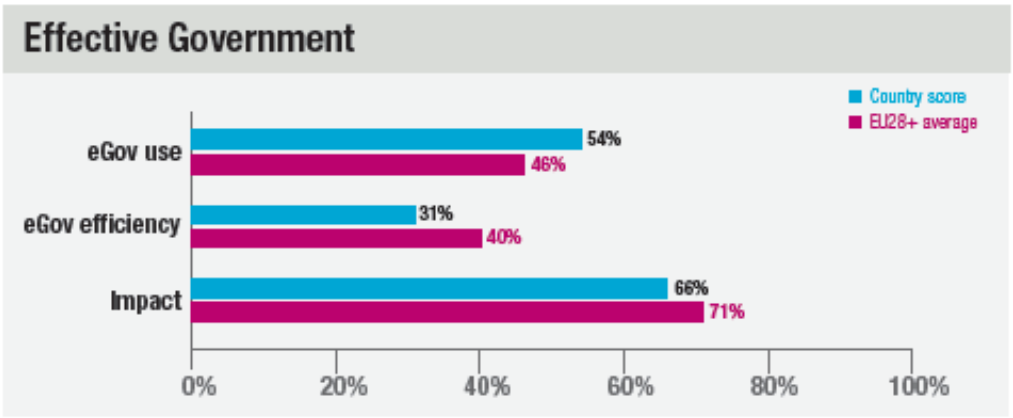


Figure 6: Effective Government – Netherlands factsheet (European Commission, 2014)

A closer look at e-government users in the Netherlands gives a good image of who is using the public digital services. 41% of the Dutch users are a loyal user, they prefer to communicate through public digital services. 13% of the Dutch users are potential drop outs, because they don't want to communicate though this channel. 46% of the Dutch population was during the survey a non-user. This can be divided in 11% of the population that are potential users and 35% that are non-believers. That last group has no intentions of using e-government.

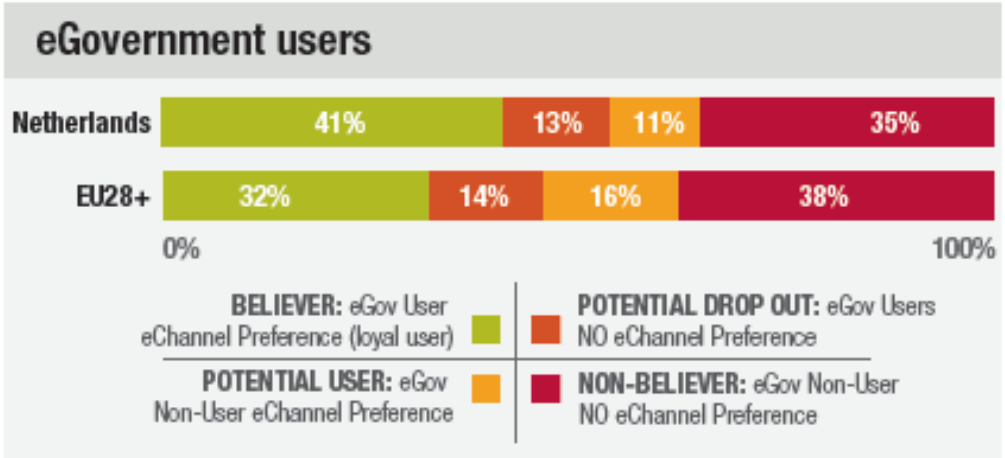


Figure 7: E-government users – Netherlands factsheet (European Commission, 2014)

Research shows that there are many non-users of e-government in the Netherlands. There exist a mismatch in the actual usage of digital public services and how governments want citizens to use the channels (Ebbers, Pieterson & Noordman, 2008). Government wants to be more and more digital for efficiency and steers citizen to their online digital environment. Still, there are the traditional channels

like telephone and a face-to-face counter, but these channels have no preference by government. It is likely that those channels will disappear in the coming years. For example the Dutch tax office is already abandoning all post (Belastingdienst, 2015). This mismatch is a reason why a study into the use of digital service is important, especially with the non-believers of e-government.

3.2 Elaborated channel use

Having contact with an organization can (mostly) be done through different channels. As previous stated the preferred channel of organization does not always correspond with the preferred channel of citizen. Elaborated channel use is the factor that will be included in this study. This is defined as the likelihood in which a user uses a certain channel given a certain task.

Ebbers, Pieterson and Noordman (2008) stated that two variables are the most important influencers of channel preference. Those variables are task complexity and task ambiguity. In their study Ebbers et al. (2008) define task complexity as “the extent of multiple interrelated actions that have to be taken to solve one problem” (p. 191). Ambiguity is explained as “the existence of multiple and conflicting interpretations about an organizational situation” (Ebbers et al., 2008, p. 191). According to Australian research people would rather use the internet with problems that are low of task complexity and ambiguity (Australian Government, 2005).

Besides complexity and ambiguity, channel choice is also based on why people contact an organisation. Ebbers, Pieterson and Noordman (2008) distinguish modes of channel interaction with an informational nature for governmental organizations. These channel modes are also described as task factors. As visualised in figure 3 there are different channel modes and channel types. The first channel mode is conversation, in this mode someone asks for information through a channel type and the organization gives the requested information. The second channel mode is consultation. In this mode someone has to find the answer to the question him- or herself. The organization does supply the information, but there is no interaction. In the channel mode allocution the organization is only sending information. The fourth channel mode is registration. Here someone sends information to the organization. The fifth and last channel mode is transaction, in this mode someone has to pay for a service of the organization.

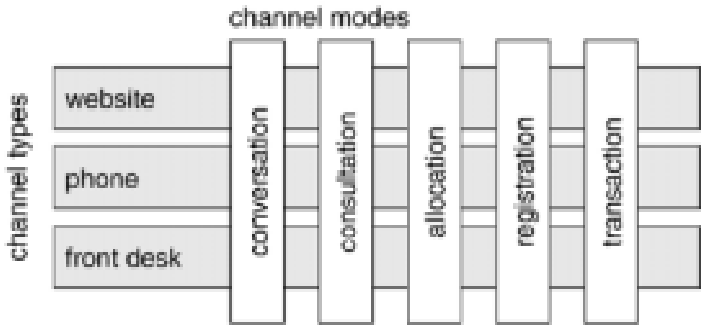


Figure 8: Types of services (Ebbers et al., 2008).

In a study into the channel use of citizens of the city The Hague channel modes are used as reasons why a citizen wants to have contact with the municipality (Ebbers & Jansen, 2015). Here there are four different modes or reasons. In the mode consultation the citizen wants to have some information or wants to know how to apply for something. In the mode registration the citizen is making an appointment or transmitting information. In the mode progress the citizen wants to know what the progress is of a previously transmitted question. At last, in de mode transaction the citizen is paying for a service. Ebbers and Jansen (2015) claim that the reason why a citizen of The Hague have contact with the municipality, is associated with the channel choice. For example the website was most used for making an appointment (registration) and when people were searching for information they often chose the phone (consultation).

However, channel choice is not just influenced by factors pertaining to the task at hand. The use of a technology can strongly differ on the situation at the moment it takes place. Ebbers et al. (2008) differentiate situational factors. The first factor is the availability of channels, for example opening hours. A second factor is the need for closure. Based on a situation, people need direct closure for

their problem due to a high complexity or ambiguity. Websites not always give direct answer to a question and cannot fulfil the need for closure (Ebbers et. al, 2008).

Channel choice is therefore an important variable for this study. The channel use with different task factors gives an broad overview of how elderly want to have contact with an organization. This will be studied for different channel types. Elaborated channel use is the factor that will be included in this study. It gives an inside to the preferred channels of elderly and if the mismatch still exists.

3.3 Personal factors

Personal factors are the characteristics of citizens like gender, age, education and geographical information. The UTAUT links personal factors to using a technology. The Unified Theory of Acceptance and Use of Technology (UTAUT) states that gender, age, experience and voluntariness of use have effect on the usage of a technology (Venkatesh, Morris, Davis & Davis, 2003).

A study from Australia linked the use of e-government to demographic variables (Australian Government, 2005). The study found that most users are male (57%), from the age 25 to 49 (66%), and educated highly (65%). Van Dijk (2005) distinguish three different groups in society based on personal factors and internet skills. The first group is the information elite. They are motivated and actively use the digital media. The second group is the electronic middle class. This majority (55%) of the population has access to the digital media, but only using it for a few purposes. The last group are the digital illiterates. About (30%) of the population is part of this group, they are the non-users with no internet access. According to Van Dijk (2005) old people (65+), unemployed people, people with low education, people with low income, disabled and migrants are representing this group.

Elderly and the internet

Recently there have been done research into internet use and internet experience of elderly people. According to the research of Van Deursen and Helsper (2015) internet use is negatively related to age. Elderly men use the internet more hours a day then elderly female. Using the internet to search for information is more likely with high educated elderly (Van Deursen & Helsper, 2015).

The same study also found that elderly between the age of 65 and 70 years old use the internet for more activities than elderly above 75 years old (Van Deursen & Helsper, 2015). The group over 75 years old are also using e-mail not that often. Using internet for searching information is more likely with high educated elderly. Social entertainment is popular among elderly females and playing music and watching videos is more popular among elderly men (Van Deursen & Helsper, 2015).

Van Deursen and Helsper (2015) summarized the most frequently mentioned reasons for not using the internet. These are attitude, feeling too old and a lack of internet experience. Results of their study stated that 43% of elderly who not use the internet do have internet access at home. These non-users are more likely to be female and aged over 75. Elderly non-users who live alone are less likely to have internet access. Van Deursen and Helsper (2015) claim that ‘’a more positive attitude towards the internet is significantly related to having internet access at home amongst non-users’’ (p. 179).

39% of the participants from the non-user group are asking other people to do something online for them. This are most of the time woman and aged over 75 years old. According to Van Deursen and Helsper (2015) people who have a more positive internet attitude are more likely to ask someone else. 87% of the non-users do not have the intention to use the internet. Elderly people over 75 years old are less likely to use the internet in the future. Elderly non-users living not alone are more likely to use the internet. A positive attitude towards the internet results in a higher likelihood of future internet use (Van Deursen & Helsper, 2015).

In conclusion, personal factors and internet experience are important variables to take in consideration for this research into the factors influencing elderly using digital services. Personal factors as gender, age, household and education seem to have an influence on this process.

3.4 Attitude

In different studies analyzing the adoption or use of an technology the variable attitude is taken into a count. A definition of attitude is ‘an individual's overall affective reaction to using a system’ (Venkatesh, et al., 2003). The technology acceptance model (TAM) shows there is a relation between attitude and behavioral intention (Davis, Bagozzi & Warshaw, 1989). Rogers (1962) states in the theory of

diffusions of innovations that the general attitude towards the change an important factor.

There are two different attitudes important for this study. First, the attitude towards using the internet (internet attitude). Van Deursen and Helsper (2015) found that elderly who have a positive image towards the internet spent more time online. This indicates a relationship between internet experience and internet attitude. Second, the attitude towards the digital service. Research shows that attitude has a relation with intention to use or use. Thus, this is also a factor that will be analyzed in this study.

3.5 Awareness

Awareness is the knowledge that something exists (Cambridge Dictionary, 2016). In the theory of diffusions of innovations knowledge is the first face in the adoption process (Rogers, 1962). Also Frambach and Schillewaert (2002) use the variable awareness in their model for organizational innovation adoption. The variable awareness is well-known in the area of branding. Keller (1993) states that 'brand awareness plays an important role in customer decision making' (p. 3).

In more recent studies awareness and the relation with use of technology is not included. According to the writer of this thesis awareness could be an important variable, people must know about the existence of the digital service before they make the decision of using it.

3.6 Research question and conceptual model

As previously stated this research will address the following question: *What are factors influencing the use of elderly people of digital services in the area of public housing in the Netherlands?*

Conceptual model

Elaborating on the literature review, there are different variables that influence the use of digital services by the elderly. These variables are demographic factors for example gender, age, education and household, internet attitude, level of internet experience, channel use (channel types/modes), awareness of the public digital service and the attitude towards the digital service. These variables are visualized in a research model in figure 4.

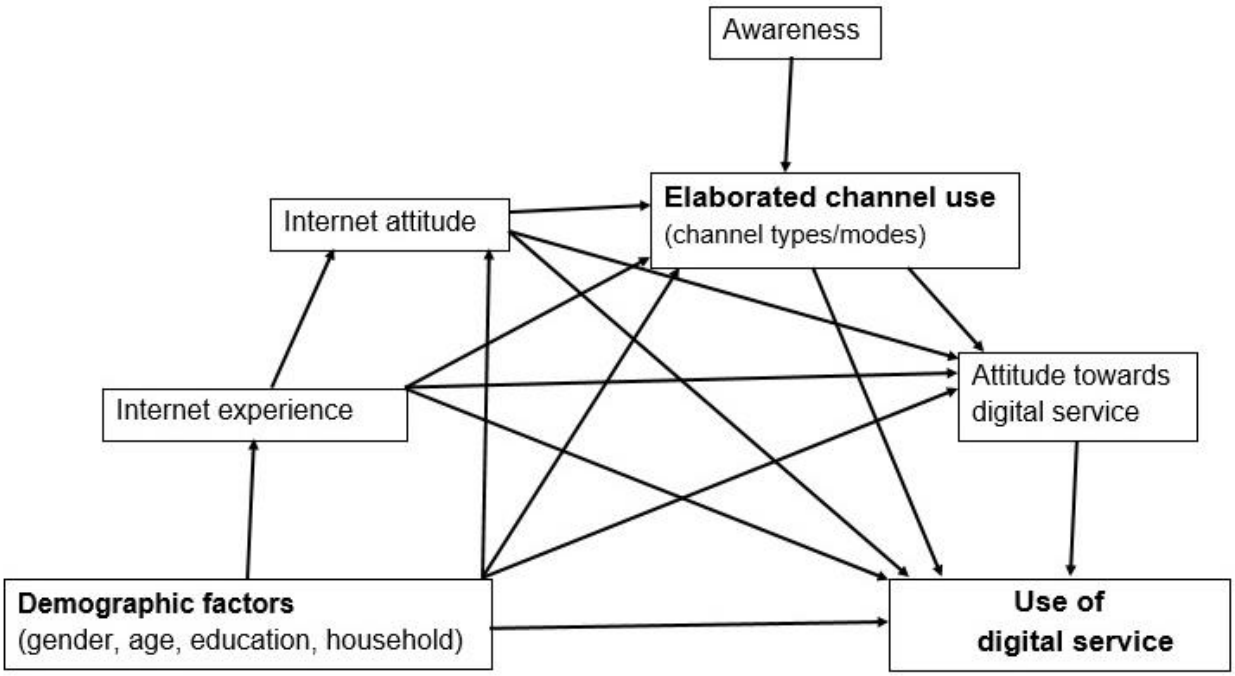


Figure 9: Research model

4. Methods

In this section the research design and methods of the research are introduced. The reliability and validity of the research will also be explained. The response and the demographics of the respondents will be elaborated at last.

4.1 Research design

The research on factors influencing the use of elderly of digital services is an descriptive research. A survey will help to get the right data to examine the research question. This method of study is useful to test theoretical models by using them in real world situations. This survey will be studied for a particular situation. It is a method used to narrow down a very broad field of research into one easily researchable topic, for example in one type of branch. With the results of this branch the researcher tries to generalise the findings.

De Woonplaats

As stated in the research question the public housing area is the scope of this research. The study will be performed in corporation with De Woonplaats, a large housing association in the eastern part of the Netherlands. The elderly users and non-users of their digital service will be the target group for this research. Elderly people are elderly tenants renting a house from De Woonplaats, who are older than 65 years.

Examining the digital service of De Woonplaats might give us an answer to the research question. These findings can be generalized through reliable research to all public housing services from the government or other housing associations. The digital service of De Woonplaats is called Mijn Woonplaats and was launched in October 2015.

In line with other government organisations De Woonplaats is communicating more and more digitally. The main offices in Enschede and Winterswijk will be closed in 2018. From that moment on, tenants can only be in contact with the organization by calling or through the internet. De Woonplaats wants to steer the tenants to their online channels. But can De Woonplaats expects that elderly tenants can perform their tasks online? Or should they facilitate the elderly in some way?

4.2 Procedure

First, there was data gathered through desk research. This data was collected with help of the databases and information of the organisation. Also, there were some interviews with employees of the organization about the subject. With this information a questionnaire was set up. The pre-test found out if elderly (n=3) understood the survey correctly.

This questionnaire was distributed between July and August 2016. 5.101 letters were sent to elderly tenants with the age above 65 years old. Each household with a tenant of 65 years old did get a letter. So, there was no selection of the population. All tenants above 65 years old were in de population. A letter for explaining the research and inviting the people to fill in the survey was included. People could send the questionnaire back for free with a special envelop. An offline survey was the best way to reach elderly people, but people had also the chance to fill in the survey online. The online survey was built in Qualtrics.

The questionnaire had 21 questions on six pages. The survey contained questions about the use and non-use of the digital portal of the housing association. Different constructs were designed to measure the variables of the literature review. The questionnaire contained the following variables: demographic factors (gender, age, education household), level of internet experience, internet attitude, channel choice in different channel modes and in three channel types, awareness of the digital service of De Woonplaats, use of the digital service of De Woonplaats and attitude of the digital service of De Woonplaats. The questionnaire is added in appendix A.

After one month the deadline for handing in the questionnaire was expired. All surveys were entered and processed in SPSS by one researcher. The collected data from the online survey were merged in the same SPSS file. In SPSS some questions needed to be recoded, because of positive and negative formulated questions. After this a factor analysis was conducted. The reliability was calculated with Cronbach's Alpha. SPSS performed a correlation and regression analysis. At last, the research model was tested in SPSS through process models.

4.3 Validity

For a study it is important that the research has sufficient validity. According to Dooley (1984) validity refers to ''the appropriateness, meaningfulness and usefulness of the specific inferences'' (p. 76). In this section the internal validity and external validity of this research will be reported.

Internal validity

Internal validity researches that the independent variable, rather than some other factor, causes the observed change in the dependent variable. There are different threats that can affect the internal validity. In this research the internal validity is good controlled. Time threats, groups threats and mortality threats are not applicable. The research is carried out by one researcher and the whole population was included in the sample.

External validity

With external validity we need to generalize the findings to other populations, places and times. Are the results only applicable for the examined group or to a more general group of people? For this research the sample exists of elderly people (older than 65 years old) living in a house from De Woonplaats. These people live in the eastern part of the Netherlands. There are many public housing associations, just like De Woonplaats. In the Netherlands there are 363 housing associations with 2,4 million houses. De Woonplaats is one of them and not different from other large housing associations, the only difference is the area they are active in. According to Aedes (2012), the branch organization of public housing in the Netherlands, almost one third of all people living in a public home are elderly. They stay longer independent, because associations provide appropriate houses for elderly. 34% of all the tenants renting a house in the public area are elderly older than 65 years old in the Netherlands, this is 713.600 people (CBS, 2012). It could be stated that this research is generalizable for elderly renting a house in the public area in the Netherlands.

4.4 Instruments

For measuring the constructs a Likert scale is being used. Most constructs were measured on a five-point Likert scale. In a Likert scale participants tell how strongly they agree or disagree with a statement. The scale ranges from: strongly agree, agree, neutral, disagree, to strongly disagree. The five-point Likert scale was used for the variables level of internet experience, internet attitude and attitude towards the public digital service. For one question a seven-point Likert scale was used. A seven point Likert scale was used to measure channel use. In different modes participants had the chance to differentiate more with their answers. The scale varied from: very likely, likely, little bit likely, neutral, little bit unlikely, unlikely, very unlikely. A frequency question is asked to measure the construct of use. The constructs were already validated by other researchers for measuring internet attitude and internet experience (Van Deursen & Helsper, 2015) and for channel use (Ebbers & Jansen, 2015).

4.5 Reliability of measurement scales

To test whether the constructs not only are valid but also reliable, a factor analysis and the Cronbach's alpha was calculated in SPSS. In the factor analysis it was tested if the items were measuring the same construct. The results of the factor analysis are shown in appendix C. Table 1 presents an overview of the constructs and scores.

	Number of Items	**Scale**	**Cronbach's α**
Internet experience	9	Five-point Likert scale	0.887
Internet attitude	6	Five-point Likert scale	0.775
Channel choice - website	8	Seven-point Likert scale	0.950
Channel choice - phone	8	Seven-point Likert scale	0.899
Channel choice – front desk	8	Seven-point Likert scale	0.961
Attitude public digital service	5	Five-point Likert scale	0.945

Table 1: Scale construction

All the constructs used in this study have a Cronbach's alpha value above α 0.70, this indicates a high reliability of the measurement items (Dooley, 1984). The construct of front desk channel use has the highest reliability. The lowest reliability is the construct of internet attitude, but with a Cronbach's alpha of 0,775 it is still reliable.

4.6 Response

A total of 5101 letters with questionnaires were sent to the population. A total of 1437 questionnaires were returned, 1360 surveys per post and 77 surveys online. The response rate of this study is 28.2%.

Valid responses

Some questionnaires were filled in by tenants under 65 years or by tenants who did not fill in their age. These responses have been removed from the database to investigate an appropriate audience. The number of valid responses is 1327 questionnaires.

4.7 Participants

The sample characteristics will help to get to know the participants better. Who are they? The demographic factors gender, age, education and household are shown and explained. Table 2 displays the frequencies of gender. Slightly more woman filled in the questionnaire. 738 woman versus 581 man participated in the survey.

	Frequency	Percent
Man	581	44,0%
Woman	738	56,0%
Total	1319	100%

Table 2: Gender

Table 3 and 4 show the distribution of age in the sample. This research only applies for tenants with an age older than 65 years. The minimum age of the participants is 65 years old, the oldest person is 100 years old. The mean age is 77 years old with a standard deviation of 7,4 years. The participants have been divided over three age categories. The first group with people from 65 years till 74 years old is the largest. The second group with people from 75 years till 84 years old is slightly smaller. Approximately the same number of people participated in the first two groups. The last group with people from 85 years till 100 years old is the smallest.

	Minimum	Maximum	Mean	Std. Deviation	Median	Mode
Age	65	100	76,88	7,409	76	70

Table 3: Age

	Frequency	Percent
65 – 74 years old	550	41,4%
75 – 84 years old	532	40,1%
85 – 100 years old	245	18,5%
Total	1327	100%

Table 4: Age categories

Table 5 displays the differences in type of household of the participants. 64,3% of the participants are living alone in a single person household. The second group of 32,5% are the people in the sample who are living together without children. The other groups are a lot smaller, 1,5% of the sample is living together with children and 1,7% is living alone with children.

	Frequency	Percent
Single person	850	64,3%
Living together without children	429	32,5%
Living together with children	20	1,5%
Lone parent	22	1,7%
Total	1321	100%

Table 5: Household

Table 6 shows the differences in education level of the participants. Most people have been going to secondary (lower) school, primary school and lower professional education. 84,9% of the sample was going to the three lowest possible educations, so this sample is mostly lower educated. A small group of 8,6% went to university of applied sciences, 5,9% went to secondary (higher) school and 0,7% went to a university.

	Frequency	**Percent**
Primary school	379	29,2%
Secondary (lower) school	395	30,4%
Lower professional education	328	25,3%
Secondary (higher) school	76	5,9%
University of applied sciences	112	8,6%
University	9	0,7%
Total	1299	100%

Table 6: Education

5. Results

In this section the results of the survey are described and explained. The first method of analyzing is correlation, the Pearson correlations are calculated and shown. The second method is a regression analysis. The regression analysis shows the effect of the independent variables on the dependent variable and the differences between groups. At last, the conceptual model is tested.

5.1 Results

For the researched variables the highlights of the results are given. An extensive overview of the results is elaborated in appendix B.

Internet experience

Internet experience is a construct made of nine questions. These questions are about online activities and frequency of those activities. Different activities are sending an e-mail, searching information, reading the news, using social networks, online banking, booking a holiday, buying something online, using skype or facetime and logging in to an online portal. The answers were given on a five-point Likert scale. In table 7 the score of the construct is displayed. 1088 participants filled in this question. The mean is 1,69 on the five-point Likert scale, so there is a very low internet experience under the tenants older than 65 years old. This view is also shown by the results of the individual questions. 53,0% of the sample has never sent an e-mail, what seems to be one of the easiest activities online. However, 24,7% does send an e-mail daily. A more difficult activity online is logging into an online portal. 77,3% of the people have never done this. In conclusion, there is a big group with no internet experience at all and there is a low internet experience overall.

	N	Minimum	Maximum	Mean	Std. Deviation	Median	Mode
Internet experience	1088	1	5	1,69	0,903	1,00	1
Internet attitude	974	1	5	2,33	0,826	2,33	3

Table 7: Descriptive statistics

Internet attitude

Internet attitude is a construct made of six questions. Six negative or positive formulated statements were the elements of this construct. The attitude towards internet is measured. Statements like ‘everybody should arrange their stuff online’, ‘I am afraid I am losing my independency’ and ‘I think the digitalization is going too fast’ are asked on a five-point Likert scale. In table 7 the descriptive statistics of the construct are displayed. 974 participants filled in the six questions about internet attitude. The mean score is 2,33, this represents a low to neutral attitude towards internet. This is also shown by the results of the individual statements. 39,1% of the elderly agree and 36,4% totally agrees with the statement ‘I am afraid many people cannot handle the online developments’. With the statement ‘I think everyone should arrange their stuff online’ 42,3% totally disagrees and 34,9% disagrees. In conclusion, there is a low to neutral internet attitude under the tenants who are older than 65 years old.

Channel use

The construct channel use contains 24 questions. Three channel types and four channel modes were used for this construct. The three channel types are website, phone and front desk. The four channel modes are consultation, registration, progress and transaction. On a seven-point Likert scale was measured how likely it is that a participant will use a certain channel type. Table 8 shows the results. With the highest mean of 6,01, the phone is most likely to be used by de participants. The second channel is the front desk, with a mean of 3,06 people are not very likely to use this channel. The third channel is the website, with a mean of 2,47 this is the least likely channel to use. In conclusion, the elderly are most likely to use the phone for having contact with the organization.

	N	Minimum	Maximum	Mean	Std. Deviation	Median	Mode
Website	306	1	7	2,47	1,980	1,06	1
Phone	455	1	7	6,01	1,415	7,00	7
Front desk	303	1	7	3,06	2,125	2,50	1

Table 8: Descriptive statistics of channel types

The three channel types were also measured in combination with channel modes. On a seven-point Likert scale was measured how likely it is that a participant will use a certain channel type in a certain channel mode. The four channel modes are consultation, registration, progress and transaction. Every channel mode was measured by two different situations. Table 9 shows the results.

Overall, the highest means were found in the channel type phone in all modes. So, the telephone is the most likely channel to be used by elderly. In the channel mode progress it is the most likely to use the phone with a mean of 6,22. The channel type front desk is in every channel mode the second channel. With the channel mode transaction is the front desk most likely to be used in comparison with the other modes. The channel type website is in every channel mode the least likely to be used. With the channel mode registration is the website most likely to be used in comparison with the other modes.

In conclusion, there are small differences between the different channel types in the different modes. It seems elderly have a preference for the channel type phone no matter what mode they are in. Channel mode seems not to have influence on the choice of channel type.

	N	Minimum	Maximum	Mean	Std. Deviation	Median	Mode
Consultation - website	376	1	7	2,41	2,011	1,00	1
Consultation - phone	590	1	7	5,92	1,593	7,00	7
Consultation - front desk	364	1	7	3,13	2,205	2,50	1

	N	Minimum	Maximum	Mean	Std. Deviation	Median	Mode
Registration - website	420	1	7	2,85	2,204	1,00	1
Registration - phone	644	1	7	5,99	1,468	7,00	7
Registration - front desk	402	1	7	3,00	2,137	2,50	1

	N	Minimum	Maximum	Mean	Std. Deviation	Median	Mode
Progress - website	493	1	7	2,51	2,172	1,00	1
Progress - phone	854	1	7	6,22	1,435	7,00	7
Progress - front desk	488	1	7	2,91	2,272	1,00	1

	N	Minimum	Maximum	Mean	Std. Deviation	Median	Mode
Transaction - website	450	1	7	2,42	2,178	1,00	1
Transaction - phone	691	1	7	5,81	1,931	7,00	7
Transaction - front desk	463	1	7	3,27	2,463	2,50	1

Table 9: Descriptive statistics of channel modes

Awareness of the public digital service
Since the end of 2015 the researched digital service is launched. 1233 participants answered the question if they know the digital service of the housing association. 19,7% of the elderly tenants are familiar with the existing of the digital service. The other group of 80,3% does not know about the existing of the public digital service. In conclusion, the awareness of the digital service is low.

Use of the digital service
People who are aware of the digital service were asked about their use. First was asked how people use the digital service. It is possible to use it as tenant or as house searcher. As a house searcher it is likely that they use it more frequently. 223 participants filled in the question. Most people (91,9%) use the digital service as a tenant, a group of 2,7% use the digital service as a house searcher and 5,4% of the participants use it for both purposes. Second was asked about the frequency of use, 223 persons answered this question. The biggest group of 61,0% uses the digital service several times a year. A group of 31,8% knows the digital service but never uses it. A group of 4,5% uses the service monthly, 1,8% uses the service weekly and 0,9% uses the service daily. In conclusion, if the participant is aware of the service the biggest group use it several times a year.

	N	Minimum	Maximum	Mean	Std. Deviation	Median	Mode
Use digital service	223	1	5	1,79	0,688	2,00	2

Table 10: Descriptive statistics

Attitude towards the digital service

Attitude towards the digital service is a construct made of six statements about the digital service. These six statements were positive formulated, for example 'I think Mijn Woonplaats is easy to use' and 'The next time, under the same circumstances, I use Mijn Woonplaats again'. On a five-point Likert scale the answers were given. In table 10 the scores are displayed. 153 participants filled in this question. The mean is 3,58 on the five-point Likert scale. In conclusion, there is a neutral to positive attitude towards the digital service.

	N	Minimum	Maximum	Mean	Std. Deviation	Median	Mode
Attitude digital service	153	1	5	3,58	0,836	3,80	4

Table 11: Descriptive statistics

5.2 Correlations

The variables were tested whether they correlate with each other. The Pearson correlations are conducted for the variables in the conceptual model. In table 11 the correlations are displayed. The correlation coefficient (r) is a value between 0 and 1. The correlation can be positive or negative. A high value means that the two variables correlates together.

	Correlations											
Constructs	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	1											
2. Age	,16**	1										
3. Household	-,38**	-,11**	1									
4. Education	-,14**	-,17**	,06*	1								
5. Internet experience	-,26**	-,38**	,17**	,40**	1							
6. Internet attitude	-,22**	-,19**	,16**	,22**	,56**	1						
7. Channel use -website	-,26**	-,32**	,19**	,36**	,74**	,70**	1					
8. Channel use – phone	,20**	,22**	-,08	-,19**	-,28**	-,38**	-,30**	1				
9. Channel use - front desk	-,09	-,31**	,07	-,03	,03	-,05	,05	-,00	1			
10. Awareness digital service	-,12**	-,19**	,15**	,12**	,50**	,34**	,52**	-,30**	-,08	1		
11. Use digital service	-,11	-,22**	,09	,07	,32**	,22**	,37**	-,12	-,04	,08	1	
12. Attitude digital service	-,03	-,14	,07	,03	,20*	,38**	,51**	-,07	-,08	.[c]	,33**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
c. Cannot be computed because at least one of the variables is constant.

Table 12: Correlations

Strong correlation
The highest correlation is between the variables internet experience and channel use of the website (r = 0,74). The correlation is significant at the 0.01 level at, two sided and positive. So a high internet experience correlates with a high website use. Another significant strong correlation is between the constructs of internet attitude and channel use of the website (r = 0,70). A high internet attitude implicates a high website use.

Evident correlation
With a correlation coefficient (r) of 0,56 the variables internet attitude and internet experience are also positive and significant correlated. A high internet attitude means thus a high internet experience. There is a positive correlation between awareness of the digital service and channel use of the website (r = 0,52). A high awareness of the public digital service means a high website use. A positive significant correlation (r = 0,51) is there between attitude towards the digital service and website use. A high attitude towards the digital service implicates a high website use. The variables awareness towards the digital service and internet experience are positive correlated (r = 0,50). A high awareness towards the digital service indicates a high internet experience.

Mild correlation
There is a mild correlation between internet experience and education (r = 0,40), a high internet experience implicates a high education. Another mild correlation is between internet experience and age. This is a negative correlation (r = -0,38), thus internet experience is lower by a higher age. There is also a negative mild correlation between channel use of the phone and internet attitude (r = -0,38). Thus, phone use indicates a low internet attitude. A positive correlation (r = 0,38) exists between attitude towards the digital service and internet attitude. A high attitude towards the digital service implicates a high internet attitude. Another correlation shows that the use of the digital service is higher with a high website use. The correlation between these variables is mild (r = 0,37). With a correlation coefficient (r) of 0,36 the variables website use and education are correlated. A high website use indicates a high education. Other mild correlations are between awareness towards digital service and internet attitude (r = 0,34), between attitude towards digital service and use of digital service (r = 0,33), between use of digital service and internet experience (r = 0,32) and negative between website use and age (r = -0,32)

5.3 Testing assumptions

Before performing a parametric test for the regression analysis, several assumptions have to be met. It is important that the test statistics are normal distributed and independent from each other. In this section these assumptions will be tested. Only interval and scale variables are allowed to be tested for regression analysis.

Skewness

With the skewness level of the variables it can be measured if the test statistics are normal distributed. A skewness level between -1 and 1 means that the variable is normal distributed, if the skewness level is lower than -1 or higher than 1 there is a problem with the normality of the variables. Table 13 shows that there are three constructs in the data that are skewed, website use, phone use and use of the digital service. This indicates these variables are not normal distributed. When these three skewed variables are analyzed there will be a bootstrapped regression preformed. With bootstrapping SPSS takes a sample of the answers who are together normal distributed.

	N	**Skewness**	**Std. Error**	**Result**
Age	1327	0,320	0,067	Normal distributed
Internet experience	974	0,048	0,078	Normal distributed
Internet attitude	1088	0,989	0,074	Normal distributed
Channel use - website	**306**	**1,115**	**0,139**	**Skewed data**
Channel use - phone	**455**	**-1,496**	**0,114**	**Skewed data**
Channel use – front desk	303	0,566	0,140	Normal distributed
Use digital service	**223**	**1,305**	**0,163**	**Skewed data**
Attitude digital service	153	-0,686	0,196	Normal distributed

Table 13: Skewness

Multicollinearity

Before the multiple regression analysis had been done, the multicollinearity is tested. If there is a significant multicollinearity this can threat the multiple regression analysis, because variables are then too highly correlated to each other (Field, 2005). In the variables there is no multicollinearity detected ($R^2 < 0,8$). Also the variance inflation factors (VIF's) were tested. As the VIF's are not bigger than 5, it can be stated that there is no threat for collinearity.

5.4 Simple regression analysis

A linear regression analysis is used to estimate a linear relationship between a dependent variable and one independent variable or predictor. Building on the correlations, different construct will be tested in a simple linear regression to see the exact relationship. Two important constructs, internet experience and usage of the digital service will be further investigated. Because of the skewness of three constructs some tests will be bootstrapped, this will be reported with the results.

Effects on internet experience

With this analysis internet experience is the dependent variable. It will be tested which variables have influence on the internet experience. The simple linear regression is done separately with the variables: age, internet attitude, website use, phone use, front desk use, usage of digital service and attitude towards the digital service. The results are shown in table 14 to 20, and visualised in figure 10 to 16.

The results indicate if there is an relationship between the independent variable (x) and the dependent variable (y). The B and the Beta give direction to the relationship, if this is positive or negative. The p-value shows if the relation is significant. The R square indicates how much the independent variable explains from the dependent variable.

Age

There is a significant negative relationship between age and internet experience. How older the person is how lower the internet experience. Age explains 14,7% of the variable internet experience.

	B	Std. Error B	β	R^2	Sig.
Age	-0,046	0,003	-0,383	0,147	< 0,001

Table 14: Regression between age (x) and internet experience (y)

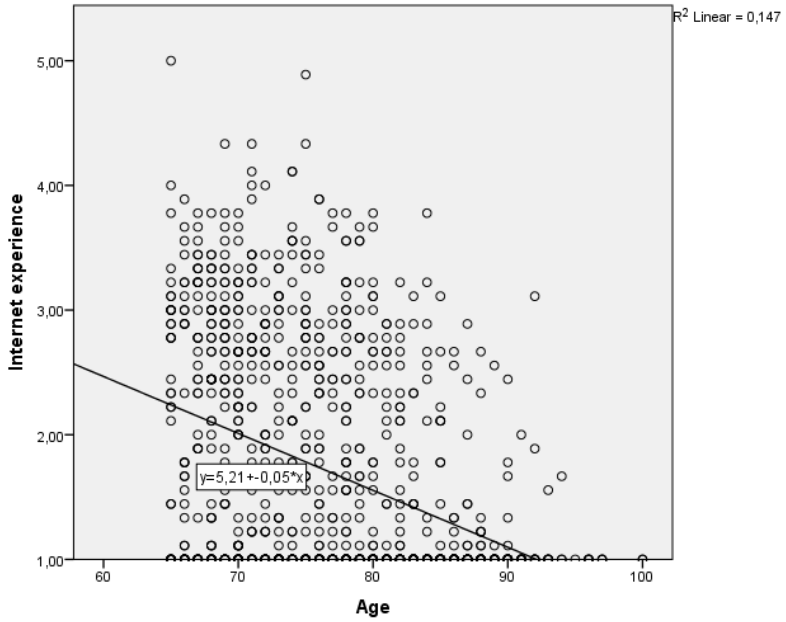


Figure 10: Relationship between age (x) and internet experience (y)

Internet attitude

There is a significant positive relationship between internet attitude and internet experience. How higher the internet attitude of a person is how higher the internet experience. Internet attitude explains 31,2% of the variable internet experience.

	B	Std. Error B	β	R^2	Sig.
Internet attitude	0,615	0,032	0,559	0,312	< 0,001

Table 15: Regression between internet attitude (x) and internet experience (y)

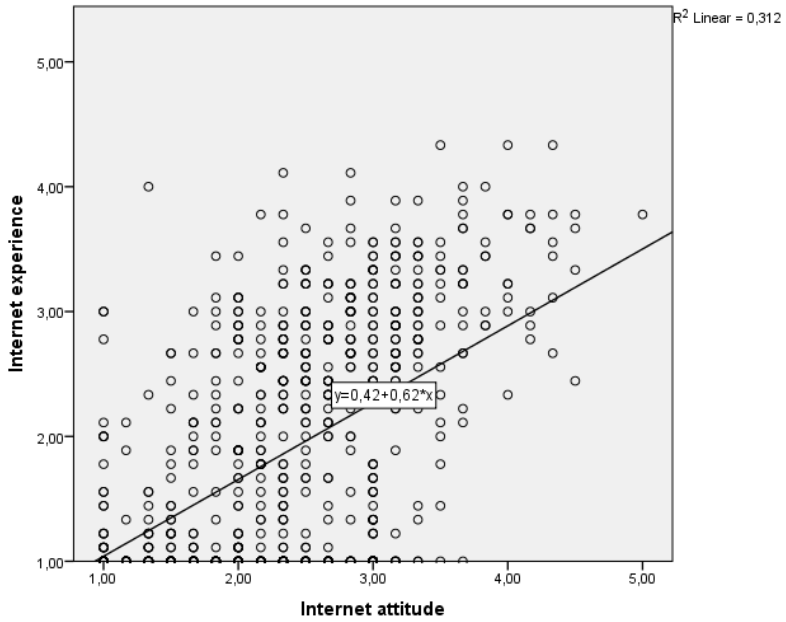


Figure 11: Relationship between internet attitude (x) and internet experience (y)

Website use

This regression is bootstrapped. There is a significant positive relationship between website use and internet experience. How higher the website use of a person is how higher the internet experience. Website use explains 55,3% of the variable internet experience.

	B	Std. Error B	β	R^2	Sig.
Website use*	0,376	0,018	0,743	0,553	0,001
* Regression is bootstrapped					

Table 16: Regression between website use (x) and internet experience (y)

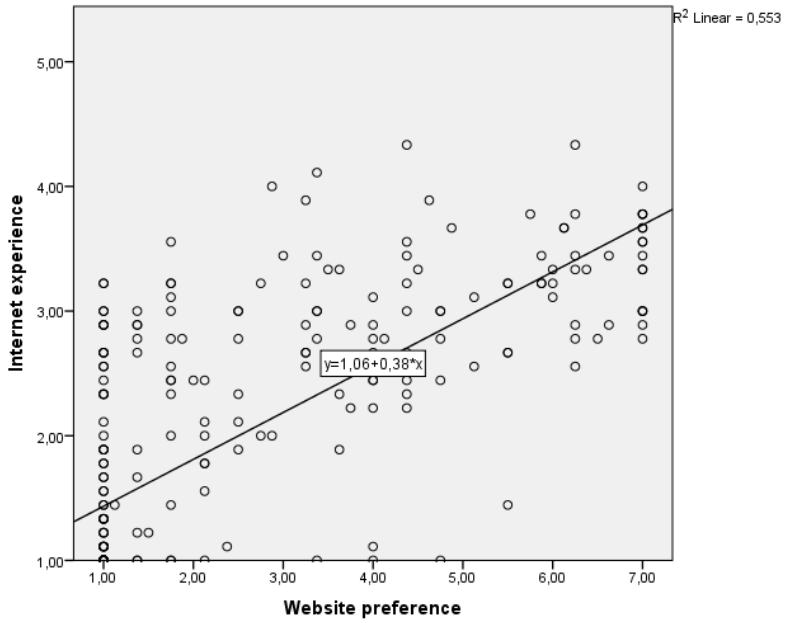


Figure 12: Relationship between website use (x) and internet experience (y)

Phone use
This regression is bootstrapped. There is a significant negative relationship between phone use and internet experience. How higher the phone use of a person is how lower the internet experience. Phone use explains 7,8% of the variable internet experience.

	B	Std. Error B	β	R^2	Sig.
Phone use*	-0,184	0,034	-0,279	0,078	0,001
* Regression is bootstrapped					

Table 17: Regression between phone use (x) and internet experience (y)

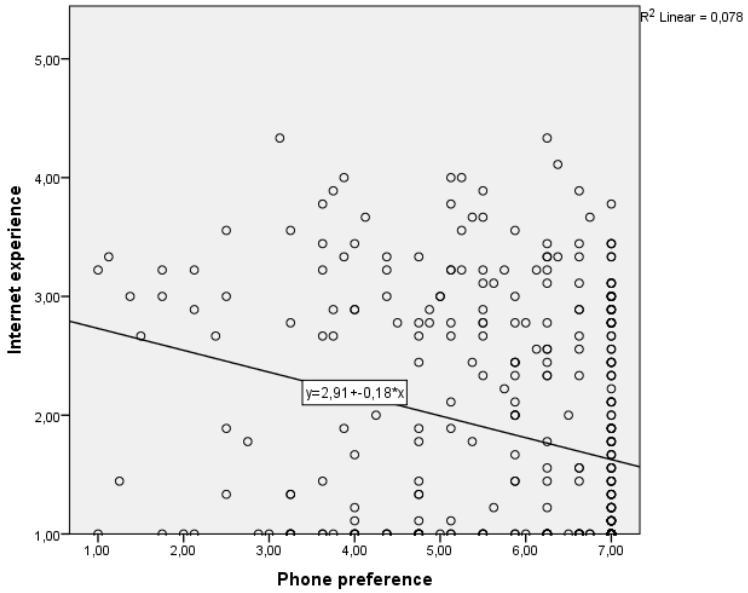


Figure 13: Relationship between phone use (x) and internet experience (y)

Front desk use
There is not a significant relationship between front desk use and internet experience.

	B	Std. Error B	β	R^2	Sig.
Front desk use	0,012	0,028	0,026	0,001	0,668

Table 18: Regression between front desk use (x) and internet experience (y)

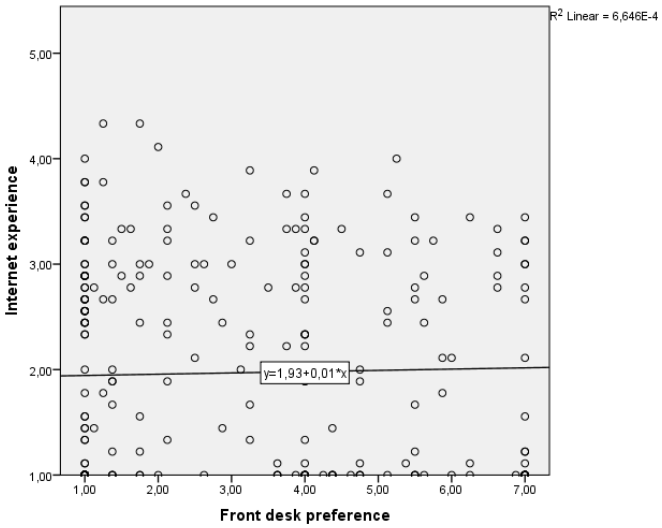


Figure 14: Relationship between front desk use (x) and internet experience (y)

Usage digital service

This regression is bootstrapped. There is a significant positive relationship between usage digital service and internet experience. How higher the usage of a digital service of a person is how higher the internet experience. Usage of a digital service explains 10,4% of the variable internet experience.

	B	Std. Error B	β	R^2	Sig.
Usage digital service*	0,473	0,114	0,323	0,104	0,001
* Regression is bootstrapped					

Table 19: Regression between usage digital service (x) and internet experience (y)

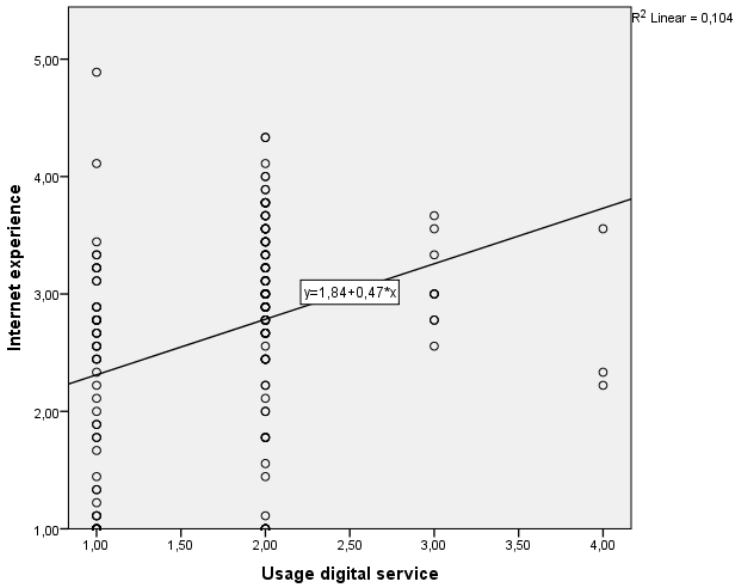


Figure 15: Relationship between usage digital service (x) and internet experience (y)

Attitude digital service

There is a significant positive relationship between attitude digital service and internet experience. How higher the attitude towards a digital service is how higher the internet experience. Attitude towards the digital service explains 3,8% of the variable internet experience

	B	Std. Error B	β	R^2	Sig.
Attitude digital service	0,122	0,054	0,195	0,038	0,025

Table 20: Regression between attitude digital service (x) and internet experience (y)

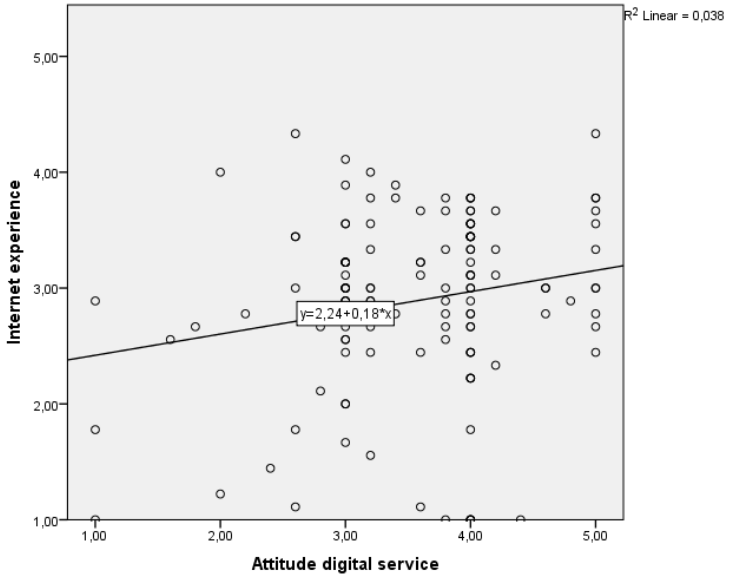


Figure 16: Relationship between attitude digital service (x) and internet experience (y)

Summary of results

From the seven tested variables there are six variables significant predictors for internet experience. The best predictor for internet experience is website use with a R square of 55,3%. Other good predictors for internet experience are internet attitude (31,2%), age (14,7%) and usage of the digital service (10,4%). The least of the six predictors are phone use (7,8%) and attitude towards the digital service (3,8%). Front desk use is not a significant predictor for internet experience.

	Relationship	**Explains**
Website use	Positive	55,3%
Internet attitude	Positive	31,2%
Age	Negative	14,7%
Use digital service	Positive	10,4%
Phone use	Negative	7,8%
Attitude digital service	Positive	3,8%

Table 21: Significant predictors for internet experience

Effects on usage digital service
With this analysis usage of the digital service is the dependent variable and will be tested. The simple linear regression is done separately with the variables: age, internet experience, internet attitude, website use, phone use, front desk use and attitude towards the digital service. All tests are bootstrapped as the dependent variable is skewed. The results are shown in table 22 to 28, and visualised in figure 17 to 23.

The results indicate if there is an relationship between the independent variable (x) and the dependent variable (y). The B and the Beta give direction to the relationship, if this is positive or negative. The p-value shows if the relation is significant. The R square indicates how much the independent variable explains from the dependent variable.

Age
There is a significant negative relationship between age and internet experience. How older the person is how lower the usage of the digital service. Age explains 4,7% of the variable usage digital service.

	B	**Std. Error B**	**B**	**R^2**	**Sig.**
Age*	-0,023	0,007	-0,218	0,047	0,002
* Regression is bootstrapped					

Table 22: Regression between age (x) and usage digital service (y)

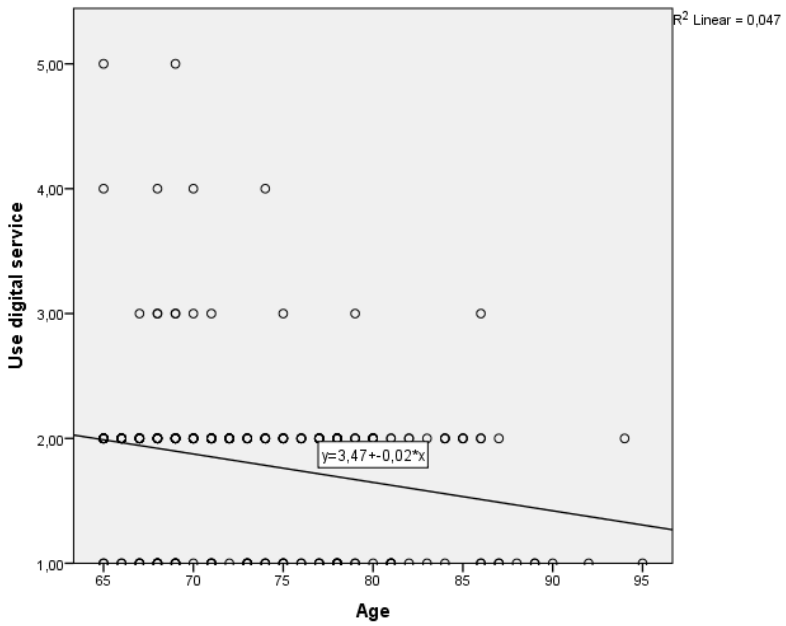


Figure 17: Relationship between age (x) and usage digital service (y)

Internet experience
There is a significant positive relationship between internet experience and usage of the digital service. How higher the internet experience of a person is how higher the usage of the digital service. Internet experience explains 10,4% of the variable usage digital service.

	B	**Std. Error B**	**β**	**R^2**	**Sig.**
Internet experience*	0,221	0,045	0,323	0,104	0,001
* Regression is bootstrapped					

Table 23: Regression between internet experience (x) and usage digital service (y)

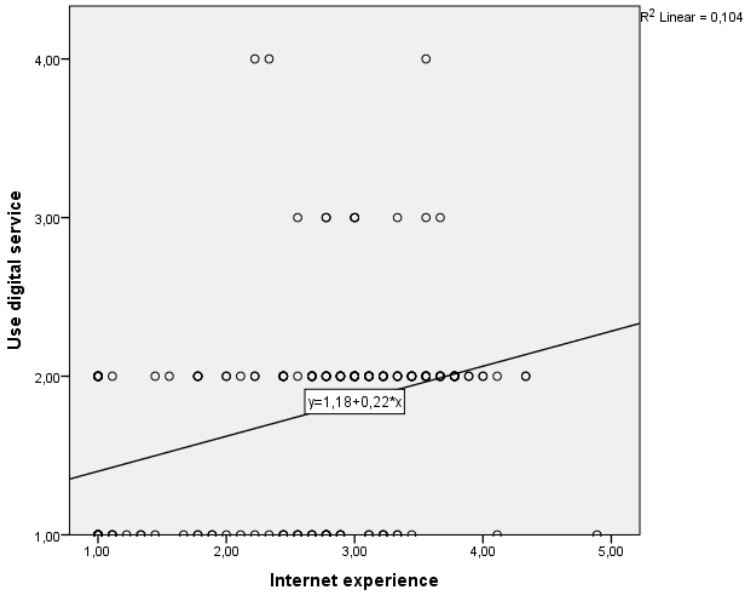


Figure 18: Relationship between internet experience (x) and usage digital service (y)

Internet attitude

There is a significant positive relationship between internet attitude and usage of the digital service. How higher the internet attitude of a person is how higher the usage of the digital service. Internet attitude explains 4,8% of the variable usage digital service.

	B	Std. Error B	β	R^2	Sig.
Internet attitude*	0,191	0,060	0,219	0,048	0,002
* Regression is bootstrapped					

Table 24: Regression between internet attitude (x) and usage digital service (y)

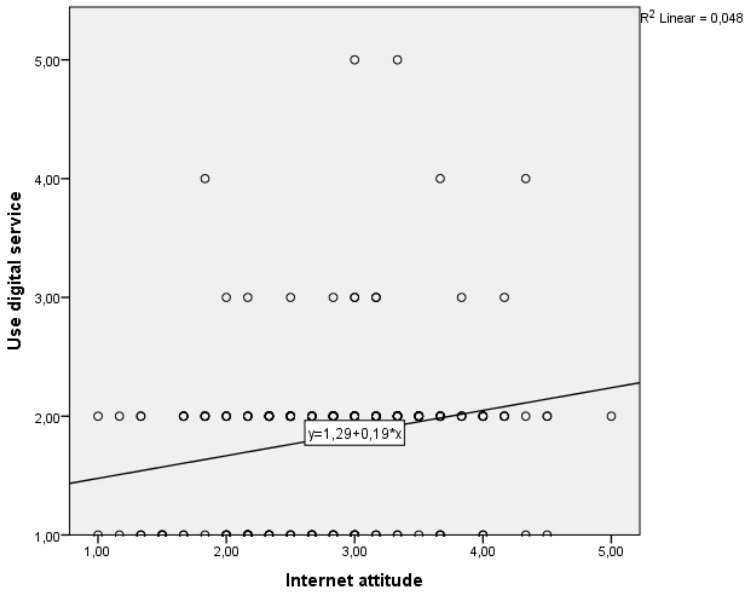


Figure 19: Relationship between internet attitude (x) and usage digital service (y)

Website use
There is a significant positive relationship between website use and usage of the digital service. How higher the website use of a person is how higher the usage of the digital service. Website use explains 13,9% of the variable usage digital service.

	B	Std. Error B	β	R^2	Sig.
Website use*	0,101	0,026	0,373	0,139	0,001
* Regression is bootstrapped					

Table 25: Regression between website use (x) and usage digital service (y)

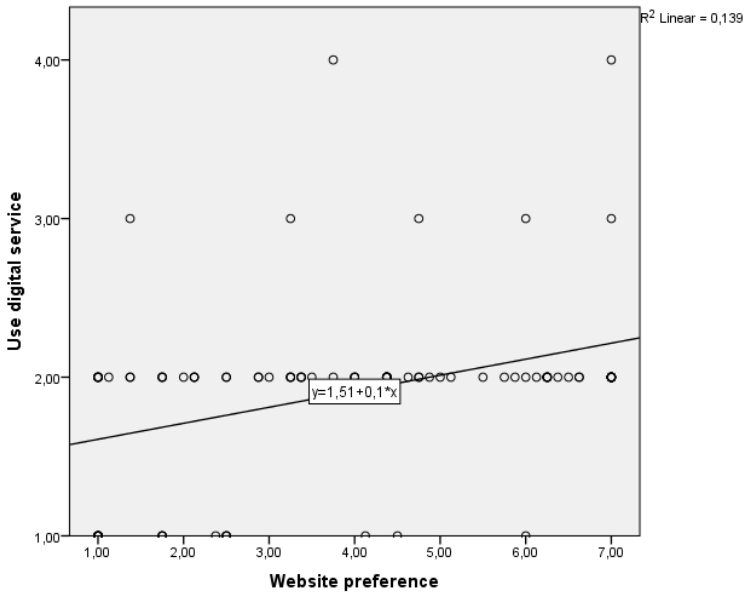


Figure 20: Relationship between website use (x) and usage digital service (y)

Phone use
There is no significant relationship between phone use and usage digital service.

	B	Std. Error B	β	R^2	Sig.
Phone use*	-0,040	0,034	-0,117	0,014	0,241
* Regression is bootstrapped					

Table 26: Regression between phone use (x) and usage digital service (y)

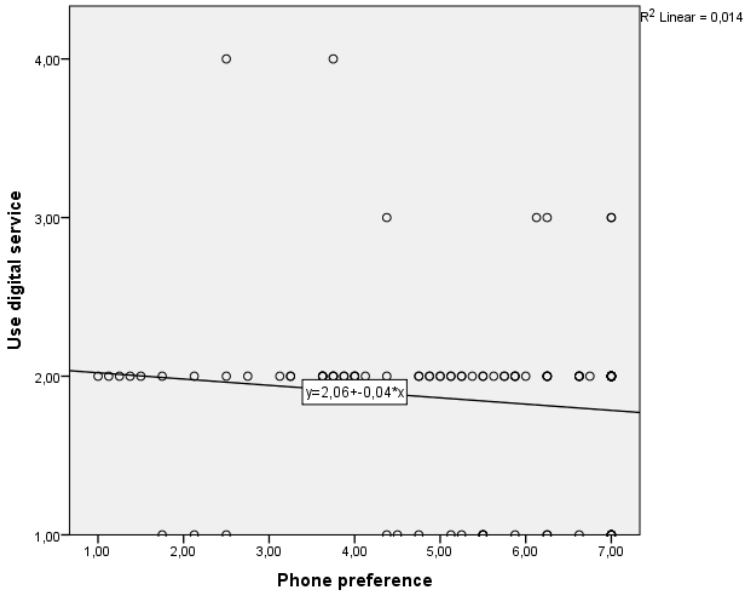


Figure 21: Relationship between phone use (x) and usage digital service (y)

Front desk use

There is no significant relationship between front desk use and usage digital service.

	B	Std. Error B	β	R^2	Sig.
Front desk use*	-0,040	0,034	-0,039	0,002	0,712
* Regression is bootstrapped					

Table 27: Regression between front desk use (x) and usage digital service (y)

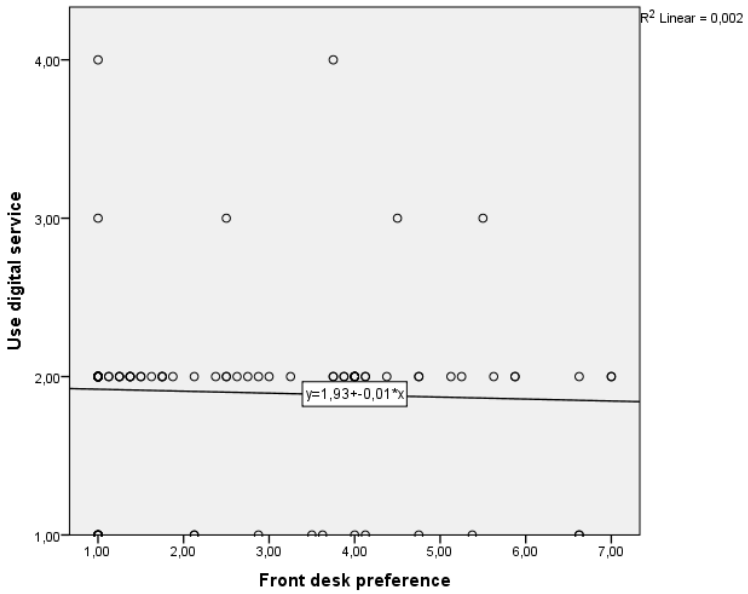


Figure 22: Relationship between front desk use (x) and usage digital service (y)

Attitude digital service

There is a significant positive relationship between attitude towards the digital service and usage of the digital service. How higher the attitude towards the digital service is how higher the usage of the digital service. Attitude digital service explains 11,2% of the variable usage digital service.

	B	Std. Error B	β	R^2	Sig.
Attitude digital service*	0,234	0,067	0,334	0,112	0,002
* Regression is bootstrapped					

Table 28: Regression between attitude digital service (x) and usage digital service (y)

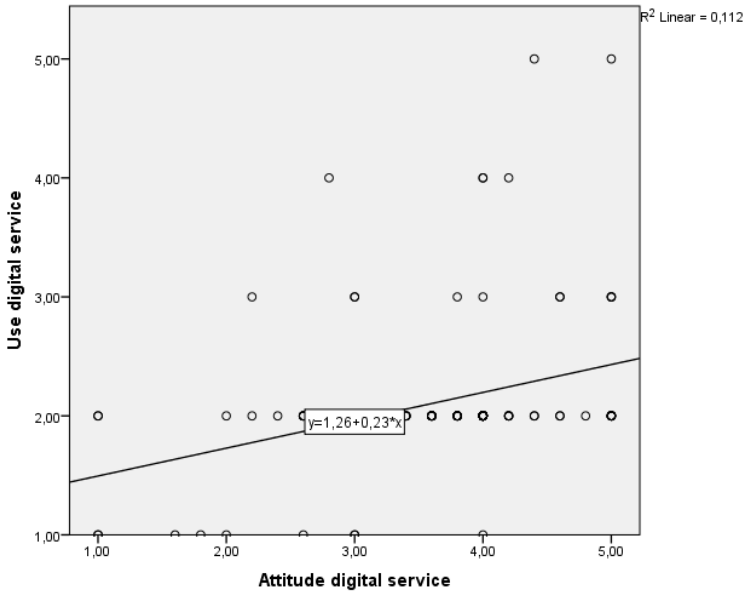


Figure 23: Relationship between attitude digital service (x) and usage digital service (y)

Summary of results
From the seven tested variables there are five variables significant predictors for usage digital service. The best predictor for usage of the digital service is website use with a R square of 13,9%. Other predictors for usage digital service are attitude towards digital service (11,2%), internet experience (10,4%), internet attitude (4,8%) and age (4,7%). Phone use and front desk use are not significant predictors for usage digital service.

	Relationship	**Explains**
Website use	Positive	13,9%
Attitude digital service	Positive	11,2%
Internet experience	Positive	10,4%
Internet attitude	Positive	4,8%
Age	Negative	4,7%

Table 29: Significant predictors for usage digital service

5.5 Effects within and between groups

In this section the effects between the different groups in the sample are further investigated.

Gender

For the three most important constructs it has been tested if there is a difference between gender. This is done through an one way ANOVA-test shown in table 30.

The p-value of internet experience is smaller than the alpha (0,05), we can reject the hypotheses that the internet experience in the groups are equal. This means there is statistical evidence that men have a higher (averaged) internet experience than women. With the variable usage of digital services the test is bootstrapped. Because the p-value is bigger than the alpha, we can accept the hypotheses that man and woman have an equal score in the usage of digital services. For the variable website use the test is bootstrapped. The p-value is smaller than the alpha, we can reject the hypotheses that the website use in the groups are equal. This means there is statistical evidence that men have a higher (averaged) website use than women.

	Gender	**N**	**Mean**	**Std. Deviation**	**Std. Error**
Internet Experience	Man	477	2,43	1,481	0,068
	Woman	604	1,72	1,157	0,047
Use digital Service	Man	128	1,85	0,665	0,059
	Woman	94	1,70	0,716	0,074
Website Use	Man	139	3,03	2,136	0,181
	Woman	167	1,99	1,706	0,132

	Levene statistic	**Sig.**
Internet experience	104,95	< 0,001
Use digital service*	1,27	0,261
Website use*	20,79	< 0,001
* One-way ANOVA is bootstrapped		

		Mean Square	**Sig.**
Internet experience	Between groups	134,34	< 0,001
	Within groups	1,72	
Use digital service*	Between groups	1,21	0,111
	Within groups	0,47	
Website use*	Between groups	82,12	< 0,001
	Within groups	3,66	
* One-way ANOVA is bootstrapped			

Table 30: Gender one-way ANOVA-test

Age

For the three most important constructs it has been tested if there is a difference between age categories. This is done through an ANOVA-test shown in table 31. The Levene's test for homogeneity of variances shows that with internet experience and website use equality of variance is not assumed. For use digital service there is equality of variance, we assume that the variances for the three groups with this variable are equal.

With all the three constructs there is statistical evidence that there is a difference between the age categories. If the p-value is smaller than 0,05 there is conclude with 95% confidence that there is a significant difference between the groups. Looking at the means of the different age categories there can be concluded that the youngest groups have the highest internet experience, usage of digital service and website use. The oldest age categories have the lowest internet experience, usage of digital service and website use.

	Age	**N**	**Mean**	**Std. Deviation**	**Std. Error**
Internet experience	65 – 74 years old	451	2,52	1,471	0,069
	75 – 84 years old	424	1,91	1,273	0,062
	85 – 100 years old	213	1,24	0,638	0,044
Use digital Service	65 – 74 years old	130	1,89	0,759	0,067
	75 – 84 years old	75	1,68	0,524	0,061
	85 – 100 years old	18	1,50	0,618	0,146
Website Use	65 – 74 years old	163	2,96	2,113	0,165
	75 – 84 years old	92	2,23	1,869	0,195
	85 – 100 years old	51	1,32	0,910	0,127

	Levene statistic	**Sig.**
Internet experience	162,62	< 0,001
Use digital service*	0,236	0,790
Website use*	32,81	< 0,001
* One-way ANOVA is bootstrapped		

		Mean Square	**Sig.**
Internet experience	Between groups	124,36	< 0,001
	Within groups	1,61	
Use digital service*	Between groups	1,89	0,018
	Within groups	0,46	
Website use*	Between groups	56,16	< 0,001
	Within groups	3,57	
* One-way ANOVA is bootstrapped			

Table 31: Age one-way ANOVA-test

Education
To get a more clear view whether education level has an influence on the different constructs, the sample is divided into three levels of education: low, middle and high educated. Primary school and secondary (lower) school belong to the group low educated, lower professional education and secondary (higher) school belong to the group middle educated and university of applied sciences and university belong to high educated. The one-way ANOVA-test for education on the three constructs is shown in table 32.

With two of the three constructs there is statistical evidence that there is a difference between the education categories. If the p-value is smaller than 0,05 there is conclude with 95% confidence that there is a significant difference between the groups. The two constructs with a difference are internet experience and website use. There is no difference between the groups with the usage of the digital service. Looking at the means of the different education levels there can be concluded that the low educated group have the lowest internet experience and website use. The high educated have the highest internet experience and website use.

	Education	**N**	**Mean**	**Std. Deviation**	**Std. Error**
Internet experience	Low educated	637	1,65	1,112	0,044
	Middle educated	326	2,55	1,430	0,079
	High educated	102	2,94	1,502	0,149
Use digital Service	Low educated	100	1,78	0,836	0,084
	Middle educated	97	1,81	0,546	0,056
	High educated	25	1,76	0,523	0,105
Website Use	Low educated	167	1,90	1,612	0,125
	Middle educated	98	3,07	2,125	0,215
	High educated	37	3,59	2,253	0,371

	Levene statistic	**Sig.**
Internet experience	48,51	< 0,001
Use digital service*	5,18	0,006
Website use*	16,76	< 0,001
* One-way ANOVA is bootstrapped		

		Mean Square	**Sig.**
Internet experience	Between groups	132,30	< 0,001
	Within groups	1,58	
Use digital service*	Between groups	0,04	0,911
	Within groups	0,48	
Website use*	Between groups	68,03	< 0,001
	Within groups	3,52	
* One-way ANOVA is bootstrapped			

Table 32: Education one-way ANOVA-test

Household
To examine if type of household has an influence on the different constructs, the difference types of household are classified in different groups. The first group are people who are living alone (with or without children) and the second group are people who are living together (with or without children). The one-way ANOVA-test for household on the three constructs is shown in table 33.

With two of the three constructs there is statistical evidence that there is a difference between the type of household. If the p-value is smaller than 0,05 there is conclude with 95% confidence that there is a significant difference between the groups. The two constructs with a difference are internet experience and website use. There is no difference between the groups with the usage of the digital service. Looking at the means there can be concluded that the people living alone have the lowest internet experience and website use. The people living together have the highest internet experience and website use.

	Household	**N**	**Mean**	**Std. Deviation**	**Std. Error**
Internet experience	Living alone	712	1,78	1,229	0,046
	Living together	372	2,52	1,451	0,075
Use digital Service	Living alone	108	1,71	0,698	0,067
	Living together	115	1,86	0,674	0,063
Website Use	Living alone	190	2,05	1,752	0,127
	Living together	116	3,15	2,143	0,199

	Levene Statistic	**Sig.**
Internet experience	53,65	< 0,001
Use digital service*	0,32	0,570
Website use*	14,68	< 0,001
* One-way ANOVA is bootstrapped		

		Mean Square	**Sig.**
Internet experience	Between groups	134,65	< 0,001
	Within groups	1,71	
Use digital service*	Between groups	1,22	0,109
	Within groups	0,47	
Website use*	Between groups	86,53	< 0,001
	Within groups	3,65	
* One-way ANOVA is bootstrapped			

Table 33: Household one-way ANOVA-test

5.6 Multiple regression analysis

A multiple regression analysis was conducted to detect if there is an effect from the different independent variables on the dependent variable. The aim of the research is to see what factors influencing the usage of digital services in the area of public housing in the Netherlands.

Model with usage as dependent variable

In table 34 the multiple regression analysis with the dependent variable use of the digital service is shown. Because of the skewness of some of the variables bootstrapping is performed. The variable of awareness of the digital service has not been taken into consideration as it was not a scale variable. As seen in the simple regression front-desk use and phone use are not a significant predictors for usage digital service. These variables will not be used for the multiple regression analysis.

12,0% of the variability in the usage of digital service among elderly is accounted by the predictors in the model (R^2 = 0,120). One variable is significantly related: Attitude towards the digital service has significant influence on usage, there is a positive relation (β = 0,242, p = 0,045). There is no significant effect found in the regression analysis for age, internet experience, internet attitude and website use.

	B	**Std. Error B**	**β**	**R^2**	**Sig.**
Model use digital service*				**0,120**	
Constant	1,362	0,843			0,117
Age	0,002	0,009	0,025		0,832
Internet experience	0,018	0,068	0,038		0,800
Internet attitude	-0,040	0,065	-0,093		0,553
Website use	0,045	0,029	0,190		0,122
Attitude digital service	0,086	0,042	0,242		0,045
* Multiple regression is bootstrapped					

Table 34: Multiple regression model with usage digital service as dependent variable

5.7 Testing conceptual model

At last, a conceptual model with the different researched variables will be tested. This has been carried out through the application process models in SPSS. Andrew F. Hayes designed 76 different models that can be analyzed. Because of the different variables with a mediated effect, model 6 is chosen for this study. In figure 24 the conceptual diagram of model 6 is shown.

The model is tested as follows: age as independent variable (x), usage of digital service as dependent variable (y), internet experience as first mediator (m_1), internet attitude as second mediator (m_2), website use as third mediator (m_3) and attitude towards digital service as fourth mediator (m_4).

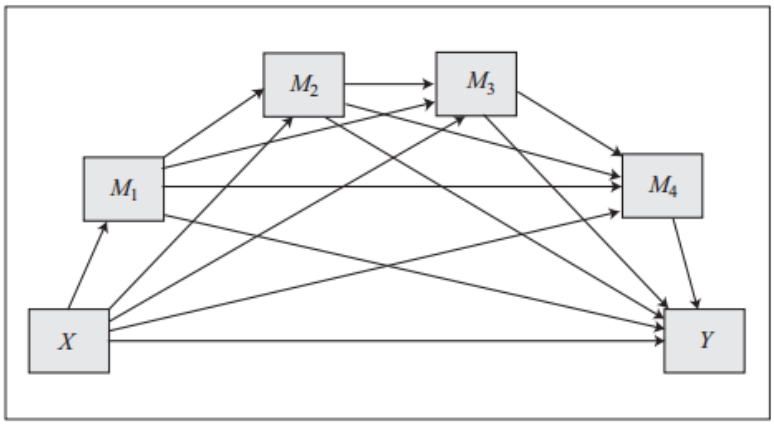


Figure 24: Conceptual diagram of model 6 (Hayes, 2013).

Results

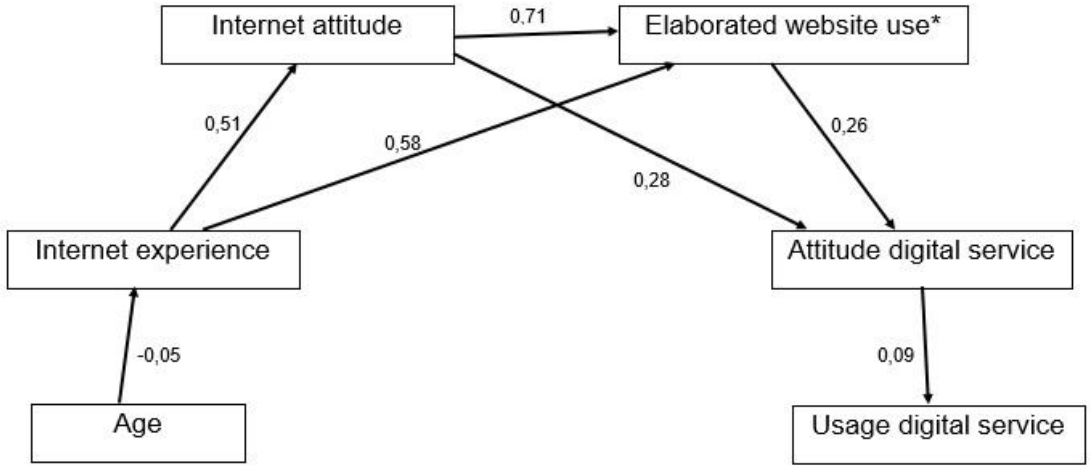
In table 35 the results of the model testing are shown. There are seven relationships significant. These relationships made a model shown in figure 25.

There is no direct effect between the independent and dependent variable found. So, there is no statistical evidence found that age have influence on the usage of a digital service. There is significant evidence found that age influences internet experience, internet experience influences internet attitude and website use, internet attitude influences website use and attitude towards the digital service and attitude towards the digital service influences the use of the digital service.

	B	Std. Error	R^2	t	Sig.	
Total model			**0,0014**			
X (age) → M1 (internet experience)	-0,054	0,019		-2,806	0,006	***
X (age) → M2 (internet attitude)	0,011	0,021		0,528	0,599	-
X (age) → M3 (website use)	0,006	0,034		0,162	0,872	-
X (age) → M4 (attitude digital service)	-0,025	0,024		-1,046	0,299	-
X (age) → Y (use digital service)	0,002	0,010		0,214	0,831	-
M1 (internet experience) → M2 (internet attitude)	0,514	0,117		4,411	< 0,001	***
M1 (internet experience) → M3 (website use)	0,583	0,212		2,748	0,008	***
M1 (internet experience) → M4 (attitude digital service)	-0,038	0,155		-0,245	0,807	-
M1 (internet experience) → Y (use digital service)	0,018	0,624		0,284	0,777	-
M2 (internet attitude) → M3 (website use)	0,709	0,184		3,844	< 0,001	***
M2 (internet attitude) → M4 (attitude digital service)	0,279	0,141		1,987	0,051	*
M2 (internet attitude) → Y (use digital service)	-0,040	0,058		-0,683	0,500	-
M3 (website use) → M4 (attitude digital service)	0,258	0,080		3,244	0,002	***
M3 (website use) → Y (use digital service)	0,046	0,034		1,331	0,187	-
M4 (attitude digital service) → Y (use digital service)	0,086	0,046		1,865	0,066	*
***. Significant at the 0,01 level **. Significant at the 0,05 level *. Significant at the 0,1 level						

Table 35: Results of the process model

Figure 25 shows these significant relationships between the variables. The beta value is reported with the relationship. The strongest relationship is between internet attitude and website use (β = 0,71). Other good relationships are between internet experience and internet attitude (β = 0,51) and between internet experience and website use (β = 0,58). There exists also a relationship that is significant between internet attitude and attitude towards the digital service (β = 0,28) and website use and attitude towards the digital service (β = 0,26). A weak relation is found between age and internet experience (β = -0,05) and attitude towards the digital service and usage digital service (β = 0,09).



* The likelihood in which a user uses the website given a certain task.

Figure 25: Researched model

6. Discussion

The last section of this thesis focuses on the discussion of the results and implications of the study. In order to obtain a clear answer on the research question, the first paragraph provides a short overview of the outcomes and the main findings. The main findings discuss the relation between the different researched variables. The second part of the discussion is devoted to the theoretical and practical implications. The third part concerns the limitations of this study and suggestions for future research and the fourth part is the conclusion.

6.1 Main findings

This study has focused on the factors that influence the usage of elderly of digital services. The factors that have been researched are the level of internet experience, internet attitude, channel use, awareness of the digital service, attitude towards the digital service and demographic factors. The research question was: *What are factors influencing the use of digital services in the area of public housing by elderly people in the Netherlands?*

Overall, the level of internet experience, internet attitude and the usage of the digital service were very low under this population. Elderly people renting a house in the public area are people with very low internet experience. A group of 53% have never sent an e-mail. In four channel modes it was tested what channel was most used by elderly. Results establish the view that elderly are not sensitive for different modes, in every mode the telephone is the most used channel. Channel mode seems not to have influence on the channel choice of elderly.

Correlations show that the construct of website use correlates high with internet experience and internet attitude. So, when elderly are likely to have contact with an organization through their website there is also a high internet experience and internet attitude. Another significant correlation is between the variables internet attitude and internet experience. When elderly have a high internet attitude they are also likely to have a high internet experience. Using the internet affects the attitude towards the internet. Another interesting correlation is with the variable awareness of the digital service. The variables website use and internet experience are significant correlated with awareness. A high awareness of the digital service indicates a high website use and a high internet experience.

Simple regression and the multiple regression show the effects on usage of the digital service. In the simple regression, from the seven tested variables there are five variables significant predictors for using the digital service. The best predictor for usage of the digital service is website use. Other predictors for usage digital service are attitude towards digital service, internet experience, internet attitude and age. Phone use and front desk use are not significant predictors in the simple regression for usage digital service. Multiple regression shows that only one variable is significant indicator for usage of the digital service and that is attitude towards the digital service. 12,0% of the variability in the usage of digital service among elderly is accounted by the analyzed predictors.

Comparisons between different groups in de sample show that elderly men have a significant higher level of internet experience than elderly woman. Men have also a higher website use. The older a person is the lower the level of internet experience gets. There is also a significant difference in education, low educated people have a lower degree of internet experience than high educated people. People who are living alone have a lower level of internet experience than people who are living together.

In the model, processed by SPSS, there is no direct effect found between age and usage of the digital service. There have been found significant relations between internet attitude and website use, internet experience and internet attitude, internet experience and website use, internet attitude and attitude towards the digital service, website use and attitude towards the digital service and age and internet experience.

There are strong relationships between the variables internet experience, internet attitude and website use. It seems when people have a high internet experience they also have a high internet attitude and have contact with an organization through their website. Age has influence on this process, this influence is negative and very low.

The research question was: *What are factors influencing the use of digital services in the area of public housing by elderly people in the Netherlands?* Based on the different analyses it can be stated that website use, attitude towards the digital service, internet experience, internet attitude and age are factors that influence the use of a digital service. Task-related factors are not an indicator for channel choice and use of digital services. Awareness seems to be a significant factor for indicating use, but this variable was only tested by correlation so this cannot be supported.

6.2 Theoretical implications

There have been many studies done on the usage of the internet and the digital divide. This study on the factors that influence the elderly to use a digital service could add some knowledge to this area of research.

This research shows, just as Van Deursen and Van Dijk (2011), that the level of internet experience of many Dutch citizen is worrying and that the digital divide is still reality. Even though more recent research (Van Deursen & Van Dijk, 2015) shows that the degree of internet experience under elderly is increasing, this study can conclude that there are some specific groups where this is still not the case.

In four channel modes it was tested which channel was most used by elderly. Results establish the view that elderly are not sensitive for different modes. It seems habit does play a role, in every mode the telephone is the preferred channel. Thus, channel mode seems not to have influence on the channel choice of elderly. Pieterson (2009) argues the role that habit plays in choosing a channel, ''Citizens primarily act out of their habits; rational elaboration mostly takes places in the second instance'' (p. 246). Using the internet for contacting an organization is not a habit for elderly, this relatively new form of contacting is still too difficult. They act based on habit by choosing the telephone, a well-known channel for contacting an organization. Elderly also appreciate the personal contact with an employee of the organization.

This study supports that personal factors have influence on the channel choice of elderly. Just as Ebbers, Pieterson and Noordman (2008) stated in their model. In this study gender, age, education and household have been analyzed. A more recent study of Ebbers, Jansen, Pieterson and van de Wijngaert (2016) state 'it is very well possible that by now the general demographic gap in channel choice has closed' (p. 7). This research is conducted under people of all ages, and gives a more general view. This gap seems still open for elderly renting a house in the public area, regarding the results of this study.

The results of this study are congruent with the research of Van Deursen and Helsper (2015). Just as found in this study internet experience (internet use in their study) is negatively related to age. Also household is an important indication, people who are living alone have lower internet experience. Van Deursen and Helpser (2015) found that elderly who have a positive image towards the internet spent more time online, this relation is also found in this study between internet experience and internet attitude. A higher internet experience indicates a high internet attitude and vice versa. Elderly between the age of 65 and 70 years old use the internet for more activities than elderly above 75 years old (Van Deursen & Helsper, 2015). This study found that the older the respondent got the lower the level of internet experience was.

6.3 Practical implications

This research has several practical implications for organizations in business and government with a digital service. More and more organizations are digitalizing. Where a couple of years ago every form had to be filled in on paper, nowadays this is not the case anymore. With the rise of the internet and digital services all tasks and communications with an organization can be done online. This have several benefits for organizations. Most important are the costs. Expensive employees are less needed in customer contact. Other benefits are effectiveness (24/7 delivery, greater reach of services), coordination (service integration) and democratization (eParticipation). This shift from paper to online is still taking place. More and more organizations make their service only available online.

An important implication for these organizations is that they are shutting a group of people out of their services. As this research found that elderly, and especially elderly who are not high educated and living alone, cannot perform tasks online independently. Organizations must not think light about reaching everyone through online channels. This is still not the case and this problem will also not

disappear in de coming year, although it will decrease. Especially for government it is important to reach all citizens for a good policy effectiveness (Pieterson, Ebbers & van Dijk, 2007). They need to take in account that elderly citizens are hardly to reach through online channels. They have to keep it possible in some way to communicate through traditional channels such as telephone or a front desk.

Another practical implication is about the most important traditional channel for elderly the telephone. This research shows there is a massive group of elderly who prefer to have contact with the organization by phone. This is a possibility for organizations who wants to work more effective. A very small group would like to make contact through the front desk. If an organization wants to reduce costs the front desk can maybe be closed, because elderly attach more value to call an organization.

A last more commercial implication for business is that apparently a group elderly does not have a sufficient level of internet experience to perform tasks online. Some of these elderly are not willing to learn this, but there is also a group of elderly who do want to learn more about internet. Organizations can supply this help for the elderly. This could raise the customer satisfaction of elderly, to give them that little extra attention. In addition, the elderly that have been helped with their performing tasks online can communicate more digitally. This will decrease the mismatch between how organizations wants to communicate and how elderly prefer it.

6.4 Limitations and suggestions for future research

This research was developed and analyzed with care, but there are a few limitations which might have influenced the results.

First, in the analyzation phase of this research it came to light that some constructs contained skewed data. The skewness level of the variables measures if the test statistics are normal distributed. Three skewed variables were found. These were analyzed with a bootstrapped test. With bootstrapping SPSS takes a sample of the answers who are together normal distributed. The data is probably skewed because of the specific character of the sample. The elderly filling in the questionnaire all felt the same about the different questions. The results show this, but it is still a limitation as most statistic tests were bootstrapped.

Second, awareness is a variable that was analyzed. Unfortunately this question was not a scale variable, but only a nominal variable. This is why the variable have been left out of the regression analysis and model testing. As the variable had a high potential with the correlation, this variable should certainly be taken into account for future research. This also counts for habit, as it was not taken in consideration for this study, but results show that it seems that elderly choose a channel based on habit.

Third, another limitation of the research is that the response could be affected by people who did not understand the questionnaire. For instance, people that are originally a foreigner and do not read or speak Dutch well or people that have a low literacy level. These people are probability inside the population, but did not fill in the questionnaire. This could mean that the level of internet experience are even lower if this group was taken into account.

Fourth, it could be seen as a limitation that this study only examined one housing association in the branch. But as stated in the external validity housing associations are not very different from each other. 34% of all the tenants renting a house in the public area are elderly older than 65 years old, this is 713.600 people (CBS, 2012). It could be stated that this research is generalizable for elderly renting a house in the public area in the Netherlands.

For future research it could be interesting to perform this research with different other groups of society to see if this population is different from other groups. Think about elderly who have their own house, would these elderly have better a better level of internet experience? And how well are the degree of internet experience of younger people renting a house in the public area, are these lower than the people who rent a house privately? For a housing association just like the one is this study this could be interesting information about the use of the digital service and the level of internet experience of their tenants. This could be taken in consideration for their future plans for digitalization.

6.5 Conclusion

This study focused on the factors that influence the use of digital services in the area of public housing by elderly in the Netherlands. Age, internet experience, internet attitude and website use influence the use of digital services.

Results show that the level of internet experience of this group elderly people is worrying and that the digital divide is thus still reality. Even though other research shows that the level of internet experience is increasing also under elderly, this study shows there are some specific groups where this is still not the case. Not task-related factors but habit seems to have an influence on elderly with channel choice.

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Appendix A: Questionnaire

Vragenlijst

Deze vragenlijst heeft 21 vragen. Op een vraag kunt u één antwoord geven, tenzij achter de vraag vermeld staat dat er meerdere antwoorden mogelijk zijn. Het invullen duurt maximaal 10 minuten en is volledig anoniem. Alvast hartelijk bedankt voor uw medewerking.

Vraag 1: Wat is uw geslacht?

- O Man
- O Vrouw

Vraag 2: Wat is uw leeftijd?

_____ jaar

Vraag 3: Wat is uw gezinssamenstelling op dit moment?

- O Eenpersoons huishouden
- O Samenwonend, (al dan niet getrouwd) zonder kinderen
- O Samenwonend, (al dan niet getrouwd) met kinderen
- O Eenouder-huishouden
- O Anders, namelijk _____

Vraag 4: Wat is uw hoogst genoten opleiding?

- O Basisonderwijs / lagere school
- O LBO / VBO / VMBO
- O Middelbaar beroepsonderwijs (MBO)
- O Hoger voortgezet onderwijs (Havo of VWO)
- O Hoger beroepsonderwijs (HBO)
- O Wetenschappelijk onderwijs (Universiteit)

Vraag 5: De volgende vragen gaan over de manier waarop u internet gebruikt. Dit kan zowel vanaf een computer, tablet of mobiel zijn. Hoe vaak gebruikt u het internet voor de volgende zaken? Kruis het vakje van uw keuze aan.

	Nooit	Enkele keren per jaar	Maandelijks	Wekelijks	Dagelijks
E-mail					
Informatie zoeken via zoekmachines zoals Google					
Het nieuws lezen					
Sociale netwerksites zoals Facebook					
Online bankieren					
Een reis of vakantie boeken					
Iets kopen bij een webwinkel					
Online telefoneren met Skype of Facetime					
Inloggen op een 'mijn omgeving' zoals Mijn NS of Mijn Wehkamp					

Vraag 6: Stel u moet iets online regelen of doorgeven, heeft u hier hulp bij nodig?

- O Nee, ik kan dit alleen (ga door naar vraag 8)
- O Af en toe vraag ik hulp
- O Ja, ik ben afhankelijk van mensen die mij helpen op het internet

Vraag 7: Wie helpt u bij het regelen of doorgeven van zaken op het internet?

Er zijn meerdere antwoorden mogelijk.

- ☐ Mijn partner (waarmee u samenwoont)
- ☐ Een vriend of vriendin
- ☐ Zoon of dochter
- ☐ Kleinzoon of kleindochter
- ☐ Broer of zus
- ☐ Buurman of buurvrouw
- ☐ Anders, namelijk _____

Vraag 8: Steeds meer bedrijven communiceren uitsluitend digitaal met haar klanten. Ook De Woonplaats doet steeds meer digitaal. Geef per stelling aan in hoeverre u hier eens of oneens mee bent. Kruis het vakje van uw keuze aan.

	Helemaal mee oneens	Oneens	Neutraal	Eens	Helemaal mee eens
Ik vind het handig om zaken bij De Woonplaats online te regelen.					
Ik vind het goed dat De Woonplaats steeds meer digitaal doet.					
Ik vind dat de digitalisering veel te snel gaat.					
Ik ben bang dat veel mensen de ontwikkelingen niet bij kunnen houden.					
Ik vind dat iedereen zijn zaken digitaal moet regelen.					
Ik ben bang dat ik mijn zelfstandigheid kwijtraak.					

Vraag 9: Wanneer hebt u voor het laatst contact gehad met De Woonplaats? Dit kan ook via de website of telefonisch zijn geweest.

- O In de afgelopen maand
- O In het afgelopen jaar
- O In de afgelopen 2 jaar
- O In de afgelopen 3 jaar
- O In de afgelopen 5 jaar
- O Langer dan 5 jaar geleden

Vraag 10: Op welke manier had u het meest recente contact met De Woonplaats?

- O Website bezoeken
- O Bellen
- O Woonwinkel bezoeken
- O Huismeester bezoeken
- O E-mail
- O Post
- O Twitter

Vraag 11: Waarvoor nam u contact op met De Woonplaats?

- O Ik maakte een afspraak
- O Ik vroeg iets aan of gaf iets door (bijv. reparatieverzoek)
- O Ik was opzoek naar informatie
- O Ik wilde weten hoe ik iets moest doorgeven of aanvragen
- O Ik wilde graag weten hoe het met een aanvraag of melding stond
- O Ik was iets aan het betalen
- O Anders, namelijk _____

Vraag 12: Stel u wilt contact opnemen met De Woonplaats, geef per situatie aan hoe waarschijnlijk het is dat u contact opneemt met De Woonplaats via de website, telefoon of woonwinkel. Kruis het vakje van uw keuze aan op de zevenpuntsschaal.

a) Ik ben op zoek naar informatie over een verandering aan mijn woning.

	Zeer onwaarschijnlijk			Neutraal			Zeer waarschijnlijk
Website							
Telefoon							
Woonwinkel							

b) Ik wil weten hoe ik medehuurderschap kan aanvragen.

	Zeer onwaarschijnlijk			Neutraal			Zeer waarschijnlijk
Website							
Telefoon							
Woonwinkel							

c) Ik wil een reparatieverzoek indienen.

	Zeer onwaarschijnlijk			Neutraal			Zeer waarschijnlijk
Website							
Telefoon							
Woonwinkel							

d) Ik wil mij als woningzoekende registreren bij De Woonplaats.

	Zeer onwaarschijnlijk			Neutraal			Zeer waarschijnlijk
Website							
Telefoon							
Woonwinkel							

e) Ik wil graag weten wat de stand van zaken is van een doorgegeven klacht.

	Zeer onwaarschijnlijk			Neutraal			Zeer waarschijnlijk
Website							
Telefoon							
Woonwinkel							

f) Ik wil graag weten wanneer er onderhoud aan mijn woning wordt gepleegd.

	Zeer onwaarschijnlijk			Neutraal			Zeer waarschijnlijk
Website							
Telefoon							
Woonwinkel							

g) Ik wil de huur betalen voor afgelopen maand, omdat dit niet gelukt is via automatische incasso.

	Zeer onwaarschijnlijk			Neutraal			Zeer waarschijnlijk
Website							
Telefoon							
Woonwinkel							

h) Ik moet betalen voor een aangevraagde verandering in mijn huurwoning.

	Zeer onwaarschijnlijk			Neutraal			Zeer waarschijnlijk
Website							
Telefoon							
Woonwinkel							

Vraag: 13: Sinds eind 2015 heeft De Woonplaats een klantportaal 'Mijn Woonplaats' waar u gemakkelijk en snel veel zaken online kunt regelen. Bent u bekend 'Mijn Woonplaats'?

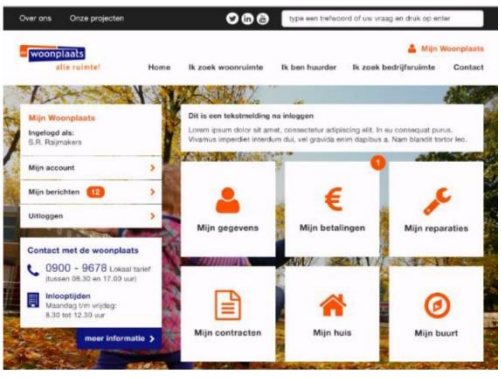
- O Ja
- O Nee (ga door naar vraag 17)

Vraag: 14: Hoe gebruikt u Mijn Woonplaats?

- O Als huurder
- O Als woningzoekende
- O Beide

Vraag 15: Hoe vaak gebruikt u Mijn Woonplaats?

- O Nooit (ga naar vraag 17)
- O Enkele keren per jaar
- O Maandelijks
- O Wekelijks
- O Dagelijks



Schermafbeelding van Mijn Woonplaats

Vraag 16: De volgende vragen gaan over uw mening over Mijn Woonplaats. Geef per stelling aan in hoeverre u het hier eens of oneens mee bent. Kruis het vakje van uw keuze aan.

	Helemaal mee oneens	Oneens	Neutraal	Eens	Helemaal mee eens
In Mijn Woonplaats kon ik gemakkelijk vinden wat ik zocht.					
Ik vond Mijn Woonplaats gemakkelijk om te gebruiken.					
De volgende keer, in een vergelijkbare situatie, bezoek ik weer Mijn Woonplaats.					
Ik vond Mijn Woonplaats prettig om te gebruiken.					
Het kostte me weinig moeite om mijn doel via Mijn Woonplaats te bereiken.					

Vraag 17: Bent u van plan het komende jaar Mijn Woonplaats te gebruiken?

- O Ja
- O Nee (ga door naar vraag 19)

Vraag: 18: Waarom bent u wel van plan Mijn Woonplaats te gebruiken?

Er zijn meerdere antwoorden mogelijk.

Ga na het beantwoorden van deze vraag door naar vraag 21

- □ Het is gemakkelijk
- □ Het is sneller
- □ Geen kosten
- □ Anders namelijk _____
  _____

Vraag 19: Waarom bent u niet van plan Mijn Woonplaats te gebruiken?

Er zijn meerdere antwoorden mogelijk.

- □ Omdat ik het niet kan (bijv. geen computer / geen internetervaring)
- □ Omdat ik graag persoonlijk contact wil
- □ Omdat ik niet direct antwoord krijg
- □ Omdat ik het niet veilig vind
- □ Anders namelijk _____
  _____

Vraag 20: Wat kan De Woonplaats doen om u wel gebruik te laten maken van Mijn Woonplaats?

Er zijn meerdere antwoorden mogelijk.

- □ Een cursus aanbieden
- □ Het gebruik van Mijn Woonplaats belonen
- □ Een medewerker die mij stap voor stap helpt
- □ Anders namelijk _____
  _____

Appendix B: Overview of results

This section will give an overview of all the results on the questions in the survey.

Demographic factors

The first questions were about the demographics of the participants. Gender, age, education level and type of household are measured.

	Frequency	Percent
Man	581	44,0%
Woman	738	56,0%
Total	1319	100%

Table 37: Gender

	Minimum	Maximum	Mean	Std. Deviation
Age	65	100	76,88	7,409

Table 38: Age

	Frequency	Percent
65 – 74 years old	550	41,4%
75 – 84 years old	532	40,1%
85 – 100 years old	245	18,5%
Total	1327	100%

Table 39: Age categories

	Frequency	Percent
Single person	850	64,3%
Living together without children	429	32,5%
Living together with children	20	1,5%
Lone parent	22	1,7%
Total	1321	100%

Table 40: Household

	Frequency	Percent
Primary school	379	29,2%
Secondary (lower) school	395	30,4%
Lower professional education	328	25,3%
Secondary (higher) school	76	5,9%
University of applied sciences	112	8,6%
University	9	0,7%
Total	1299	100%

Table 41: Education

Internet experience

The second section of the questionnaire measured internet experience of the participants. On a five-point Likert scale the frequency of activities online was filled in. Below the answers to all the nine activities are showed and at last all the activities in one table.

	Frequency	Percent
Never	645	53,0%
Several times a year	80	6,6%
Monthly	50	4,1%
Weekly	142	11,7%
Daily	301	24,7%
Total	1218	100%

Table 42: Sending an e-mail

	Frequency	Percent
Never	654	53,3%
Several times a year	109	8,9%

Monthly	85	6,4%
Weekly	215	16,2%
Daily	164	12,4%
Total	1227	100%

Table 43: Searching information

	Frequency	Percent
Never	778	64,7%
Several times a year	67	5,6%
Monthly	25	2,1%
Weekly	88	7,3%
Daily	245	20,4%
Total	1203	100%

Table 44: Reading the news

	Frequency	Percent
Never	898	74,3%
Several times a year	20	1,7%
Monthly	26	2,2%
Weekly	72	6,0%
Daily	192	15,9%
Total	1208	100%

Table 45: Using social network sites

	Frequency	Percent
Never	757	62,2%
Several times a year	39	3,2%
Monthly	123	10,1%
Weekly	208	17,1%
Daily	90	7,4%
Total	1217	100%

Table 46: Online banking

	Frequency	Percent
Never	1032	85,6%
Several times a year	157	13,0%
Monthly	6	0,5%
Weekly	2	0,2%
Daily	8	0,7%
Total	1205	100%

Table 47: Booking a holiday

	Frequency	Percent
Never	959	79,1%
Several times a year	209	17,2%
Monthly	35	2,9%
Weekly	3	0,2%
Daily	6	0,5%
Total	1212	100%

Table 48: Buying from a webshop

	Frequency	Percent
Never	1060	87,6%
Several times a year	60	5,0%
Monthly	32	2,6%
Weekly	46	3,8%
Daily	12	1,0%
Total	1210	100%

Table 49: Online calling

	Frequency	Percent
Never	944	77,3%
Several times a year	143	11,7%
Monthly	76	6,2%
Weekly	44	3,6%
Daily	14	1,1%
Total	1221	100%

Table 50: Logging in to a portal

	Sending an e-mail	Searching information	Reading the news	Using social networks sites	Online banking	Booking a holiday	Buying from a webshop	Online calling	Logging in to a portal
Never	645	654	778	898	757	1032	959	1060	944
	53,0%	**53,3%**	**64,7%**	**74,3%**	**62,2%**	**85,6%**	**79,1%**	**87,6%**	**77,3%**
Several times a year	80	109	67	20	39	157	209	60	143
	6,6%	**8,9%**	**5,6%**	**1,7%**	**3,2%**	**13,0%**	**17,2%**	**5,0%**	**11,7%**
Monthly	50	85	25	26	123	6	35	32	76
	4,1%	**6,9%**	**2,1%**	**2,2%**	**10,1%**	**0,5%**	**2,9%**	**2,6%**	**6,2%**
Weekly	142	215	88	72	208	2	3	46	44
	11,7%	**17,5%**	**7,3%**	**6,0%**	**17,1%**	**0,2%**	**0,2%**	**3,8%**	**3,6%**
Daily	301	164	245	192	90	8	6	12	14
	24,7%	**13,4%**	**20,4%**	**15,9%**	**7,4%**	**0,7%**	**0,5%**	**1,0%**	**1,1%**

Table 51: Internet experience

Online independency

Two questions in the questionnaire had the subject online independence. The first question measures if the participant is independent if he or she has to arrange something online. The second question was asked to the people who are not independent online. This question was about who the person is that they ask to help them online.

	Frequency	Percent
I am independent online	266	24,4%
Sometimes I ask for help	261	24,0%
I am dependent of other people who help me online	562	51,6%
Total	1089	100%

Table 52: Online independency

	Frequency	Percent
My partner (living together)	46	4,9%
A friend	71	7,6%
Son or daughter	569	61,2%
Grandson or daugther	103	11,1%
Brother or sister	25	2,7%
Neighbour	36	3,9%
Different, namely	80	8,6%
Total	930	100%

Table 53: Person that helps

People that filled in different namely said these people help them to arrange stuff online. The answers are categorized in six different kind of people.

	Frequency
Elderly union / FNV	4
A friend (dutch: een kennis)	5
Personal mentor / home care	28
Nobody	26
Family	13
Computer expert	4
Total	80

Table 54: Person that helps

Internet attitude
Internet attitude is a construct made of six questions. Six negative or positive formulated statements were the elements of this construct. Below the answers to the six statements are showed.

	Frequency	Percent
Strongly disagree	378	36,3%
Disagree	236	22,6%
Neutral	256	24,6%
Agree	109	10,5%
Strongly agree	63	6,0%
Total	1042	100%

Table 55: I think it is useful to arrange my stuff online with De Woonplaats

	Frequency	Percent
Strongly disagree	313	30,6%
Disagree	225	22,0%
Neutral	296	29,0%
Agree	130	12,7%
Strongly agree	58	5,7%
Total	1022	100%

Table 56: I think it good that De Woonplaats works more digital

	Frequency	Percent
Strongly disagree	117	11,3%
Disagree	91	8,8%
Neutral	224	21,6%
Agree	320	30,9%
Strongly agree	284	27,4%
Total	1036	100%

Table 57: I think the digitization is going too fast

	Frequency	Percent
Strongly disagree	104	9,9%
Disagree	49	4,7%
Neutral	123	11,7%
Agree	412	39,2%
Strongly agree	364	34,6%
Total	1052	100%

Table 58: I am afraid that many people cannot keep up with the developments

	Frequency	Percent
Strongly disagree	438	43,2%
Disagree	354	34,9%
Neutral	171	16,9%
Agree	30	3,0%
Strongly agree	21	2,1%
Total	1014	100%

Table 59: I think that everybody should arrange their stuff online

	Frequency	Percent
Strongly disagree	130	12,6%
Disagree	175	17,0%
Neutral	265	25,8%
Agree	227	22,1%
Strongly agree	232	22,5%
Total	1029	100%

Table 60: I am afraid I am losing my independency

	I think it is useful to arrange my stuff online with De Woonplaats	I think it good that De Woonplaats works more digital	I think the digitization is going too fast	I am afraid that many people cannot keep up with the developments	I think that everybody should arrange their stuff online	I am afraid I am losing my indepen-dency
Strongly disagree	378	313	117	104	438	130
	36,3%	**30,6%**	**11,3%**	**9,9%**	**43,2%**	**12,6%**
Disagree	236	225	91	49	354	175
	22,6%	**22,0%**	**8,8%**	**4,7%**	**34,9%**	**17,0%**
Neutral	256	296	224	123	171	265
	24,6%	**29,0%**	**21,6%**	**11,7%**	**16,9%**	**25,8%**
Agree	109	130	320	412	30	227
	10,5%	**12,7%**	**30,9%**	**39,2%**	**3,0%**	**22,1%**
Strongly agree	63	58	284	364	21	232
	6,0%	**5,7%**	**27,4%**	**34,6%**	**2,1%**	**22,5%**

Table 61: Internet attitude

Most recent contact

Three different questions were asked in the questionnaire about the most recent contact with the organization. The first question was when the most recent contact was, the second question was about through witch channel this contact was and the third question was about the nature of the contact.

	Frequency	Percent
In the last month	360	28,7%
In the last year	549	43,7%
In the last two years	168	13,4%
In the last three years	65	5,2%
In the last five years	26	2,1%
Longer than five years ago	87	6,9%
Total	1255	100%

Table 62: When was your most recent contact with De Woonplaats?

	Frequency	Percent
Website	47	3,7%
Telephone	893	70,9%
Front desk (mean office)	93	7,4%
District office	162	12,9%
E-mail	20	1,6%
Post	43	3,4%
Twitter	1	0,1%
Total	1259	100%

Table 63: Trough which channel was your most recent contact with De Woonplaats?

	Frequency	Percent
I was making an appointment	87	7,1%
I was transmitting information	948	77,6%
I was searching for information	103	8,4%
I wanted to know how to transmit something	33	2,7%
I wanted to know what the progress is of a previously transmitted question	24	2,0%
I was paying for a service	14	1,1%
Different	12	1,0%
Total	1221	100%

Table 64: Why did you have contact with De Woonplaats?

Channel use

The construct channel use contains 24 questions. Three channel types and four channel modes were used for this construct. The three channel types are website, phone and front desk. The four channel modes are consultation, registration, progress and transaction. On a seven-point Likert scale was measured how likely it is that a participant will use a certain channel type.

Consultation: I am searching for information about changing my house

	N	Minimum	Maximum	Mean	Std. Deviation
Website	585	1	7	2,52	2,281
Phone	946	1	7	6,33	1,441
Front desk	570	1	7	3,12	2,371

Table 65: Descriptive statistics

	Website	Phone	Front desk
Very unlikely	380	25	281
	65,0%	**2,6%**	**49,3%**
Unlikely	6	5	9
	1,0%	**0,5%**	**1,6%**
A bit unlikely	7	10	7
	1,2%	**1,1%**	**1,2%**
Neutral	88	126	139
	15,0%	**13,3%**	**24,4%**
A bit likely	6	14	14
	1,0%	**1,5%**	**2,5%**
Likely	5	16	6
	0,9%	**1,7%**	**1,1%**
Very likely	93	750	114

	15,9%	**79,3%**	**20,0%**

Table 66: I am searching for information about changing my house

Consultation: I want to know how to apply for co-tenancy

	N	Minimum	Maximum	Mean	Std. Deviation
Website	394	1	7	2,25	2,069
Phone	597	1	7	5,52	2,132
Front desk	381	1	7	3,12	2,349

Table 67: Descriptive statistics

	Website	Phone	Front desk
Very unlikely	272	76	188
	69,0%	**12,7%**	**49,3%**
Unlikely	5	2	3
	1,3%	**0,3%**	**0,8%**
A bit unlikely	4	5	3
	1,0%	**0,8%**	**0,8%**
Neutral	62	121	99
	15,7%	**20,3%**	**26,0%**
A bit likely	4	11	11
	1,0%	**1,8%**	**2,9%**
Likely	3	10	4
	0,8%	**1,7%**	**1,0%**
Very likely	44	372	73
	11,2%	**62,3%**	**19,2%**

Table 68: I want to know how to apply for co-tenancy

Registration: I want to submit a request for reparation

	N	Minimum	Maximum	Mean	Std. Deviation
Website	549	1	7	2,58	2,358
Phone	1014	1	7	6,53	1,278
Front desk	532	1	7	2,72	2,305

Table 69: Descriptive statistics

	Website	Phone	Front desk
Very unlikely	357	26	316
	65,0%	**2,6%**	**59,4%**
Unlikely	9	3	7
	1,6%	**0,3%**	**1,3%**
A bit unlikely	6	3	4
	1,1%	**0,3%**	**0,8%**
Neutral	66	84	103
	12,0%	**8,3%**	**19,4%**
A bit likely	4	11	9
	0,7%	**1,1%**	**1,7%**
Likely	12	21	5

	2,2%	**2,1%**	**0,9%**
Very likely	95	866	88
	17,3%	**85,4%**	**16,5%**

Table 70: I want to submit a request for reparation

Registration: I want register myself for a house by De Woonplaats

	N	Minimum	Maximum	Mean	Std. Deviation
Website	473	1	7	3,23	2,606
Phone	650	1	7	5,42	2,214
Front desk	449	1	7	3,56	2,545

Table 71: Descriptive statistics

	Website	Phone	Front desk
Very unlikely	252	92	196
	53,3%	**14,2%**	**43,7%**
Unlikely	5	9	7
	1,1%	**1,4%**	**1,6%**
A bit unlikely	2	3	3
	0,4%	**0,5%**	**0,7%**
Neutral	73	132	102
	15,4%	**20,3%**	**22,7%**
A bit likely	7	6	5
	1,5%	**0,9%**	**1,1%**
Likely	4	11	7
	0,8%	**1,7%**	**1,6%**
Very likely	130	397	129
	27,5%	**61,1%**	**28,7%**

Table 72: I want register myself for a house by De Woonplaats

Progress: I want to know what the status is of an earlier transmitted complaint

	N	Minimum	Maximum	Mean	Std. Deviation
Website	528	1	7	2,38	2,203
Phone	931	1	7	6,27	1,501
Front desk	524	1	7	2,90	2,335

Table 73: Descriptive statistics

	Website	Phone	Front desk
Very unlikely	358	31	287
	67,8%	**3,3%**	**54,8%**
Unlikely	6	3	6
	1,1%	**0,3%**	**1,1%**
A bit unlikely	4	4	5
	0,8%	**0,4%**	**1,0%**
Neutral	75	143	117
	14,2%	**15,4%**	**22,3%**
A bit likely	5	9	8

	0,9%	**1,0%**	**1,5%**
Likely	8	19	9
	1,5%	**2,0%**	**1,7%**
Very likely	72	722	92
	13,6%	**77,6%**	**17,6%**

Table 74: I want to know what the status is of an earlier transmitted complaint

Progress: I want to know when my house gets maintenance

	N	Minimum	Maximum	Mean	Std. Deviation
Website	527	1	7	2,81	2,420
Phone	885	1	7	6,13	1,659
Front desk	515	1	7	3,00	2,384

Table 75: Descriptive statistics

	Website	Phone	Front desk
Very unlikely	314	45	272
	59,6%	**5,1%**	**52,8%**
Unlikely	7	3	7
	1,3%	**0,3%**	**1,4%**
A bit unlikely	5	3	7
	0,9%	**0,3%**	**1,4%**
Neutral	83	145	116
	15,7%	**16,4%**	**22,5%**
A bit likely	7	9	4
	1,3%	**1,0%**	**0,8%**
Likely	7	23	7
	1,3%	**2,6%**	**1,4%**
Very likely	104	657	102
	19,7%	**74,2%**	**19,8%**

Table 76: I want to know when my house gets maintenance

Transaction: I want to pay the rent for last month, because this did not happen by direct debit

	N	Minimum	Maximum	Mean	Std. Deviation
Website	475	1	7	2,51	2,326
Phone	733	1	7	5,72	2,131
Front desk	488	1	7	3,24	2,527

Table 77: Descriptive statistics

	Website	Phone	Front desk
Very unlikely	317	94	248
	66,7%	**12,8%**	**50,8%**
Unlikely	4	4	5
	0,8%	**0,5%**	**1,0%**
A bit unlikely	2	3	2
	0,4%	**0,4%**	**0,4%**
Neutral	64	106	100

	13,5%	**14,5%**	**20,5%**
A bit likely	2	5	5
	0,4%	**0,7%**	**1,0%**
Likely	6	12	4
	1,3%	**1,6%**	**0,8%**
Very likely	80	509	124
	16,8%	**69,4%**	**25,4%**

Table 78: I want to pay the rent for last month, because this did not happen by direct debit

Transaction: I have to pay for a requested change in my house

	N	Minimum	Maximum	Mean	Std. Deviation
Website	490	1	7	2,49	2,304
Phone	753	1	7	5,90	1,939
Front desk	498	1	7	3,40	2,560

Table 79: Descriptive statistics

	Website	Phone	Front desk
Very unlikely	328	70	238
	66,9%	**9,3%**	**47,8%**
Unlikely	2	3	6
	0,4%	**0,4%**	**1,2%**
A bit unlikely	4	4	3
	0,8%	**0,5%**	**0,6%**
Neutral	67	113	100
	13,7%	**15,0%**	**20,1%**
A bit likely	4	10	6
	0,8%	**1,3%**	**1,2%**
Likely	5	15	9
	1,0%	**2,0%**	**1,8%**
Very likely	80	538	136
	16,3%	**71,4%**	**27,3%**

Table 80: I have to pay for a requested change in my house

Awareness of the digital service

Participant were asked about their awareness of the digital service ‘Mijn Woonplaats’.

	Frequency	Percent
Yes	243	19,7%
No	990	80,3%
Total	1233	100%

Table 81: Are you familiar with the public digital service ‘Mijn Woonplaats’?

Use of the digital service

People who are aware of the digital service were asked about their use. First was asked how people use the digital service. Second was asked about the frequency of use.

	Frequency	Percent
As tenant	205	91,9%
As house seeker	6	2,7%

Both	12	5,4%
Total	233	100%

Table 82: How do you use 'Mijn Woonplaats'?

	Frequency	Percent
Never	71	31,8%
Several times a year	136	61,0%
Monthly	10	4,5%
Weekly	4	1,8%
Daily	2	0,9%
Total	233	100%

Table 83: How often do you use 'Mijn Woonplaats'?

Attitude of the digital service

Attitude towards the public digital service is a construct made of six statements about the digital service. These six statements were positive formulated. On a five-point Likert scale the answers were given.

	Frequency	Percent
Strongly disagree	6	3,9%
Disagree	9	5,8%
Neutral	43	27,9%
Agree	76	49,4%
Strongly agree	20	13,0%
Total	154	100%

Table 84: In Mijn Woonplaats it was easy to find where I was looking for

	Frequency	Percent
Strongly disagree	5	3,2%
Disagree	11	7,1%
Neutral	48	31,2%
Agree	72	46,8%
Strongly agree	18	11,7%
Total	154	100%

Table 85: I think Mijn Woonplaats is easy to use

	Frequency	Percent
Strongly disagree	6	3,9%
Disagree	6	3,9%
Neutral	41	26,6%
Agree	79	51,3%
Strongly agree	22	14,3%
Total	154	100%

Table 86: The next time, under the same circumstances, I use Mijn Woonplaats again

	Frequency	Percent
Strongly disagree	5	3,3%
Disagree	8	5,2%
Neutral	59	38,6%
Agree	61	39,9%
Strongly agree	20	13,1%
Total	153	100%

Table 87: I think Mijn Woonplaats is pleasant to use

	Frequency	Percent
Strongly disagree	8	5,2%
Disagree	11	7,2%
Neutral	54	35,3%
Agree	60	39,2%
Strongly agree	20	13,1%
Total	153	100%

Table 88: It took little effort to achieve my goal in Mijn Woonplaats

	In Mijn Woonplaats it was easy to find where I was looking for	I think Mijn Woonplaats is easy to use	The next time, under the same circumstances, I use Mijn Woonplaats again	I think Mijn Woonplaats is pleasant to use	It took little effort to achieve my goal in Mijn Woonplaats
Strongly disagree	6	5	6	5	8
	3,9%	**3,2%**	**3,9%**	**3,3%**	**5,2%**
Disagree	9	11	6	8	11
	5,8%	**7,1%**	**3,9%**	**5,2%**	**7,2%**
Neutral	43	48	41	59	54
	27,9%	**31,2%**	**26,6%**	**38,6%**	**35,3%**
Agree	76	72	79	61	60
	49,4%	**46,8%**	**51,3%**	**39,9%**	**39,2%**
Strongly agree	20	18	22	20	20
	13,0%	**11,7%**	**14,3%**	**13,1%**	**13,1%**

Table 89: Attitude Mijn Woonplaats

Motivation to use the digital service

Four question have been asked to the participant to measure the motivation to use the digital service. The first question asks about the intention to use the coming year. The second question was only displayed to the people that intent to use 'Mijn Woonplaats' next year and measures the motivation of this choice. The third question was only displayed to the people that not intent to use 'Mijn Woonplaats' and measures the motivation of this choice. The fourth question measures what the organization could do to make the participant use the digital service.

	Frequency	Percent
Yes	273	22,4%
No	948	77,6%
Total	1221	100%

Table 90: Are you intended to use 'Mijn Woonplaats' the coming year?

	Frequency	Percent
Easier than other channels	166	43,1%
It is faster	85	22,1%
No costs	95	24,7%
Different, namely	39	10,1%
Total	385	100%

Table 91: Why are you motivated to use Mijn Woonplaats?

	Frequency	Percent
No internet experience / I do not have a computer	611	50,4%
I want personal contact	432	35,6%
There is no direct feedback	84	6,9%
It is not safe	38	3,1%
Different, namely	47	3,9%
Total	1212	100%

Table 92: Why are you not motivated to use Mijn Woonplaats?

	Frequency	Percent
Providing a training	62	10,4%
Rewarding the use of Mijn Woonplaats	52	8,7%
An employee that helps me step by step	133	22,3%
Different, namely	350	58,6%
Total	597	100%

Table 93: What can De Woonplaats do to make you use Mijn Woonplaats?

Appendix C: Factor analysis

The items were tested if they measure one construct. In table 94 the factor analysis for the six constructs in this research are shown.

	IE	IA	WEB	PHO	FD	ADS
Item 5-1 *Sending an e-mail*	0,874					
Item 5-2 *Searching information*	0,906					
Item 5-3 *Reading the news*	0,789					
Item 5-4 *Using social network sites*	0,677					
Item 5-5 *Online banking*	0,859					
Item 5-6 *Booking a holiday*	0,617					
Item 5-7 *Buying from a webshop*	0,751					
Item 5-8 *Online calling*	0,491					
Item 5-9 *Logging in to a portal*	0,731					
Item 8-1 *I think it is useful to arrange my stuff online with De Woonplaats*		0,759				
Item 8-2 *I think it good that De Woonplaats works more digital*		0,739				
Item 8-3 *I think the digitization is going too fast*		0,692				
Item 8-4 *I am afraid that many people cannot keep up with the developments*		0,560				
Item 8-5 *I think that everybody should arrange their stuff online*		0,625				
Item 8-6 *I am afraid I am losing my independency*		0,733				
Item 12-1 Website / *Consultation: I am searching for information about changing my house*			0,876			
Item 12-2 Website / *Consultation: I want to know how to apply for co-tenancy*			0,793			
Item 12-3 Website / *Registration: I want to submit a request for reparation*			0,881			
Item 12-4 Website / *Registration: I want register myself for a house by De Woonplaats*			0,770			
Item 12-5 Website / *Progress: I want to know what the status is of an earlier transmitted complaint*			0,899			
Item 12-6 Website / *Progress: I want to know when my house gets maintenance*			0,905			
Item 12-7 Website / *Transaction: I want to pay the rent for last month, because this did not happen by direct debit*			0,869			
Item 12-8 Website / *Transaction: I have to pay for a requested change in my house*			0,893			
Item 12-1 Phone / *Consultation: I am searching for information about changing my house*				0,711		
Item 12-2 Phone / *Consultation: I want to know how to apply for co-tenancy*				0,740		
Item 12-3 Phone / *Registration: I want to submit a request for reparation*				0,676		
Item 12-4 Phone / *Registration: I want register myself for a house by De Woonplaats*				0,803		
Item 12-5 Phone / *Progress: I want to know what the status is of an earlier transmitted complaint*				0,821		
Item 12-6 Phone / *Progress: I want to know when my house gets maintenance*				0,793		

	IE	IA	WEB	PHO	FD	ADS
Item 12-8 Phone / *Transaction: I have to pay for a requested change in my house*				0,834		
Item 12-1 Front desk / *Consultation: I am searching for information about changing my house*					0,888	
Item 12-2 Front desk / *Consultation: I want to know how to apply for co-tenancy*					0,854	
Item 12-3 Front desk / *Registration: I want to submit a request for reparation*					0,886	
Item 12-4 Front desk / *Registration: I want register myself for a house by De Woonplaats*					0,822	
Item 12-5 Front desk / *Progress: I want to know what the status is of an earlier transmitted complaint*					0,923	
Item 12-6 Front desk / *Progress: I want to know when my house gets maintenance*					0,913	
Item 12-7 Front desk / *Transaction: I want to pay the rent for last month, because this did not happen by direct debit*					0,888	
Item 12-8 Front desk / *Transaction: I have to pay for a requested change in my house*					0,916	
Item 16-1 *In Mijn Woonplaats it was easy to find where I was looking for*						0,873
Item 16-2 *I think Mijn Woonplaats is easy to use*						0,944
Item 16-3 *The next time, under the same circumstances, I use Mijn Woonplaats again*						0,885
Item 16-4 *I think Mijn Woonplaats is pleasant to use*						0,941
Item 16-5 *It took little effort to achieve my goal in Mijn Woonplaats*						0,891

Table 94: Factor analysis

IE = Internet experience
IA = Internet attitude
WEB = Website use
PHO = Phone use
FD = Front desk use
ADS = Attitude digital service