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**OLDER FINNISH CONSUMERS' EXPERIENCES OF DIGITAL
BANKING SERVICES**

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ABSTRACT

The aim of this study is to investigate older consumers experiences on digital banking services, which are limited to concern usefulness, and easiness of use of digital banking. The responses are also compared to reveal how the experiences vary between two main age groups of the study. The study finds out that the majority of older consumers who use digital banking services have experienced digital banking services useful and easy to use. Respondents agreed stronger with the usefulness of digital banking than they did with the easiness of use. The study also finds out that consumers aged between 65 years and 74 years have more positive experiences about usefulness and easiness of use of digital banking, than consumers aged between 75 years and 89 years.

Keywords: digital banking, older consumers, consumer experience, the Technology Acceptance Model, digitalisation, the digital divide

INTRODUCTION

The population of Finland is ageing quickly, and after twenty years, the Finnish population will be one of the oldest in Europe. At the end of 2018, more than every fifth citizen of Finland was over 65-year-old (Statistics Finland 2018a). While the population of Finland is ageing, the impact of digitalisation is more powerful than ever. The impact of digitalisation grasps in many industries, such as the Finnish banking industry. In a result of digitalisation, banks have started to offer banking services in a digital form, such as online banking, along with traditional banking services. With digital applications, banks have succeeded to increase the performance of their operations and to provide more versatile services to their customers. Customers have also been able to receive service, almost anytime and anywhere, faster than ever before.

The change has not been pleasant for every consumer. This is a current issue since Finnish newspapers have recently published articles about older people, who have been concerned about the disappearing of traditional banking services (Lehto 2018). In some parts of Finland, especially in small towns, bank branches are closed down for good, and the number of automatic teller machines (ATM) has been reduced. Older people have also ended up as users of digital banking services because of aforesaid reasons. Some of the older people have become users because of their own willingness, some because of necessity.

Only limited studies have focused on how seniors are coping with digital changes in e-services. The research problem is that there is a gap in the knowledge about what kind of experiences older Finnish consumers have of digital banking services. Therefore, the research aims to investigate the experiences of older people, which are limited to concern usefulness, and easiness of use of digital banking services, and compare the responses of different age groups. There is no exact definition for older people. In this thesis, the terms “old people” and “older consumers” refers to persons who are aged 65 years or more. The topic is extremely important since over 65-year-old people are one of the major consumer groups in Finland. Due to this, it is significant that their needs and wants are considered. In order to develop better services, and enhance customer experience, information must be derivate from many perspectives, as from older people perspective.

In order to solve the research problem, the study provides theoretical background and conducts empirical research. Primary data is collected using an online questionnaire as a research tool. The questionnaire is shared in social media and via email. The study uses the Self-Determination Theory developed by Deci & Ryan (1985), and the final version of the Technology Acceptance Model developed by Venkatesh & Davis (1996), as the theoretical framework. The research aim is achieved by answering the following research questions:

1. Are digital banking services experienced as easy among the target group?
2. Are digital banking services experienced as useful among the target group?
3. How users have experienced the motivation leading to becoming a user of digital banking services?

The thesis is structured as follows. Chapter 1 presents the theoretical foundations, such as user typology, the Self-Determination Theory and the Technology Acceptance Model, and describes background information for the research problem, such as digitalisation's effect in Finnish banks, digital media usage of older people and the digital divide, and the problem of population ageing in Finland. Chapter 2 explains the research design and methodology applied, including data collection and usage. Chapter 3 reveals the findings and discussions, and they will be followed by the limitations of the research and suggestions for future research. The final part of the thesis consists of conclusions.

1. THEORETICAL FRAMEWORK & BACKGROUND

In order to find out the experiences of individual older consumers and to answer the research questions of this study, few theories will be presented in this chapter. The study uses the Self-Determination Theory developed by Deci & Ryan (1985) to recognise older consumers experienced motivation to use digital banking applications. The Technology Acceptance Model developed by Venkatesh & Davis (1996) is utilised in developing the questionnaire. Furthermore, the last theory is a user typology developed by Quan-Haase et al. (2018), which divides older digital media users into six different groups by their digital skills and online activities. The typology may help to understand better the experiences of different type of users. Before introducing the theoretical foundations, some background information will be presented to justify the research problem, describe how digital banking services have become part of people's lives and why older consumer's experiences should be considered carefully.

1.1. Background and previous research

In today's business environment, companies require speed, agility and ability to follow the trends of the continuously changing global business environment. Due to digitalisation, the demand for products and services have changed. As a result of customer-driven reasons, digitalisation has changed, and also created, new types of business models (Parida 2018). The impact of digitalisation extends to many different industries, which has changed the need for labour, as well as the nature of work. Routine work tasks are completed automatically, which have resulted in the loss of certain jobs. Nowadays, more digital skills are required from employees as well as from customers (European Economic and Social Committee 2017, 9).

The Finnish organisation that represent banks (thereinafter Finance Finland) has also proclaimed that the Finnish banking industry revolutionised by digitalisation. Banks have been automating their operations for many years, which is visible on both, on customer and on banks' side (Finance Finland 2017). In 2017, the Finnish banking industry employed nearly 21 000 people, and a year later the number of employees had fallen by one thousand. Finance Finland explains that the main

reasons for reducing personnel and closing down bank branches are as a result of digitalisation. Digital banking services are beneficial for both, to the banks, and to consumers. Banks are able to provide a wider range of services to customers, and at the same time, their operations are much more efficient, with lower operating costs.

An excellent benchmark, for comparing digitalisation's impact in banking industry, is the United Kingdom. In the banking industry of the United Kingdom, the development of smartphones, and easy access to the Internet has made mobile banking applications on smartphone the top choice for consumers. According to research, conducted by market research company eMarketer, 94.4% of consumers aged 18–24 from the United Kingdom, owns a smartphone. Great utilisation rate among young consumers and increasing utilisation rate among older consumers, in a big industry has made the future of mobile banking services bright. This has enabled new, only digitally operating, banks to enter the market. (Barnes 2017) Among bank account holders in the United Kingdom, only 27% visit a bank's branch once a year, whereas 30% use their bank's mobile application. In the banking industry of the United Kingdom, 66% of bank account holders use internet banking at least once a week and 74% of them use mobile banking at least once a week. The use of digital banking services is huge. For the aforementioned explanations, there is no reason any longer why any bank would not be involved in digital banking service providers. "Banks must adapt to the digital age or die." (Williams-Grut 2017, 3)

As mentioned earlier, the Finnish banks are offering digital banking services as well. The decline in traditional banking services has caused concern among older consumers in Finland. Although many older people are using digital banking services, cash has remained the most important form of payment for most older people. Due to digitalisation and enhancement of services, the opening hours of bank branches have been reduced, and some of the bank branches, especially in smaller cities, have been closed down (Lehto 2018). One could say that some of the older people have become users of digital banking services against their own will. Therefore, it is interesting to study older consumers' experiences of digital banking services.

Some of the older consumers have become users by their own will, some by inevitable. But then, what happens if some of the older people cannot use digital banking services? Lack of digital devices, such as personal computers, tablets or smartphones, or lack of skills needed for using them, sets a part of the population in an unequal position. This is generally known as the digital divide, which means the gap between people who can (by having required skills and devices)

access the internet and who cannot (Van Dijk 2009). Characteristics, such as age, low level of education, low income or low social class, have an impact on the digital divide (Millward 2003). The grey digital divide is one of the categories in the digital divide. In the grey digital divide, the gap is caused by factors related to a person’s age. The word “grey” refers to the older population who are excluded from the internet. (Millward 2003) By studying the experiences of older consumers, and by listening to their opinions, digital banking services can be developed successfully in a way that benefits all parties. This way the impacts of the digital divide are less and more equal service supply is made possible.

In general, however, Finns are very active users of the Internet. Mostly, Finns use the Internet in activities such as online banking, communicating with friends, information searching, online shopping and media monitoring. After the proliferation of smartphones, the use of the Internet has grown considerably. The official statistics of Finland (2018b) show that young people are more active Internet users than older age groups. A big majority of people aged under 55 years uses the Internet several times a day.

Table 1. Prevalence of use of the Internet in Finland

	Have used the Internet	Uses the Internet many times a day	Owens a smartphone	Has made an online purchase	Has made an online purchase with a smartphone
Age	% of population				
16–24	100	98	99	56	39
25–34	99	97	97	72	50
35–44	100	96	96	76	46
45–54	98	87	90	56	21
55–64	93	72	80	32	9
65–74	78	47	59	17	3
75–89	40	19	24	7	1
Gender					
Man	90	78	81	47	25
Woman	88	74	79	46	25

Source: Statistics Finland (2018b)

Active use of the Internet drops significantly when a person is aged between 65–74, and it drops even more when a person is 75-year-old, or more. Older people’s Internet usage is much more limited than younger people’s internet usage. Furthermore, the connection between having a smartphone, and exploring the Internet many times a day, is seen clearly from the statistics. Smartphone ownership is quite common for older people aged 65 years to 74 years as more than every second person belonging to this age group owns a smartphone. Smartphone ownership drops by half among people aged from 75 years to 89 years. (Statistics Finland 2018b)

Online banking is one of the most common Internet activities. In 2018, 83% of 16–89-year olds had used online banking in the last three months. In Finland, using online banking is most common for the population aged between 35 years and 44 years. According to the official stats of Finland, 59% of pensioners use the Internet for online banking. The share of using the Internet for online banking between people aged 65–74 years is as high as 70%, but the share drops significantly to 35% with people aged 75–89 years. (*Ibid*)

Table 2. The use of online banking in Finland

Age	Usage of Online banking (% of the population)
16–24	83
25–34	97
35–44	98
45–54	94
55–64	89
65–74	70
75–89	35
Student	81
Labourer	96
Pensioner	59

Source: Statistics Finland (2018b)

In general, online banking has been one of the most significant digital banking services. It has enabled consumers to receive traditional banking services, such as bill payment, fund transfers between accounts, instruction submitting to the bank, and account balance checking, in a digital form anytime anywhere (Mathivanan, Kavith 2015). Brand-new innovation in the banking industries is mobile wallets, which enables payments using a smartphone conveniently. Denmark, Finland, Norway and Sweden as a majority of the Nordic countries have become the leaders in

mobile payments. Mobile wallets have gained popularity among Nordic consumers, and according to Monitor Deloitte (2019), the Nordic countries are moving rapidly towards a cashless society. Therefore, it is interesting to explore what other services older people are using, in addition to online banking.

While traditional services are becoming even more common in digital form, the population of Finland is becoming older all the time. The current situation is that there are more people are passing away than new people are born. In 2000, the share of people aged more than 65 years were 15%, and it has increased to 21.9% in 2018 (Statistics Finland 2018a). In other words, more than every fifth Finnish person is over 65-year-old, and the percentage is increasing in the future. Due to this fact, older people are a significant consumer group in Finland. Therefore, their needs and wants should be taken into account with particular care. This study's aim is to find out how easy and useful older people have experienced digital banking services. In addition, one objective is to find out which reasons have led to technology usage.

Earlier studies have shown that problems related to devices and the lack of required skills have caused most of the concern. Research conducted earlier in Greece discusses that older people are very interested in using online banking (Gatsou et al. 2017). Research conducted in Norway found out that older people have experienced lots of challenges with information technology but have also experienced positive feelings since digital media has enabled new activities and connections to other people (Rønning, Sølvsberg 2017). Norway is an excellent benchmark since there population ageing is a similar problem as in Finland, and the distribution of Internet use among different age groups is similar to Finland. Furthermore, the Finnish organisation Fine conducted research which objective was to explore what services, designed especially for older consumers, Finnish banks do have (Fine 2018). The research found that most of the Finnish banks do not have a specific service strategy for older consumers. With this bottom information, it is fascinating to start conducting directional research on the experiences of older people about digital banking services.

1.2. Self-Determination Theory

The author believes that Self-Determination Theory (SDT) may be useful for understanding ability, efforts and willingness to become a user of digital banking services. Obviously, “there must be some degree of volitions and autonomy present in such a demanding competence development process late in life” (Rønning, Sølvsberg 2017, 57).

Developers of SDT, Deci and Ryan (1985), made a significant division between individual’s intrinsic and extrinsic motivation. Intrinsic motivation means that people are willing to behave in a certain way, resulting from that the task is enjoyable and the person is inherently interested in it. Intrinsic motivation is assumed to result in creativity and high-quality learning because it is closely associated with personal values and beliefs (Rønning, Sølvsberg 2017, 57). In extrinsic motivation, people choose to learn new skills as a result of anxiety or external pressure (*Ibid*, 57). Therefore, the motivation does not arise from genuine interest towards an object.

The process is described as a continuum, and it consists of three phases (*Ibid*, 57): a) internalisation b) integration and c) identification. Internalisation is the phase where an individual adopts the value of a behaviour or an activity, such as learning using digital devices. Integration happens when a person takes it fully one’s own. Identification phase means the phase when a person has identified the personal importance of the behaviour or activity.

This theory can be applied to examine older consumers’ motives for digital banking services. Many older people might feel anxiety or external pressure since they might experience they should learn new competencies, regarding digital banking services, to maintain taking care of banking individually. By knowing SDT, the author may reveal the type of motivation, intrinsic or extrinsic motivation, which have led in the use of digital banking services.

1.3. Technology Acceptance Model

In 1985, Davis proposed the famous Technology Acceptance Model (TAM), which is a model for explaining and predicting system use. TAM has been utilised with different kind of applications and survey participants, in various countries.

The model explains the process of how people accept certain technology and become users of it. TAM suggests that numerous factors influence people's decision how and when utilising a new technology once a new technology is introduced. According to TAM, the user's motivation can be clarified by three factors: a) Perceived Ease of Use, b) Perceived Usefulness and c) Attitude Toward Using. Davis (1985) believed that the attitude of the user towards a system is a key factor whether the user will use the system or not (Chuttur 2009, 2). In the final version of TAM (Venkatesh, Davis 1996), the attitude construct has been replaced with "behavioural intention". TAM is presented below as a figure.

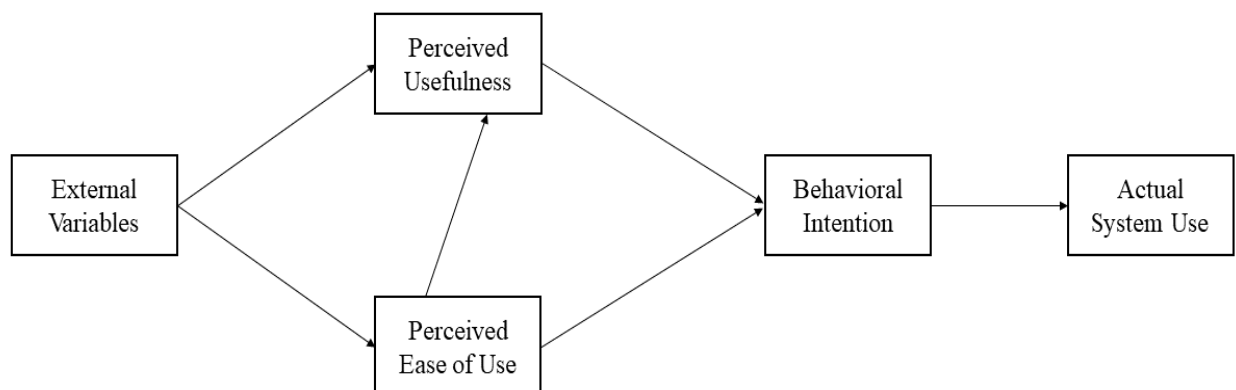


Figure 1. The Technology Acceptance Model

Source: Venkatesh, Davis (1996, 453); prepared by the author

TAM model suggests that actual system use is triggered after the behavioural intention, which is the result either perceived usefulness or perceived ease of use, or both of them. Stated differently, using technology, such as digital banking services, is experienced either easy to use or useful. This study pursues uncover these variables (experiences), which have led to system usage. This study will use Davis' (1989, 324) initial scale items for perceived usefulness and perceived ease of use as a base for the survey. By modifying the items to the online questionnaire, directional information about perceived usefulness and easiness of use may be received from the respondents.

1.4. User typology

Older people are often considered to be a homogenous group who share the same assumptions, beliefs and skills relating to digital media (Quan-Haase et al. 2018). According to Quan-Haase et al. (2018), earlier studies regarding digital media usage of older people have not considered that no one is born as an old consumer. Older people, like everyone else, have the skills which they have gained while growing up.

Table 3. User typology

Group	Characteristics
Non-Users	Non-users have tried digital media, but they do not feel comfortable using it. Non-users are basically people who are not involved in any kind of digital media and they have a lack of skills using digital devices. Usually, non-users are also afraid to learn using new digital devices or applications.
Reluctant Users	Reluctant users have basic digital skills, but they are unwilling to use digital devices or applications. Reluctant users have a low level of confidence, and they are more likely to utilise traditional methods to complete tasks.
Apprehensive Users	Apprehensive users evaluate their own digital skills at a low level, but they can perform basic digital tasks such as sending and reading emails and completing online researches. Apprehensive users do not enjoy using digital devices and in many cases, they fear that they might break the device. Usually, apprehensive users have work-related experience of using digital devices, but they might feel anxiety while using digital devices. Due to the anxiety, these users are unlikely to have the confidence to learn new skills by themselves, even though they would be willing to learn.
Basic Users	Basic users are much more comfortable with their digital skills than apprehensive users. The usage of digital devices is still limited but basic users feel their digital media skills good and themselves competent with digital media. Furthermore, basic users are more likely to learn new skills and put effort into the learning process.
Go-Getters	Go-Getters do not see themselves as experts, but they feel that they are more advanced users than basic users. Go-Getters are very familiar with digital services such as e-mail, Skype and Facebook. This group also more likely to learn new competencies regarding digital media, because they have more appreciation for digital media.
Savvy Users	Savvy users have high digital skills and they perform many online activities. Savvy users have great confidence in their digital skills and they do not have the same digital media related anxiety that other groups have. Usually, savvy users are the people who have learned using digital media so well that their friends ask help directly from them.

Source: Quan-Haase et al. (2018); prepared by the author

Older consumers vary in their use of digital media as well they vary in their digital media skills. As the background of the thesis indicates, in Finland, most of the older people use the Internet. Older people also use personal computers and smartphones, even though the usage is much less among older age groups compared to younger age groups. Quan-Haase et al. (2018) conducted research which objective was to find out how older people see their digital media skills in comparison to other persons in the same age groups. They developed a typology, which divided older people to six different clusters, by their digital media usage and skills: 1) Non-Users, 2) Reluctant Users, 3) Apprehensive Users, 4) Basic Users, 5) Go-Getters, and 6) Savvy Users.

The term grey digital divide assumes inaccurately that older people have similar experiences with their digital engagement. The typology points out that older people are different from their digital media usage. The typology may help understanding better the experiences of different type of users.

2. RESEARCH METHODOLOGY

To investigate older Finnish consumers' experiences about digital banking services quantitative methods will be used. The author chose quantitative methods to generate more directional information. In order to receive quantitative information about older consumers' experiences, an online questionnaire is used. In the development phase of the questionnaire, the final version of the Technology Acceptance Model, created by Venkatesh and Davis (1996), is utilised. This chapter describes the data collection and research methodology, and why the author has chosen them.

2.1. Data usage for the research

In general, there are two main types of data: primary data and secondary data. Primary data is collected for a specific purpose to solve a research problem (Hox, Boeije 2005). Primary data is collected by using qualitative or quantitative methods such as experiments, observations, surveys or questionnaires. Secondary data is already existing data which has been collected to a different purpose, but it can be reused to answer other research questions (*Ibid*). Secondary data can be searched from data archives, government publications and books. Although, the main resources of secondary data are the official data archives (*Ibid*).

This study uses both types of data, primary and secondary data. Primary data is collected by using quantitative methods. Chosen research methodology and justifications for selected research methodology are explained in the next subchapter. For the purpose of this study, the secondary data is retrieved from databases such as Google Scholar and Primo. In addition, secondary data is also retrieved from official statistics of Finland, and researches conducted by representative organisations such as Finance Finland and Fine. Secondary data is utilised as a theoretical framework, and to present necessary background information, which has led to the research problem. Secondary data is also utilised as a justification for the research problem.

2.2. The research method

This research is carried out using quantitative research methods. As a quantitative method, this thesis uses a survey. The objective of surveys is to create statistics, that is, quantitative data about the studied sample (Fowler 2013). In general, surveys are known as evaluation of experiences and opinions. Therefore, it was justified for the author to choose this method, as the research aim is to investigate older consumers' experiences regarding digital banking services. Generally, known benefits of surveys as a research method had a powerful impact on the decision of the method. Online surveys are convenient, quick and flexible. In addition, surveys provide low administration costs, and the data is easily viewed and utilised as a figure to make examining the results easier. (Evans, Marthur 2005) The author believes, that using an online questionnaire as a research tool, is a good choice, because of the time frame of the thesis. An online questionnaire can be administered in a time-efficient manner, which means minimising the time when the questionnaire is taken to the field and the primary data is collected (Kannan et al. 1998). Convenience was also big factor impacting the choice of method. As a research tool, an online questionnaire is convenient, not only for the researcher but also to the respondent. The author believes that convenience is particularly important for the respondents, especially in this case, when the target group of the questionnaire is people aged 65 years and more, convenience is a major factor. Derived data is also relatively simple to convert to figures which make analysis, and also viewing the findings much easier. (*Ibid*)

Choosing the sample is carried by using a convenience sampling, which is a non-probability sampling technique. In the convenience sampling method, the sample consists of units, which are easily available. The convenience sampling technique was chosen because the author believes that it is the easiest way to reach the target group of the questionnaire. The target audience might be harder to reach due to the lower digital media activities compared to younger age groups. Lack of earlier questionnaire experience might also have an impact on the sample size. If the units of the target population have not answered questionnaires before, the probability of not answering the questionnaire is higher. In addition, other underlying reasons for choosing convenience sampling were low costs and the scope of the thesis. For the aforementioned reasons, the sample consists of units who were easily available. The questionnaire was shared through different social media channels and via email.

2.3. Design of the research

For the purpose of this study, the survey is conducted using an online questionnaire created in Google Forms, as a research tool. Taking into account the target audience of the survey, and their possible limited digital media skills, the online questionnaire is designed to be simple, and easily understood, interpreted and completed. According to Adams and Cox (2008), this will increase the accuracy of responses. It is commonly known, that a questionnaire should not be long-lasting (Adams, Cox 2008). Due to a short attention span, people usually rush answering in long questionnaires, which increases the probability that participants misinterpret questions. Participant's motivation also has an impact on the willingness to complete the questionnaire (*Ibid*). Unfortunately, there was no direct benefit for the respondents of the survey. Therefore, the author decided to design the survey to be less time consuming, in order to receive more responses and accurate answers. The structure of the questionnaire is based only on a few areas, which are based on TAM, making responding to the survey reasonable, and it is not likely to cause any problems for the respondents. Furthermore, the online questionnaire is translated to Finnish, before sharing it to the respondents. In order to avoid any obstacles, the questionnaire aims to use clear language and vocabulary.

The structure of the questionnaire is extremely important to increase usability and effectiveness (*Ibid*). The main focus of the survey is to find out older consumers' experienced usefulness and experienced easiness of use, regarding digital banking services. Therefore, the focused questions are regarded to these two main topics. Question categories are developed by means of SDT and TAM. Question-wording and the sequence of the questionnaire are designed in help of instructions given by Adams and Cox (2008). The sequence of the online questionnaire is as follows:

1. Welcoming. The first part of the questionnaire welcomes the respondents. The meaning of the first stage is to tell the necessary information about the survey. This information includes the purpose of the survey, why it is conducted, and, how and where the responses are utilised. In addition, the time estimation for performing the questionnaire is expressed. Lastly, the author of the research expresses his appreciation towards respondents' effort for the research.
2. General and simple questions. First of all, an exclusive question is asked. Meaning of the exclusive question is to delimit all the possible participants who do not belong to the target

audience of the survey. After the exclusive question, general and simple questions are asked about which digital banking services are used, and how the respondent became a user of mentioned services.

3. Focused questions. In this stage, focused questions about the two main categories of the research, experienced usefulness and experienced easiness of use, is asked. Several statements are given, and the respondents are asked to express their experiences. In this stage, a 5-point Likert-scale is used.
4. Demographic questions. In the last stage of the questionnaire, respondents are asked to give their gender and choose an age group, where they belong.

Since the research strives to answer the research questions concerning older consumers' motivation and experienced usefulness and easiness of use, the questionnaire is kept short and it will focus only those sections. The pilot test of the questionnaire indicated that a long-lasting questionnaire will not work with the target group of the survey, especially when the survey handles digital applications, which stand as a hard topic for older people. Therefore, the questionnaire was compressed to be simple, and easily understood, interpreted and completed, for the target audience of the survey. Since the scope of the thesis is not wide, a short questionnaire is enough to indicating the experiences of two main sections and comparing the findings between different age groups.

2.4. Sample characteristics

The data collection period took place from 23rd April to 25th April. During these days, the questionnaire was shared in different Facebook groups and sent via email messages. Out of the 103 responses, one did not belong to the target group of the survey. The respondent was not able to answer the focused questions since this respondent was not part of the population of interest. This participant was subtracted from the sample. Therefore, the eligible sample consists of 102 respondents.

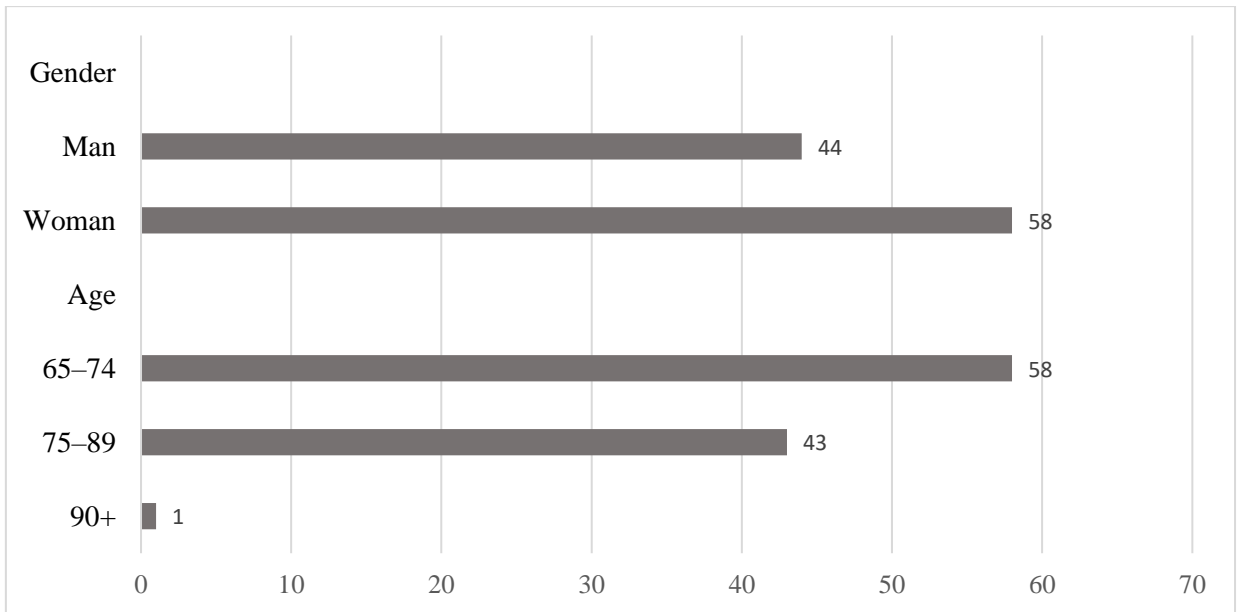


Figure 2. Sample characteristics, n=102.

Source: Author's calculations

Over half of the sample were females. From the 102 respondents, 58 were females and 44 males. The age distribution of the sample was expected. As the first chapter of the thesis addresses, Internet usage is more common among people aged between 65 years and 74 years than among older age groups. This may be the reason why the majority of the sample belongs to the younger age group, where people are aged between 65 years and 74 years. Only one respondent was aged 90 years on more.

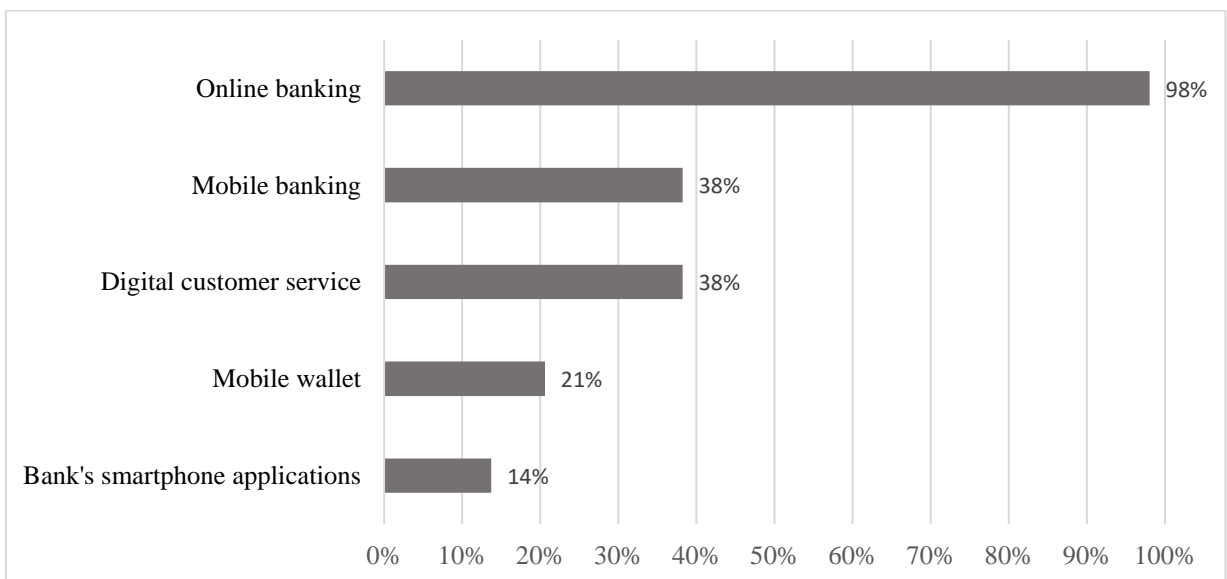


Figure 3. Digital banking services used by the respondents, n=102.

Source: Author's calculations

Respondents were asked to mark which digital banking services they use frequently. The results of the survey point out that online banking is the most popular form of digital banking services among the respondents. Almost all of the 102 respondents (98%) used online banking. Online banking is one of the oldest types of digital banking, which explains its' popularity among the target group. Notable was that two of the respondents did not use online banking at all. The next two most common digital banking services were mobile banking and digital customer service.

Mobile banking means the use of a smartphone to perform online banking activities, such as balance checking, bill payment, or fund transferring. Digital customer service refers to customer service through digital channels, such as online chats on banks' websites. From the 102 respondents, 39 respondents (38%) used mobile banking and digital customer service.

From the 102 respondents, only 21 used mobile wallets. Mobile wallet refers to technology, which enables the user to make purchases conveniently using a smartphone. Mobile wallets are a relatively new innovation, which explains its' scarce usage rate among older consumer. Banks' own applications for investing, and cost monitoring, had the fewest number of users (14%) among the target group.

This question was asked to gather information about used digital banking services since the users' experiences are associated only with these services. Therefore, the findings are strongly associated with online banking since almost all of the respondents use it regularly.

3. RESULTS AND DISCUSSION

The third chapter of the thesis reveals the findings of the research. The primary data for the thesis was collected using an online questionnaire as a research tool. The data collection period took place from 23rd April to 25th April. During these three days, the online questionnaire was shared in different Facebook groups and sent via email messages. The eligible sample consists of 102 respondents.

3.1. Respondents' motivation

One of the aims of the survey was to examine older adult's motives towards digital banking services. Deci and Ryan (1985), the developers of the SDT, discuss in their theory, that individuals' actions are based either intrinsic or extrinsic motivation. Respondents were told to think about the digital banking services they were using and choose the reason how they have ended up as users. The idea was to examine, how the respondents have experienced moving from traditional banking services to digital banking services.

The results show that majority of the respondents have experienced their situation so that they have started using digital banking services by their own willingness. From the 102 respondents, as much as 72% told, that they are using digital banking services in a result of their own willingness. The Self-Determination Theory suggests, that this share of the respondents have experienced these tasks enjoyable and these persons are inherently interested in the digital banking alternatives.

From the 102 respondents, 28% expressed, that they are using digital banking services as a result of external factors. Therefore, the motivation resulted in the usage of digital banking services, is extrinsic motivation. The SDT discusses these people have chosen to learn using digital banking services as a result of anxiety or external pressure. Thus, the motivation does not arise from honest interest towards digital banking. There are many different possibilities for extrinsic motivation. The online questionnaire had a multiple-choice question with some known possible reason for changing to use digital banking services. Respondents were asked to mark their primary reason for starting to use digital banking. Furthermore, there was also an option to leave own response (open-ended), if any of the choices did not match the respondent's own experience. Any of the respondents did not leave their own option for external reasons. The figure below presents the responses of the survey participants.

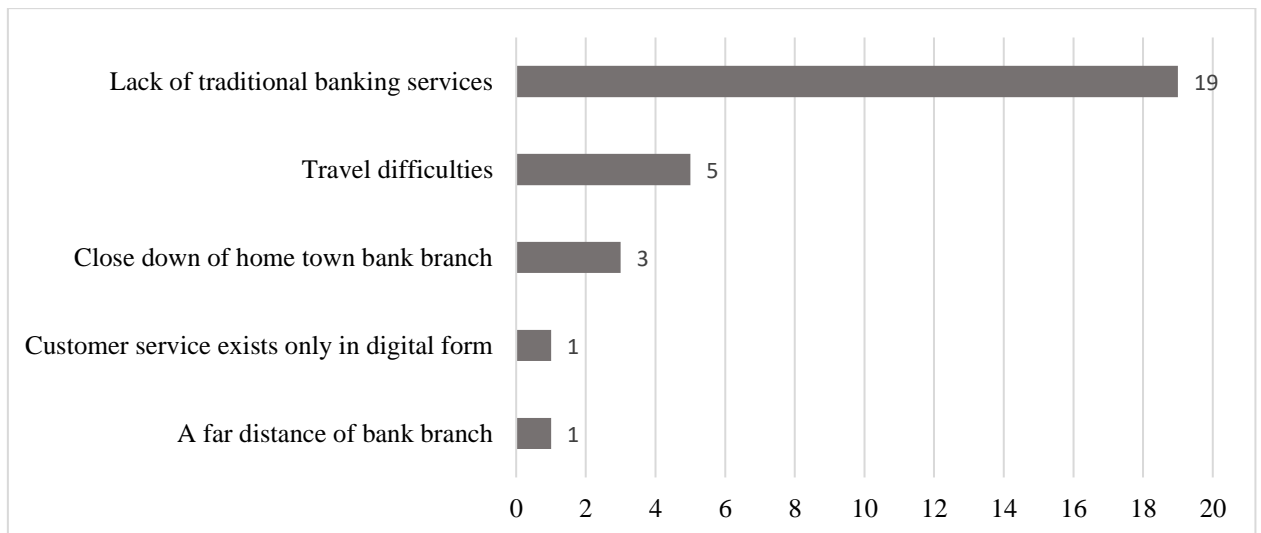


Figure 4. The main source of extrinsic motivation, n=29.

Source: Author's calculations

The lack of traditional banking services was distinctly the most compelling factor for moving to use digital banking, for those who had experienced extrinsic motivation. The lack of traditional services refers to limited opening hours of a bank branch, for example. These people would prefer traditional banking services, so in other words, if the supply of traditional banking services would be higher in their location, they would unlikely to be users of digital banking. Travelling difficulties to a bank branch, were the second common reason for starting use digital banking. The impact of closing bank branches was small among the respondents. Only a few of the survey participants have experienced the close down of their hometown bank branch as extrinsic motivation to start learning to use digital banking services.

However, the sampling method must be taken into account. Since the sampling method was convenience sampling, and the online questionnaire was shared online through different social media channels and via email, the sampling method may favour more advanced internet users. Therefore, the share of users who have experienced extrinsic motivation may be even higher. The sampling method does not favour the persons, who have limited digital media activities. For example, a person who uses online banking, but not social media, did not have a probability to be included in the sample. More about the limitations of the research are discussed further.

3.2. Experienced usefulness

The online questionnaire was prepared by utilising the scale questions used to develop the Technology Acceptance Model, by Davis (1985), to explore how useful older consumers have experienced digital banking services. Respondents were asked to compare the digital banking services they use, to the traditional banking services, to give a better view of how useful the services are. Since TAM model suggests that actual use of certain technology is a result of perceived usefulness and perceived ease of use, it is essential to explore it.

Respondents were asked to think about the benefits and compare it with traditional banking services. Majority of the respondents thought that it is easier to control issues relating to personal banking with digital banking services. The statements regarding the usefulness of digital banking services gained very positive results from the survey participants overall. The most significant factor was the time-saving. Among the respondents, 69% have experienced digital banking services less time consuming than traditional banking services. Only 15% of the 102 respondents had negative experiences with time-saving of digital banking.

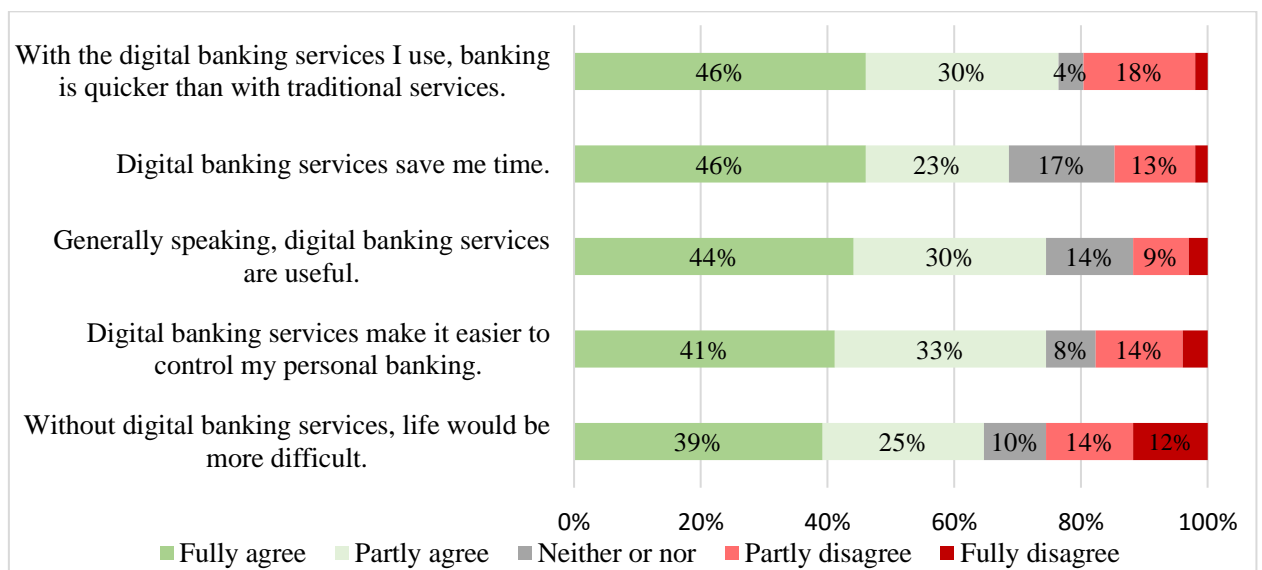


Figure 5. The usefulness of digital banking, n=102.

Source: Author’s calculations

Generally speaking, most of the respondents have experienced digital banking services as a useful tool to take care of personal banking. Among 102 respondents, 74% have experienced digital banking useful. Only 12% of the respondents disagreed with the usefulness of digital banking at some level. Overall, only a small share of the respondents disagreed with the statements, regarding

the usefulness, at some level. Negative experiences ranged from 12% to 26% depending on the statement.

Respondents belonging to the younger age group (65–74) had experienced the usefulness on digital banking services very positive. Respondents agreed very strongly with the statements regarding the usefulness of digital banking. The “fully agree” responses ranged from 46% to 62%. Most of these respondents had experienced digital banking extremely time-saving. Generally, the experiences of respondents aged between 65 years and 74 years were positive, and there were only a few disagreements with the statements.

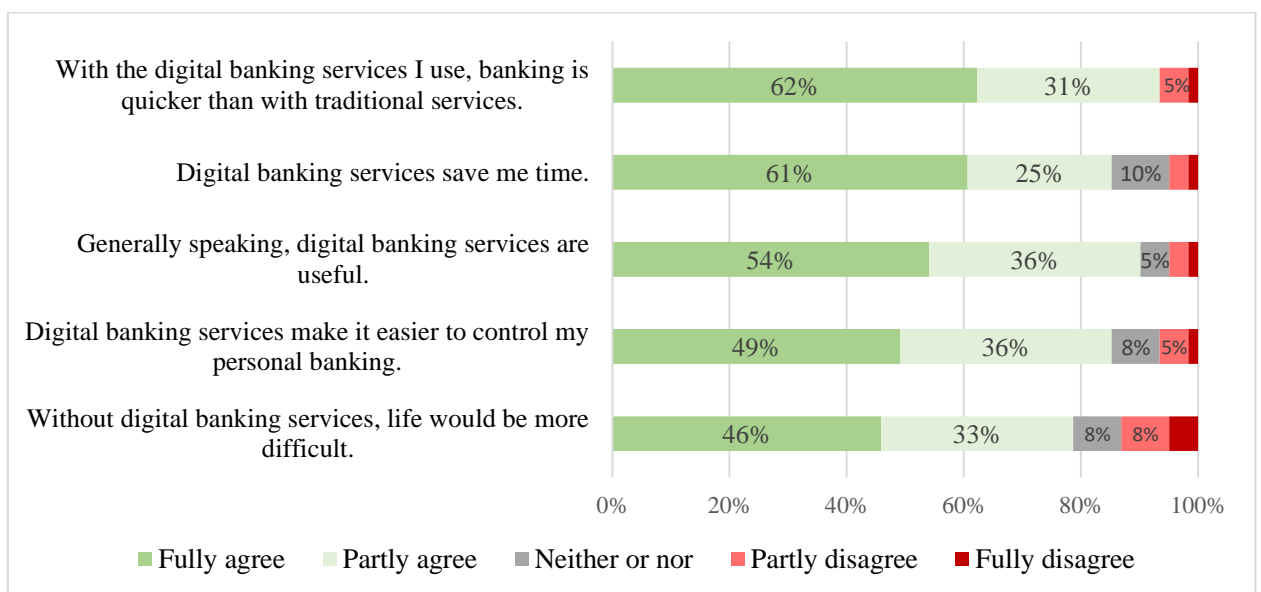


Figure 6. The usefulness of digital banking (65–74), n=58.

Source: Author’s calculations

When the younger age group’s responses are compared to the older age group’s (75–89) responses, a clear difference is noticed. The older age group have not experienced digital banking services as useful as the younger age group have. However, the responses are fairly positive, since the agreements (fully and partly agree) ranged from 49% to 61%, as the next figure presents.

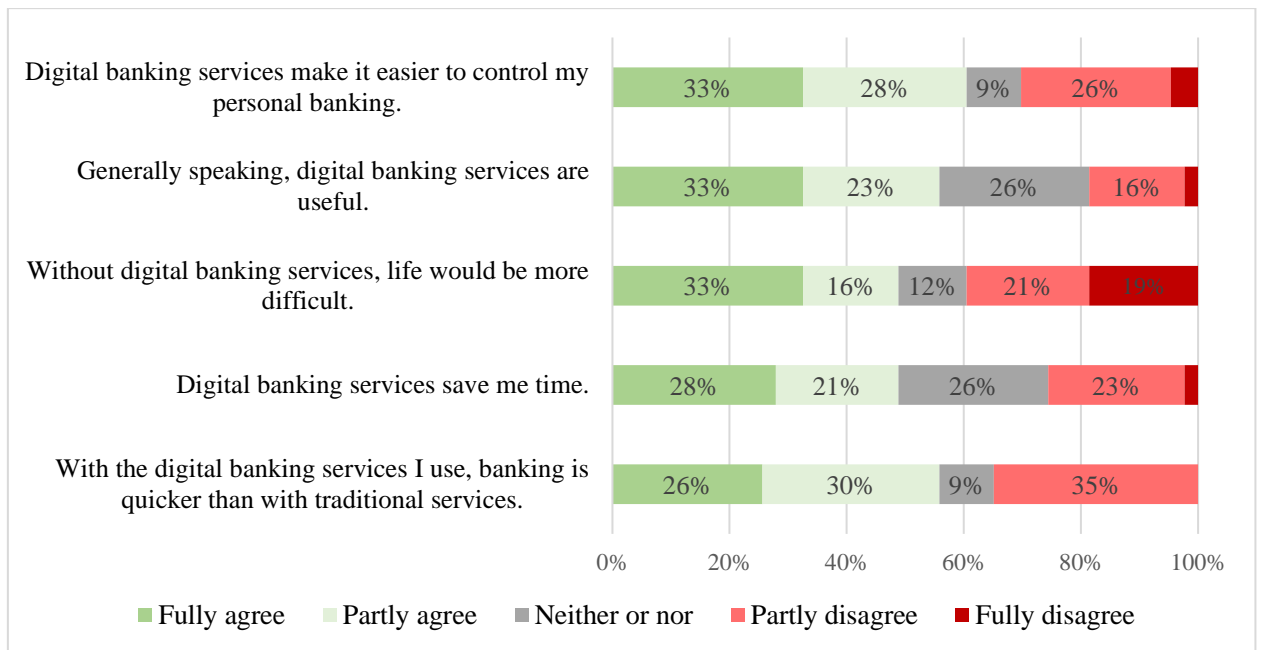


Figure 7. The usefulness of digital banking (75–89), n=43.

Source: Author’s calculations

After all, a clear distinction is revealed from the answers. Respondents aged from 65 years to 74 years have more positive experiences regarding the usefulness of digital banking that respondents aged between 75 years to 89 years. The answers were generally positive, but the younger age group agreed with the statements stronger than the older age group.

3.3. Experienced easiness of use

TAM also suggests that easiness of use is one of two key variables leading to the use of technology. Easiness of use was also measured in the online questionnaire by utilising Davis’ (1985) scale questions, which were used to develop the TAM model.

The results of the online questionnaire express that older consumers have experienced digital banking services more useful than easy to use. If the results of experienced usefulness are compared with the results of experienced easiness of use, it can be spotted clearly that respondents did not agree as strong with the statements. In this section, most of the respondents agreed partly with the statements, whereas in the previous section (experienced usefulness) most respondents agreed fully with the statements. Therefore, most of the older consumers have experienced the

usefulness of digital banking services stronger than its' easiness of use. Altogether, the results are mainly positive.

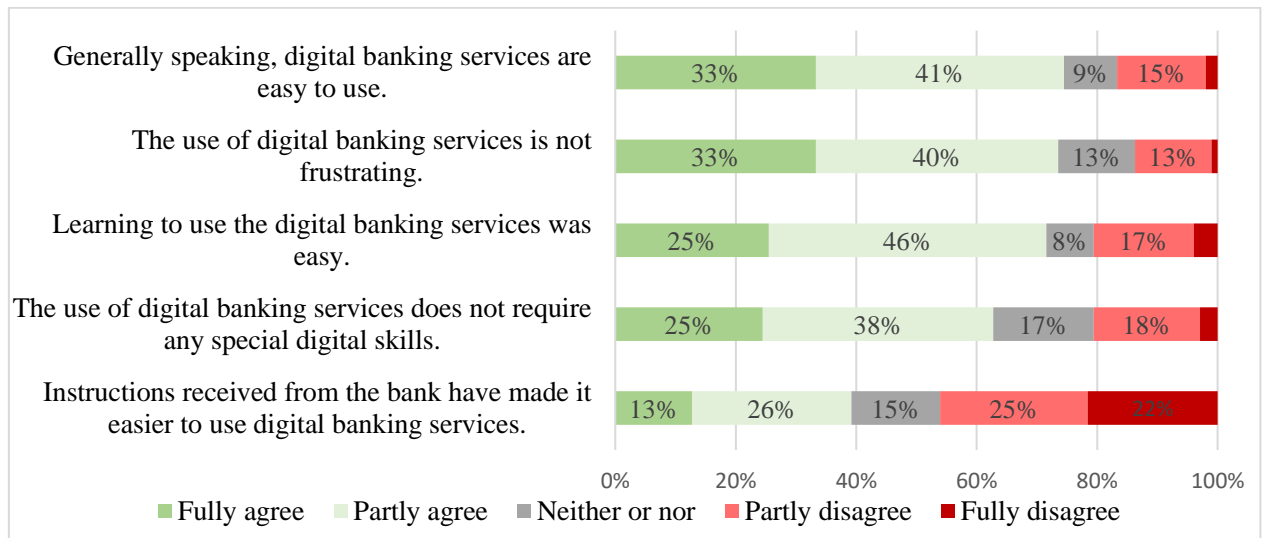


Figure 8. Easiness of use, n=102.

Source: Author's calculations

Particularly noteworthy is respondents' negative experiences with the banks' instructions for the digital banking services. Altogether 47% of the respondents have negative experiences with these instructions since they did not experience them as a helpful tool to make the use of digital banking easier. Among the respondents, 22% fully disagreed with the statement regarding the help of the instructions, whereas only 13% have experienced digital banking instructions helping the digital banking usage. The difference is remarkable, but this finding was expected since there are not many services, designed especially for older people, available in the Finnish bank industry. Furthermore, from the 102 respondents, 14% have experienced digital banking services frustrating. Frustration may be closely connected to the fact that the respondents did not agree with the statement regarding the help of instructions. Nevertheless, majority of the respondents have experienced the usage of digital banking services easy. The statement regarding the help of instructions excluded, the positive responses ranged from 63% to 74%.

The responses of the survey participants aged from 65 years to 74 years indicate that this age group have experienced using digital banking services as easy. The respondents agreed strongly with the statements regarding the easiness of use. As many as 94% of the respondents aged between 65 years and 74 years agreed that digital banking services are easy to use. The only statement which had more disagreements was about the help of instructions.

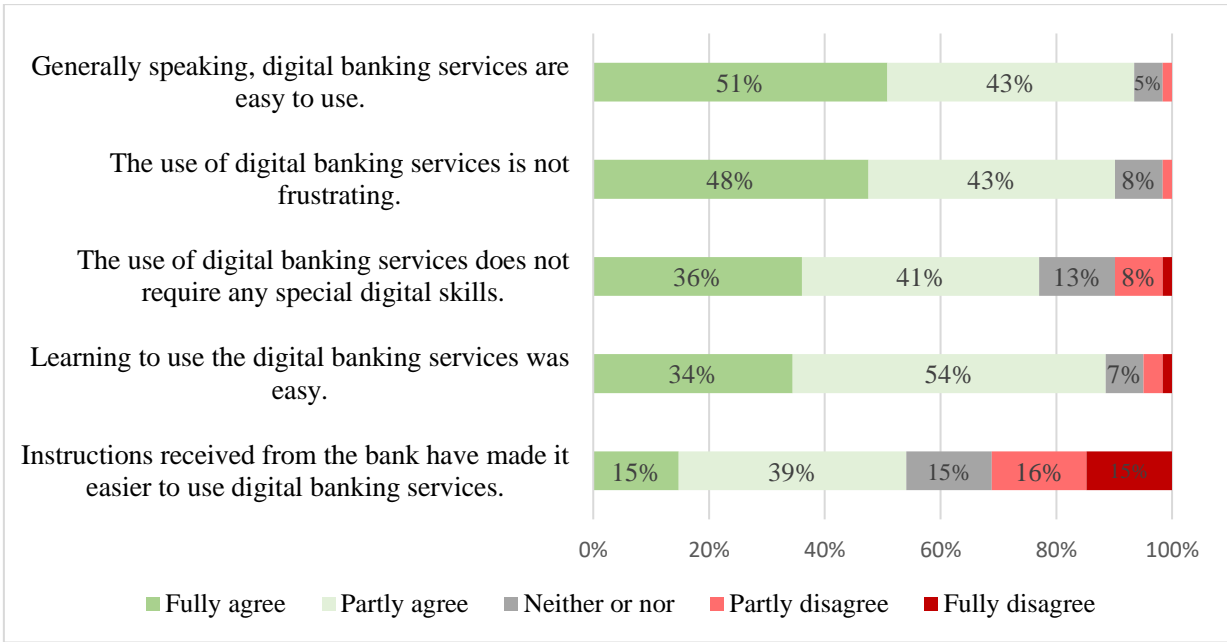


Figure 9. Easiness of use (65–74), n=58.

Source: Author’s calculations

The responses of the survey participants, aged from 75 years to 89 years, indicate that this age group have not experienced using digital banking services easy as the younger age group. The respondents did not agree as strongly with the statements regarding the easiness of use as the younger age group. The answers were fairly evenly distributed on both, positive and negative sides.

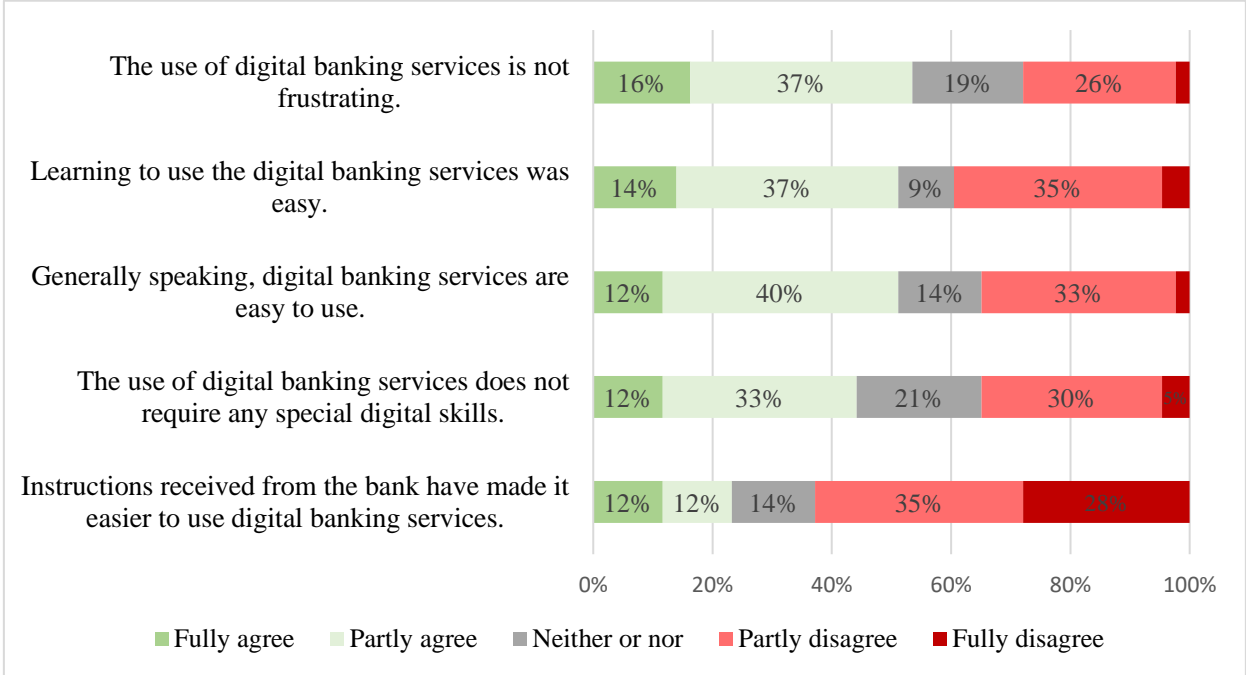


Figure 10. Easiness of use (75–89), n=43.

Source: Author’s calculations

Particularly remarkable is this age group's enormously negative experiences with the banks' instructions for the digital banking services. For this statement, the older age group had much more negative responses than positive. Altogether 63% of the respondents have negative experiences with these instructions since they did not experience them as a helpful tool to make the use of digital banking easier. Among the respondents aged from 75 years to 89 years, 28% fully disagreed with the help of instructions, whereas only 15% of respondents aged from 65 years to 74 years did. Overall, the older age group had fewer very positive responses and also relatively few very negative one, except for the help of instructions.

3.4. Discussion

The study found out, that most of the older consumers, who use digital banking services, have experienced the services practically easy and useful. In addition, most of the survey respondents have become users of digital banking services by their own willingness.

The age distribution of the sample was almost like expected. The statistics of Finland (2018b) indicates that the use of the Internet is more common among people aged between 65 years and 74 years than among older age groups. Therefore, it was expected that the majority of the sample belongs to this group. On the other hand, since 42% of the respondents were aged between 74 years and 89 years, the study managed to reach relatively more individuals from this age group. In addition, since the use of online banking is commonly very popular in Finland (*Ibid*), its' prevalence in this research was not surprising. The results indicate that there is a significant difference in the prevalence of online banking and other digital banking services. Particularly noteworthy is that the newer the digital banking technology is, the smaller its' using rate is among older consumers. This, in turn, is explained by the uncommonness of smartphones among older people. Most of the older people, who use digital banking services, have learned to use online banking to complete the tasks they need to, and therefore they must not necessarily have to learn using newer digital services like mobile banking and mobile wallets. In addition, many of the older people may have prejudices against newer digital banking services.

SDT outlines intrinsic and extrinsic motivation as forces affecting people's ability, efforts and willingness. The results show that most of the respondents use digital banking services as a result

of intrinsic motivation. These respondents, who are intrinsically motivated, are willing to behave in a certain way, in this case, to use digital banking services. SDT discussed that intrinsic motivation is closely associated with an individual's beliefs and values. Therefore, the results show that many of the older consumers have wanted to become users of digital banking. On the other hand, 28% of the respondents have experienced external pressure, which SDT defines as extrinsic motivation, which has led to digital banking usage. In this case, people have not clearly become users by their own will, but more of a necessity. The author assumed a slightly larger share of respondents, who had experienced extrinsic motivation. One cause for this may be that the survey was conducted on the Internet, which might favour more active digital media users.

As discussed earlier, technology's usefulness is a major variable leading to the usage of technology, according to TAM. Majority of the respondents have experienced digital banking as a useful service, which makes life easier in many ways. Respondents had very strong agreements with the statements, which concerned digital banking's time-saving ability. Nowadays, older people are much healthier and humans' life expectancy is higher, so many of them do not want to spend their time sitting at a bank office, at least when these issues can be managed digitally. Therefore, these persons believe that using digital banking is enhancing their performance. The only statement which had little more (26% of the respondents) disagrees, was "life would be harder without digital banking services". Most of the older people have managed their life before without any digital banking, so therefore some of them might feel that life would not be harder without digital banking. Nevertheless, most of the respondents had experienced digital banking so useful, that they think life would be tougher without them. If the responses of younger age group are compared to the responses of older age group, the results show that consumers aged between 65 years and 74 years have experienced the digital banking services more useful than consumers aged between 75 years and 89 years.

Second key variable leading to the usage of technology, according to TAM, is the easiness of use. In TAM, easiness of use refers to the degree to which person believes a system could be used without effort. The findings of the study show that older people have experienced digital banking more useful than easy to use. Respondents did not agree as strongly with the statements regarding the easiness of use. This can be explained by differences between age groups. Among those aged 75 years and 89 years, the introduction of digital devices and services is more challenging, if it has not been done many years ago, or if the use has not become familiar through working life. Especially the older age group would need good instructions and personal help to learn to use

digital banking services. Therefore, it was remarkable to see from the results that a large share of the target group had experienced the instructions unhelpful to learn using the services. Supposedly, the main reason for this is the lack of service strategies, targeted especially for older consumers, as evidenced in the study conducted by Fine (2018). All things considered, respondents had rather positive experiences with the easiness of use of digital banking services.

Since there was distribution in the answers regarding the easiness of use of digital banking devices, it fits well with the typology developed by Quan-Haase et al. (2018). Because the easiness of use is based heavily on the skill level of the user, it is clear that the variation in the responses is due to the diverse digital skill background of the respondents. More skilled users find digital banking services easier to use than users who have more limited digital skills or digital activities. According to the typology, users with very positive responses are most likely Go-Getters and Savvy Users. These user groups have great confidence in their digital skills and they are more likely to learn new competencies regarding digital media because they have more appreciation for digital media. Respondents with neutral and little positive responses are more likely to belong to the Basic Users. Because Non-Users and Reluctant Users are extremely uncomfortable using digital media and they have very limited digital media activities, the sample is unlikely to involve participants of these user groups. Because of the scope of the thesis, the research cannot give precise definitions which user groups they belong, but the suggestions are mainly indicative.

Strongest limitation factors in the current study are associated with the sampling method. The current study would recommend using a different sampling method for future research. This research used convenience sampling as a sampling method, where the online questionnaire was shared online through different social media channels and via email, due to convenience and low costs. Therefore, the sampling method may favour advanced digital media users more than reluctant users. In this case, the convenience sampling method does not favour the persons, who have limited digital media activities. Persons, who do not use social media, or were not included in the author's mailing list, did not have a probability to be included in the sample. In addition, the findings of this study suggest using the research tool (questionnaire) in two different forms for future research. For example, using both, an online questionnaire and a paper questionnaire, could improve the reliability of the sample and the results of the survey. A questionnaire, which is done on the Internet, excludes people who cannot access, or have limited access, to the Internet. Therefore, adding a questionnaire in a paper form, could increase the number of respondents who have less online activities, and give more accurate data about experiences also from these users.

CONCLUSION

Only limited studies had focused on how seniors are coping with digital changes in e-services. The research problem was that there was a gap in the knowledge about what kind of experiences older Finnish consumers have of digital banking services. To solve the research problem, the research aimed to investigate the experiences of older people, which were limited to concern usefulness, and easiness of use, of digital banking services, and compare the responses of different age groups. In order to fulfil the aim of the current research, an online questionnaire was used as a research tool to solve the research problem. The online questionnaire received 102 eligible responses.

The study found out that digital banking services are experienced as very useful and easy among the older Finnish consumers. Results of the online questionnaire indicate that older consumers' experiences of digital banking services are much more positive than negative. Respondents were asked to compare the digital banking services they use, to the traditional banking services, to give a better view of how useful the services are. Respondents had positive experiences with the usefulness of digital banking services. In general, older consumers have experienced digital banking less time-consuming than traditional banking. Furthermore, respondents agreed strongly that with digital banking, it is easier to control issues relating to personal banking. In addition, the results of the online questionnaire express that older consumers have experienced digital banking services more useful than easy to use. By comparing the responses about the experienced usefulness and the responses about the experienced easiness of use, it is clearly seen, that respondents did not agree as strong with the statements regarding the easiness of use. In general, taking all responses into account, the use of digital banking is experienced as easy to use, but not as strong as the usefulness of digital banking.

Comparison of the responses of two different age groups, consumers aged between 65 years and 74 years and consumers aged between 75 years and 89 years, shows the younger age group have experienced the digital banking services more useful than the older age group. The difference is not significantly large but clearly noticeable from the results. In general, most of the responses were positive, but the younger age group agreed with the statements stronger than the older age

group. A significant difference was revealed when the experiences about the easiness of use were compared. The study found out that the younger age group have experienced the usage of digital banking much easier than the older age group. The difference is remarkable because the respondents belonging to the older age group had much more disagreements with the statements that the younger group had.

Directive findings show that most of the respondents have become users of digital banking services by their own willingness. Therefore, most of the respondents (72%) have experienced intrinsic motivation to become a user of digital banking services. As the SDT theory suggests, these respondents are inherently interested in digital banking and have experienced the usage enjoyable. The minority of the respondents (28%) expressed that their motivation to become a user of digital banking services has been extrinsic. In most cases, respondents' source of extrinsic motivation was the lack of traditional banking services. Since the majority of the respondents expressed that they have become users of digital banking services by their own will, the positive responses regarding the usefulness and easiness of use are reasonable. These respondents have experienced digital banking services useful which have led to the usage. SDT suggests that intrinsic motivation is assumed to result in high-quality learning since it is closely associated with personal values and beliefs. Therefore, experienced usefulness, such as time-saving, has an impact on the willingness to adapt to new technologies.

Based on the findings and the conclusion, the current study suggests the following proposals and recommendations for further research:

1. Really positive experiences towards digital banking services are impacted by the limitations of the study. Therefore, it is recommended to utilise a different sampling method as well as taking a larger sample.
2. The research tool could be utilised in two different forms. Using both types, an online questionnaire and a paper questionnaire could improve the reliability of the sample and the results of the survey.

The presented findings and conclusions are strongly impacted by the research and sampling methods. The author suggests taking the limitations of the current research into account for further research.

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APPENDICES

Appendix 1. The questionnaire

Question	Scale Items	Scale Type
Q1: Are you at least 65-year-old and you have used digital banking services in Finland?	A1: Yes A2: No	Nominal scale
Q2: What digital banking services you have used?	a) Online banking b) Mobile banking c) Digital customer service d) Mobile wallet e) Bank's smartphone applications	Nominal scale
Q3: Have you become a user of digital banking service by your own willingness or external factor?	A1: Own willingness A2: External reason	Nominal scale
Q4*: What was the main reason which led to the use of digital banking? * = Appears only for respondents who chose A2 in Q3.	a) Close down of home town bank branch b) Travel difficulties c) Customer service exists only in digital form d) A far distance of a bank branch e) Lack of traditional banking services f) Else, what? (open-ended)	Nominal scale
Q5: Please indicate your level of agreement with the following statements regarding usefulness. Compare the digital banking services you are using to	a) With the digital banking services I use, banking is quicker than with traditional services. b) Digital banking saves me time.	A five-point Likert-scale: 1) Fully disagree 2) Partly disagree 3) Neither or nor 4) Partly agree 5) Fully agree

<p>traditional banking services to make answering more convenient.</p>	<p>c) Digital banking services make it easier to control my personal banking. d) Without digital banking services, life would be more difficult. e) Generally speaking, digital banking services are useful.</p>	<p>The scale looks as follows: : _ : _ : _ : _ : 1 2 3 4 5</p>
<p>Q6: Please indicate your level of agreement with the following statements regarding the easiness of use. Compare the digital banking services you are using to traditional banking services to make answering more convenient.</p>	<p>a) Learning to use digital banking services was easy. b) The use of digital banking services is not frustrating. c) The use of digital banking services does not require any special digital skills. d) Instructions received from the bank have made it easier to use digital banking services. e) Generally speaking, digital banking services are easy to use.</p>	<p>A five-point Likert-scale: 1) Fully disagree 2) Partly disagree 3) Neither or nor 4) Partly agree 5) Fully agree</p> <p>The scale looks as follows: : _ : _ : _ : _ : 1 2 3 4 5</p>
<p>Q7: What is your gender?</p>	<p>A1) Woman A2) Man</p>	<p>Nominal scale</p>
<p>Q8: What is your age?</p>	<p>A1) 65–74 A2) 75–89 A3) 90 or more</p>	<p>Nominal scale</p>

Source: Davis (1985); Chuttur (2009); prepared by the author

Appendix 2. The results of the questionnaire

Question	Scale Items
Q1: Are you at least 65-year-old and you have used digital banking services in Finland?	A1: Yes 99% A2: No 1%
Q2: What digital banking services you have used?	a) Online banking 98% b) Mobile banking 38% c) Digital customer service 38% d) Mobile wallet 21% e) Bank's smartphone applications 14%
Q3: Have you become a user of digital banking service by your own willingness or external factor?	A1: Own willingness 72% A2: External reason 28%
Q4*: What was the main reason which led to the use of digital banking? * = Appears only for respondents who chose A2 in Q3.	a) Close down of home town bank branch 10% b) Travel difficulties 17% c) Customer service exists only in digital form 3% d) A far distance of a bank branch 3% e) Lack of traditional banking services 66% f) Else, what? (open-ended) 0%
Q5: Please indicate your level of agreement with the following statements regarding usefulness. Compare the digital banking services you are using to traditional banking services to make answering more convenient.	FA = Fully agree PA = Partly agree NN = Neither or nor PD = Partly disagree FD = Fully disagree a) With the digital banking services I use, banking is quicker than with traditional services. FA 46% PA 30% NN 4% PD 18% FD 2% b) Digital banking saves me time. FA 46% PA 23% NN 17% PD 13% FD 2% c) Digital banking services make it easier to control my personal banking. FA 41% PA 33% NN 8% PD 14% FD 4%

	<p>d) Without digital banking services, life would be more difficult. FA 39% PA 25% NN 10% PD 14% FD 12%</p> <p>e) Generally speaking, digital banking services are useful. FA 44% PA 30% NN 14% PD 9% FD 3%</p>
<p>Q6: Please indicate your level of agreement with the following statements regarding the easiness of use. Compare the digital banking services you are using to traditional banking services to make answering more convenient.</p>	<p>FA = Fully agree PA = Partly agree NN = Neither or nor PD = Partly disagree FD = Fully disagree</p> <p>a) Learning to use digital banking services was easy. FA 25% PA 46% NN 8% PD 17% FD 4%</p> <p>b) The use of digital banking services is not frustrating. FA 33% PA 40% NN 13% PD 13% FD 1%</p> <p>c) The use of digital banking services does not require any special digital skills. FA 25% PA 38% NN 17% PD 18% FD 3%</p> <p>d) Instructions received from the bank have made it easier to use digital banking services. FA 13% PA 26% NN 15% PD 25% FD 22%</p> <p>e) Generally speaking, digital banking services are easy to use. FA 33% PA 41% NN 9% PD 15% FD 2%</p>
<p>Q7: What is your gender?</p>	<p>A1) Woman 57% A2) Man 43%</p>
<p>Q8: What is your age?</p>	<p>A1) 65–74 57% A2) 75–89 42% A3) 90 or more 1%</p>

Source: prepared by the author

Appendix 3. The online questionnaire translated to Finnish

The online questionnaire translated to the Finnish language has been uploaded to a third-party service provider's server for downloading and viewing, according to the requirements for student papers at TTÜ School of Business and Governance. The questionnaire is accessible on the following link: https://1drv.ms/f/s!AoiN6pknUs1DunU9fU2zxN_UjbV1