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Value co-creation within the digital divide

How organizations can co-create value to maintain and attract older adults as their customers

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ABSTRACT

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Title

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Abstract

Digitalization has made it possible for organizations to propose value to their customers through digital services. Meanwhile, due to digital development, the digital divide has increased in society, since many older adults do not know how to use the proposed digital services.

The purpose of this study was to investigate the challenges and dilemmas that older adults face within digital services and how organizations can co-create value with older adults to maintain them and attract them as their customers. This study aimed to analyze existing data, but also to embrace new findings, therefore, an abductive approach has been used. Seven interviews were accomplished, one with the head of sales development at our case organization Skånetrafiken, and six interviews with older adults, who contributed with their thoughts about the digitalization, digital services, and value.

The digital divide does not only depend on the digitalization but also that older adults feel forgotten as customers since they do not follow with the digital development, which leads to older adults not knowing how to use digital services. Organizations may co-create value with older adults through a change of mindset, education, information, and interaction. Moreover, this may lead to that organizations attract and maintain older adults as their customers, meanwhile minimize the digital divide.

The context of this study has a few limitations that may affect trustworthiness. Firstly, only one region was taken into consideration. Secondly, this study could have contained more participants in interviews with older adults. Lastly, due to Covid-19, there was no possibility of having physical interviews, which set limits for reading body language and facial expressions. However, future researchers may consider these limitations and hopefully can contribute to more research on this widespread topic.

Although the findings are related to the cases of older adults and Skånetrafiken, this study contributes with original insights into the field of the digital divide, older adults, and value co-creation.

Keywords

Older adults, digitalization, digital transformation, digital services, digital divide, value, value co-creation.

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1. INTRODUCTION

In this chapter, the background and problematization of digital development, value, and the digital divide are described. The chapter also presents the research purpose, research question, and disposition of this study.

1.1 BACKGROUND

The innovation in *digital transformation* refers to the process of using digital technology to create new customer experiences. The development has made customers instantaneously attached to digital services and has made them afraid to give them up once they started using them (Fritze, Eisingerich, & Beckenstein, 2018). The development of technology has simplified everyday routines for the population, and digital services offer a more natural way to handle daily errands. One example of digital services is e-identification that people use for logging in to banks, health centers, public travel centers, and authorities (Jonsson, Egels-Zandén, Hagberg, Lamngård, & Sundström, 2017). The adaption of digital use is no longer a luxury; it is more of a demand to ensure individuals' inclusion in society, which has created uneven access to information and communication technologies (ICT) between older adults and younger people. The differences in digital use between older adults, in this thesis, referred to people ages 75+ and younger people, is a result of digital development and is called the digital divide (Huei-Wu, Damnée, & Kerhervé, 2015).

Digitalization has meant significant changes in how people live their lives, and it affects society in many aspects. It has become easier for people to communicate, to do the daily errands more effectively, and has streamlined society. From an organizational point of view, digitalization has made it easier for organizations to follow up on sales and marketing, to get an overview of business agreements, and to simplify the customer service. Digital services allow organizations to get closer to their customers and understand their needs and challenges, which makes it easier to provide a value proposition to them (Fritze, Eisingerich, & Beckenstein, 2018). However, when studying the report about digital services from Internetstiftelsen (2018), the results show that eight out of ten Swedes use e-identification in their daily lives, but that the majority of older

adults at the age of 74 and older, never use e-identification. In 2012, there were 1,6 million Swedes that did not use the internet. The numbers have decreased between 2012 and 2018, and most people feel more included in the digital society (Internetstiftelsen, Svenskarna och Internet, 2018). In contrast, there are still 1,1 million people that do not use the internet and 1,5 million Swedish inhabitants that do not use e-identification (Internetstiftelsen, Svenskarna och Internet, 2018). Approximately fifty percent of the older adults do not feel included in the digital society and perceive difficulties when they use digital services, which has created a digital divide. A few reasons for the digital divide are difficulties with techniques, that learning feels hard, lack of economic conditions, lack of interest, physical problems, or diseases (SPFseniorerna, 2019). The following quotes show results from earlier research, where difficulties among digital services were quoted as:

"It is an unfair system. Those who understand the digital system can more easily get hold of tickets to concerts and things".

"I had to call my friends with computers to know where to go."

"You are charged an extra 30% when using your card on the bus"
(Reneland-Forsman, 2018).

These quotes from the study done by Reneland-Forsman (2018) show that older adults do not receive the proposed benefits from digital services, which depends on the development of technology that has occurred. The trend toward a digital society changes the way that organizations interact with their customers by enabling new connected product functionalities to increase the opportunities to affect the value creation (Porter & Heppelmann, 2014). However, if the perceived customer does not know how to handle the digital services offered, there is no value created for the customer (Grönroos & Ravald, 2011). *Value creation* has evolved from a product-dominated logic to a service-dominated logic, where organizations have changed focus from offering only benefits from the products and goods to offering benefits through services provided to the customers (Vargo & Lusch, 2008). Customers are the *value creators*, and organizations cannot produce or give value; instead, they can offer value propositions through services. The goal is to make customers understand the benefits of digital services and feel better after using it (Grönroos & Voima, 2013).

The digital transformation that organizations does, is expected to create a higher value for customers. Moreover, It is supposed to create greater transparency in order to share and gain knowledge and information; meanwhile, customers receive benefits, such as new products and services, new experiences, and lower prices (Reddy & Reinartz, 2017). Furthermore, the digital transformation aims to bring value to society by enabling a more efficient and effective public administration process in terms of providing secure and safe access to create a more simplified daily life (Reddy & Reinartz, 2017). However, to achieve the true potential and effect of digital transformation, digital technology needs to meet the need of all groups, including *older adults* (AgeUK, 2016). These factors indicate that there is a gap due to the digitalization within digital services where organizations strive to co-create value with the customers. In contrast, neither Grönroos (2011) or Vargo and Lusch (2008) studies show how organizations and older adults should co-create value together to decrease the digital divide. Therefore, it is essential to explore the gap between older adults and organizations.

1.2 PROBLEMATIZATION

The relationship between digitalization and social exclusion among older adults exists and has been a widespread issue to study (Reneland-Forsman, 2018). Older adults are a growing population, and, studies show that people aged 65 years and older in Sweden are expected to increase from 2.0 million to 2.4 million in 2030; while those aged 75 years and older are expected to increase from 900,000 to 1,6 million in 2030 (Trafikanalys, 2019). Even though the number of older adults is growing in both population and shares, so is also the digital divide between the younger and older generation (See Appendix 1). As per the Central Bureau of Statistics in Sweden, 67 percent of the ages 75-85 do not have e-identification (Statistiska Centralbyrån, 2018). Furthermore, 21% of the older adults in Sweden do not feel included in the digital society due to several reasons, such as a feeling scared of doing wrong or get scammed, a lack of knowledge, or feeling stupid for not knowing how to handle digital services (SPFseniorerna, 2019). Hence, the statistics confirm earlier research, which shows that the digital divide is strongly associated with age and that internet use decreases significantly in those aged 60 years and older (Siren & Grønberg Knudsen, 2016).

Older adults have a thirst for knowledge of digital technology and recognize the benefits that are afforded by engaging with technology and digital services. However, they feel that there is not enough knowledge available for them to understand it (Betts, Hill, & Gardner, 2019), which means that organizations that provide digital services do not attract older adults as their customers since organizations cannot create value for customers on their own. Organizations need to interact with their customers to be able to understand them, which could make it possible for organizations to go from value facilitators to co-creators of value (Grönroos, 2011; Vargo & Lusch, 2008). Therefore, there is a need to clarify how organizations can work towards older adults to increase knowledge among digital services (Betts et al., 2019). The digital transformation now defines the society in which we live; however, this demands older adults to understand the use of digital services that organizations provide (Fischl, Asaba, & Nilsson, 2017). Many organizations offer services exclusively online with use from their digital services to co-create value by making it easy for customers to do their errands online without having to go outside. On the other hand, if the customer needs physical contact with the organization, they are often charged with an extra fee for offline services (Seifert, Hofer, & Rössel, 2019). This is a contrast that results in a spiral of isolation whereby the digitally rich become more included, and the digitally poor become more isolated within a society that conducts through technology (Fischl et al., 2017).

Earlier studies show that it is appropriate for organizations that are interested in keeping their current customers and at the same time gain new ones, such as older adults, to reshape the offer of digital services to fit better with the lives of older adults (Selwyn, Gorard, Furlong, & Madden, 2003). Furthermore, there seems to be a gap between knowing the current issue and knowing how organizations can reach out to older adults. For example, Skånetrafiken, which is a public service management organization within Region Skåne, has the mission to provide sustainable transport to everyone traveling in the Region of Skåne. Therefore, Skånetrafiken has a responsibility to include older adults as their customers and fulfill their needs within traveling. In contrast, Skånetrafiken announces in the annual report that there are difficulties with taking back market shares within the older generation (Skånetrafiken, 2019). Hence, this could partly depend on the digital transformation since a significant amount of older adults reacted negatively when Skånetrafiken digitally developed and removed their physical cards (Sydsvenskan, 2019).

Thus, this strengthens the need for investigating the gap between digital services, older adults, and organizations. Hence, it would be preferable to know the barriers that are perceived within digital services and the desired solutions to explore how organizations could maintain older adults as their customers even though the digital development (Fischl et al., 2017). The organizations otherwise run the risk of losing older adults as their potential customers, and older adults run the risk of being digitally excluded in society. Fischl et al., (2017) argue that there are many benefits and opportunities for older adults to become active participants in digital technology but are unclear about how this could be done.

Moreover, Selwyn et al. (2003) argue that there is a need for adaption within the use of the internet and digital services; however, the authors do not suggest any further suggestions of how. In contrast, Garbin et al. (2017) suggest that future research should analyze the supporting role that the younger generation could have in the social inclusion of older adults in a digital, even more, sustainable society. The idea of investigating barriers that occur for older adults and relate them to how organizations can co-create value to maintain and attract older adults could be seen from two different perspectives. Firstly, from a societal perspective where there is pointed out that this is a highly relevant subject to study since we live in a digital society where older adults feel excluded. There have been numerous studies that highlight the existence of the digital divide between the older and the younger generation, where they mostly state that older adults face barriers within the digital development (Fischl et al., 2017). Hence, this is an issue that creates a gap in society; meanwhile, it lacks earlier research on how this problem could be solved.

Secondly, from an organizational point of view, since older adults represent a large and growing proportion of the population and are customers for many organizations (Olphert & Damodaran, 2005), which makes older adults an essential asset for organizations. As mentioned, customers are the value creators, and organizations can only give value propositions to their customers. However, if the perceived customer does not feel the benefits of the proposed value for reasons mentioned above, there is no value co-creation between the customer and the organization (Grönroos & Voima, 2013). There is a need for organizations to understand older adults as customers to be able to co-create value with them that could result in retaining or gaining them as customers. By putting these

two perspectives into one study, we highlight the challenges and dilemmas that occur for older adults because of the digital transformation. Furthermore, this study will be able to compare the challenges that occur and explore how organizations can implement strategies to simplify and co-create value together with older adults, and meanwhile gain back market shares with older adults. This study is relevant since it may help both future types of research to continue within this subject, but also help organizations maintain the older adults as customers, and give a long-term value that results in fewer people feeling outside from the digital society as they do today.

1.3 RESEARCH PURPOSE

This study aims to investigate the challenges and dilemmas that older adults face within digital services and how organizations can co-create value with older adults to maintain them and attract them as their customers. This is mainly studied by contributing to earlier research among barriers within digital services, but also by exploring how digital developed organizations could work to attract and maintain older adults.

1.4 RESEARCH QUESTION

How can organizations co-create value to maintain and attract older adults as their customers?

1.5 DISPOSITION

This study is divided into seven chapters that together aim to answer the research question. Chapter 1 introduces the background to this study and highlights the importance of the research question by a problematization. Chapter 2 presents the theoretical knowledge that shows several theories that are needed to understand this study and the two different perspectives. Chapter 3 presents the chosen case that is discussed throughout the whole research. Chapter 4 continues by explaining the epistemological assumptions and how data was gathered and collected. In chapter 5, the main findings are presented, and, in chapter 6, the findings are discussed and compared in a relationship with earlier research. Chapter 7 concludes the whole study with a summary, conclusion, practical implications, and suggestions for future research.

2. THEORETICAL BACKGROUND

The theoretical background aims to explain concepts that are relevant to this study. The main concepts discussed are (1) digital development, which includes digitization, digitalization, digital transformation, (2) digital divide, and (3) older adults. Moreover, to answer how organizations can co-create value, this section also discusses (4) value, (5) value creation, and (6) value-co creation. This chapter ends with a presentation of (7) a conceptual model of this study.

2.1 DIGITAL DEVELOPMENT

The digital technique influences everyone in everyday life and is a trend that will have even more impact in the future. Digital development is often related to three words that have a lot in common: *digitization, digitalization, and digital transformation*. Overall, digitization could be seen as the first step, digitalization the second, and digital transformation as the third step (Cöster & Westelius, 2016). Firstly, digitization refers to converting analog information to a digital form, for example, scanning texts and pictures from paper to PDF. Digitization enables organizations to create business value, which needs data. Secondly, if a company uses the digitization process to improve business or create revenue, then it is called digitalization. Digitalization is closely associated and often interchangeable with digitization, which is a process where organizations use digital technologies and digitalized data to create new work- and communication processes. Lastly, digital transformation is the effect of digitization and digitalization (Iveroth, Lindvall, & Magnusson, 2018). More clearly, the digital transformation process is more about people than about digital technology; organizations analyze the market and develop technologies that could be relevant to use in how they could create value for the customer. Digital transformation requires changes within the organization that focuses on the customer and leadership, led by changes to corporate culture, and the development of technologies that empower and enable employees.

To link the concepts, firstly, the digitization could describe the conversion from analog to digital. Secondly, digitalization could be described as the process whereby we change our way of working and our structures. Lastly, digital transformation could be described

as the total effect that digital development has on society. Hence, they all are needed to be describable as the development of digital techniques (Cöster & Westelius, 2016). Therefore, when referring to the development of technology, this study mainly uses the concepts of digitalization and digital transformation.

2.2 DIGITAL DIVIDE

The interaction between the internet of things and humans has increased significantly in the last decades. The availability of access to the internet and computers have become dramatically essential to manage the economic and social aspects in the world (Van Dijk, 2019). However, not everyone can access the information- and communication technology, which creates a digital divide. The digital divide refers to a gap between the underprivileged members of society, often the poor, *elderly*, and handicapped portion who does not have access to computers or the internet, and the middle-class, wealthy, and younger people who have access to it (Van Dijk, 2019).

As new technologies arise, not all organizations or individuals become users, and even fewer becomes users at an advanced level. Cultural and economic differences in developing countries lead to 10% of the population having access to the internet. Governments are concerned that individuals without access to the information- and communication technologies will be disadvantaged since they are unable or less able to shop online, search for information or learn skills needed (Huei-Wu, Damnée, & Kerhervé, 2015). It is essential to understand that the most significant barrier does not have to do with access. Hence, it is more about the use itself and the lack of knowledge of how to use the technology. It is not enough to have access to the internet since people need to have the digital skills that are necessary to use it for their personal and work life (Van Dijk, 2019).

2.3 OLDER ADULTS

Per definition, older adults in Sweden are defined as people aged 65 years or older, mostly because it is when these people retire from work and become seniors (SPFseniorerna, 2019). However, this study defines older adults as people aged 75 years or older to get a fair result, mostly because people between 65- and 75 years old have worked during the last decade and have been a part of digital development. There is a significant drop off

around the age 75 of the use of the internet and the use of digital devices, which is mainly why this study defines people older than 75 years as older adults (Smith, 2014). According to the central bureau of statistics, 23% of people between 75- and 85 years old have never used the internet in any way (Statistiska Centralbyrån, 2019). Most older adults use the internet daily; however, they feel excluded in the digital society because of the digitalization (See Table 1).

Table 1. *Evidence of the digital divide and digital exclusion* (Statistiska Centralbyrån, 2019)

Evidence of the digital divide and digital exclusion	
The whole population in Sweden	
Excluded in the digital society	8%
Daily use of the internet	88%
E-identification	81%
65-75 years old	
Excluded in the digital society	13%
Daily use of the internet	73%
E-identification	67%
75 years and older	
Excluded in the digital society	60%
Daily use of the internet	48%
E-identification	35%

A study done by SPF Seniorerna (2019) shows the big gap between the population in Sweden and people older than 75 years old and the difficulties they have with digital services because of the digitalization (SPFseniorerna, 2019). Older adults find the digital technology complicated since they feel a lack of financial conditions, uninterested and unexperienced. The considerable difference in the usage of the internet and digital devices indicates the digital divide that occurs in Sweden, which also shows a difference in what older adult value in comparison to the younger generation (Grönroos & Raval, 2011).

2.4 VALUE

According to Grönroos and Voima (2013), value is one of the most challenging concepts to define service marketing and management, mostly because of each person value different things. One might think that a digital service makes the day-to-day activities

easier meanwhile, another person might experience that the digital service makes life more challenging. Several attempts have been made to create conceptual models of value where the focus has been on the individual level and to compare benefits and sacrifices to see the perceived value of the customer. One of them is value-in-exchange, which has become value-in-use, where the perceived value is when the company provides services that make life easier and more comfortable when they use specific services. However, during the 21st century, the definition of value has shifted to a more holistic and experiential perspective, where value has gone from a focus on the products to be more about the perceived customers' experience (Grönroos & Voima, 2013).

Value is nothing that can be produced by the organizations; hence, the actor can use resources such as services to provide potential value to the customer (Grönroos & Ravald, 2011). Furthermore, this means a shift to understanding the exchange in terms of value for the customers instead of the features of the products. It shows a change from a goods-dominant logic to a service-dominant logic, where a goods-dominant logic focuses on products and goods; meanwhile, service-dominant logic focuses on services and the experience for customers (Vargo & Lusch, 2008). The change from a goods-dominant logic to a service-dominant logic has changed the mindset of organizations. It has been a shift from a focus on products to services and experience, from features to solutions, from price and promotion to value proposition and dialogue and from value-added goods to co-creation of value through services. Furthermore, the shift means that it is not possible for organizations to only give products to customers without providing some kind of service on how to use the products. It has become essential to provide services to make the usage of the product easier for the customer. Hence, this shift has changed how organizations work towards the value creators, which is the customers (Vargo & Lusch, 2008). However, it is essential to highlight that even though this study focuses on product-dominant logic and service-dominant logic, they are only two ways of how to look on value. Value is something that could be seen from different perspectives and have different definitions. Hence, this means that Vargo and Lusch (2008) and Grönroos (2011) theories of value are their way of perceiving value and studying value.

2.5 VALUE CREATION

Value creation has gone from the purpose where organizations create something, such as products or goods, to a process where organizations assist customers in their process of creating value (Vargo & Lusch, 2008). Value creation includes acts from organizations, but also from the customer, which could be received as both positive and negative. It is a process of actors, customers, and organizations which make the process comprehensive between the involved people. Organizations deliver the creation of potential value through services that will be used by the customer who later will perceive value. This means that customers create value through value-in-use by using the services and then perceives value through the experience, where the customer is affected in either a positive or a negative way (Grönroos & Voima, 2013). The value-in-use concept makes it essential for organizations to understand that the value for a customer is created during the usage of the resources, which will make them know the customers (Grönroos & Voima, 2013).

When customers have been assisted through a self-service process, such as digital services, or a full-service approach, they create value if customers feel better than before using it. As a result of the change to service-dominant logic, the value creation has gone from seeing resources as an operand, which is the natural resources such goods, to operant, which means that the resources are the skills and knowledge which will provide services needed for the customer to create value (Grönroos & Voima, 2013). Furthermore, value creation is the ultimate way to attract new customers or to maintain current customers, which will make the company gain new customers but, at the same time building long-term relationships with loyal customers (Grönroos & Ravald, 2011). The opportunity to engage with customers value-creating process through direct interaction makes both parties co-creators of value and, the understanding and loyalty between these will increase (Grönroos & Voima, 2013).

2.6 VALUE CO-CREATION

The customers are always co-creators of value, and organizations cannot deliver value to the customer (Grönroos 2011). There has been a shift from thinking about value as something organizations can produce to think about value as something that is co-created with customers (Vargo & Lusch, 2008). Value is not embedded in the resources that the firm delivers to the customer, but it can offer value propositions to the customer to co-

create value. Organizational engagement with the customers allows them to become a part of the customers' value creation (Grönroos, 2011), which makes organizations go beyond only being value facilitators to become value co-creators with the customers. Through this, organizations and customers can co-create value together, which can be made by adapting services to the customer. Value co-creation highlights the importance of interaction with the customer, which will make organizations break free from their role as only being makers of value propositions (Grönroos, 2011). As a result of this changed view on the customers, organizations will see customers as resources that they can build relationships with instead of seeing them as targets (Vargo & Lusch, 2008). Furthermore, this interaction will make it possible for organizations to be a part of the value creation process and influence the perceived value of the customers (Grönroos & Voima, 2013). To get a better understanding of how value, value creation, and value co-creation connect, Grönroos & Voima (2013) have created a conceptual model called Value Creation Spheres (See Figure 1).

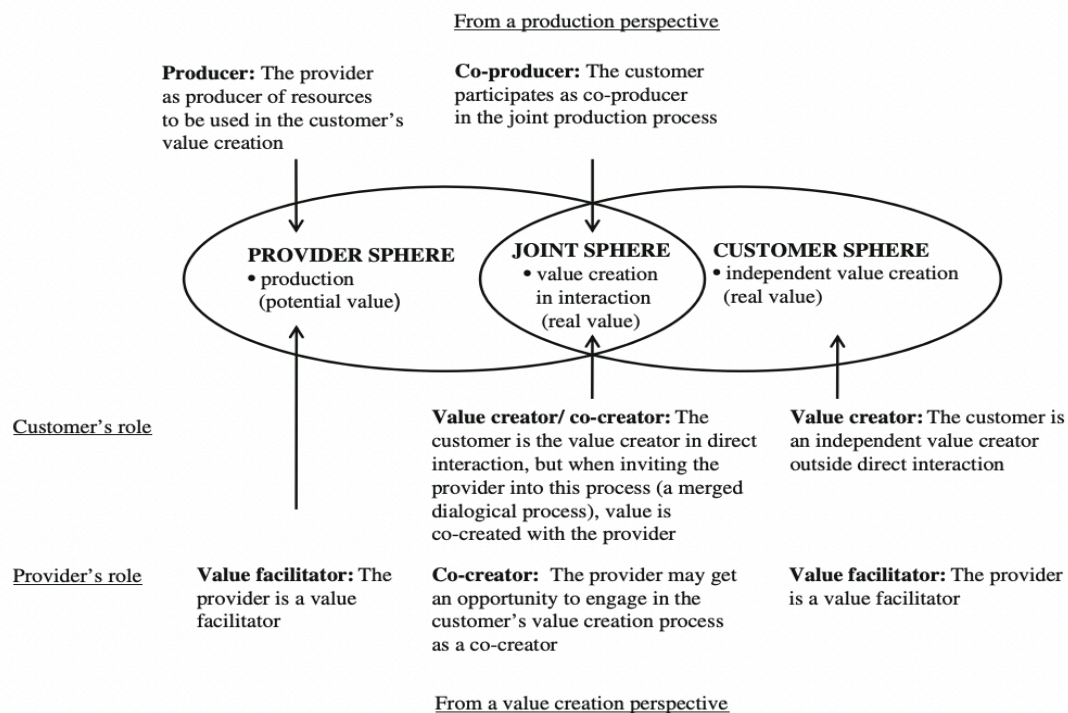


Figure 1. *Value creation spheres* (Grönroos & Voima, 2013).

The conceptual model by Grönroos and Voima (2013) is constructed to explain how organizations can co-create value with the customer. To the left in figure 1, the provider sphere shows that organizations are only able to produce the resources they can offer to the customer as a value proposition or potential value. Without interaction through

services, customers will not move from the customer sphere into the joint sphere, which means that organizations cannot affect the perceived value. By interaction with customers through, for example, digital services, organizations, and customers will be able to co-create value in the joint sphere. In the joint sphere, visualized in the model, the provider of value will receive the opportunity to influence the value creation process. Furthermore, the model shows the importance of interaction since it is the key to be able to co-create value with the customer and, meanwhile, provide reliable loyalty (Grönroos & Voima, 2013). The digital transformation has made it possible for organizations to co-create value with the customers through digital services and interact with customers in the joint sphere. Moreover, co-creation is about understanding the customer and provide a service that is useful and understandable for customers to make their life more accessible, which is a challenge for organizations. If the customer experience is positive, the organization will be able to gain new customers and maintain their current ones (Grönroos & Voima, 2013). However, if the experience is negative, the company may not attract new customers and, at the same time, lose their existing customers (Reddy & Reinartz, 2017).

2.7 CONCEPTUAL FRAMEWORK

To understand the gap between organizations and older adults that occurs when the digital services that are provided are not perceived as positive, this conceptual framework was created. Many older adults do not perceive the benefits of using digital services or understand how to handle them. The framework aims to explain how organizations can co-create value with older adults to attract and maintain them as customers, but also to minimize the digital divide (See figure 2). This study focuses on digital services and the gap that exists since many older adults lack knowledge of how to use digital services, which means that they do not perceive the value and organizations do not attract older adults as their customers (Betts et al., 2019). Earlier research shows that a digital divide exists within the use of digital technology, and the most considerable inequality is between older and younger adults, which has created a feeling of exclusion of older adults (SPFseniorerna, 2019). Hence, it has created a gap where the digital services provided by organizations, are not understood by older adults. Therefore, they may not understand the benefits of using them (Betts et al., 2019), which leads to the fact that it may not be a value creation between organizations and older adults (Grönroos & Ravald, 2011).

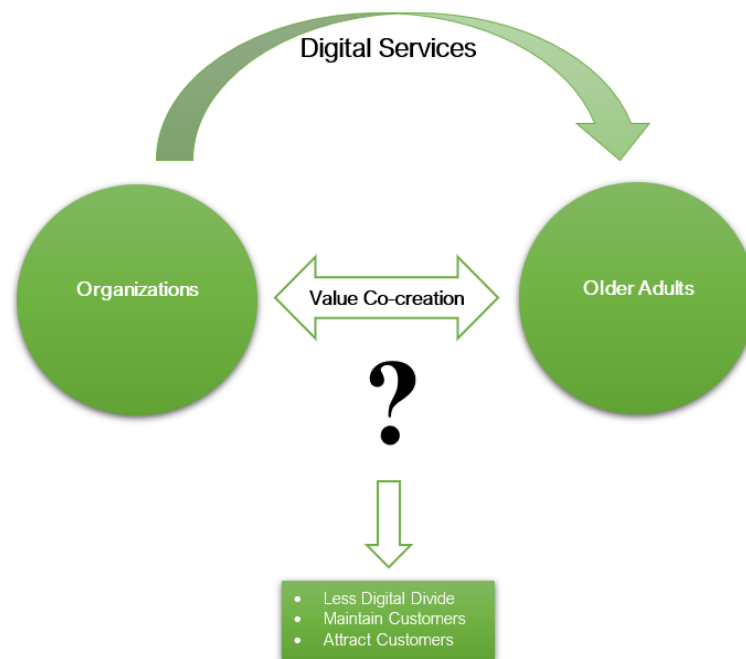


Figure 2. *Conceptual framework*

Value is no longer only about the product provided but more about offering value throughout services that make customers' daily life easier and more effective. Organizations proposed value aims to give something to make customers feel that they have a perceived some benefits and feel better after using digital services (Grönroos & Voima, 2013). However, earlier research shows that older adults do not perceive the benefits of digital services (SPFseniorena, 2019); therefore, there is no value co-creation between older adults and the organization. Grönroos (2011) and Vargo and Lusch (2008) argue that organizations must co-create value together with the customer to maintain them and attract new ones, which leads us to the question mark of the conceptual framework and the research purpose of this study. This study uses the framework to investigate the question mark in the model, which is how organizations and older adults can co-create value to maintain and attract them as customers, but also to decrease the digital divide. From a societal point of view, organizations need to co-create value to avoid leaving older adults feeling excluded in society, which is a reason for the digital divide. Moreover, from an organizational point of view, it shows how organizations could strive to co-create value with older adults to attract and maintain them as their customers, which could lead to a minimized digital divide. The conceptual model describes the aim of this study and simplifies the discussion and conclusion to answer; how organizations can co-create value to maintain and attract older adults as their customers.

3. CASE PRESENTATION

In the late 1990-centuries, the travel crowds, with detours and new tickets, made it possible for a divided Skåne to become a region. There was a need to build a unifying government that could control and manage the division of the public (Strömkvist, 2014). In this manner, Kristianstad County and Malmöhus County were merged into Skåne County, and, created Region Skåne. Like all county councils, the region is primarily responsible for health care, the traditional county council tasks, the development in the county, and the public transport within the county. Region Skåne is responsible for ensuring that those who live or are in Skåne have access to a well-functioning public transport. The public transport has a crucial role in enabling the inhabitants to live, study, or work wherever they want, in a sustainable way (Skånetrafiken, 2020). Skånetrafiken is the community-funded public transport of Skåne that makes it easy to travel sustainably. Every day, people make about 465.000 trips with one of the 14.000 daily buses and trains as well as 5000 service trips – for work, family, and friends. The organization has a revenue of approximately 6.2 billion Swedish crones, and every year more than 170 billion visits are made with city buses, regional buses, Pågatågen, and Öresund trains.

According to Skånetrafiken (2019), public transport is about more than just travel. It is about being able to be a part of something and having the opportunity to contribute to something larger than just public transport; a public co-value that builds a place, one city, a region from the ground, and makes it a home where everyone is satisfied. In Skånetrafikens annual report (2019), Skånetrafiken presents a SWOT-analysis that aims to be a tool to develop the organization. The strengths of Skånetrafiken is that it is modern, has an entrepreneurial spirit, and leads the development in the industry. Skånetrafiken works a lot towards sustainability and has an attractive offering and strategic plan. The development of Skåne depends on the fact that everyone who lives there can travel to work, school, or spare-time activities in a sustainable way – no matter where they live in the region. To reach the goals of increased travel and doubled market share against other motorized traffic, Skånetrafiken must continue to develop public transport so that more people want and can choose a sustainable way of traveling within the region.

Moreover, Skånetrafiken needs to deliver public transport with a high grade of customer service. It is their customers who decide what quality it provides, and, therefore, the organization has a goal that is linked to customer satisfaction where eight out of ten customers should be satisfied with Skånetrafiken in 2025 (Skånetrafiken, 2019). Furthermore, Skånetrafiken is a public management organization that has a responsibility to make sure that everyone gets the opportunity to travel with public transport, which includes older adults. In 150 years, the average life expectancy has increased from just below 50 years to about 80 years today. According to the Statistic Central Agency (2019), the national forecast is expected an average life span of almost 90 years for both men and women; this means that older adults get much older. Skånetrafiken (2019) indicates that the older generation is an attractive customer group for public transport, and they have other needs for service and other demands than before. However, studies show that people aged 65 years or older are the ones who travel the least with public traffic (Traifikanalys, 2015). When older adults travel, only 5% of their travel is by public transport, and, of all the people who travel by public transport, only 19% are older adults (Svensk Kollektivtrafik, 2019). Moreover, Skånetrafiken lacks market shares for older adults and has a significant issue with taking them back as their customers, which could depend on the digital development of Skånetrafiken (Sydsvenskan, 2019). Hence, since Skånetrafiken has a societal responsibility, meanwhile, has digitally developed and lost market shares within older adults, we believe that Skånetrafiken is valuable for this study.

4. METHODOLOGY

In the fourth chapter of this thesis, the epistemological assumptions, chosen theory, research design, and research design are argued for. Moreover, the data collection, operationalization, data analysis, credibility, transferability, and limitations are presented and argued for.

4.1 RESEARCH PHILOSOPHY

A research philosophy refers to how information about a phenomenon should be gathered, analyzed, and used in research. Moreover, it is the basis of research that involves the choice of research strategy, formulation of the problem, data collection, processing, and analyzing. Three main trends of research philosophy are discussed in earlier research, and these are positivism, interpretivism, and realism (Bryman & Bell, 2011). This study aims to gain in-depth insight into the lives of older adults, to gain an understanding of why they feel the way they do and how organizations can co-create value with older adults. Therefore, the interpretive research philosophy is most aligned for this study since the aim is to understand older adults to create meaning throughout value co-creation with organizations. Interpretivism involves researchers to decode elements and integrating human interest into research (Bryman & Bell, 2011). Furthermore, besides interpretivism, this research uses the understanding of older adults to raise the findings within the study to draw conclusions and findings among how organizations could co-create value with older adults. Thus, this means that we must interpret the behavior of older adults and organizations, but also explore findings related to the research question of the study.

4.2 RESEARCH APPROACH

To plan and procedure this study, it has been essential to find a research approach that is based on the nature of the research problem being addressed (Ahrne & Svensson, 2015). The research approach can be divided into the process of data collection and the method of data analysis or reasoning. As this study aims to understand older adults and analyze how organizations can co-create value with older adults, the practice of data analysis or reasoning is approachable. There are two main methods to reach the desired results: the

deductive and the inductive approach, where both aim to learn more about the world and to convince the readers about the findings (Ahrne & Svensson, 2015). The deductive research approach involves formulating a set of hypotheses for the chosen assumption, where the hypotheses need to be confirmed or rejected during the research process. The inductive approach does not involve a formulation of a hypothesis; it starts with research questions and aims to be achieved during the research process to gain broader knowledge about a particular case (Bryman & Bell, 2011). This research aimed to collect information, analyze it, and draw a conclusion from the findings, where an inductive approach would be suitable. However, this study is also guided by earlier research in the table of operationalization and the table of coding. Moreover, earlier research was used when analyzing the empirical findings, therefore, a combination of an inductive and deductive approach has been used, which is called an abductive approach. An abductive approach was the most suitable for this study since it enables the possibility to analyze existing data, but also to embrace new findings.

4.3 CHOICE OF THEORY

Concepts are the building blocks of theory and help business research to reach the goals of the study. Theoretical concepts are a way to get a deeper understanding and, at the same time, relate them to each other to understand different subjects. By using theoretical concepts, it helps to explain the specific aspect this study investigates in (Ahrne & Svensson, 2015). Previous research within this area conceptualizes models to explain things like digitalization, digital transformation, value creation, and value co-creation. Within value creation and value co-creation, there are several conceptual models of what organizations need to do to create value to the customer, but there are only theoretical ideas and nothing about what organizations can do in reality (Grönroos & Ravald, 2011; Vargo & Lusch 2008). However, the aim of this study was not to highlight that co-creation of value is possible in theory. The aim was to investigate the challenges that older adults face within digital services and how organizations can co-create value with older adults to maintain them and attract them as their customers. The theoretical concepts in chapter two are useful to connect them and, thus, investigate this question. In earlier research, authors refer to older adults as people aged 65 years or older. As mentioned, older adults in this study are people aged 75 years or older since there is a significant drop off around this age of the use of the internet and the use of digital devices (Smith, 2014).

All concepts are useful to identify different findings from the collected data in the discussion as well as contribute to the conclusions of the text (Ahrne & Svensson, 2015).

4.4 RESEARCH DESIGN

In order to ensure that this study effectively addressed the research problem, there was a need for a research design. A research design is used as a framework for producing empirical data that fits both several criteria in research and for issues that researchers are working on (Bryman & Bell, 2011). This study is a single case study, where the focus lies on the emphasis on the individual case. A single case-study was the most appropriate research design to use, since this study aims to get an in-depth understanding in one organization and how they strive to co-create value with older adults, in order to answer the research question of this study. Bryman and Bell (2011) define a case study to research that focuses on a single organization, a single location, a person, or a single event. However, this study also embraces the insights from older adults to avoid reliance on the answers only one organization, which will help to get a deeper insight into how organizations can co-create value to maintain and attract older adults as their customers. Therefore, to strengthen the validity of this study, there was a need for an in-depth understanding from the perspective of older adults, but also from an organizational point of view to be able to put them in contrast to each other. Within case studies, Yin (2003) distinguished five types of cases: the critical case, the unique case, the revelatory case, the representative case, and the longitudinal case. This study includes the representative case where we seek to explore cases that exemplifies everyday situations. This type of case study is called an instrumental case study, which means that the aim is to create a broader understanding (Bryman & Bell, 2011), in our case, how organizations can co-create value to maintain and attract older adults as their customers.

4.5 RESEARCH STRATEGY

A research strategy is an overarching plan for managing a research study and is often distinguished between qualitative and quantitative methods (Bryman & Bell, 2011). Quantitative research is often deductive, which means testing of theory and has an objective orientation. Meanwhile, a qualitative study is often inductive, which means the generation of theory and has a constructive exposure (Bryman & Bell, 2011). This research aimed to interpret meaning from the collected data to get an in-depth

understanding (Ahrne & Svensson, 2015); thus, the qualitative method was the research strategy to use rather than a quantitative approach.

4.6 DATA COLLECTION

The data collection section refers to the process of gathering and measuring information on variables of interest (Ahrne & Svensson, 2015). This study consists mostly of primary data from in-depth interviews with older adults and an interview with Skånetafiken, which has been transcribed and transformed into a table of coding (See Appendix 8 & 9).

4.6.1 ETHICAL ASPECTS

Ethical principles have been discussed for several years in business research and can be explained with four main areas; (1) whether there is harm to participants; (2) whether there is lack of informed consent; (3) whether there is an invasion of privacy; (4) whether deception is involved (Bryman & Bell, 2011). To avoid ethical problems, we choose to omit all older adults' real names and information that is not needed about the respondents. Instead, all respondents that participated in the interviews for older adults have received fictitious names. However, the gender and living situation have a function to the aim of this study since the results may differ depending on their gender and where the participants live, which we received consent about. However, regarding the interview with Skånetafiken, we received approval to have the respondents' real name and information about his role at Skånetafiken since we believe this information is essential to the context of this study. Moreover, all interviews and transcriptions have been approved by the participants to make sure that there is no harm to the participants and no deception involved. Lastly, we have tried to present all information and collected data without any personal opinions and strengthen all arguments with references.

4.6.2 SEMI-STRUCTURED TELEPHONE INTERVIEWS

In the aim to answer how organizations can co-create value with older adults, there is a need to get a deeper understanding of what older adults value with digital services and what they do not value. Moreover, there is a need to gain knowledge of how organizations work towards older adults. Therefore, to be able to understand this, we had telephone interviews with six older adults and one interview with Skånetafiken. Interviews are the most widely employed method in qualitative research because of the flexibility that makes

it so attractive (Bryman & Bell, 2011). To make sure that the answers were reliable and in-depth answered, all respondents received the interview guide a few days before the interviews to prepare themselves. In order to get an in-depth understanding, there were many open-ended questions, allowing for a discussion with the respondents rather than a straightforward question and answer format (Bryman & Bell, 2011). Moreover, to get the most out of qualitative interviews, some essential concepts have been taken into consideration when making the interview guide. The questions were sorted in different topic areas and concepts, which makes them flow reasonably well (Bryman & Bell, 2011).

As with every choice of method, there are some advantages and disadvantages to every type of method. The advantage of sending the interview guides before the interviews was that the respondents got the chance to prepare and ponder about the questions before answering them, which is essential when seeking in-depth answers. In contrast, a disadvantage when having phone interviews is that there was no opportunity to see the physical appearance or the body language of the participants. Body language is a part of the non-verbal language where the participant unconsciously shows how they feel about something and is an essential aspect of communication. Humans often convey unconscious signals through the way they gesticulate with hands and arms, how they sit on a chair, how they move, and through facial expressions (Bryman & Bell, 2011). However, during the time of this study, Covid-19, which was a completely new infectious disease, was spreading in the whole world. Older adults were among many others, at risk of developing severe illness, which means that there was no possibility to meet these participants in person. Therefore, for the safety of all respondents, phone interviews were the most suitable way of collecting data for this study.

4.6.3 PARTICIPANT SELECTION OLDER ADULTS

Participants were selected with the aim that they could give information to the research question and enhance understanding of the phenomenon of the study. To study what is necessary to study, some inclusion criteria were used. Firstly, the participants needed to be aged 75 years or older since this study is based on that segment. Secondly, the participants needed to know what digital services are and were required to have some experience from it. Thirdly, the participants needed to have a lifestyle where they travel at least 2-3 times per week, where it does not matter how they travel. Lastly, the

participants can not benefit from public services such as traveling home care and/or home assistance. The older adults were contacted through our current network and asked if they wanted to participate in this study. Six respondents were chosen for this study, three men and three women, aged between 76 to 87 years old. The interviews took place between the 20th of April to the 23rd of April and were approximately 30 to 40 minutes long.

All participants live in the region of Skåne in Sweden, where two of them live alone, and four of them live with their partner. Two of the respondents live in central of Malmö, one respondent lives in Kristianstad, two respondents live outside of Kristianstad, and one of them lives outside of Malmö (See Table 2). Due to the extraordinary situation of Covid-19, older adults are in the risk group of getting infected by the virus; therefore, a convenience sample was used in this study. The disadvantages of using a convenience sample are that the study has a high vulnerability to selection bias and influences beyond the control of the research (Bryman & Bell, 2011). However, even though a convenience sample was used, it did not affect the results of this study since all respondents still reach up to the several criteria mentioned earlier.

Table 2. *Background information, older adults.*

Respondents fictitious name	Age	Gender	Residence
James	78	Men	Central of Malmö with his wife
Brandon	76	Men	Central of Malmö with his wife
Simon	84	Men	Outside of Kristianstad, alone
Frida	87	Women	Central of Kristianstad, alone
Rita	81	Women	Outside of Malmö, with her partner
Kirstin	81	Women	Outside of Kristianstad, with family

4.6.4 PARTICIPANT SELECTION, SKÅNETRAFIKEN

Several employees at Skånetrafiken could have been useful to this study. However, we aimed to get in contact with a person that is responsible for sales development, since we believe that this person had the most to contribute to this study due to the fact that this person is responsible for the development of ticket purchasing and digital services. By reaching out at LinkedIn, the head of sales development at Skånetrafiken was found and contacted. The respondent approved the use of his name and his responsibilities at

Skånetrafiken, therefore, there is no fictitious name for this respondent. The respondent's name is Kevin Brandt, and he is the head of sales development at Skånetrafiken. Brandt's role at Skånetrafiken means that he is the manager of the team that is responsible for which products the organization sells, how to sell it, in which channels the tickets are sold, and to which segments. It was essential to interview Brandt because he is responsible for the development of digital services, and therefore, his answers were most relevant to this study. The interview took place on April 23rd and was approximately 50 minutes long and contained 24 questions that were freely answered by Brandt, where he responded to questions about digitalization, digital services, digital divide, older adults, and value (See Appendix 5).

4.7 OPERATIONALIZATION

To find answers to the research questions, the interview questions have been constructed based on previous research within the chosen research area. The operationalization has a deductive approach since the concepts and questions are grounded from earlier research. The purpose of operationalization was to create a link between the theoretical concepts, earlier studies, and the empirics of the study (Bryman & Bell, 2011). Moreover, the purpose was to adapt and adjust the question for the participants, without losing the meaning and connection to the theory, which is conducted in two tables of operationalization (See Appendix 4 and 7). Every concept in the table of operationalization has a purpose where we clarify the motive of the different questions.

In the table of operationalization for older adults, the concepts were created to get an in-depth understanding of how older adults perceive the development of digital services. The concepts were based on the theoretical concepts and the case organization of this study, which are background information, digitalization, digital services, digital divide, and Skånetrafiken (See Appendix 4). Every question asked has a link to the theoretical framework, which is conducted in the column of sources and has an aim to answer the research question of this study. In the background information, the objective was to get knowledge about the background situation of the participant and a general overview of their thoughts about digitalization and digital services. It is essential to get to know the participant to see if there are any similarities between the participants connected to the results. The section of digitalization, digital services, and digital divide aimed to explore

how older adults perceive digital development, digital services, and what older adults' value. In the last section, Skånetrafiken, the aim was to understand how older adults perceive Skånetrafiken and the digital transformation that the organization has done.

In the table of operationalization for the questionnaire for Skånetrafiken, the concepts were created to investigate how the organization work towards older adults and what Skånetrafiken believes older adults' value. These concepts are digitalization, digital services, and value (See Appendix 7), and has a link to the theoretical framework which is conducted in the column of sources. Guided by the tables of operationalization, interview guides have been created to create a relevant structure throughout the interviews (See Appendix 2 & 5). As mentioned, the topics of the interview are background information, digitalization, and value creation. Firstly, the background information aimed to get background information about the participant and how the organization has done a digital transformation. Furthermore, it seeks to get an overview of how Skånetrafiken works towards older adults and what older adults are offered, which is vital to know since the organization is forced to include older adults as their customers and fulfill their needs of traveling. Secondly, in the section of digitalization, the interview aimed to understand what digital services Skånetrafiken offers, how the digital services have been developed and adapted towards older adults. Lastly, the concept value aimed to understand what value proposition Skånetrafiken offers to older adults. Moreover, it aimed to seek if Skånetrafiken believes that older adults understand the proposition; because if the perceived customer does not know how to handle the digital services offered, there is no value created for the customer. The questions did not follow precisely in the way outlined in the interview guide, and some questions that are not included in the interview guide were asked during the interview, which Bryman and Bell (2011), believes is an excellent strategy to receive flow in the interviews. However, all the questions were asked, and a similar wording was used in all interviews.

4.8 DATA ANALYSIS

The collected data in this study is received from the interviews with older adults and the participant from Skånetrafiken. The interviews were divided into themes based on the concepts in the table of operationalization (See Appendix 4 & 7), which made it easier to study and compare the answers of the older adults and Skånetrafiken. The concepts were

digitalization, digital divide, digital services, and value to receive a structure through the discussion, which simplified the comparison of the findings. However, the concepts of older adults and public transport are excluded in the discussion since these are covered by the other concepts. Moreover, a table of coding was created by repeatedly reading the transcriptions to identify meaning units that could be coded to the concepts mentioned above. The coding follows the concepts that have been used in the table of operationalization and the interview guide since it creates consistency throughout the whole study. The coding made it possible to compare the similarities and differences between all interviews, which later made it possible to see the main findings of this study (See Appendix 8 & 9).

4.9 TRUSTWORTHINESS

All studies need to have high validity in qualitative research, and many researchers find it challenging to reach a high validity. According to Bryman and Bell (2011), validity is about the relevance of the measurement. It is the most important one for researchers, which means that the researchers need to stick to the subject that they studied. The validity, also known as trustworthiness, can be discussed in the forms of credibility, transferability, dependability, and confirmability. Credibility refers to the trustworthiness of the respondents and that they have correctly perceived the questions and subject (Bryman & Bell, 2011). Credibility has been taken into consideration by; (1) dividing the interview questions into different subjects, (2) adapting them to the respondents (3) sending the questions before the interviews for the participants to prepare themselves and be able to ask questions if there is something they do not understand. Confirmability refers to if the researchers did their study in good faith, and thus not for their winning or pursuing a personal agenda (Ahrne & Svensson, 2015). Confirmability has been taken into consideration when choosing the organization that is a public management organization. Moreover, during the data analysis, we tried to be as objective as possible to strengthen the confirmability of this study. Therefore, this study is not for our winning or as meaning to pursue a personal agenda.

Moreover, transferability refers to the degree to which the results of this study can be generalized or transferred to other contexts (Bryman & Bell, 2011). The purpose of this study was to get an in-depth understanding by exploring specific cases about co-creation

between older adults and organizations. Therefore, the aim was not to generalize the findings, which means that the findings may not be transferable to other organizations. The last criteria, dependability, refers to if you can do the same research repeatedly and still get the same result (Bryman & Bell, 2011). Dependability has been taken into consideration because we have been consistent and transparent throughout the data collection, transcripts, and interviews, both for older adults and the organization.

4.10 LIMITATIONS

This study includes a few limitations which have been considered and could impact the transferability of the results. Firstly, this study only examined older adults who live in Skåne, and only one organization positioned in Skåne. Secondly, there could have been more participants within the interviews with older adults, since it could have made this study more trustworthy, but due to the time limit, it was not possible. Lastly, due to Covid-19, there was no possibility to have physical interviews, which set limits for the opportunity of reading body language and facial expressions of the respondents. These factors might affect the result, which could be interesting for future researchers to focus on in future research as well.

5. FINDINGS

The purpose of this study is to answer the research question of how organizations can co-create value with older adults to attract and maintain them as their customers. To be able to put the societal and organizational perspective together in the discussion, the findings are divided into older adults and Skånetrafiken. The findings for older adults are based on the answers from the six respondents, and the findings for Skånetrafiken are based on the responses from Kevin Brandt, head of sales development at Skånetrafiken. This chapter only contains information collected from the interviews, while the findings are analyzed and discussed in chapter 6.

5.1 OLDER ADULTS

To be able to answer the research question of how organizations can co-create value with older adults, it is essential to understand (1) how older adults feel about the digitalization, (2) which digital services they use or not use, (3) if they feel included or excluded in the digital society and why, (4) how they perceive Skånetrafiken, and (5) how they perceive value from organizations such as Skånetrafiken. Each interview started with background information about each participant, which can be found in chapter 4 (See Table 2). The questions focused on digitalization, digital divide, digital services, public transport, and value (See Appendix 2 & 3).

5.1.1 DIGITALIZATION

The digitalization has changed a lot during the last decades, and many things have gone from analog to digital (Cöster & Westelius, 2016). All the respondents feel that the digitalization is going too fast and that they cannot keep up with speed. Frida argued that it is good for the people who can use and learn the digital services that are provided, but that the speed is a disadvantage for the people who cannot cope with the pace. James got the question on what his thoughts about the digitalization are, and he answered:

“Yes, what can I say? It is very good that everything develops, but in my opinion, everything goes too fast, and I cannot cope with the change.” – James

All respondents agreed with this statement since they feel that everything changes too fast and that it does not benefit the older adults. However, Rita and Simon highlighted that they are favorable to the changes and can see the benefits, where they can take care of their daily errands more accessible and are not forced to go somewhere to fix them. Before Rita retired from her work, she worked with computers and believed that that is one big reason why she can handle these digital services. Simon said that he is very interested in technique, and he believes that this is the reason why he can handle these services. In contrast, the respondents that were negative to the digitalization felt forced to keep up with the digitalization to be able to do their daily errands, which makes them feel digital excluded. For the question of how the digitalization has affected them, there were different reactions:

“I think that the digitalization has been both good and bad, it is better because I can pay my bills by my phone, and it is bad because everything develops, and I cannot cope with it.”- Brandon

“I understand the thoughts of digitalization, but I do not follow with it. The young generation is better at this, but they lost me someplace on the way.” – Kirstin

“I am very positive about digital development; I have always been curious about technique and development. But I can feel that it goes too fast sometimes.” – Simon

“Digital services simplify very much if you know how it works. However, I am getting old, so it is not useful that I learn it.” – James.

The respondents highlighted that they are mostly favorable to the digital development, however, it is hard to follow, and they feel that it goes too fast. Kirstin argued that she would have loved to learn more, but she does not know how to do it. Both Brandon and James stated that they do not want to be a burden for other people to learn more about digital services. Moreover, three of the six respondents do have E-identification, but only Rita and Simon are comfortable when using it. When asking about their usage of e-identification and digital services, some of the answers were:

“I have e-identification on my phone; however, I do not use it; my wife does. I only use pinball and other games on my phone.” – James

“I have e-identification, Swish, and Klarna, the grandchildren often want money on their birthdays; therefore, Swish is perfect.” - Simon

“I do not have any digital services, and I do not think I want it either. Moreover, I do not even have a phone to have digital services on.”- Frida

Frida argued that it is tough to have digital services such as e-identification without having a digital device to use it on. In comparison, James highlighted that he has e-identification but does not know how to use it and is dependent on his wife since she is the one who handles the errands for him. Some respondents argued that the reason why they choose not to use e-identification is that they feel terrified if they would lose their phones, which could lead to them getting fooled.

5.1.2 DIGITAL DIVIDE

The digital divide refers to a gap between the underprivileged members of society who do not have access to computers or the internet compared to the middle-class, wealthy, and younger people who have access to it (Van Dijk, 2019). Something that all respondents agreed about is that digitalization is going too fast, and they, therefore, feel excluded in society. Brandon concurred with this and believed that the older adults could not keep up with speed and described it as:

“...Everything is still developing, and now that I’m becoming older, I feel like I can’t follow through as I might have wanted. I am trying to, but it is hard.” – Brandon

Brandon argued that people who have access to digital services, such as e-identification, get prioritized and benefits from it, which he is not included within. However, none of the respondents blames the digitalization but feel that organizations and the government do not consider the older adults when changing their services. Moreover, four of the respondents do not feel like a part of the digital society at all and mean that they only can

handle these digital services because they receive help from their children. When Brandon got the question if he has any problems with digital devices, he answered:

“I know the basics of how to use these digital services such as e-identification and swish because my children have taught me. However, I know a lot of people who do not receive this assistance, which I think is the reason why everything should not be digital, mostly because people get excluded.” - Brandon

The common theme of the respondents, as Brandon mentioned, is that everyone has someone to ask for help if there is something they do not understand. Moreover, James and Kirstin cannot handle any of the digital services by themselves, and James only relies on his wife and children to process his errands through the digital services; meanwhile, Kirstin’s daughter does everything for her. Moreover, Simon, that knows how to use digital services, is concerned about older adults who do not have anyone to turn to when they need help with digital services, and, explained it as:

“I am concerned about those who do not have any children, how do they cope with daily life, because, I mean, if you do not have anyone to help you, how do you learn in today’s society?” - Simon

Simon highlighted the problem of his friends who do not have any children to ask for help and means that they all feel excluded from the digital society. All respondents confirm the digital divide during the interviews since they do not feel prioritized, and some respondents believe that they are dependent on their family members to be able to use these digital devices.

5.1.3 DIGITAL SERVICES

Digital services have been developed by digitalization, where organizations, for example, create applications to make it easier for customers (Fritze, Eisingerich, & Beckenstein, 2018). One reason for why all the respondents, except Frida, bought a smartphone, iPad, or computer, was to communicate with their friends and children through facetime-calls or to follow them on their social media. Everyone believed that this type of digital service is perfect when they can communicate without meeting the person. During this period of

Covid-19, when older adults were forced to stay at home without meeting anyone, all respondents have been grateful to be able to see their family members through their phones. Rita and Brandon described it as:

“Now that my friends and I are all in quarantine, I am glad for digital services and that we can FaceTime with each other.” - Rita

“It is amazing that I have learned how to call video calls now during these extraordinary times when my family and I cannot meet in person.” - Brandon

Rita and Brandon feel that the possibility of having video calls is helping them meanwhile being trapped in quarantine. Brandon claims that he would have felt alone and excluded if he did not know how to call video calls; meanwhile, Rita feels that she and her friends can still meet up, but digitally. However, Frida argued that she does not have any of these digital devices but claimed that she could call her family members without any problem. Moreover, another reason why the respondents bought a digital tool was that they felt forced to have digital devices such as e-identification, Swish, or other things to manage their day-to-day errands. James answered the question of why he started to use digital services as:

“You are forced to have digital services if you do not want to be excluded from society. If you are going to buy something online, then you need e-identification. If you are going to confirm something on the internet, you need e-identification. If you are going to call the bank office, you need e-identification.” – James

James and the other respondents claim that organizations create applications or demand digital services such as e-identification to all their customers, which makes the respondents forced to use these digital devices. James indicated that he started to use e-identification and swish because they felt obliged to have it. Furthermore, James talked about his brother and compared himself to him. His brother uses a lot of digital services, mostly because he has worked with it for a long time. James’s brother has taught him some things; however, he would like to learn more but feel that the problem is who is going to teach him everything. Within all the answers, regardless if the user knows about

digital services or not, one question that they all have in common is the fear of getting fooled or scammed. Hence, this was a problem that all respondents related to, and the solution to prevent them from getting scammed or cheated is to use these digital services less. The respondents described it as:

“Sometimes, I feel scared when a page tells me to identify myself with e-identification, what if I’ll get scammed?” – Simon

“You hear about people getting scammed, so I do not feel comfortable with using digital services because it is something that I do not understand.” – Frida

“You hear people that have identified themselves with e-identifications, and later, they found out that they have been scammed. That is the reason why I stay away from that kind of stuff, what if it happens to my wife or me? I would not be able to forgive myself.” – James

Simon argued that even though he knows about digital services, there are people who know more about it than him and uses their knowledge to scam other people. All respondents related to this problem, which has resulted in that some of the respondents do not use digital services at all. Furthermore, another common problem for the respondents was that when they have learned a digital service, organizations update their digital services, which makes the respondents forced to recommence. When asking the respondents what the disadvantages are, several of the answers are related to the issue of updates and described it as:

“The digital services are always developing; you do not get the time to learn one application before a new update arises.” – James

“Just when I learned one application, they changed it... Meanwhile, you are expected to have the latest technique to be able to use some applications.” – Kirstin.

All respondents agreed of these statements and the fact that when an organization updates an application. The respondents argued that there is no information on the updates, which makes it hard for them to learn the new updates. Kirstin highlighted that when she learned

to handle an application, a new update arises after a few weeks, which means that she needs to recommence from the beginning. As a result of the changes in the applications, where no one tells them how the update works, some respondents prefer to avoid these digital services. Furthermore, Frida is the only one that does not use digital services, and she feels that she would like to learn some of them to be able to check the travel schedule or to manage her bank errands by herself. Frida highlighted that her daily life has become more challenging, where some of the services she used before have gone from analog to digital and has created problems for her. Kirstin's response is related to Frida's statement, where she claimed that she would like to learn the digital parts, but does not know who is going to teach her. Kirstin believes that the young generation can handle all these digital services because they have grown up during the digital era, which the older adults have not.

5.1.4 PUBLIC TRANSPORT

Skånetrafiken is the public transport in the region of Skåne, and people make about 465 000 trips every day with them (Skånetrafiken, 2019). All respondents answered that they have traveled with Skånetrafiken at least a couple of times the last year. Brandon and Rita are the only ones who travel with public transport daily; Brandon travels four to five times a week, and, Rita travels a couple of times a month. Simon mentioned that he used to travel by public transport meanwhile living in the central of Kristianstad, however; since he moved to Degeberga, he feels uncomfortable to take the bus because he is insecure about how to do it. Kirstin also used to travel by public transport more often, however, since Skånetrafiken removed the Jojo-card, she has minimized her traveling habits with public transport. When Kirstin got the question on what her thoughts are about Skånetrafiken, she answered:

“I loved taking the bus before and see different cities, but right now, it feels kind of hard because I do not know how to pay, and I do not know when the buses arrive. Earlier, they sent me physical travel schedules, but they do not do that anymore.” - Kirstin

Kirstin claimed that when everything became digital, she started to use her car more often, mostly because it was too much work to find the table online for a short trip. James and Frida do not travel as much as they would like to, mostly because both of them feel that

it is tough to search for the trip they would like to take, and, uncertainty about how the travel would end. One reason why the respondents avoid travels by public management is the insecurity of the payments. All respondents highlighted that they feel uncertain, where Brandon and Rita are the most comfortable ones, but still have some problems. Brandon explained the situation as:

“Because I do not use e-identification, I am forced to buy a ticket when traveling outside of Malmö. When I travel inside of Malmö, I have my senior card that is for free, so that is easy. But when traveling outside of Malmö, I need to buy a manual physical ticket, which could be an issue sometimes when the line is long, and I am supposed to go with a certain train.” - Brandon

Brandon highlighted that he travels with public transport almost every day, and he moves around with the free card he has received from Skånetrafiken. However, when he travels outside the municipality, he goes to the travel centrum in Malmö and buys his ticket. He prefers the analog way where he can visit the travel center and buy a physical ticket. As mentioned, Brandon believed that the older adults who cannot handle the digital services are not being prioritized, where he means that the physical ticket takes much more time to buy. Furthermore, a common problem for the respondents was that everyone liked the old card called “Jojo-card,” which they believed was very easy to handle and understandable for everyone. James described his thoughts about the physical card as:

“When I traveled by bus, my wife and I had a physical card called Jojo-card. It was easy to use because you just charge it, and then you can travel whenever you want, wherever you want.” - James

Both Kirstin, Frida, and James confirmed this problem, where they all used to travel more often when they knew they could make the payments through their Jojo-card. Instead, they believe it is too hard because they do not know how to make payments through their phones. In contrast, Brandon, who travels a lot, argued that it is possible to buy your ticket at the travel center. Meanwhile, Kirstin, Frida, and James, who do not travel a lot, only think they can buy the tickets through their phones, which creates a feeling of insecurity of travel by public transport. Moreover, another reason why the respondents avoid trips

with Skånetrafiken is that they feel insecure about using the application connected to the travel schedule and some of the respondents described it as:

“How should I know which bus to take? Where does it take me?” – James

“I never go by public transport because they don’t help you when you need help knowing when the buses go.” – Frida

“I would love it if they had the digital travel schedule at all bus stations as they have at the large ones because then you do not need to have the application.” - Brandon

Some of the respondents have tried to use the application, but no one feels confident about using it. Rita argued that she has learned the time schedule of her ordinary trips, and therefore, she does not need to use the application. Rita highlighted that she has used the application a few times but felt unconfident, however, if she wanted to use the application, she would have learned it. Furthermore, Kirstin, as mentioned before, highlighted that she felt satisfied with using the old application of Skånetrafiken called “Reseplaneraren”. However, when Skånetrafiken updated it to a new application, she gave up on learning the new one. Kirstin argued that it is too much work on learning the new application, and instead, she takes her car to avoid problems and described it as:

“If the application had been adjusted for the older adults or if they send out some sort of information where they show how you could use it effectively, I would have given it a try.” - Kirstin

Kirstin highlighted that it is too much work to learn a new application, and therefore, takes the car instead to avoid problems. In contrast, Frida and James argued that they never use the application since they feel insecure about using it. Frida does not own a digital device, which means that she does not have access to the application. Furthermore, James's daughter tried to teach him the application, but he did not understand it, and therefore, he avoids using it, even if he wanted to learn the application. Brandon, as well as the rest of the respondents, argued that he would prefer to receive a guide from Skånetrafiken to understand the application more quickly and thus be to take advantage of the benefits of using the digital service.

5.1.6 VALUE

Value is nothing a company can create, where they only can give a value proposition to costumers, and they will either perceive some sort of value or not (Grönroos, 2011). Grönroos and Ravald (2011) mean that costumers need to understand the service they get and how the product works to be able to perceive value. The respondents do not perceive any value since they do not use how to use the digital services provided by Skånetrafiken. Since they do not understand how to use digital services, the benefits of using them only become disadvantages for them by not be able to use them. However, Simon argued that digital services, in general, is something positive, where he does not need to go somewhere to fix his daily errands and described it as:

“I feel that it is good that the digital services have developed so much; it is so smooth to use them. When paying a bill, it takes like ten minutes. The same goes for Swish; I do no longer need to go to the bank office to get cash; my grandchildren like Swish even more.” – Simon.

Simon claimed that digital services simplify the daily errands much more and feel like the benefits often go above the disadvantages. However, Simon highlighted that the scariness of doing wrong can still occur sometimes. Digital services have simplified many things, which Simon highlighted has made his day more manageable. In contrast, Simon argued that he does not receive any benefits from the application, however, he feels that he might would if Skånetrafiken learned him how to use it. Rita’s answer relates to Simon’s since she believes that she benefits from digital services since she does not need to go anywhere to do her errands. However, James claimed that it is advantageous to have the opportunity to do things without feeling needed to go somewhere. Moreover, James believes that there are several benefits, but only for people who can manage these digital services. Simon answered to what he values with digital services as:

“It is that organizations will inform you about the updated they do and about the changes.” - Simon

Simon claimed that this is important for him to receive information about changes that organizations do in order to perceive value from the organization when using their digital services. Moreover, another problem is that some of the respondents do not understand

the benefits. Kirstin, Brandon, and Frida argue that they do not see the value of using digital services, which is the reason why they do not use it. Frida explained it as:

“I do not understand the digital services; therefore, I do not feel any benefits of using them.” -Frida

Frida claimed that all the benefits that people perceive of using digital services turn into disadvantages for her since she does not know how to use them. Frida believed that she could manage without digital services, but when a problem occurs, and she needs to identify herself with e-identification, it becomes hard since she does not use e-identification. Kirstin argued that she understands that younger people receive value from digital services, mostly because they have grown up during the digitalization. Meanwhile, Kirstin believed that it is complicated to learn and understand digital services, which results in that she does not perceive value. To the question about their thoughts and beliefs are about digital services, Kirstin said:

“...I would have loved to learn more, I went to a course at my bank office, but my memory is not so good, so after a while, I forgot everything.” – Kirstin

Kirstin highlighted that she participated in a course regarding digital services at her bank office, where she learned how to handle e-identification and Swish, which Kirstin thought was very useful, and she felt some sort of value of it. However, when her phone got too old for applications, she did not know how to solve the problem and could not use the application anymore. As a result of this, she forgot how to use e-identification, and she did not try to learn again. Moreover, Brandon argued that he knows some of the digital services but prefers traditional analog services. Brandon explained that he feels terrified to have e-identification since he fears to lose his phone. As a result of the fear of losing his phone, he believes that the advantages of having e-identification are less than the disadvantages of losing his phone with e-identification on it. One common thing that all the respondents feel is that they are missing or believe that their usage of digital services will become easier if organizations give information where they explain the benefits of their services and how to use them.

Most respondents do not feel confident with digital services, which makes them not see the benefits of using these services. Simon claimed that organizations need to send out information or a guide on how to use their application or when they do a change of their applications to make it easier for him to understand it. When Simon got the question about what he values with digital services, he answered:

“I feel that organizations could be better at telling us how the changes work. For example, when the bank did an update, I called them and asked how to handle the new changes. I was not happy with the changes which the person at the bank understood when I started to yell. Later, the guide to the update I wanted, came into my postal box.” - Simon

Simon argued that it would have been good if organizations could inform older adults more about the new changes. Simon highlighted that product developments do not have older adults in their minds, but he means that that older adults are a part of society. Rita and Kirstin agreed on the problem when a company does an update on its digital services without communicating it to them. Rita suggested some sort of course or information from the company on how to use their applications; meanwhile, Kirstin recommended that organizations send out information on how to use these or some kind of video on Youtube where they explain the application step by step. Moreover, James claimed that organizations should teach their costumers, which he believes would create value for him, but feels that they do not have time to educate the older adults. He agreed on the solution where organizations send out information, which would have made it easier for him to understand the application and the benefits.

5.2 SKÅNETRAFIKEN

To be able to answer the research question of how organizations can co-create value with older adults, it is essential to understand (1) how Skånetrafiken work towards older adults, (2) which digital services that are offered, (3) how Skånetrafiken has digitized, (4) if and how Skånetrafiken works toward a less digital divide and (5) how the organization propose value to older adults and how Skånetrafiken believes older adults perceive their value proposition. The interview started with our respondent, Kevin Brandt, introducing himself and his role at Skånetrafiken, followed by questions of digital services, older adults, digitalization, digital divide, and value (See Appendix 5 & 6).

5.2.1 DIGITAL SERVICES

Skånetrafiken offers several ways of buying tickets today; firstly, it has the application, that is the most used and developed to work to almost all smartphones that have a relatively new update (Skånetrafiken, 2019). Brandt argued that for Skånetrafiken to be able to offer high security, the smartphone needs to have an update that follows with security guidelines from bank services to have e-identification. Other ways of buying tickets are by the website, at the customer service offices, or, for example, at Pressbyrån. Brandt highlighted that Skånetrafiken also offers several specific digital services for organizations and schools, but it is nothing that their private customers can take part in. Moreover, Brandt has a massive role in how digital services has developed in the last two years. In 2018, approximately 70% of Skånetrafiken's customers used their physical card called Jojo-card. The physical card needed to be charged with a foresight of 24 hours, which forced the customers to plan their traveling. Brandt highlighted that this is not the future, and, this is not sustainable for future traveling, therefore, in December 2019, Skånetrafiken stopped offering physical cards and focused more on digital services, and Brandt described it as:

“Our customers needed to charge the physical cards with 24 hours foresight because the cards were not connected to any server, which forced our customers to have long-term planning before traveling. We realized that this is not how you should travel by public transport, which leads to a change, and we started developing our application instead.” - Brandt

Brandt argued that this change has been positive for both Skånetrafiken and their customers because it simplifies the traveling, and 80% of their customers are satisfied with this change. Brandt claimed that Skånetrafiken has taken an enormous step and moved from approximately 40% traveling by their application to around 86% in January 2020 that buys their tickets in the application. However, Brandt highlighted that there are customers who cannot or do not want to buy their tickets on the application. Brandt, however, argued that Skånetrafiken is a public management organization that needs to offer services that everyone can use. Brandt, therefore, presented their new physical card that was launched for customers who do not want to have their ticket on their phone or

who does not want to pay by credit card on the bus. When Brandt got the question on the differences between the cards, he answered:

“The differences between the old physical card, Jojo-card, and our new card is that you do not need to pre-charge it; instead, you buy a ticket at our stations, website or customer center, that is visible at the card when you scan it at the bus or the train. However, there are no longer any discounts by using the physical card as it was with the Jojo-card.”
- Brandt

Brandt claimed that many customers used the Jojo-card because of the discounts, and therefore, there are no longer any benefits for the customer when using the physical card. However, Brandt explained that Skånetrafiken is forced to offer physical cards for those who do not have a smartphone, or for those who, for any reason, are unable to use the application when purchasing tickets for traveling by public transport. Brandt highlighted the fact that Skånetrafiken has responsibility for society and described it as:

“We have a social function; we need to be available for all our customers and all humans in Skåne. This means that we have high demands regarding older adults and people with disabilities, too; everything needs to be adapted for them.” - Brandt

Moreover, Brandt argued that if Skånetrafiken were not a public management service, the organization would not have adopted all digital and physical services as much as they do. Brandt claimed that Skånetrafiken needs to be much wider than other organizations since Skånetrafiken cannot ignore one segment. Instead, Skånetrafiken needs to put much time and much money to launch products and services that few people want since Skånetrafiken needs to be available for people with disabilities and older adults.

5.2.2 OLDER ADULTS

When asked about how many of Skånetrafikens customers that are 75 years or older, Brandt answered that he does not know because when people travel with Skånetrafiken, they do not have to reveal who they are. However, Brandt highlighted that when doing surveys for their customers, a low percentage of the participants are 75 years or older, which could depend on the fact that older adults are not the ones who travel the most. In

contrast, Brandt still argued that older adults are highly crucial for Skånetrafiken throughout a societal perspective; the organization wants to promote that older adults are out traveling and being a part of society. Therefore, Brandt presented their collaboration with several Regions in Skåne, where the organizations together offer older adults aged 67 years and older a specific card that older adults can use to travel for free within the Region. He described the collaboration as:

“This is an amazing initiative, and we hope that more Regions will join us with this... It is an excellent opportunity for us to gain older adults as our customers too.” - Brandt

Brandt claimed that today, it is only 17 of 33 regions in Skåne who offer this card to older adults, and he wishes that all regions would join this initiative since it could lead to gaining more customers and encouraging more older adults to be a part of society. However, Brandt highlighted the fact that it is the region itself that decides if they want to offer this card to older adults, and not Skånetrafiken. Furthermore, Brandt argued that almost everything has gone from analog to digital, not only the ticket purchasing. When communicating about changes in traffic, updated travel schedules, Brandt argued that Skånetrafiken did not do anything particular to reach out to older adults and described how Skånetrafiken works towards customers as:

“We do not work towards any specific age segments; instead, we work towards the life stage you are at. You can be 55 years old and not have a smartphone, but you can also be 28 years old and refuse to be digital; however, older adults are the majority in this case.” - Brandt

Brandt, however, highlighted that if a customer wants a printed physical copy of the travel schedule, the employees are more than happy to print a copy and send it home to you. Brandt argued that it is essential to work towards the individuals that are digitally excluded in society but argue that Skånetrafiken cannot stop developing towards digital because digital is the future. Most of their customers are complimentary to a digitally designed public transport.

5.2.3 DIGITALIZATION

When traveling with Skånetrafiken, Brandt highlighted that the need for having a digital maturity is important since the new way of traveling by public transport is mostly digitalized. Brandt argued that Skånetrafiken has gone from 60% of its customers using analog products to only 20% of customers using analog products, which means that most of the customers are cheerful and ready to face the digital transformation that Skånetrafiken is doing. Brandt described the change as:

“The new way of buying tickets is mostly digitalized; the offered products and services force you to have a level of digital maturity. If you do not, we have other solutions, but I need to be honest and say that they are not as good as digital services.” - Brandt

Brandt argued that this change has made it more effective to travel by public transport in the year 2020 than it was one year ago. Brand explained that customers do not have to charge the card 24 hours before using it anymore since you can buy a ticket 30 seconds before entering the bus or the train in the application. According to Brandt, the majority of Skånetrafikens customers can use a smartphone, which makes it natural to put a significant focus on these customers. Brandt claimed that Skånetrafiken has chosen not to focus on launching a new physical card that worked as the Jojo-card; instead, the focus lies on developing products and services that 80 percent of the customers appreciate. The whole society has gone from analog to digital, which makes it hard for you as an inhabitant to make it in the society if you are not digital. However, Brandt highlighted that when using digital services, you need to have e-identification to be able to purchase a ticket. Brandt explained the importance of having an e-identification as:

“You can download the application, but then you need to have an apple-id or a google account. When you have the application, you need to have a credit card to buy a ticket, and to confirm it; you need to have an e-identification.” - Brandt

Brandt argued that this has been a large problem, not only for Skånetrafiken but for many other organizations because they know that many of their customers do not have e-identification. Brandt continued by explaining that if you are an analog person, then it is

generally hard for you to live in society. Brandt also highlighted that Skånetrafiken is not pioneers of digital transformation. However, Skånetrafiken follows the trends of society because if it would not, it would have lost many customers. Brandt compared it with the airline industry, that has been offering tickets in smartphones for ages, meaning that customers would question why you can have your flight ticket in the smartphone but not bus or train ticket. Brandt explained a quote that Skånetrafiken work by which is:

“If you ask the customer what they want, they would have said faster horses, and what Henry Ford did, was to launch the car.” - Brandt

Brandt argued that by creating and developing products and services, Skånetrafiken establishes a need for the customers and make them more effective and easier to use. However, Brandt highlighted once again the necessity of digital maturity, to not run the risk of being digitally excluded in society.

5.2.4 DIGITAL DIVIDE

The fact that the digital divide exists in the society is something that Brandt agreed upon, and he highlighted that Skånetrafiken tries to offer products and services that will decrease the digital divide. Brandt explained that Skånetrafiken had received a lot of critique from older adults because they feel that Skånetrafiken has become digital within a short time. However, this is something that Brandt did not agree upon and explained it as:

“We launched the application three years ago; throughout this time, meanwhile developing the new application, we had parallel ways of buying tickets. However, in December 2019, we stopped offering the Jojo-card, and it was at this time that the critique came.” - Brandt

Brandt highlighted that this has been going on for three years, but it has not been until now that older adults are forced to become more digital if they want to travel with Skånetrafiken, which has led to significant critique from older adults. Brandt claimed that they need to have the application to see the travel schedule and delays, they need to have e-identification to travel with the application, and they need to have a credit card to pay on the bus. Brandt explained that Skånetrafiken received many reactions from older adults

because many adults do not have smartphones, and if they do, they refuse to use it to buy a ticket to travel by public transport. Brandt described the problem of how they try to deal towards the people who refuse to use their smartphone as:

“When they refuse to use their smartphone, we refer them to use their credit card instead because 99,8% of all Swedes have a credit card. When we do that, they resist by saying that they do not want to pay with their credit card because it is unsafe. As the following question, we ask them how they pay when they are at the grocery store, and they responded that at the grocery store, they can use their credit card, but not at the bus.” - Brandt

Brandt claimed that older adults are resistant to change; therefore, Skånetrafiken tried to solve it by launching the new physical travel card that is primary for older adults and people with disabilities. Brandt continued to explain that the organization tries to do everything to make the ones that feel digitally excluded in society to feel more digitally included. Therefore, Skånetrafiken puts much time and effort to launch the physical travel card. Furthermore, Brandt presented an initiative that Skånetrafiken has been doing for one and a half year to make older adults more secure when using Skånetrafikens digital services as:

“...We offer all senior associations a free event, where we tell, inform, and show how to buy tickets in our application. Last year, we did 150 events with approximately 20 to 150 participants.” – Brandt

Brandt highlighted that these events are highly appreciated by older adults and that Skånetrafiken would love to continue with this initiative, both for the sake of older adults, but also for Skånetrafiken. Brandt also highlighted that Skånetrafiken could improve this initiative and do it much often, which he hopes that it does. Brandt believed that these events bring value to their customers, where the older adults learn and understand Skånetrafikens' digital services, which makes them feel more secure and included in the digital society.

5.2.5 VALUE

Skånetrafiken offers value to its customers in different ways, depending on which life stage customers are at. Brandt believed that older adults value the simplicity of traveling and that it should be easy to understand. Brandt continued with explaining that he knows that older adults miss the old traveling cards, but that it is normal for them because Skånetrafiken received the same reactions when removing the possibilities of paying with cash and replaced it with the Jojo-card which he explained as:

“When we removed the opportunities to pay with cash, older adults reacted strictly and called us stupid, and so on, which is the same reactions that we have received now when removing the physical Jojo-card. Older adults feel that change is not positive and that it is going too fast.” - Brandt

Brandt claimed that it is a natural reaction from older adults and that they learned to use the Jojo-card when removing the cash payments, and he believes that it will be in the same way now when removing the Jojo-card and replacing it with the application. Brandt explained that Skånetrafiken tries to make older adults understand the value of using the application, as they did when they changed to the Jojo-card, where the change was received as positive and innovative at last. Brandt argued that to co-create value with older adults, they need to change the way older adults feel about using digital services by teaching them how digital services are used and which benefits older adults will receive from using them. However, Brandt highlighted that the society at large need to take their responsibility, not only Skånetrafiken and explained it as:

“For example, the Swedish Agency of Taxes could have taught older adults how to send your tax papers digitally, because many older adults do not know how to do it, which creates a digital divide.” - Brandt

“We cannot be as judging as we are right now just because many older adults cannot use a smartphone, we need to listen to older adults, and we need to help them. We need to understand them and understand that change is hard for them.” - Brandt

Brandt claimed that older adults is not be as susceptible as the younger generation is to digital technology and digital development. Therefore, organizations need to adapt to the mindset and be happy for older adults and their wishes to learn more. Moreover, Brandt highlighted the importance of private organizations taking their responsibility to engage older adults in their digital services. The reasons are that older adults are becoming much older, meaning that they are as essential as their customers. Brandt claimed that private organizations are going to lose if they do not adapt their services and engage older adults, meanwhile taking a societal responsibility. Brandt explained that Skånetrafiken is trying its best to propose value to older adults. Skånetrafiken has done this by launching a physical card, cooperating with regions to offer free traveling cards for older adults, and by arranging meetings with senior associations to educate and to make older adults understand the benefits of using digital services. Brandt believed that it is essential to understand the barriers older adults face and teach them digital services to make them a part of the digital society, meanwhile taking care of them as their customers.

6. DISCUSSION

This chapter discusses and compares the findings in this study and analyses how different opinions from the respondents' correlates. Four main findings were found and are essential to answer the research question of how organizations can co-create value with older adults to attract and maintain them as customers. This chapter is divided into digitalization, digital divide, digital services, and value since these concepts are the guidelines throughout the whole study.

6.1 DIGITALIZATION

The innovation in digital transformation refers to the process of using digital technology to create new customer experiences (Fritze et al., 2018). Brandt argued that society has gone from analog to digital and that Skånetrafiken needs to follow the digitalization. Otherwise, most of their customers would have been disgruntled since they are not offered modern, developed products and services. Hence, Brandt claimed that Skånetrafiken needs to be a part of the digital transformation to maintain their customers, which makes it hard for older to feel included if they do not have a digital maturity. Fischl et al. (2017) highlighted that digital transformation demands older adults to understand the use of digital services, which makes older adults feel excluded in society since they believe that digital development is going too fast. Moreover, older adults feel forced to use digital services because some daily errands demand e-identification; meanwhile, they do not understand how to use them. The problem with digitalization is that organizations need to develop digitally; meanwhile, older adults believe that digital development is going too fast. Therefore, organizations could consider finding a balance between developing and keeping older adults digitally updated and *inform* them to make them not feel excluded in society. Hence, this could result in that older adults feel more included in society. As a result of the digitalization, Skånetrafiken is forced to develop; meanwhile, it creates a larger gap between those who do understand digital services and those who do not know digital services, which creates a digital divide.

6.2 DIGITAL DIVIDE

The digital divide refers to a gap between unprivileged members, such as older adults and the younger generation (Van Dijk, 2019). The respondents from this study gave evidence that the digital divide between the younger- and the older generation still exists since older adults feel excluded and that digital development is going too fast. According to Grönroos and Voima (2013), value co-creation reaches its goal when customers understand the benefits of using digital services, and they should feel better after using it. However, this study shows that many older adults do not benefit from digital services because they do not understand how to use them, which makes them feel unprioritized and excluded. In contrast, Brandt argued for the fact that Skånetrafiken has been doing a digital transformation for three years, which means that their customers have had three years to learn and adapt to their digital services. Brandt claimed that some older adults are unwilling to change and have a negative attitude towards changes and newly developed products and services. In contrast, older adults feel that they do not get the chance to learn how to understand these services; in the best-case scenario, they have relatives that help them with digital services. Organizations could consider changing the *mindset* of older adults and change it to a positive *mindset* towards change and digital services. Brandt claimed that it is essential to work towards those who are digitally excluded in society. Brandt gave an example that this could be done by not having a negative attitude towards older adults; instead, be happy that they do want to learn about digital services and help them to *change their mindset*. Hence, this finding is strengthened by Betts et al. (2019), who highlighted that organizations should have a positive attitude towards older adults since it creates a feeling of inclusion.

Moreover, Betts et al. (2019). argued that older adults have a thirst for knowledge but that there is not enough knowledge for them to understand it, which is also confirmed from the findings of this study. Therefore, organizations may need to interact more with their customers to make them know the benefits of digital services (Grönroos, 2011). Skånetrafiken is public management; that is forced to work towards a less digital divide, which has been done through an initiative by Skånetrafiken. Brandt presented their initiative where Skånetrafikens employees offer events for older adults, where they teach, inform, and show how to use their digital services and explains the benefits of using them. Thus, this statement also correlates with Grönroos (2011) theory that says that it is

essential to explain how to use the services and the benefits that are received when using them to be able to co-create value. Brandt argued that this is important both from a societal perspective to minimize the digital divide, but also from an organizational perspective to maintain older adults as their customers. However, the digital divide may not decrease if only public management organizations work towards a less digital divide. All organizations should have a strategy for older adults since they are a growing population (Trafikanalys, 2019), which means that they will be potential customers for several years, meanwhile taking a societal responsibility and helping to decrease the digital divide. Brandt highlights that this could be done by organizations doing similar initiatives as Skånetrafiken has done, where the organization engage with the customer and *educate* them since it creates a feeling of inclusion for older adults.

6.3 DIGITAL SERVICES

Digital services allow organizations to get closer to their customers and simplifies the use of their services, where e-identification is the most used digital service; however, only 35% of older adults use e-identification (Statistiska Centralbyrån, 2019). The adaption of digital use is no longer a luxury; it is more of a demand to be included in society, which has created a digital divide between those who have access to digital services and those who do not have access to them (Huei-Wu et al., 2015). There are several reasons why older adults started to use digital services since it has simplified their communication with their families and friends, and it has simplified the daily errands for some of them. Moreover, this study shows that some older adults are slightly confident towards those digital services that they know how to use since they have perceived the benefits of using them.

Many older adults have been forced to start using digital services because some organizations demand their customers to have digital knowledge. Skånetrafikens application requires customers to identify themselves with e-identification, which means that older adults that do not have e-identification or do not use e-identification cannot use Skånetrafikens digital services. Therefore, Skånetrafikens' application does not bring value to those who cannot use e-identification, which can relate to the study done by Reneland-Forsman (2018), where they argue that older adults do not receive the proposed benefits from digital services. Moreover, Brandt argued for the benefits of their digital

services that their customers can see delays, live travel schedules, and essential information in the application. Therefore, Brandt highlighted that he hopes that older adults *change their mindsets* about their services and become more positive towards using the application because it simplifies when traveling with public transport. However, older adults feel insecure about how to use Skånetrafikens application; they do not understand how to use it and do not understand the new payment methods or how to see travel schedules in the application. The respondents showed a thirst for learning digital services but do not know who is going to learn them, which could be related to Betts et al. (2019), who highlighted the thirst that older adults have, meanwhile, they are unsure of how to use them. According to the respondents of this study, the problem is not that they have a negative attitude towards the digitalization itself; it is more about that they do not know use digital services or who is going to teach them. Thus, this finding relates to the study by SPFseniorerna (2019), where the reasons for the negative attitude towards digital services are difficulties with the techniques and that learning feels hard. Therefore, organizations could consider being the ones who *educate* and *inform* older adults how to use digital services and engage them to use it.

6.4 VALUE

Value-creation has evolved from offering only benefits from products and goods to providing benefits through services provided to the customers, which is called the service-dominant logic (Vargo & Lusch, 2008). Some older adults understand how to use digital services, which means that they have perceived the benefits of using them. However, many older adults do not know how to use digital services, which means that they do not perceive the benefits of using them. Instead, digital services become disadvantages, which may result in no value co-created between older adults and organizations. Hence, this finding is strengthened by Grönroos and Ravald (2011), who stated that the service-dominant logic falls apart if the customer does not understand the product or services provided to them. In contrast, Brandt highlighted the importance of still offering analog products and services for those who do not know digital services. Therefore, Skånetrafiken, together with Region Skåne, offers all older adults aged 67 years and older, to travel for free with public transport within Skåne.

Moreover, Skånetrafiken still offers analog products and services, such as physical tickets that can be bought at travel centers. In contrast, many older adults reacted to the fact that Skånetrafiken has removed all analog products and services since they do not know that these analog products and services exist, which makes them insecure when traveling with Skånetrafiken. Therefore, organizations maybe should consider to be engaged and *interact* with their customers and *inform* them that even though organizations are digitally developing, they still offer products and services for those who do not have a certain digital maturity. This finding is related to Grönroos and Voima (2013) statement that organizations need to *interact* with the customers, which could make it possible for organizations to go from value facilitators to co-creators of value. *Interaction* between the company and the customers is something that both older adults and Skånetrafiken finds meaningful. Brandt argued that Skånetrafiken *interacts* and communicates with older adults to *educate* them on how to use their digital services. Hence, Betts et al. (2019) also suggest that organizations should educate older adults by, for example, having courses where they can learn more about digital services.

All respondents highlighted that they want more interaction with organizations, where they want to learn more about what digital services they offer, how to use them, and which benefits they propose. Hence, this could be done by keeping older adults updated among the latest digital services by informing them of digital services, new updates, and how to use digital services. Brandt believed this could be done by having events with older adults, and older adults think that this could be done by sending out guides by postal services. However, to *interact* with older adults through events like the event of Skånetrafiken, they need to be informed that these events exist. Moreover, some older adults believe that organizations do not have the time to learn older adults, which is the reason why they want a guide. In contrast, Brandt highlighted that Skånetrafiken does have time to learn older adults and hopes that they will do it even more in the future. In figure 3, the most important findings have replaced the question mark in the conceptual model and show how organizations may co-create value with older adults to maintain and attract them as their customers, in order to minimize the digital divide. These are a change of mindset, education, information, and interaction (See Figure 3).

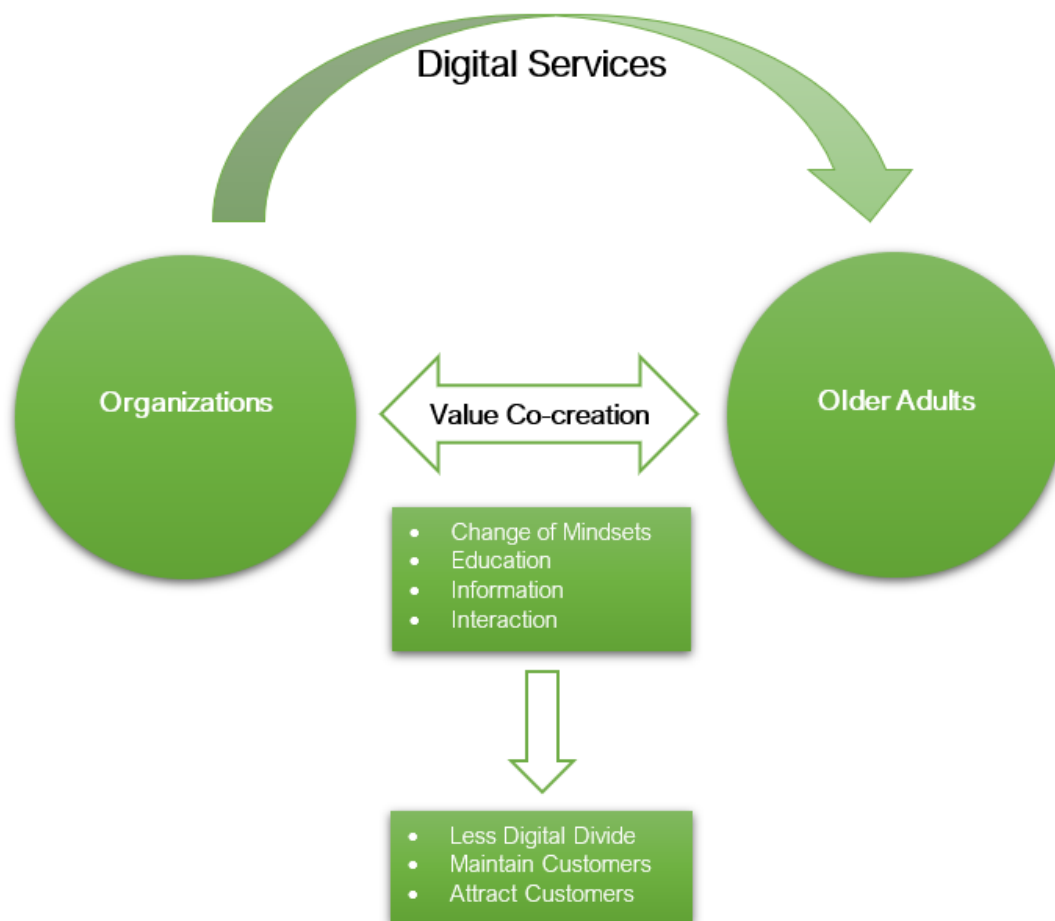


Figure 3. *How to co-create value with older adults based on the conceptual model.*

7. CONCLUSION

The last chapter in this study contains a conclusion of how organizations can co-create value with older adults to attract and maintain them as their customers. Chapter 7 is divided into four sections: summary, conclusion, practical implications, theoretical contributions, critical review, and future research.

7.1 SUMMARY

Digitalization has meant significant changes in how people live their lives, and it has affected society in many aspects, both positive and negative. Approximately fifty percent of older adults do not feel included in the digital society and feel difficulties when they use digital services, and this has created a digital divide (SPFseniorerna, 2019). The trend toward a digital society changes the way that organizations interact with their customers by enabling new connected product functionalities to increase the opportunities to affect the value creation (Porter & Heppelmann, 2014). However, if the perceived customer does not know how to handle the digital services offered, there is no value created for the customer. Therefore, this study focused on how organizations can co-create value with older adults to attract and maintain them as their customers.

To answer the research question of this study, two different perspectives were taken into consideration: a societal perspective that focuses on the digital divide and an organizational perspective that focuses on organizations' co-creation with older adults to attract and maintain them as their customers. Furthermore, two different data collection methods were used; firstly, Skånetrafiken was used as a case organization where an interview with Kevin Brandt, who works as head of sales development, took place. Brandt was interviewed to gain knowledge of how Skånetrafiken works towards older adults and how their digital transformation has affected their work towards them. Secondly, six older adults were interviewed to gain an understanding of their perception of the digitalization, digital services, and Skånetrafiken. All interviews focused to receive information about several concepts such as digitalization, digital divide, digital services, and value since these concepts are essential for the research question of how organizations can co-create value with older adults.

7.2 CONCLUSION

This study aimed to investigate the challenges and dilemmas that older adults face within digital services and how organizations can co-create value with older adults to maintain and attract them as their customers. Several vital concepts were important throughout the whole research; these were digitalization, digital divide, digital services, and value. Earlier research shows that the digital divide is strongly associated with the development of technology and that older adults do not feel included in the digital society (SPFseniorerna, 2019). Moreover, earlier research also shows that it is appropriate for organizations to reshape the digital services to fit better with the life of older adults (Selwyn et al., 2003). Therefore, organizations may consider to interact with the customers to understand them, which could make it possible for organizations to go from value facilitators to co-creators of value (Grönroos, 2011).

The analysis pointed to four main findings that could help organizations co-create value with older adults. The dimensions in the findings were *a change of mindsets, education, information, and interaction*. Firstly, *change of mindset* refers to that organizations may need to be positive when older adults want to learn about digital services to change the mindset of older adults, which relates to Betts et al. (2019), who argued that organizations need to have a positive attitude towards older adults. This means that it is essential to show older adults that the organization cares and is positive to the fact that older adults want to learn since it could lead to that older adults change their attitudes towards digital services but also the organization. If organizations, choose not to have a positive mindset towards older adults, it could lead to that older adults refuse to use their digital services, which may lead to no co-creation between the organization and older adults.

Secondly, *education* refers to that organizations can learn from Skånetrafikens' initiative and teach older adults how to use their digital services. Thus, it could decrease the fact that older adults feel digital excluded, which Betts et al. (2019) also argued for. Moreover, it could allow organizations to co-create value with older adults and maintain them as their customers. However, if organizations feel that they lack time or resources to arrange these events as Skånetrafiken did, there are several other ways to educate older adults on how to use digital services. For example, this could be done if organizations sent manuals or information to older adults, where they can learn by themselves. Hence, this is also

confirmed by Grönroos and Ravald (2011) since the customer needs to understand the product or services to perceive value. If organizations choose not to educate older adults, it could minimize the chances of older adults to use their digital services since they do not know how to use them.

Thirdly, *information* refers to that organizations should inform and communicate with older adults about their services. If organizations inform older adults about the services that they offer, it could minimize that older adults feel insecure about the digital services provided to them. For example, Brandt highlighted the analog services that Skånetrafiken delivers to those who cannot or will not use digital services. In contrast, older adults do not know about the analog services that are provided to them. Therefore, organizations should inform older adults more about what kind of services they offer and how these are suitable for them. If organizations choose not to inform older adults, they may decide not to use their services, which can lead to that organizations misses out on potential customers and older adults feeling excluded in society.

Lastly, *interaction* refers to that organizations may need to interact with older adults to understand them and their needs. According to Grönroos (2011), this is essential to be able to co-create value, which Brandt confirmed during the interview. Moreover, AgeUK (2016) wrote that to achieve true potential and effect of the interaction; organizations need to consider all groups, which includes older adults. Perhaps, organizations should listen to their customers and interact with them throughout several initiatives. For example, the fact that Skånetrafiken, together with Region Skåne, offers all older adults that are 67 years or older to travel for free with public transport to simplify for them. Moreover, this could also be done by surveys with older adults to learn what they value, which could lead to that organizations understand older adults and maybe, adapt their services towards them.

In conclusion, this study shows that the current issue among the digital divide does not only depend on the digital development. The digital divide exists since older adults may feel forgotten as customers since they may not follow with digital development, which may lead to that older adults do not know how to use digital services. As mentioned, older adults are a growing population and should, therefore, be an essential asset for

organizations. Therefore, organizations should consider to co-create value with older adults through a *change of mindsets* towards adults, which might lead to that older adults will change their mindset towards digital services. Moreover, organizations should consider interacting with their customers to understand them to be able to understand what they value. Perhaps, organizations should consider *informing* and *educating* older adults to make them understand what services they offer, how to use them, and what they will benefit from it. By a change of mindset, education, information, and interaction, organizations may be able to co-create value with older adults, meanwhile minimizing the digital divide in society.

7.3 PRACTICAL IMPLICATIONS

To the concrete case of Skånetrafiken, this study contributes new insights into how organizations can co-create value with older adults. By interviews with both older adults and one case organization, this study receives perspectives that could be valuable for organizations since the received data collection contains new insights into the concepts of the digital divide, digital services, and co-creation of value. The dimensions of mindset, education, information, and interaction might be necessary for all organizations that aim to attract and maintain older adults as their customers. The purpose of this study was to get an in-depth understanding by exploring specific cases about co-creation between older adults and organizations. However, although these findings are connected to the single case of Skånetrafiken, the result may be transferable to other organizations or public services.

7.4 THEORETICAL CONTRIBUTIONS

From a theoretical perspective, this study adds new insight to the concept of the digital divide, digital services, and co-creation between older adults and organizations. Grönroos (2011) and Vargo and Lusch (2008) claimed that organizations need to co-create value with customers to attract them as customers; meanwhile, they did not mention how. This study contributes to new insights of value co-creation between older adults and organizations since this field was unexplored in earlier research. Secondly, Selwyn et al. (2003) argued that there is a need for adaption within the use of organizations' digital services but did not mention how this could be done. This study contributes to this field on how organizations could adapt their services towards older adults to attract them as

customers. Thirdly, Betts et al. (2019) argued that older adults have a thirst for knowledge of digital services and recognize the benefits that these services can provide. However, they feel that there is not enough knowledge out there for them to understand it and do not know who is going to teach them. This study contributes to theoretical insights on how organizations could provide knowledge to older adults and educate them to make them understand digital services. Finally, the reasons why the digital divide exists, is, for example, difficulties with the techniques, that learning feels hard, lack of economic conditions, lack of interest, physical problems, or diseases (SPFseniorena, 2019). This study contributes with theoretical insights on how organizations could work towards older adults to decrease the digital divide and make them feel included in the digital society.

7.4 CRITICAL REVIEW AND FUTURE RESEARCH

This study contains subjects that have been investigated a lot in the last decades and are highly relevant since the digitalization is still developing, and the digital divide is increasing. However, the findings of this study could have gained higher credibility by methods triangulation, with different data collection methods to check the consistency of the findings. In the concrete case of this study, this could be done by having, for example, focus groups with several older adults. In contrast, this was not appropriate due to Covid-19; therefore, this could be a suggestion for future researchers to take into consideration. Moreover, all through the research question is of relevance to other organizations; only Skånetrafiken was investigated, which means it will not necessarily mean that the findings are applicable to other regions or organizations. Therefore, to gain a more transferable study, future researchers could include more organizations and do a more explorative study that covers several areas in the country. This study focused on older adults within the digital divide; however, the digital divide exists in other segments, too, such as people with disabilities. Therefore, future researchers could investigate if the results of this study are transferable in different segments as well.

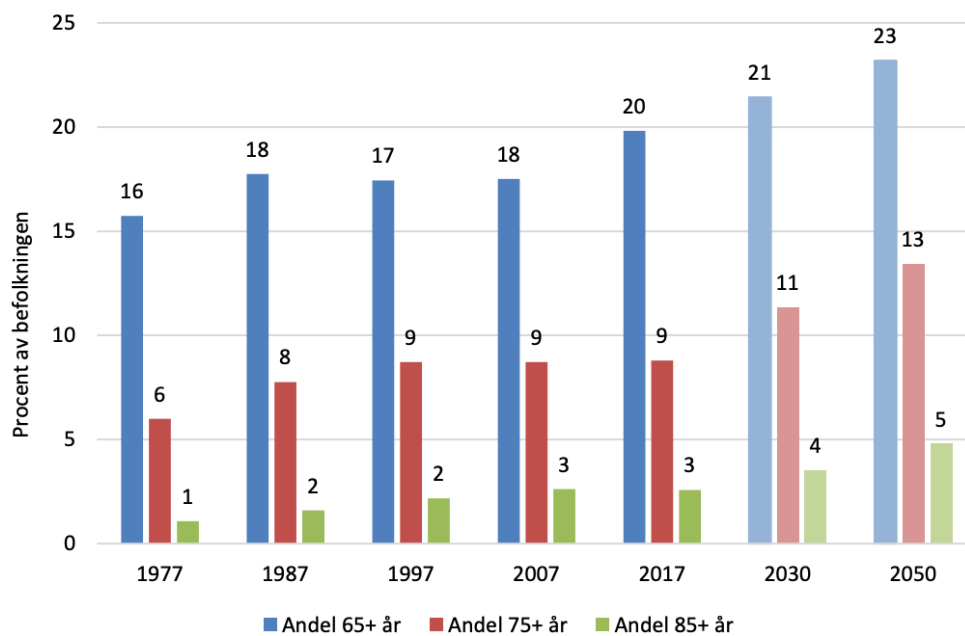
LIST OF REFERENCES

- AgeUK. (2016). *Later life in a digital world*. London: Ageuk.
- Ahrne, G., & Svensson, P. (2015). *Handbok i Kvalitativa metoder*. Stockholm: Liber AB.
- Barriball, K., & While, A. (1994). Collecting data using a semi-structured interview: a discussion paper. *Journal of Advanced Nursing*, 19(2), 328-335.
- Betts, L. R., Hill, R., & Gardner, S. E. (2019). "There's Not Enough Knowledge out there": Examining Older Adults' Perceptions of Digital Technology Use and Digital Inclusion Classes. *Journal of Applied Gerontology*, 38(8), 1147-1166.
- Bryman, A., & Bell, E. (2011). *Business Research Method*. New York: Oxford University Press.
- Cöster, M., & Westelius, A. (2016). *Digitalisering*. Stockholm: Liber AB.
- Finn, R. L., & Wright, D. (2011). Mechanisms for Stakeholder Co-ordination in ICT and Ageing. *Journal of Information Communication and Ethics in Society*, 9(4), 265-286.
- Fischl, C., Asaba, E., & Nilsson, I. (2017). Exploring potential in participation mediated by digital technology among older adults. *Journal of Occupational Science*, 24(3), 314-326.
- Fritze, M., Eisingerich, A., & Beckenstein, M. (2018). Digital transformation and possession attachment. *Springer Science Business Media*, 311-337.
- Genblad, L., & Sten, F. (2017). *Internet och Äldre*. Lund: Lunds Universitet.
- Grönroos, C. (2011). Value co-creation in service in service logic: A critical analysis. *Sage Pub Journals*, 11(3), 273-301.
- Grönroos, C., & Ravald, A. (2011). Service as business logic: implications for value creation and marketing. *Journal of Service Management*, 22(1), 5-22.
- Grönroos, C., & Voima, P. (2013). Critical service logic: making sense of value creation and co-creation. *Journal of the Academic Marketing Science*, 41, 133-150.
- Huei-Wu, Y., Damnée, S., & Kerhervé, H. (2015). Bridging the digital divide in older adults: A study from an initiative to inform older adults about new technologies. *Clinical Interventions in Aging*, 10, 193-201.
- Internetstiftelsen. (2018, 04 10). *Svenskarna och Internet*. Retrieved 03 08, 2020, from Mobilt BankID och Swish växer – men äldre ligger efter: <https://svenskarnaochinternet.se/rapporter/svenskarna-och-internet-2018/betaljanster-och-e-handel/mobilt-bankid-ovanligt-bland-de-aldsta/>
- Internetstiftelsen. (2018, 12 01). *Svenskarna och Internet*. Retrieved 03 08, 2020, from Svenskarna och internet 2018: https://internetstiftelsen.se/docs/Svenskarna_och_internet_2018.pdf
- Iveroth, E., Lindvall, J., & Magnusson, J. (2018). *Digitalisering och Styrning*. Lund: Studentlitteratur AB.

- Jonsson, A., Egels-Zandén, N., Hagberg, J., Lammgård, C., & Sundström, M. (2017). *Handelns digitalisering och förändrade affärer*. Handelsrådet.
- Meier, H., Völker, O., & Funke, B. (2011). Industrial Product-Service Systems - Paradigm shift by mutually determined products and services. *The International Journal of Advanced Manufacturing Technology*, 52, 1175-1191.
- Olphert, W., & Damodaran, L. (2005). Towards digital inclusion—engaging older people in the 'digital world'. *Journal of Logistics and Information Management*.
- Porter, M., & Heppelmann, J. (2014). How Smart, Connected Products Are Transforming Competition. *Harvard Business Review*, 11-64.
- Praničević Garbin, D., Judita, P., & Jela Mariette, B. (2017). DO OLDER PEOPLE BENEFIT FROM DIGITAL SERVICES? *Information Technology*, 145-160.
- Reddy, S., & Reinartz, W. (2017). Digital Transformation and Value Creation:. *Value in the digital era*, 9, 11-17.
- Reneland-Forsman, L. (2018). 'Borrowed access' – the struggle of older persons for digital participation. *International Journal of Lifelong Education*, 37(3), 333-344.
- Seifert, A., Hofer, M., & Rössel, J. (2019). Older adults' perceived sense of social exclusion from the digital world. *Educational Gerontology*, 44(12), 775-785.
- Selwyn, N., Gorard, S., Furlong, J., & Madden, L. (2003). Older adults' use of information and communication technology in everyday life. *Aging & Society*, 561-582.
- Siren, A., & Grønberg Knudsen, S. (2016). Older Adults and Emerging Digital Service Delivery: A Mixed Methods Study on Information and Communications Technology Use, Skills, and Attitudes. *Journal of Aging & Social Policy*, 29(1), 35-50.
- Skånetrafiken. (2019). *Verksamhetsrapport* .
- Skånetrafiken. (2020, 04 01). *Skånetrafiken*. Retrieved from Om oss: <https://www.skånetrafiken.se/>
- Smith, A. (2014). Older Adults and Technology Use. *Pew Research Center*.
- SPFseniorerna. (2019, 12 03). *Digitalisering handlar om människor*. Retrieved 03 08, 2020, from https://www.spfseniorerna.se/globalassets/forbund/sa-tycker-vi/rapporter/digitaliseringsrapport_2019_klar-1.pdf
- Statistiska Centralbyrån. (2018, 12 01). *Statistikdatabasen*. Retrieved 03 08, 2020, from Legitimering vid användning av internet efter legitimeringssätt, kön och redovisningsgrupp: http://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START__LE__LE0108__LE0108I/LE0108T28/
- Statistiska Centralbyrån. (2019). *Andel personer som aldrig använt sig av internet*. Stockholm: SCB.
- Statistiska Centralbyrån. (2019, 09 13). *Statistikdatabasen*. Retrieved from http://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START__LE__LE0108__LE0108L/

- Strömkvist, S. (2014, 01 03). *Så blev Skåne en region*. Retrieved from Sydsvenskan: <https://www.sydsvenskan.se/2014-01-03/sa-blev-skane-en-region>
- Svensk Kollektivtrafik. (2019). *Kollektivtrafikbarometern*. Retrieved from Årsrapport 2019: <https://www.svenskkollektivtrafik.se/globalassets/svenskkollektivtrafik/dokument/aktuellt-och-debatt/publikationer/kollektivtrafikbarometern-arsrapport-2019.pdf>
- Sydsvenskan. (2019, 12 27). *Skånetrafikens nya betalsystem får kritik: "Otryggt för äldre resenärer"*. Retrieved from Sydsvenskan: <https://www.sydsvenskan.se/2019-12-27/skanetrafikens-nya-betalsystem-far-kritik-otryggt-for-aldre>
- Trafikanalys. (2019). *Kollektivtrafikens barriärer - kartläggning av hinder i kollektivtrafikens tillgänglighet för personer med funktionsnedsättning*. Stockholm: Trafikanalys.
- Trafikanalys. (2015, 08 21). *Män reser mer kollektivt*. Retrieved from Kollektivtrafik.
- Vaismoradi, M., Turunen, H., & Bondas, T. (2014). Content Analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing and Health Science*, 398-405.
- Van Dijk, J. (2019). *The Digital Divide*. Cambridge: Polity Press.
- Vargo, S., & Lusch, R. (2008). From goods to service(s): Divergences and convergences of logics. *Industrial Marketing Management*, 37(3), 254-259.

Appendix 1. Shares of the population in Sweden, people aged 65 years and older



Figur 2.1. Andel av befolkningen (procent) som är "äldre" dvs. 65 år, 75 år respektive 85 år och äldre. Åren 1977, 1987, 1997, 2007 och 2017 samt prognos för åren 2030 och 2050.
Källa: SCB:s statistikdatabas över befolkning och befolkningsframskrivningar (www.scb.se).

(Trafikanalys, 2019)

Appendix 2. Interview guide, Older Adults (English Translation)

Background Questions (prerequisites):

1. How old are you?
2. How is your living situation?
3. What do you do in your spare time?
4. How do you get around in the traffic?
5. What are your general thoughts about digital development?

Digital Services:

6. How do you use digital services?
7. What are your thoughts on digital services?
8. Why did you start using digital services?
9. What do you think are the benefits of digital services?
10. What do you think are the disadvantages of digital services?
11. Do you have any concerns when using digital services?
12. Is there something that makes you not to use digital services?
13. What do you think is important for you to feel safe when using digital services?
14. When you encounter a problem with digital services, what do you do?
15. How would you manage without digital services?

Skånetrafiken:

16. How often do you travel by public transport?
17. What are your thoughts about public transport?
18. Do you think it is easy or hard to travel by public transport? Why?
19. Is there anything that will stop you from traveling by public transport?
20. What are your thoughts on payment methods for public transport?
21. What are your thoughts on the digital services of public transport?
22. Could you describe the best-case scenario that would have made you travel by public transport more often?

Appendix 3. Interview guide, Older Adults

Bakgrundsfrågor (Förutsättningar):

1. Hur gammal är du?
2. Hur ser din boendesituation ut?
3. Vad gör du på din fritid?
4. Om du ska ut på ett ärende, hur tar du dig runt då?
5. Vad är dina tankar och åsikter om den digitala utvecklingen som vi har präglats av de senaste åren?

Digitala tjänster:

6. Hur ser ditt användande av digitala tjänster ut?
7. Vad är dina tankar och upplevelser kring digitala tjänster?
8. Varför började du använda digitala tjänster?
9. Vad anser du är fördelarna med digitala tjänster?
10. Vad anser du är nackdelarna med digitala tjänster?
11. Finns det något som oroar dig när du använder digitala tjänster?
12. Är det något som får dig att inte använda digitala tjänster?
13. Vad är viktigt för dig för att du ska känna dig säker när du använder digitala tjänster?
14. När det uppstår ett problem kring användandet av digitala tjänster, vad gör du då?
15. Hur skulle du klara dig utan digitala tjänster?

Skånetrafiken:

16. Hur ofta reser du kollektivt?
17. Hur köper du biljett?
18. Vad är dina tankar och funderingar kring kollektivtrafik?
19. Är det något som hindrar dig från att resa kollektivt?
20. Vad är dina tankar och funderingar kring betalmetoderna för att resa kollektivt?
21. Vad är dina tankar och funderingar kring Skånetrafikens applikation?
22. Kan du beskriva hur en optimal upplevelse av kollektivtrafiken skulle vara, som hade gjort att du reser kollektivt oftare?

Appendix 4. Table of Operationalization, Older Adults

Concept	Sources	Question	Purpose of the Interview Question
<i>Background information</i>	Older Adults (SPFseniorerna, 2019)	<ol style="list-style-type: none"> 1. How old are you? 2. How is your living situation? 3. What do you do in your spare time? 4. How do you get around in traffic? 	The purpose of question 1-4 is to gain knowledge of the background situation of the participant.
<i>Digitalization</i>	Digital Development (Cöster & Westelius, 2016)	<ol style="list-style-type: none"> 5. What are your general thoughts about digital development? 	The purpose of question five is to understand how older adults perceive the digital development.
<i>Digital Services</i>	Digital Services (Internetstiftelsen, Svenskarna och Internet, 2018) Digital Services (Smith, 2014) Digitalization (Huei-Wu, Damnée, & Kerhervé, 2015) Value (Reneland-Forsman, 2018) Digitalization (Reneland-Forsman, 2018)	<ol style="list-style-type: none"> 6. How do you use digital services? 7. What are your thoughts about digital services? 8. Why did you start using digital services? 9. What do you think are the benefits of digital services? 10. What do you think are the disadvantages of digital services? 	The purpose of question 6-10 is to gain an in-depth understanding about their usage, thoughts and feelings about digital services.
<i>Digital Divide</i>	Digitalization (SPFseniorerna, 2019)	<ol style="list-style-type: none"> 11. Do you have any concerns when using digital services? 	The purpose of question 11-15 is to gain an in-depth understanding of how older adults perceive the digital divide within digital

			services, and how they are affected from it.
	Value (Betts, Hill, & Gardner, 2019)	12. Is there something that makes you not to use digital services?	
	Value (SPFseniorerna, 2019)	13. What do you think is important for you to feel safe when using digital services?	
	Digital Divide (SPFseniorerna, 2019)	14. When you encounter a problem with digital services, what do you do?	
	Digitalization (Huei-Wu, Damnée, & Kerhervé, 2015)	15. Would you manage without digital services?	
<i>Skånetrafiken</i>	Public Transport (Skånetrafiken, 2020)	16. How often do you travel by public transport?	The purpose of question 16-22 is to get an in-depth understanding of how older adults perceive Skånetrafiken and the services the organization offers.
	Older Adults (Reneland-Forsman, 2018)	17. What are your thoughts about public transport?	
	Value (Sydsvenskan, 2019)	18. Do you think it is easy or hard to travel by public transport?	
	Digitalization (Sydsvenskan, 2019)	19. Is there anything that stops you from traveling by public transport?	
	Older Adults (Reneland-Forsman, 2018)	20. What are your thoughts about the payment methods of Skånetrafiken?	

Value (Skånetrafiken,
2020)

21. What are your thoughts about the digital services of public transport?

Value (Grönroos,
2011)

22. Could you describe the best-case scenario that would have made you travel by public transport more often?

Appendix 5. Interview guide, Skånetrafiken (English Translation)

Background Questions

1. Tell us about your role at Skånetrafiken
2. What changes have taken place since you started?
3. What percentage of your customers are older adults?
4. Why are older adults important to you?
5. How do you work toward older adults?
6. Are there any differences when working towards older adults vs. other segments?
7. What do you offer older adults?
8. How do you communicate with older adults regarding time schedules, prices, and other news?

Digital Services

9. What kind of digital services do you have?
10. How have your digital services evolved in the last five years?
11. What services have gone from physical to digital?
12. How do you reach older adults through your digital services?
13. How do you think older adults can handle your digital services?
14. How do you work towards older adults who are unable to access digital services?
15. What do you believe that you need to do to simplify the use of digital services for older adults?
16. What are the benefits of your digital services for older adults?
17. What are the disadvantages of your digital services for older adults?
18. How do you think you could improve your digital services so that they are more suitable for older adults?

Value Creation

19. How do you direct your services to create value for older adults?
20. What do you think older adults' value with your services?
21. What do you value with older adults as your customers?
22. What do you think is important to make older adults satisfied with your services?
23. Why do you think some older adults choose not to travel by public transport?
24. Could you summarize what you think older adults find difficult or complicated with your services?

Appendix 6. Interview Guide, Skånetrafiken

Bakgrundsfrågor:

1. Berätta om din roll på Skånetrafiken
2. Sen du började, vad skulle du säga har förändrats?
3. Hur stor del av era kunder är 75 år eller äldre?
4. Varför är målgruppen äldre (75+) viktiga för er?
5. Hur arbetar ni gentemot målgruppen 75+?
6. Hur skiljer sig arbetet mot målgruppen 75+ och övriga målgrupper?
7. Vad erbjuder ni de som är 75+ idag?
8. Hur kommunicerar ni gällande priser, tidtabeller och övrig information med de som är 75+ idag?

Digitala tjänster

9. Vilka digitala tjänster har ni idag?
10. Hur har era digitala tjänster utvecklats de senaste 5 åren?
11. Vilka tjänster har gått från att vara fysiska till att bli digitala?
12. Hur når ni ut till de äldre via era digitala tjänster?
13. Hur tror du att de äldre (75+) hanterar era digitala tjänster?
14. Hur arbetar ni gentemot de äldre (75+) som inte har tillgång till digitala tjänster?
15. Vad tror du att Skånetrafiken behöver göra för att förenkla användandet av digitala tjänster för de äldre (75+)?
16. Vad anser du är fördelarna för äldre (75+) att använda digitala tjänster?
17. Vad är svårigheterna med era digitala tjänster för äldre?
18. Tror du att de äldre saknar något i era digitala tjänster?

Värdeskapande

19. Hur riktar ni er service för att skapa värde för äldre (75+)?
20. Vad tror du de äldre (75+) värderar med era tjänster?
21. Vad värderar ni hos de äldre (75+) som kunder?
22. Vad tror du är viktigt för att kunna göra de äldre (75+) nöjda med era tjänster?
23. Varför tror du att vissa äldre (75+) väljer att inte åka kollektivtrafik?
24. Kan du beskriva vad du tror äldre (75+) upplever svårt/komplicerat med era digitala tjänster?

Appendix 7. Operationalization. Skånetrafiken

Concept	Sources	Questions	Purpose of interview question
<i>Background information</i>	Skånetrafiken (Skånetrafiken, 2019)	1. Tell us about your role at Skånetrafiken	The purpose of question 1-5 is to gain knowledge of how Skånetrafiken work with digital services and towards older adults.
	Digital Transformation (Iveroth, Lindvall, & Magnusson, 2018)	2. What has changed during your time at Skånetrafiken?	
	Older Adults (Skånetrafiken, 2019)	3. What percentage of your customers are older adults?	
	Older adults (Skånetrafiken, 2019)	4. Why are older adults important for you?	
	Value Creation (Grönroos, 2011)	5. How do you work towards older adults?	
<i>Digitalization</i>	Digital Services (Skånetrafiken, 2020)	6. Are there any differences when working towards older adults vs. other segments?	The purpose of question 6-8 is to gain knowledge about the differences between the segments at Skånetrafiken and what they offer to older adults.
	Value (Reddy & Reinartz, 2017)	7. What do you offer older adults?	
	Older adults (Praničević et al., 2017)	8. How do you communicate regarding prices, time schedules, and other news to older adults?	
<i>Digital Services</i>	Skånetrafiken (Sydsvenskan, 2019)	9. What kind of digital services do you have?	The purpose of question 9-18 is to gain knowledge about the digital services offered by Skånetrafiken and how the digital services has developed during the digitalization. Moreover, these questions help to gain knowledge of how Skånetrafiken believes

			that older adults perceive their digital services and how/if they adapt their digital services towards older adults.
	Digital Transformation (Reddy & Reinartz, 2017)	10. How has your digital services developed?	
	Digital Transformation (Reddy & Reinartz, 2017)	11. What services have gone from physical to digital?	
	Older Adults (Olphert & Damodaran, 2005)	12. How do you reach to older adults throughout digital services?	
	Older Adults/Digital Divide (Praničević Garbin, Judita, & Jela Mariette, 2017)	13. How do you think older adults can handle your digital services?	
	Digital services/Digital Divide (Skånetrafiken, 2019)	14. How do you work towards older adults who are enabled to use digital services?	
	Value (Grönroos & Ravald, 2011)	15. What do you believe you need to do to simplify the use of digital services for older adults?	
	Value Creation (Grönroos & Voima, 2013)	16. What are the benefits of your digital service for older adults?	
	Value Creation (Grönroos & Voima, 2013)	17. What are the disadvantages of your digital services for older adults?	
	Digital Services (Skånetrafiken, 2019)	18. How do you believe you can improve your digital services so that they are more suitable for older adults?	
<i>Value</i>	Value Creation (Grönroos, 2011)	19. How do you direct your service to create value for older adults?	The purpose of question 19-24 is to gain knowledge of how Skånetrafiken offers value towards older adults, and what Skånetrafiken believes older adults' value.

Value Co-creation (Grönroos & Voima, 2013)	20. What do you think older adults' value about your services?
Skånetrafiken (Skånetrafiken, 2019)	21. What do you value with older adults as your customers?
Older Adults (Sydsvenskan, 2019)	22. What do you think is important to make older adults satisfied with your services?
Skånetrafiken (Skånetrafiken, 2019)	23. Why do you think older adults choose not to travel with Skånetrafiken?
Value co-creation (Grönroos, 2011)	24. Could you summarize what you think older adults find difficult or complicated with your services?

Appendix 8. Table of Coding, Older Adults

Respondent:	Meaning Unit	Code
Brandon	<i>I think that digitalization has been both good and bad, it is better because I can pay my bills on my phone, and it is terrible because everything develops, and I cannot cope with it.</i>	Digitalization
	<i>I do not have BankID or Swish. When I pay an invoice, I do it with the safety box, what if someone got a hold to my phone, then they would have access to all my things.</i>	Digital services
	<i>I think that digital services are good, but I believe that the development with e-identification has gone too far, meaning, you need to have e-identification to everything. If you do not have it, you will be excluded from the digital society.</i>	Digital services; digital divide.
	<i>Incredibly, I have learned how to call video calls now during these extraordinary times when my family and I cannot meet in person</i>	Digital Services; value
	<i>I know the basics of how to use these digital services, such as e-identification and Swish because my children have taught me. However, I see a lot of people who do not receive this assistance, which I think is the reason why everything should not be digital, mostly because people get excluded.</i>	Digital Services
	<i>Some organizations change things too fast, which makes it hard to follow. Some things should take more time to develop so that you get a chance to learn it...Everything is still growing, and now that I'm becoming older, I feel like I can't follow through as I might have wanted. I am trying to, but it is hard.</i>	Digital divide
	<i>I manage without digital services right now, because I can pay with my credit card, I can pay my bills with the security box, but if this went away, I would be forced to use all the digital services that young people have, and I do not know what I would benefit from it.</i>	Value
	<i>When traveling outside of Malmö, I am forced to buy a physical ticket because my senior card does not work outside of Malmö. It works quite well, I like the manual, however, when I am in a hurry, It can become an issue.</i>	Public Transport; digitalization.
	<i>I like the way it is right now that you can choose if you want to travel with their application or buy a physical ticket. I hope that they do not remove the possibility of purchasing a physical ticket, because it simplifies very much for me.</i>	Public transport; value.
	<i>I do not have so many thoughts about Skånetrafikens' digital services because I do not feel any value of having their application. It only makes it more difficult for me to travel.</i>	Public transport; value; digital services.
<i>I would love it if Skånetrafiken had the digital travel schedule at all bus stations as they have at the large ones because then you do not need to have the application.</i>	Public transport; value.	

Respondent: Simon	Meaning Unit	Code
	<i>I am very optimistic about digital development; I have always been curious about technique and development. But I can feel that it goes too fast sometimes</i>	Digitalization.
	<i>I have e-identification, Swish, and Klarna, the grandchildren often want money on their birthdays; therefore, Swish is perfect.</i>	Digital services.
	<i>I feel that it is good that the digital services have developed so much; it is so smooth to use them. When paying a bill, it takes like ten minutes. The same goes for Swish; I do no longer need to go to the bank office to get cash; my grandchildren like Swish even more</i>	Digital services; digitalization.
	<i>I started to use digital services because you are almost forced to do it today. I learned early from my children how to use e-identification, bank application, Facebook and so on. However, I am concerned about those who do not have any children, how do they cope with daily life, because, I mean, if you do not have anyone to help you, how do you learn in today's society?</i>	Digital Services.
	<i>For example, last week, I called my bank office, and they needed to identify me with e-identification to help me, which I believe is quite scary. I also heard about one lady that became scammed on online pizza because of e-identification. I do not want to experience that.</i>	Digital divide; digital services.
	<i>I feel that organizations could be better at telling us how the changes work. For example, when the bank did an update, I called them and asked how to handle the new changes. I was not happy with the changes which the person at the bank understood when I started to yell. Later, the guide to the update I wanted, came into my postal box.</i>	Digital services; value.
	<i>Sometimes, I feel scared when a page tells me to identify myself with e-identification, what if I'll get scammed?</i>	Digital services; digital divide.
	<i>I feel that it is good that the digital services have developed so much; it is so smooth to use them. When paying a bill, it takes like ten minutes. The same goes for Swish; I do no longer need to go to the bank office to get cash; my grandchildren like Swish even more</i>	Digital services; value.
	<i>I feel that organizations could be better at telling us how the changes work. For example, when the bank did an update, I called them and asked how to handle the new changes. I was not happy with the changes which the person at the bank understood when I started to yell. Later, the guide to the update I wanted, came into my postal box."</i>	Digital services; value.
	<i>I believe that Skånetrafiken forgets about us who lives outside the city center, because I do not know when the buses go or where they go. Maybe they could have sent us a travel schedule or a guide for how their website or application works.</i>	Public transport; value; digital services.
	<i>I would love to pay with my phone to travel by public transport, but I do not know how to do it.</i>	Public transport; value; digital

Respondent: Kirstin	Meaning Unit	Code
		services; digital divide.
	<i>Maybe, Skånetrafiken could communicate more with us, and that the staff at the bus helps us when we want to travel. I think that is important because I believe that many older adults chooses not to go by public transport because they do not want to bother the staff or the other travelers.</i>	Public transport; value; digital divide.
	<i>I think it has become a little difficult because every demand you have an internet connection. For example, bank offices do not offer the same physical services as they used to. But I also believe that a lot of positive things have come out of digital development. However, think about those who do not have grandchildren to ask, they will become a discriminated group. But that is not the fault of the digitalization. I believe that it is the government and the organizations that do not take responsibility.</i>	Digitalization.
	<i>I do not own a smartphone, so I only have a tab where I have some applications that makes it possible for me to follow my children and grandchildren at social media. I have e-identification at my tab, but I think it is too old because e-identification does not work.</i>	Digital services.
	<i>I would have loved to learn more about digital services. I understand that all youngsters know how it works because it has been a part of their childhood. I would have loved to learn more, I went to a course at my bank office, but my memory is not so good, so after a while, I forgot everything.</i>	Digital services; digitalization.
	<i>Just when I learned one application, they changed it... Meanwhile, you are expected to have the latest technique to be able to use some applications</i>	Digital Services.
	<i>I understand the thoughts of digitalization, but I do not follow it. The young generation is better at this, but they lost me someplace on the way</i>	Digital divide; digital services.
	<i>When my e-identification worked, It was easy to pay the bills and so on, but right now, I do not know how I can make it work. However, I love some digital services since now, during Covid-19, I can have video calls with my friends and family.</i>	Digital services; digitalization.
	<i>I am always scared of getting scammed. Sometimes, I receive emails that my grandchildren tell me not to open. So every time I am insecure, I go to my daughter before opening an email because I am scared that they will take all my money or that I'll order something I should not order.</i>	Digital services; digital divide.
	<i>I loved taking the bus before and see different cities, but right now, it feels kind of hard because I do not know how to pay, and I do not know when the buses arrive. Earlier, they sent me physical travel schedules, but they do not do that anymore</i>	Public Transport; digitalization.
	<i>I do not know how their new application works because I have never used it. I used their old application, known as "reseplaneraren," and I learned it. However, a couple of months</i>	Public transport; value; digital divide.

Respondent: James	Meaning Unit	Code
	<i>later, they removed this application, and I canceled the project of learning it.</i>	
	<i>If the application was more adjusted to older adults, or that they sent me some information about how to use the application, I think I would have traveled by public transport more often.</i>	Public transport; value; digital services.
	<i>Yes, what can I say? It is very good that everything develops, but in my opinion, everything goes too fast, and I cannot cope with the change.</i>	Digitalization.
	<i>I have e-identification, but I do not use it. It is my wife that runs all these errands, so I only have e-identification if she wants to use it. I usually have my phone to keep in contact with my brothers and sisters that lives far from me.</i>	Digital services.
	<i>Digital services simplify very much if you know how it works. However, I am getting old, so it is not useful that I learn it.</i>	Digital services; digitalization.
	<i>You hear people that have identified themselves with e-identifications, and later, they found out that they have been scammed. That is the reason why I stay away from that kind of stuff, what if it happens to my wife or me? I would not be able to forgive myself.”</i>	Digital Services; digital divide.
	<i>I think I would have managed with digital services as long as I have my wife; however, without her, I would have been helpless. I do not think I would have managed without her.</i>	Digital services; digital divide; value.
	<i>You are forced to have digital services if you do not want to be excluded from society. If you are going to buy something online, then you need e-identification. If you are going to confirm something on the internet, you need e-identification. If you are going to call the bank office, you need e-identification</i>	Digital divide; digital services.
	<i>The digital services are always developing; you do not get the time to learn one application before a new update arises</i>	Digital services; digitalization.
	<i>I'm too old. I do not think it is worth it that I'll learn about digital services.</i>	Digital services; digital divide.
	<i>When I traveled by bus, my wife and I had a physical card called Jojo-card. It was easy to use because you just charge it and then you can travel whenever you want, wherever you want. However, now they have removed it.</i>	Public Transport; digitalization.
	<i>How should I know which bus to take? Where does it take me?</i>	Public transport; digital divide.
	<i>If I would have known how to travel with the application and if I would have been more secure about it, I think I might have traveled more often with public services. However, I really miss the Jojo-card, because it was so easy to use. But I believe that this depends on the digital development you mentioned earlier.</i>	Public transport; value; digital services.
	<i>The reason why I do not travel by public transport is that I do not know how to do it. My neighbor travels a lot and has gotten a card for free from Skånetrafiken, but I do not know how to do it.</i>	Public transport; digital divide

Respondent: Rita	Meaning Unit	Code
	<i>I think that digital development is quite good. It is practical.</i>	Digitalization.
	<i>I think that it is good that I can do everything on my tablet, because I do not need to ask things because I can just google it, and you can do the bank errands in the tablet to. It is quite practical, and I do all the tasks for my husband, too, because he does not want to have digital services.</i>	Digital services; digitalization.
	<i>Before this interview, I asked my friends about what they feel about digital services, and there were a lot of mixed feelings. Some of them felt secure when using them because they have someone who helps them. Some of them thought that it was horrible and did not even have e-identification. I think simplifies of you have someone who can help you with it because it is hard to learn on your own.</i>	Digital services; digital divide.
	<i>I feel that it is good that the digital services have developed so much; it is so smooth to use them. When paying a bill, it takes like ten minutes. The same goes for Swish; I do no longer need to go to the bank office to get cash; my grandchildren like Swish even more</i>	Digital services; digitalization.
	<i>Now that my friends and I are all in quarantine, I am glad for digital services and that we can FaceTime with each other. ”</i>	Digital Services; value.
	<i>I try to solve everything on my own. You just need to google what you want and then it is done. I do not believe that anything would happen if you do not give your bank account to anyone.</i>	digital services.
	<i>I think I would love to learn more about digital services, my grandchildren usually help me, but they are always in a hurry.</i>	Digital services; value.
	<i>When I was not retired, I worked a lot with digital services. Since then, you have been forced to learn more about digital services. The fact that I have worked with this has simplified a lot for me.</i>	Digital services; digitalization.
	<i>The disadvantages of digital services are that everything goes so fast. As soon as I learned something new, another thing arises.</i>	Digital services; digital divide.
	<i>I travel around 2 times a month. Earlier, I traveled much more often. More before, we had a card that you charge, and now we received a card because we are seniors, I believe. However, I do not know how to use it and how long it lasts, I mean, how far can I travel with it? They should tell us more about it because right now it feels hard.</i>	Public transport; value.
	<i>I do not know how to use Skånetrafikens application. I have been in it to see the time schedule, but I do not fully know how it works. It would have been good with some education or that they send out a postal letter of how to manage it.</i>	Public transport; value; digital services.
	<i>Overall, I feel satisfied with digital services and Skånetrafiken. It would have felt good to learn more, but I guess I'll learn someday.</i>	Public transport; value.
Respondent: Frida	Meaning Unit	Code

<i>I cannot answer what I feel about digital development because it has not become better for me.</i>	Digitalization.
<i>I do not have any digital services, and I do not think I want it either. Moreover, I do not even have a phone to have digital services on.”-</i>	Digital services; digital divide.
<i>Yes, you can say that I feel excluded in society because society is developing, and I cannot cope with that.</i>	Digitalization; digital divide.
<i>They cannot just create new things and not take the time to teach us who does not know how to use new things.</i>	Digital Services; digital divide.
<i>Since many things demand e-identification, some things have become difficult for me because I do not have it. I prefer to pay with cash, but almost all the cash has disappeared. I am lucky that my son works at a bank and can help me.</i>	digital services; digital divide
<i>I think that digital development is going to fast. We do not get the chance to learn before something new arises. Of course, it is good that society is developing, but I do not feel that they can just forget us elders who do not manage digital services. I wonder who is going to teach me all these new digital services.</i>	Digital services; digital divide
<i>I believe that the benefits of digital services is that you can find things very fast. Therefore, it would have been good if I could learn it.</i>	Digital services; digitalization; value
<i>You hear about people getting scammed, so I do not feel comfortable with using digital services because it is something that I do not understand</i>	Digital services; digital divide.
<i>I manage without digital services, but when I get into problems and need e-identification, it becomes difficult for me.</i>	Public transport; value.
<i>I do not travel much by public transport because there is no station where I live. I've lived here for 20 years, and almost all the people here go in their car.</i>	Public transport;
<i>I have not learned how to travel by public transport. If I need to travel by public transport, my son helps me and tells me where to go and when. Earlier, you were able to charge your card at Pressbyrån, but Skånetrafiken has removed the cards, and I you can only buy tickets by their application, so I do not do so. I am insecure, that is why I go by car instead.</i>	Public transport; digital divide.
<i>If Skånetrafiken offered clear instructions of how to travel with them and how to pay with them, I believe I would have travelled with them more often.</i>	Public transport; value.

Appendix 9. Table of Coding, Skånetrafiken

Respondent:	Meaning Unit	Code
Kevin Brandt	<i>The big change that we have done during the digitalization is that we have built a new platform for how to travel and how to buy a ticket.</i>	Digitalization
	<i>Our customers needed to charge the physical cards with 24 hours foresight because the cards were not connected to any server, which forced our customers to have long-term planning before traveling. We realized that this is not how you should travel by public transport, which leads to a change, and we started developing our application instead</i>	Digitalization; digital services.
	<i>The differences between the old physical card, Jojo-card, and our new card is that you do not need to pre-charge it; instead, you buy a ticket at our stations, website or customer center, that is visible at the card when you scan it at the bus or the train. However, there are no longer any discounts by using the physical card as it was with the Jojo-card.”</i>	Digital services; value
	<i>When I started at Skånetrafiken, approximately 60% of all our customers traveled with the physical card. It has changed to more than 86% of our customers traveling with our application.</i>	Digital Services; digitalization.
	<i>We do not know how many of our customers that are older adults. We do not work towards any specific age segments; instead, we work towards the life stage you are at. You can be 55 years old and not have a smartphone, but you can also be 28 years old and refuse to be digital; however, older adults are the majority in this case</i>	Digital Services; older adults.
	<i>Together with Region Skåne, we offer older adults over 67 years, to travel for free within the region that they live in. They can travel for free, and the Region pays for it. Approximately 17 of 33 regions in Skåne is with us in this initiative.</i>	Digital divide; older adults; value.
	<i>This is an amazing initiative, and we hope that more Regions will join us with this... It is an excellent opportunity for us to gain older adults as our customers too</i>	Digital divide; value.
	<i>The new way of buying tickets is mostly digitalized; the offered products and services force you to have a level of digital maturity. If you do not, we have other solutions, but I need to be honest and say that they are not as good as the digital services</i>	Public Transport; digital divide; digital services.
	<i>You can download the application, but then you need to have an apple-id or a google account. When you have the application, you need to have a credit card to buy a ticket, and to confirm it; you need to have an e-identification</i>	Digital divide; digitalization; digital services.
	<i>We launched the application three years ago; throughout this time, meanwhile developing the new application, we have had parallel ways of buying tickets. However, in December 2019, we stopped offering the physical Jojo-card, and it was at this time that the critique came</i>	Older adults; digital divide; digital services.

<p><i>We have a social function; we need to be available for all our customers and all humans in Skåne. This means that we have high demands regarding older adults and people with disabilities, too; everything needs to be adapted for them</i></p>	<p>Digital services; value.</p>
<p><i>When they refuse to use their smartphone, we refer them to use their credit card instead because 99,8% of all Swedes have a credit card. When we do that, they resist by saying that they do not want to pay with their credit card because it is unsafe. As the following question, we ask them how they pay when they are at the grocery store, and they responded that at the grocery store, they can use their credit card, but not at the bus."</i></p>	<p>Digital divide; public transport; digital services.</p>
<p><i>We have created an initiative where we offer all senior associations a free event, where we tell, inform, and show how to buy tickets in our application. Last year, we did 150 events with approximately 20 to 150 participants. It has been very appreciated by them. We want to continue with this because we believe that it is important to meet older adults and communicate how to use our digital services.</i></p>	<p>Public transport; value; digital services; digital divide</p>
<p><i>The whole of society is digitally developed, which makes it hard for you to live if you're not digitally matured. We are not pioneers in digital development, but we follow the trends that exist.</i></p>	<p>Digitalization; digital divide.</p>
<p><i>When we removed the opportunities to pay with cash, older adults reacted strictly and called us stupid, and so on, which is the same reactions that we have received now when removing the physical Jojo-card. Older adults feel that change is not positive and that it is going too fast.</i></p>	<p>Digital divide; digital services; digitalization</p>
<p><i>For example, the Swedish Agency of Taxes, they could have taught older adults how to send your tax papers digitally, because many older adults do not know how to do it, which creates a digital divide.</i></p>	<p>Digital divide; digitalization.</p>
<p><i>We cannot be as judging as we are right now just because many older adults cannot use a smartphone, we need to listen to older adults, and we need to help them. We need to understand them and understand that change is hard for them</i></p>	<p>Digital divide; value; digitalization.</p>
<p><i>The society is taking large steps towards a digitally developed society. Therefore, I believe that there are large benefits for older adults to try to learn digital services. But you cannot demand this from older adults.</i></p>	<p>Digital divide; digitalization.</p>
<p><i>Organizations need to adapt their mindsets and be happy for older adults that they wish to learn.</i></p>	<p>Value; digital divide; digitalization</p>
<p><i>Older people are becoming much older. I mean that private organizations also need to take their responsibility to engage older adults in their digital services because they are essential as their customers.</i></p>	<p>Value; digitalization.</p>