



LUND UNIVERSITY
School of Economics and Management

All by myself? - Reluctance towards Digital Devices in Retailing.

Qualitative Analysis of the Reluctance in Adopting Digital
Devices in Grocery Stores from a Consumer Perspective.

by

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June 2018

Master's Programme in

International Marketing & Brand Management

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Abstract

The purpose of this study is to investigate the barriers of consumer adoption of digital technologies in retail stores. Specifically, this thesis examines the underlying reasons behind consumer reluctance towards the adoption of digital devices in retail stores and how to overcome this customer reluctance towards digital tools in retailing from a consumer perspective. Furthermore, the research adopts a qualitative approach, where first empirical observations were conducted detecting a low level of consumer adoption, before collecting the empirical data through twelve in-depth interviews. By using self-scanning machines in the Swedish retailer ICA as an empirical context, this thesis investigates the above-mentioned aim through twelve in-depth interviews. This thesis contributes to an identified literature gap regarding the reasons for consumer reluctance towards adopting digital tools in-store. Consumer's reasons for this reluctance are investigated in-depth for guaranteeing a contribution to existing literature regarding digitalization of physical retail stores, through exploring the concept of value co-creation of retailers and consumers mediated by digital devices in-store. From the empirical analysis, our findings extend previous literature, by providing more in-depth and new insights and therefore enhancing previous research in the field of digitalization in-store. Specifically, a lack of information and miscommunication regarding the usage and the benefits of digital devices, a consumer fear of encountering mistakes when using these tools, as well as a lack of incentives for their usage are found through our research. These findings are relevant, as they not only contribute to filling the identified research gap with showing various reasons for consumer reluctance, but they also serve as valuable input for overcoming the reluctance of adopting digital devices in retailing. Our claim of value co-creation being applicable in the context regarding the implementation and adoption of digital devices in retail stores can be identified as one leading aspect of our outcomes, which is especially broadening existing literature.

Keywords: Retail, In-Store Digitalization, Consumer Reluctance, Value Co-Creation, Self-Scanning Devices

Acknowledgements

We would like to take this opportunity to thank first of all, our supervisor, Javier Cenemor for his professional and personal unconditional support. He guided us with all his valuable knowledge and insights through this process of writing a master thesis giving us appreciated advice and assistance.

Furthermore, we would like to express our gratitude to the twelve participants, sharing their valuable insights and opinions with us, leading to inspiring and ground-breaking results.

Last but not least, our recognition goes to our classmates, who after this intense, but exciting journey became real friends, as well as to our families and friends for supporting us in every situation. Without your unconditional love this journey would have been unrealizable.

Lund, Sweden, 28th May 2018

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1. Introduction

Nowadays, the world is dominated by constant changes of different nature, yet technological progress is the one that reshaped our daily habits to a larger extent (Grewal, Roggeveen & Nordfält, 2017). Our lives have been comprehensively affected by technological developments insomuch that many moments in our daily lives are influenced by the presence of technology. As a consequence, daily activities, such as consumption, have been accordingly adapted to the constant exposure one has to technology. This is also reflected in the retailing industry, with retailers integrating offline and online touch points in order to enhance their competitive position in the new context (Huré, Picot-Coupey & Ackermann, 2017). Therefore, retailers need to re-create and adopt the concept that has been associated with brick-and-mortar stores in the past years through providing a more contemporary and trends-aligned reality in which digitalization is blended together with physical stores (During, 2010, cited in Ghali, 2014).

The introduction of digitalization in retail stores represents a benefit for both, retailers and customers. This can be seen as applicable, as digital tools in retail stores provide consumers with a more convenient shopping journey, while retailers can gain popularity through the implementation of these tools (Broome & Ferrer, 2018). Specifically, according to existing literature, customers can, through the use of digital devices and tools, make well-grounded decisions during their shopping journey (Grewal, Roggeveen & Nordfält, 2017). Furthermore, through digitalization retailers are more informed about customers' preferences, leading them to provide their customers with tailor made offers that aim at stimulating consumption (Grewal, Roggeveen & Nordfält, 2017). This stimulation of consumption can be done through digitalization, for instance the high level of control conveyed by these tools allow consumers to be totally detached by any type of personal interactions with sales assistants, which may influence their opinions about a specific product (Meuter et al., 2003, cited in Kallweit et al., 2014). Therefore, consumers, through digitalization, can deliberately form an opinion regarding their purchasing decisions without being exposed to the biased advice of sales personnel (Meuter et al., 2003, cited in Kallweit et al., 2014). Accordingly, in-store digitalization is considered as being beneficial for both parties, consumers and retailers, when an interaction mediated by technology occurs.

1.1 Background

As mentioned above, a phenomenon regarding the increase of in-store digitalization can be observed, as it is believed to have many benefits to retailers. Namely retailers can (1) gain positive financial impacts, (2) build competitive advantage in relation to online stores and (3) gain a better brand image through providing a better shopping experience.

Specifically, it is essential to remark the great financial and structural efforts undertaken by retailers for adopting an omni-channel strategy leveraging digitalization especially in their physical stores (Reinartz & Imschloß, 2017). Firstly, Reinartz & Imschloß (2017), state that digitalization provides retailers with the opportunity to influence consumers' decisions as soon as a need is revealed, leading to a positive economic impact for the retailer. Secondly, according to MacKenzie, Meyer and Noble (2013), retailers' economic model is affected by the upcoming technological trends in terms of both, gross sales and net profits. Through digitalization in brick-and-mortar stores, retailers can counteract the unbridled competition coming from online shopping platforms which are mainly used by customers due to more convenient prices and greater choices (Kelleher, 2018). Even though, consumers might consider online shops as being more convenient when compared to the classic brick-and-mortar ones, Kelleher (2018) states, that consumers still prefer the unique feeling of having tangible products in-store, being able to see and touch them and eventually purchasing them. Thus, retailers aim at re-creating more digitised stores in which physical and digital co-exist with the aim of boosting the consumer experience (Kelleher, 2018).

Thirdly, the effort retailers undertake when implementing digital devices in-store is mainly due to the latest trends according to which people are becoming day by day more sensitive and responsive to the newest technological trends (Broome & Ferrer, 2018). This is especially well demonstrated in statistics on recent retail trends conducted by Broome & Ferrer (2018) using a sample of 2,000 UK citizens. According to this research, consumers appear to be frustrated by the endless queues they are daily exposed to when in-store, leading to nearly 75% of the sample group deciding not to buy anything at the moment of the checkout because of the long waiting times. It goes without saying, that situations like this are a source of both, financial and brand image loss, for retailers, that can easily be replaced by competitors offering a faster and more

convenient shopping journey for their customers (Broome & Ferrer, 2018). To limit long queues and the average time each customer spends at the check-out, retailers have started to introduce technologies, such as self-service checkouts. With this technology, customers can scan and pay for the items selected without any interaction with sales personnel, gaining more control and independence over their shopping experience (Grewal, Roggeveen & Nordfält, 2017).

Contradictory to what retailers expect due to all these mentioned benefits for them, consumers are not eager to immediately adopt these digital devices in-store. Indeed, as soon as technologies like this were first introduced, customers were sceptical about them reflecting in a low level of adoption (Elliott, Hall, & Meng, 2013). Attempting to gain a better understanding for the reasons of reluctance, it is essential to consider the research conducted by Elliott, Hall and Meng (2013), according to which customers are reluctant towards these technologies mainly because of a lack of trust in both, the technology itself and in themselves, as well as the higher possibility of encountering mistakes when using digital devices in-store. Yet, only a few researchers investigated the topic of consumer reluctance so far; and although the above-mentioned research detected a reluctance in consumer adoption of digital tools in-stores, recent data shows that customers actually embrace these new technological tools (Elliott, Hall & Meng, 2013).

Therefore, looking at previous literature, one can understand how research regarding the adoption of digital tool in retail stores appears to be contradictory, with some claiming its acceptance, while others state its reluctance. Especially the literature regarding the factors influencing the customer reluctance for adopting digital tools in retail stores is still very limited with this topic being emerging. Some challenges and barriers in the consumer adoption of digital devices in retail stores have been observed in previous research, yet the understanding of these factors not researched very well till date. Therefore, it is worth investigating the reasons behind the consumer reluctance in adopting digital tools in-store for enhancing the understanding behind this trend.

1.2 Relevance of the Research Problem

More and more retailers are investing considerable amounts of money in digitalizing the consumers' shopping experience in-store through the implementation of digital devices. Digitalization is partitioned into five different categories of technological devices, such as: "smartphones, tablets, and kiosks, the furniture intelligent and interactive screens" (Ghali, 2014, p. 4), which can also be found in physical stores (Reinartz & Imschloß, 2017). Indeed, depending upon the type of product category and point of sale, consumers might benefit from different technologies, such as shopping applications, in-shop navigation through smartphones, or even smart fitting rooms (Reinartz & Imschloß, 2017).

Retailers believe, that those investments lead not only to considerable benefits for themselves, but also for their customers (Ghali, 2014; Grewal, Roggeveen & Nordfält, 2017). The introduction of digital devices in physical stores, leads retailers to gain considerable advantages from a new form of value creation, which is not merely economic. This could be, for example that they profit from improved consumer attitudes towards them and accordingly from higher return rates of consumers deriving from advanced service satisfaction through the offered digital tools (Marzocchi & Zammit, 2006; Grewal, Roggeveen, & Nordfält, 2017). Additionally, when implementing digital tools, retail stores benefit from reduced labour costs and a more standardized interaction throughout different shops, which could lead to a better overall performance through more controllable variables (Elliott, Hall, & Meng, 2013), such as improved service satisfaction, which may derive from digitalization in-store, leading to a better overall opinion of the retailer and improves the return rate of customers (Marzocchi & Zammit, 2006). Hennessy (1998) even claims, that stores in the UK offering self-scanning checkout systems register an increase of up to 12 percent in sales for the customers using these checkout systems. In addition to increased sales, retailers benefit from reduced labour costs, as less staff is required when digital devices are implemented in brick-and-mortar stores (Grewal, Roggeveen, & Nordfält, 2017). Also, the standardized interaction with consumers when offering them innovative information and check-out technologies can be seen as beneficial for retailers, as these standardized technologies reduce human mistakes (Elliott, Hall, & Meng, 2013). From this, one can understand, that the big investments undertaken by retailers when implementing digital devices in-store are justified by the various advantages for the retailers.

Yet, retail digitalization is believed to not only lead to advantages for retailers, but also to profound benefits for consumers. Therefore, it is paramount to mention also the values consumers benefit from the adoption of digital devices in retail stores. The increasing digitalization of points of sale intends to innovate the customer experience journey through improving the conversation rate at the cashier, leading to reduced queue times and a higher satisfaction of the consumers, which is beneficial for both, customers and retailers, which justifies the vast amount of money invested by brick-and-mortar stores in implementing digital devices in-store (Ghali, 2014). One of the main arguments for digitizing the point of sale most literature agrees upon is this aspect of saving time through reduced waiting times at check-out and information points (Pratibha, Michelle & Ju, 2003). This is beneficial for the retailer, as according to Müller (2008), the primary reason for customers to leave the store without purchasing anything is a long waiting time at the cashier, which can be reduced through in-store digitalization. Yet, also the better control over their spending through displayed total amounts when using self-scanning devices represents a benefit for consumers (Pratibha, Michelle & Ju, 2003). Additionally, consumers benefit from increased control, accuracy, convenience and enjoyment, which come with the digitalization of retail stores (Marzocchi & Zammit, 2006).

All these above-mentioned benefits for consumers, as well as for retailers justify the great amount of money retailers invest in the digitalization of their stores. Yet, it seems that many consumers are not adopting these new technologies or are even resisting in adopting them. Especially in a digitalized country like Sweden, which is even considering the possibility of going cashless, it seems contradictory that consumers are reluctant in adopting some digital tools in retail stores (Crouch, 2018). Even though a recent research shows, that a vast number of retailers, specifically 55,3%, believe that digitalization is highly relevant for them and are therefore adopting it; the majority, with 64,1% of retailers surveyed, claims that their customers express a very low need for digital services in retail stores (Bollweg, Lackes, Siepermann and Weber, 2015). This indicates a mismatch between the digital offers of retailers and the expected digital shopping experience of consumers. Therefore, the question arises, why retailers are investing resources and effort in digitalization in-store, when consumers are reluctant in adopting those digital tools or even resist to adopt them.

Most of the literature concentrates on the advantages either retailers or consumers gain from implementing or using digital devices in-store (Müller, 2008; Pratibha, Michelle & Ju, 2003;

Kallweit, Spreer & Toporowski, 2014; Grewal, Roggeveen, & Nordfält, 2017). Here, especially the innovation of the consumer experience journey through digitalization of the point-of-sale and how this influences customer behaviour is researched (Ghali, 2014). Others also investigate the impact digitalization has on the consumers' opinion about the retailer and their loyalty towards them (Marzocchi & Zammit, 2006). In other words, previous research focuses mainly on the reasons for consumers and retailers to implement and adopt in-store digitalization, the advantages both gain and how it influences consumer behaviour positively. Yet, the literature seems to be very limited in considering that, in fact, there is a great part of consumers not adopting these digital services at the point-of-sale or even resisting to use them. The reasons behind this consumer resistance or non-adoption behaviour of digital services in-store represents an emerging topic and therefore its understanding is still very limited.

Considering the value creation deriving from the interaction of retailers and consumers, mediated by the implementation and usage of digital devices, this research positions itself in enhancing the understanding of the reasons, that lay behind the consumer reluctance in adopting digital tools in retail stores. Therefore, since this thesis aims at investigating the reasons behind the consumer reluctance in adopting digital devices in-store from a consumer perspective, we believe it represents a significant contribution as well as a source of reflection for retailers which can lead to improvements of the above-mentioned value creation.

1.3 Purpose

In order to describe the purpose of our research, it is essential to refer to the study conducted by Mortimer & Dootson (2017) showing how digital devices implemented in-store, like self-checkout terminals, are expected to increase from 191,000 in 2013 to 325,000 by 2019. However, when switching from staff to technological self-checkouts costs of around 125.000 US-Dollar for the setup alone have to be sustained by retailers (Mortimer & Dootson, 2017). Given these massive investments retailers undergo in order to digitize their point of sales, it should be the case that consumers are embracing these new technologies, because they, as well as the retailers themselves, are gaining considerable advantages from them. Yet, a survey conducted by Broome & Ferrer (2018) presented in their "Retail Trends Report 2018" shows, that 47% of customers in the UK actually avoid using digital devices in-store.

From this, one can understand, that a gap between consumer expectations and digital services offered by retailers is emerging (Bollweg et al., 2015). Retailers invest a vast amount of resources in digital transformation of their physical retail stores to innovate and improve not only their turnover, but also provide advantages for their customers, like increased convenience, time-saving or control (Ghali, 2014). Yet, consumers are reluctant in adopting these new technologies, which are said to provide them with considerable advantages. Therefore, it is essential to investigate the reasons for consumers not to adopt these newly offered technologies in retail stores or even express their dislike towards them, if they are supposed to improve their customer experience.

1.4 Research Questions

As a result, our Master Thesis will mainly look at the level of acceptance of customers towards the introduction of new digital tools in brick-and-mortar stores. Starting from a set of empirical observations, an assumption has been drawn: customers seem to be reluctant in adopting digital tools and integrating them into their purchase journey in retail stores, even though retailers are investing many resources for providing a more convenient service through the digitalization of point of sales. Therefore, this research aims at understanding the various reasons behind the consumer reluctance in adopting modern technologies in-store even though they could be potentially beneficial for them. Consequently, we aim to strengthen the understanding of how the reluctance of consumers in adopting digital devices in-store can be explained. Therefore, the research questions investigated in this thesis are the following:

- What are the reasons for consumer reluctance towards the adoption of new digital tools in retail stores?
- How can retailers overcome the consumer reluctance towards the adoption of digital tools in retail stores?

Due to the fact, that research regarding the reluctance of consumers in adopting digital devices in stores is still emerging, the existing literature in this field is very limited. Therefore, in order to contribute to the previous literature (Müller, 2008; Pratibha, Michelle & Ju, 2003; Kallweit, Spreer & Toporowski, 2014; Grewal, Roggeveen, & Nordfält, 2017) and fill this identified gap,

we aim with these research questions at exploring the reasons behind the reluctance in the adoption of digital tools from a consumer perspective, as well as to identify ways for retailers to overcome the consumer reluctance towards these tools in retail stores.

1.6. Outline of the Thesis

This thesis is structured in seven chapters. The first chapter concentrates on a general introduction to the research topic and its purpose, resulting in the research questions and its limitations. Furthermore, the second chapter aims at providing the reader with the comprehensive theoretical background of the research topic including not only the implementation of digitalization in retail stores, but also an overview of different perspectives on the benefits and scepticism consumers show towards digital devices in retail stores. Before moving on to the methodology of this research, the research context is portrayed, providing not only an overview of the self-scanning technology, but also of the Swedish retailer ICA. Afterwards, the methodology with an explanation of the research approach, of how we collected the data for our research and of how we analyzed this data. The following chapter analyzes the results and findings of the conducted research providing initial answers to the research questions. After this, an in-depth discussion of our research findings in relation to existing literature is conducted to thoroughly answer the research questions. Finally, this thesis ends with a conclusion providing an overview of our theoretical contributions and managerial implications for retailers, as well as with research limitations and suggestions for further research.

2. Literature and Theoretical Review

The following chapter will give an overview of the previous literature relevant to our research topic and questions. First, an introduction to the retail industry and the transformation they undergo through implementing digital devices in-stores is given, before moving on to describe the benefits consumers can gain from these tools, as well as the possible reasons for consumer reluctance of adoption. Therefore, we take an approach not only concentrated on the consumers' perspective about their perception on digital devices in retail stores, but also on aspects of the retailers' point of view. Yet, due to our research questions the consumer perspective is the dominant one.

2.1 Retailing and the Implementation of Digital Technologies

Retailing is a dynamic industry undergoing a continuous transformation due to changes in society and upcoming innovations (Goworek & McGoldrick, 2015). Especially the rapid emergence of new technologies forces retailers to constantly adapt. Here, not only the implementation of online stores in addition to traditional retail stores, but also the digitalization of physical retail stores plays a fundamental role. Even though online retailers gain more and more popularity, most of the purchases is still happening in the physical retail stores (Hagberg, Jonsson & Egels-Zandén, 2017). From this increased purchase rate in-store, one can understand, how important the implementation of digital devices in brick-and-mortar stores is in order to keep up with the increased digitization of the whole retail industry.

Even though, digitalization and technology are seen as being disruptive for many industries, such as the press one, they even represent a real source of value creation for retailers. Indeed, as soon as online shopping was introduced and gained consensus from consumers, it was believed to reduce the need for brick and mortar stores (Broome & Ferrer, 2018). Yet, Broome and Ferrer (2018) found, that stores, especially supermarkets, gain considerable popularity with the introduction of omnichannel aspects. In this respect, digital tools in store represent a unique opportunity for retailers in the process of enhancing the value creation in-store. With this said,

it is essential to describe the development of the digitalization in retail stores some ways in which this digitalization can be beneficial for consumers and also give some insights regarding the digital scepticism of consumers.

2.1.1 Digitization of Retail Stores

In order to ensure the successful existence of physical retail stores, retailers work to meet consumers' needs and satisfy their desires providing them with a satisfactory variety of goods for transforming shopping into a leisure activity (Sassatelli, 2007). At the very beginning, technological innovation and its influence in the retail sector was thought to be a threat to brick-and-mortar stores, as mentioned in the previous chapter (Sassatelli, 2007). Yet, in fact, technological progress led to the emergence of a variety of channels, that aim at simplifying consumers' shopping journey by exposing them to a cornucopia of goods at the same time (Sassatelli, 2007). Specifically, electronic commerce has stimulated consumers impulsive purchasing behaviours for which the temptation stimulated by the materialistic side of a goods has been replaced by the exposure to an easy and immediate access (Sassatelli, 2007). Since the emergence of e-commerce, consumption is even more anchored to the domestic sphere, (Sassatelli, 2007) as the purchase can be easily processed at home without having the necessity to visit a physical store. Electronic commerce is surely a main factor for the transformation of shopping into an ambient activity as consumers shop everywhere and anytime; therefore, shopping is fully integrated in the consumer life (Reinartz & Imschloß, 2017).

Yet, the physical stores do not seem to be threatened by online retailers, as consumers still tend to prefer touching and seeing products in person before they are investing money and resources in purchasing them (Reinartz & Imschloß, 2017). Therefore, retailers need to make the experience lived by customers in-store as unique as possible, where digitalization can be an asset. A survey conducted in Sweden by Anselmsson (2006), who analyzed the perceived performances of four shopping centres, shows that for customers, the retailer location is a key determinant when choosing a retailer over other ones, but also the atmosphere created by the latter is crucial Anselmsson (2006). Atmosphere is recreated using both sound and visual effects, which can enhance consumer experience influencing the whole environment (Ekström, 2013). However, through the use of digitalization, retailers can make the atmosphere in the

physical store even more unique and entertaining, providing shoppers with customized experiences also with the help of the data gathered from their smartphones (Frishammar et al., 2018).

According to Ekström (2013), the store is no longer just a place to consume, it became a place aimed at the entertainment of the customers in which material goods and services are sold together with an experience. Furthermore, according to Gandomi and Haider (2015), retailers introducing digital technologies can acquire data about store traffic and visually intuitive demographic information about their customers, such as gender and age range. This information is key for retailers to help the stimulation of consumption in shoppers, that perceive the retailer as taking care of them at every stage of their shopping journey (Henri, 2013). Customers are never alone, as digital tools assist their journey since the very beginning, from when they enter the store until the moment they leave it and arrive home, when exposed to post-purchase promotions (Henri, 2013). Customers' need for shopping can be associated to different reasons and motives; indeed, if for some it is just the act of purchasing for others it might be a more social practice (Ekström, 2013). From this, one can understand how essential digital devices can be for influencing the consumer experience journey in retail stores and accordingly for influencing their perception of the retailers.

2.1.2 Benefits of Retail Digitalization for Customers

The growing digitalization of the past years and the rise of different online retailers mentioned above changed the retail landscape profoundly. Even though, many retailers began to launch online stores in addition to their traditional physical stores (Gilbert, 2013), a study from Hagberg, Jonsson and Egels-Zandén (2017) comparing the amount of products bought online and offline leaves no doubt, that consumers, that are shopping in the physical retail store, spend considerably more money than the ones shopping online. Furthermore, they argue, that the fewer contact in person combined with less store visits when shopping in online stores results in weaker consumer loyalty and lower satisfaction with the retailer (Hagberg, Jonsson & Egels-Zandén, 2017). Given this phenomenon, it becomes clear why more and more retailers concentrate lately on implementing digital tools and devices in the physical shops for improving the consumer experience journey (Rigby, 2011).

Literature has identified several extensive benefits of digitalization for customers, leading retailers to implement these digital devices in-store. When looking at the digitalization of point of sale, retailers especially concentrate on implementing new technologies, like self-checkout service or self-scanning devices, at the cash desk in order to make the checkout process faster (Hagberg, Jonsson & Egels-Zandén, 2017). Therefore, customers benefit from digital tools in-store through having a faster and more convenient shopping experience and process through the reduced waiting times at check-out or information (Ghali, 2014; Pratibha, Michelle & Ju, 2003). As already mentioned in the first part of the thesis one of the reasons for customers to leave a store without any purchase action is related to time constraints and long waiting periods at the cashiers (Müller, 2008). Therefore, though implementing various digital tools to speed up this process of checkout, retailers can meet consumer needs and wants enhancing their shopping experience.

Secondly, consumers not only want to be provided with a faster and convenient shopping experience, but they also believe that receiving personalized offers from retailers is essential and beneficial (Ghali, 2014). Digitalization plays a determining role in this particular aspect of consumer needs and wants. Through the use of technological tools, retailers can have an easier access to consumers data, which leads, as a consequence to more personalized offers based on consumers' purchasing history (Müller, 2008). Consumers are willing to share their information with the retailer as long as the latter repays them individualised shopping experiences, including offers (Ghali, 2014).

In general, consumers benefit from digitalization of retail insofar, that they gain more control over their spending and profit from increased accuracy, convenience, time-saving and also increased enjoyment and satisfaction during their shopping journey (Marzocchi & Zammit, 2006). This increased control over consumers spending is reflected mainly in displayed total amounts when using self-scanning devices and in the fact, that customers often trust themselves more than sales persons (Pratibha, Michelle & Ju, 2003). In addition to that, also other benefits for consumers, that derive from digitization of retail stores, are important to mention. This can be increased accuracy, convenience and enjoyment, which may come with the digitalization of retail stores (Marzocchi & Zammit, 2006).

2.1.3 Customer Digital Scepticism

Referring to our research questions, it is essential to also consider literature investing in various reasons of consumer reluctance towards the adoption of digital devices in retail stores. Therefore, this chapter is devoted to giving an overview of the digital scepticism customers show.

The latest improvements in the Information and Communication Technology (ICT) industry, brushed into people's life inasmuch that also daily offline activities, like shopping in physical retailers, are defined by them (Barrett et al., 2015, cited in Iqbal et al., 2018). ICT, including digital devices in-store, has influenced the relationship between the consumer and the retailer, leading to considerable improvements in the services' quality (Barrett et al., 2015, cited in Iqbal et al., 2018). However, despite the positive impact that the introduction of these technologies at the point of sales has brought from an economic perspective to the retailers, it is noteworthy to mention that consumers are still reluctant in adopting them (Iqbal et al., 2018).

For understanding this consumer reluctancy, it is essential to be aware of the process a digital innovation undergoes until it becomes adopted from consumers. From a theoretical perspective, the innovation adoption consists of a five-step process to reach diffusion within a social system (Rogers, 1995). Starting from "knowledge", and therefore with getting to know an innovation and its basic functions, the second step is characterized by a process of "persuasion" in which the social actor generates either a positive or negative attitude towards the innovation (Rogers, 1995). The third, and most crucial step, is the one of "decision" where the innovation is either rejected or adopted (Rogers, 1995). Accordingly, the fourth and fifth steps are related to the practical usage of an innovation, indeed, when "implementing" it, the innovation is tested and then reaches diffusion with the "confirmation" step, through evaluating it in terms of results (Rogers, 1995). However, according to Curran and Meuter (2005), consumers are inclined to adopt an innovation mainly based on the way they perceive technology and innovation. At this purpose, Curran and Meuter (2005) underline how persuading consumers in accepting and using digital tools in-store, can represent a challenge for retailers. Indeed, consumers tend to be reluctant towards the adoption of technological tools as they don't feel competent and confident in using them (Elliott, Hall & Meng, 2013).

This was also the case when self-scanning checkouts were first introduced in-store, as consumers were not immediately adopting them or even reluctant in doing so. This lack of willingness and acceptance can be associated with a miscommunication to the consumers from the retailers' side (Elliott, Hall & Meng, 2013). Not properly communicating how to use these technologies can be recognized as being a reason for the reluctance in accepting these tools. Therefore, according to Elliot, Hall & Meng (2013), retailers should invest in their internal resources, employees, training them in assisting consumers with potential technical problems that they can encounter while using digital tools in-store.

Yet, till date the literature proving material and data about consumers' low level of adoption of digital devices in store appears to be very limited. Therefore, a gap can be identified, stimulating new research upon this topic.

2.1.3.1 Value Appropriation and Co-Creation

Value co-creation as well as value appropriation have become dominant sources of discussion nowadays. According to Prahalad and Ramaswamy (2004), the creation of value is the direct result of the process in which both the consumer and the firm are interplayers trying to gain benefits from the goods and service they are offered or offer. Consumers can be actively involved in the creation of a product or service through customization at the production and delivery stage (Payne et al, 2008). The involvement of consumers in the production process can be seen as a valuable interaction between the two parties at the end of which both are better off due to the value created (Prahalad and Ramaswamy, 2004). Yet, when looking at value co-creation where the customers are actually involved in creating the value for a company, the customers are no longer the only ones profiting from the value, but are actually the ones helping to create it (Vargo and Lusch, 2008). This indicates, that consumers are no longer an external component of the company, but become gradually an internal one (Zhang & Chen, 2006). However, for consumers to participate in value co-creation, they need to see a benefit or value for themselves out of this interaction aswell. This means, according to Prahalad and Ramaswamy (2004), companies need to establish an environment that lets consumers create their personalized experiences, where they can gain personal value while at the same time participating in value co-creation.

As a consequence, the question, which spontaneously arises is: Who is going to appropriate the value created? According to Teece (1986), the term value appropriation is referred to as a firm's ability to generate profits after value is created. Priem (2007) defines the consumer benefit experienced as essential for a company, as well as for consumers, as only if the customers actually experience a benefit of an innovation or business model, this can lead to success. For consumers, this means value creation evolves mainly around an "increasing use value or decreasing exchange value" (Priem, 2007, p.220) both leading to a benefit for the consumers.

We perceive this concept of value appropriation and co-creation as relevant for our goal of investigating in the reasons behind the reluctance in adopting digital devices in retail stores. Yet, the literature investigating this concept in connection with technology adoption in a retail sector is very limited till date. Therefore, we are yet to investigate if value appropriation and value co-creation can possibly be connected with the reluctance of adopting digital tools in retail stores.

3. Research Context

Our claim, that consumers are reluctant in adopting digital devices in-store, is supported by our own observations conducted at various ICA retail stores in the region of Skåne, Sweden. We visited 4 ICA stores, each for 2 hours and there, we observed the adoption rate and usage of some digital devices offered in-store for guaranteeing a more convenient consumer shopping experience. Especially, when observing the self-checkout tools we detected, that a relatively big amount of shoppers were not utilizing them. Indeed, the self-scanning devices offered in-store, which are supposed to make the shopping more convenient and fast, were used by almost none of the consumers in the different stores observed. Given this observations, it can be argued, that consumers are relatively slow in adopting the offered digital devices in retail stores (Elliott, Hall & Meng, 2013). Therefore, the question arises, why retailers are investing big amounts of money in the digitalization in-store, when consumers are reluctant in adopting those digital tools or even resist to adopt them (Mortimer & Dootson, 2017).

3.1 Self-Scanning Technology

One of these digital tools, which is said to serve both consumers and retailers in many advantageous ways, offered in-store by retailers is the self-scanning device. Marzocchi & Zammit (2006) characterize this self-scanning device as a tool with which consumers can scan product bar codes themselves and which shows various information about the products, like prices, quantity or discounts. Consumers are supposed to take these devices with them on their way throughout the store and constantly scan the products they add to their basket (Marzocchi & Zammit, 2006). This means, that consumers have a constant overview of how much they spent and which and how many products they already bought, leading to a better control of their spending budget (Müller, 2008). When the consumers are done shopping, they can simply check-out and pay at the point-of-sale without scanning all the products again, which is claimed to lead to shorter waiting times and queues (Elliott, Hall & Meng, 2013).

Some authors stress the required consumers participation, as consumers have to actively engage in creating value in order to profit from the usage of these digital devices, which we define to

be a value co-creation process. Even though it was feared, that consumers would not be ready for participating in this interaction, they were in fact gaining pleasure from it leading them to adopt these self-scanning tools regardless of the benefits they gain (Pratibha, Michelle & Ju, 2003; Marzocchi & Zammit, 2006). However, for retailers in order to invest in the implementation of those self-scanning devices the benefits the consumers and also the retailers themselves gain therefrom are essential to consider. The most obvious advantage of using self-scanning tools for consumers are the reduced waiting times at checkout. According to a study of Marzocchi & Zammit (2006) the checkout-time can be reduced by whole 70 per cent. In addition to this, through the process of self-scanning customers also feel more engaged in the purchase process and engage more with the various products. While, retailers mostly benefit from a reduced need for sales assistants leading to advanced cost efficiencies, better service quality and interest from new target groups looking to try these new technologies (Parasuraman and Grewal, 2000). Using technologies instead of humans also reduces human mistakes due to a lack of concentration or fatigue (Müller, 2008). However, one of the main reasons for retailers to invest in self-scanning technology is, that if consumers are satisfied through those newly offered devices, they are also more likely to visit the shop again (Marzocchi & Zammit, 2006).

While agreeing with the suggestion that satisfied consumers have a higher return rate, it is also essential to consider the lost loyalty, that might arise through the lack of personal contact. Elliott, Hall and Meng (2013) support this view by arguing, that self-service without human interactions can have negative effects on the consumer loyalty though missing social bonds. They claim, that personal relationships and service, making the consumers feel appreciated and important, are essential for establishing a base of loyal consumers. Therefore, it is crucial for retailers to consider all the possible advantages and disadvantages, which may arise, before investing in the implementation of self-scanning technology.

When looking at this new technology, also the adoption rate of customers is essential to elaborate upon. While most authors are only focussing on the advantages, self-scanning tools may have, Hennessy (1998) also looks at the adoption rate stating that most customers are embracing them, especially in busy stores. However, if this is the case why are some stores “forcing” their customers to use the self-scanning tools through adding additional charges when using the traditional check-out desk (Elliott, Hall & Meng, 2013). Given this phenomenon it must be the case, that consumers are not ready to adopt self-scanning devices yet, like Hennessy

(1998) claims. This argument is also supported by our own observation of various grocery stores in Sweden, where we discovered that only very few shoppers utilized self-scanning technology. Therefore, it is essential to investigate in the reasons behind this low adoption rate, especially when most research claims the various advantages of adopting self-scanning tools for consumers and retailers.

3.2 ICA and Digitalization

As our research sample concentrates on the above mentioned self-scanning devices in the Swedish retail store ICA, the following chapter provides a description of this retailer. ICA Gruppen AB is a Swedish retailer focusing on food and health and was founded in 1938 (ICA, 2018). It mainly operates in Scandinavian countries and with around 1300 stores alone in Sweden, it represents the second largest retailer in the Nordic Countries (ICA, 2018). ICA has different types of stores depending upon factors such as location, products offered and size of the shop. These different profiles aim at meeting different customer needs, from the basic daily retail needs satisfied by *ICA Nära* to the more complex ones met by *MAXI ICA*.

ICA not only tries to satisfy its customer needs by providing them with different shopping profiles, it also works to address important issues such as environmental, quality and engagement ones (ICA, 2018). However, having investigating the emergent consumers trends, it is possible to argue that ICA has been a fundamental player in the digitalization of brick-and-mortar stores. Starting from 2014, ICA has introduced “ICA Handla”, an application for smartphones that combines various features together; from the assortments of the groceries in store mapped with a recipe catalogue to a QR code scan (ICA, 2018). The retailer is investing human and financial capital in the accomplishment of its main corporate goal in making the life of its consumers easier. The store provides its customers with in-store digital tools that aim at reducing check-out time and stimulating engagement among customers (ICA, 2018). ICA offers self-checkout systems, but also self-scanning tools; the latter are not present in all ICA shops, but mostly in the bigger store profiles.

ICA found in digitalization and technology a real source of profits, insomuch that the retailer has recorded a growth of 50% in online sales in 2017 compared to 2016, accounting for more than 1,2 Billion of SEK (ICA, 2018). Furthermore, at the end of 2017, the company counted more than 200 stores involved in e-commerce operations. Recently, the Swedish retailer is focusing in the realization of a new project, ICAX, in collaboration with other companies (ICA, 2018). As presented in ICA's annual report (2018), the retailer is currently investing in the realization of this hub which will increase its capacity to use digitalization working in the realization of its own digital development projects and partnerships with other companies.

4. Methods

In the following chapter the methodology will be discussed. After having presented the philosophical underpinning, we will go through the research approach, and therefore the research questions this research aims at answering through the analysis of the collected data. At this purpose, the data collection will be explained accordingly and an explanation of how the analysis is performed will be provided.

4.1 Philosophical Underpinnings

It is crucial to be aware of the underlying philosophical positions and assumptions of business research in order to rise the quality, as well as the understanding of the outcomes of the undertaken research. The underlying philosophies determine the interpretation of the collected data, as well as the analysis. Therefore, in regard to Easterby-Smith, Thorpe & Jackson (2015), we start with discussing our philosophical assumptions of ontology and epistemology this master thesis has been written with, for creating more clearness for its readers (Saunders, Lewis & Thornhill, 2009).

While ontology is concerned with the existence and nature of reality, epistemology is concentrated more on the theories of knowledge and how researchers can gain knowledge about

the nature of the world (Easterby-Smith, Thorpe & Jackson, 2015). We refuse to adopt the generalized view of realism, claiming there is only one objective truth to be discovered. Therefore, this study's departure is the ontology of relativism assuming there are many perspectives and many truths to be discovered (Easterby-Smith, Thorpe & Jackson, 2015). With this, we seek to treat the views expressed by the interviewees as enhancing the construction of a social reality, instead of seeing them as an objective truth (Ulver, 2017).

Choosing this approach for our research is essential, as the goal is to investigate reasons behind specific consumer behaviour and their motivations for behaving in a certain way. As within a consumer culture there are many different reasons for consumers to behave in a certain way, we claim that there is also most likely not only one truth to be discovered, but rather many different perspectives and truths, like the relativist view suggests.

In alignment with the chosen ontology, the methods for examining the phenomenon of consumers not adopting digital tools in-store also has an underlying constructivist epistemology which enables us to answer our research questions. Choosing this epistemology of constructivism means seeing the reality as being not objective, but as a result of social constructionism in which meanings are the direct result of social interaction between people (Easterby-Smith, Thorpe & Jackson, 2015). It follows that social reality is constructed by people themselves, rather than by external objective determinants. Therefore, when adopting the constructivist view, it is essential to investigate in the different experiences people have and not looking for external causes explaining their behaviour or internal reasons (Easterby-Smith, Thorpe & Jackson, 2015; Ulver, 2017). This is also reflected in the chosen research methods of in-depth interviews for deeply investigating the reasons behind people's behaviour.

4.2 Research approach

After having defined which epistemological and ontological philosophical understandings this thesis adopted, the question about how the research approach is constituted arises. Therefore, this chapter first explains the research aims leading to the research questions and afterwards continues with describing the chosen research methods.

4.2.1 Research Questions

Generally, this thesis deals with the phenomenon of retailers investing many resources in the digitalization of their stores thinking that this leads to advantages for them and their customers (Ghali, 2014). Yet, consumers are slow in adopting these newly introduced digital devices in retail stores. Here, most literature concentrates on the advantages digitalization has on retailers and their customers, as well as on how consumers adopt these digital devices in-store. However, only a very limited amount of academic research has observed the slow adoption of customers and the reasons behind this phenomenon yet, as this represents still an emerging topic. There is a considerable research gap emerging here, that we aim to fill with our own research within this master thesis. Therefore, we aim at strengthening the understanding of how the reluctance of consumers in adopting digital devices in-store can be understood. Thus, the goal of this thesis is to investigate the following research questions:

- What are the reasons for consumer reluctance towards the adoption of new digital tools in retail stores?
- How can retailers overcome the consumer reluctance towards the adoption of digital tools in retail stores?

With these research questions we intend to fill the identified research gap. The empirical observations we conducted in various retail stores observing the adoption rate of digital devices stimulated us in the process of drawing up consistent research questions. Assuming after having observed, that consumers are reluctant towards the adoption of modern and digital technologies while doing grocery shopping, we aim at investigating the main reasons that lay behind their scepticism. With this, an additional outcome of our research can be to provide retailers with deep insights of why consumers are not adopting these technologies even though retailers are seeing many benefits deriving from digital tools in-store for both, themselves and their customers. Furthermore, our paper provides information, coming from interviews with consumers, on how retailers can overcome the consumer reluctance, providing us with practical implications on how this can be done.

4.2.2 Research Methods

For answering these research questions and really investigating why customers are rather slow in adopting the digital devices in-store, this thesis is using the method of semi-structured in-depth interviews with customers. In more detail, the interviews were held with shoppers, who are not using the digital self-scanning devices. In the following, the reasons for choosing interviews as the qualitative method for this thesis are discussed.

According to Kozinets (2002) interviews and focus groups are the most popular qualitative methods, which they claim to be especially helpful for revealing the complex symbolic meanings underlying needs, desires, meanings, actions and choices. As the aim of the research questions is the acquisition of a complete perspective of consumers' low level of adoption, we decided to follow a qualitative method while conducting research. A qualitative research design has been preferred over a quantitative one as, according to theory, qualitative research is implemented when respondents' views and perceptions are believed to be important for the understanding of a given phenomenon (Easterby-Smith, Thrope & Jackson, 2015). At this purpose, a quantitative research design would limit and reduce the opportunities to investigate the main reasons why the selected sample prefers not to use digital tools while shopping. Furthermore, previous literature (Elliott, Hall & Meng, 2013) on self-scanning uses mainly a quantitative approach, studying the economic benefits these digital tools produce for both retailers and consumers. It follows that through this paper we aim at filling a research gap stimulating further research, starting from the results deriving from our observations and continuing with the use of a qualitative methodology.

Within the qualitative methods we opted for in-depth interviews, as they represent a purposeful discussion or a directed conversation between the respondent and the researcher and therefore a suitable method for gathering qualitative data (Hultman, 2018). This means, that interviews are always co-created, as well as contextual. Furthermore, interviews are especially suitable for investigating experiences, like histories of events, getting familiar with the respondent's world and understanding the logic or constructs behind specific reasons and actions (Nilsson, 2018; Kozinets, 2002). Initially, when considering all the qualitative methodologies we could have used for our research aim and therefore we compared focus groups or interviews. However, within our research goal of investigating the reasons behind the non-adoption of digital tools

in-store by consumers the outcomes had to be only concentrated at one person at a time, rather than on whole groups. Thus, we chose interviews over focus groups, as for this research goal group interaction was not necessary, but profound and deep insights into the consumer's mind were needed. Furthermore, making sure the interviewees are telling their personal experiences and beliefs instead of influencing each other in some way is important (Nilsson, 2018; Kozinets, 2002; Hultman, 2018). Therefore, interviews are the fitting approach for our research aims and goals.

Furthermore, the research is based on an abductive approach, which is defined as going back and forth between theory and data (Bryman & Bell, 2011). This indicates that theory development is based on empirical observations and vice-versa with both influencing each other, which fits exactly with the approach the research of this master thesis has. We believe, that neither an deductive nor an inductive approach can be done completely isolated and sufficient and accordingly an abductive approach is more beneficial (Dubois & Gadde, 2002). Therefore, within this thesis we started with an empirical observation of a phenomenon in various supermarkets, formulated research questions accordingly and started to investigate in previous literature through secondary research while at the same time conducting the empirical research of in-depth interviews and adjusting both, the theory and empirics, constantly according to new findings.

Starting from our preliminary observations, a purposive sampling was required for gathering consistent data, especially for answering our first research question. According to Easterby-Smith, Thrope & Jackson (2015), when approaching a purposive sampling technique, the researcher has the preferred characteristics of sample members already in mind when gathering the sample. In this specific case, our sample members consisted of twelve people from various countries living in Sweden in the region of Skåne, who have never used or are not anymore using self-scanning machines in retail stores. The selected sample was individually interviewed mainly using a laddering-up technique. Indeed, the respondents were asked to explain the reasons for their scepticism towards the adoption of digital tools in-store in detail. Also, why-questions to their statements followed for gathering deeper insights and stimulate them in understanding their reluctance.

4.3 Data Collection

This following part discusses our data collection methods and procedures in-depth and elaborates upon how we ensured the credibility and reliability of our empirical study. First a short sample overview will be presented and afterwards the reasons for choosing in-depth interviews as our qualitative method will be discussed.

4.3.1 Sample

The Data for our research was collected through conducting 12 semi-structured in-depth interviews with people from different generations and national backgrounds. The selection of the interviewees was made according to three specific predetermined criteria for inclusion, namely the conditions, that participants are (1) regularly shopping at the Swedish retailer ICA (2) living in the region of Skåne/Scania and (3) not or not anymore using the self-scanning devices in retail stores. Even though our sample was supposed to not or not anymore use the self-scanning tools, we ensured ourselves that they were knowledgeable about these devices through introducing them to the interviewees, and if needed, showing them a video about them. Furthermore, the criteria regarding the Swedish retailer ICA was chosen due to the fact, that this retailer implemented in various stores self-scanning devices, which are lacking popularity among customers, according to our observations. Consequently, both this emerging technology and the specific kind of its' consumers make ICA a remarkably suitable retailer for the purpose of our study.

Accordingly, we approached interviewees, which met our defined criteria, personally and arranged interviews with them. Those approached interviewees had an age range between 18 and 60 years and from seven different nationalities and three different continents, whereby we ensured a broad view on our research topic. The interviewees were heterogeneous not only from an age range or gender point of view, but also from their approach towards technology.

Looking at our sample it can be argued that the majority of them recognized technology as playing a key role in their lives, showing heterogeneity in the technology usage rate, their innovation adoption phase, as well as how they perceive the activity of shopping. Even though some of the interviewees wished to have a different approach towards digital devices, they still underlined how these are fundamental in their daily activities. Only one interviewee appeared

not to recognize any benefits deriving from technology, declaring that without it his life would not be affected. In addition, when investigating the adoption phase of the interviewees, we understood that the majority of them are willing to adopt a new technology only after they have evidence of its functionalities. Also their attitude towards the activity of shopping differed from seeing it as an enjoyable activity to a necessity one has to do. Moreover, it is possible to identify a big discrepancy on what interviewees declared about their attitude towards shopping. Indeed, if for some it is an enjoyable activity, for others it is almost a burden. Therefore, it becomes obvious, that our interviewed sample is very heterogeneous.

4.3.2 Interviews

In line with existing literature (Easterby-Smith, Thorpe & Jackson, 2015) we conducted twelve interviews, that took place in a neutral conference room for ensuring a relaxed and private atmosphere and one talk lasted about 30 to 50 minutes, depending on the amount of information the individual respondents were willing to share with us. Generally, we started the interviews with notifying the respondents about the confidentiality and anonymity issues and asking their approval for recording our talk. The first part of the interview was focused on the interviewees relationship with technology, while in the second part we aimed at gaining insights regarding their relation to technology in retail stores. In the third and last part of the interview our questions were more detailed concentrating specifically on the self-scanning technology. In general the interview consisted of why-, what- and how- questions for gathering in-depth data. Our key questions included for example “What role does technology play in your life?”, “What do you feel when you use technologies in retail stores?” and “A lot of customers don’t use the self-scanning devices, why do you think this is the case?”. All the questions asked were based on a topic guide with broad questions, which were adapted during the interview according to the answers and topic arising.

For ensuring the credibility of our research and not introducing any bias, we did not tell the interviewees when inviting them what the interview was exactly about, we only gave them a broad idea that it is connected with ICA and technology and then during the talk we gradually introduced the topic of self-scanning devices through a funnel technique.

For further increasing the credibility of our research, we were reflexive with our data sources analysing them continually throughout our research process, like Alvesson, Hardy and Harley (2008) suggest. According to Alvesson (2003) there are eight metaphors or aspects which constitute serious problems in interview situations through leading interviewees for example to promote themselves and their politics or answer in a not honest way for avoiding personal embarrassment. To deal with this issue of credibility, we ensured the participants complete confidentiality and anonymity and also changed their names to nicknames in this thesis.

4.4 Source Analysis

After stating how our data has been collected, it is noteworthy to present how the analysis has been conducted. Referring to Rennstam (2018), we begun with transcribing our recorded interviews before moving on with the analysis which is based on three steps namely sorting, reducing and arguing. According to the abductive approach our study follows, the data was gathered and analyzed simultaneously while still conducting theoretical research. Therefore, it is possible to state how this abductive approach played a key role in ensuring the quality of the outcomes generated through our research.

We started the analysis with sorting the gathered data through reading and discussing the transcribed interviews to gain an overview of the most relevant topics. For a better readability we decided to do some grammatical editing in the transcripts, as English is not the native language of most of our interviewees. Furthermore, the most relevant quotes from the transcripts were codified in an Excel spreadsheet by defining themes and topics. According to the work of Yin (1981), we aimed at avoiding the mistake of having “too small and too numerous” themes. Therefore, we only considered categories, which were really meaningful for our thesis. Also, in order to identify the most recurring themes, we were searching for similarities, metaphors, analogies, repetitions, differences, relations and transitions (Ryan & Bernard, 2003). According to Eisenhardt (1989), claiming that people are relatively poor processors of information, which might lead to wrong conclusions due to this bias, we tried to avoid this bias through looking at our gathered data in various different ways. For example, we were not only looking for similarities and differences, but also for metaphors and transitions.

After having identified the biggest themes, we started narrowing them down into smaller categories, using the process of open-coding. Furthermore, we identified the most important themes according to our research questions, for creating a more focused and aligned outcome. Yet, it is noteworthy that our own interpretations influenced this whole process, due to the abductive approach we implemented (Alvesson, 2003). The last step in our analysis consisted of combining the data and the theory with our interpretations and suggestions for answering our research questions aimed at filling the above-mentioned gap. Here we aimed at undergoing a deep analysis of a broad range of existing literature and compared it to our finding in terms of similarities and differences trying to find reasons for them, like Eisenhardt (1989) suggests.

5. Results & Findings

In the following section the results deriving from the analysis of the collected data of twelve interviews will be presented. When presenting the analysis we will stick close to the original statements of the interviewees to make sure we present them like they presented themselves to us. With this we want to ensure an integrity throughout the introduction of our findings. In order to provide a clear understanding of the results to the readers, two different sections have been identified and will be presented in the following chapters.

The first chapter of this discussion concentrates on the various reasons for reluctance towards the adoption of digital tools in retail stores. While first, an observed lack of information and miscommunication of the usability and accessibility of digital devices is discussed, the following section focuses on an expressed fear of encountering mistakes during their usage, before moving on and explaining the lack of communication regarding the benefits of these devices. Furthermore, in the first chapter a lack of incentives, as well as social aspects preventing the consumers from the adoption are elaborated upon. In the second chapter, various suggestions for overcoming the consumer reluctance towards the adoption of digital tools in retail stores are presented. This chapter first explains the need for information of the functions of digital tools, then how sales assistance can help consumers to overcome their fear of encountering mistakes and the importance of providing information regarding the benefits of those devices. Moreover, the need for incentives and other suggestions to improve the design and functionality of diverse digital tools are given. Finally, a short summary of various positive aspects mentioned by the interviewees is given. The following table presents an overview of the discussion.

Table 1.: Analysis of Reasons for Consumer Reluctance in Adopting Digital Devices in Retail Stores

General Reasons for Reluctance	Specific Reasons for Reluctance	Suggestions
Lack of Information	<ul style="list-style-type: none"> · Lack of Awareness · Lack of Information about the Usage · Limited Accessibility 	<ul style="list-style-type: none"> · Promotion of Functions and Tools · Interactive Promotion (Introduction Events)
Consumers' Fear of Encountering Mistakes	<ul style="list-style-type: none"> · Complexity of Usage · Adversity of Encountering Mistakes · Fear of Technological Problems 	<ul style="list-style-type: none"> · Sales Personnel for Promotion · Sales Personnel for Assistance · Information and Instructions
Lack of Awareness and Communication regarding the Benefits	<ul style="list-style-type: none"> · Lack of Information about Benefits · Lack of Communication of Values and Incentives 	<ul style="list-style-type: none"> · Communication of Benefits · Communication of Incentives · Marketing Campaigns
Lack of incentives	<ul style="list-style-type: none"> · Lack of Incentives for Adoption · Lack of Incentives for Plus of Effort · Missing Discounts 	<ul style="list-style-type: none"> · Integration with Personal device for convenience · Incentives and Discounts · Personalization
Social Aspects	<ul style="list-style-type: none"> · Unemployment Caused by Digitalization · Missing Social Interaction 	<ul style="list-style-type: none"> · Promotion by Sales Personnel · Assistance by Sales Personnel

5.1 Customer Reluctance towards Digital Devices in Retail Stores

Starting from a set of empirical observations, we deduced the low level of adoption of digital tools by consumers in retail stores. Our observations have been supported by the statements of the sample we interviewed providing us with compelling reasons, which drive them not to adopt digital tools in-store while shopping. In the following section the most important reasons for the non-adoption of digital devices in store, found during our qualitative analysis, are presented in detail.

5.1.1 Lack of Information and Miscommunication of Usability and Accessibility of Digital Devices

A considerable shortage in communicating how to use and access both, digital tools in general and more specifically self-scanning devices, can be identified as one important reason for the non-adoption of digital devices in retail stores. Furthermore, a general lack of awareness due to missing information and promotion from the retailer side also plays a crucial role. All these reasons contributing to the consumer reluctance in adopting digital devices in-store are presented in the following section.

Lack of Awareness about Self-Scanning Devices

Almost all of the interviewees mentioned a lack of information as the main reason for being reluctant in using self-scanning devices. Steve, for example, mentions that he would not even be aware that the self-scanning technology is actually there for the customers and not for the store itself.

“I wouldn't use it if I had no clue at all [...]. If it was just like standing there and I'm just going to ICA and I just see it. I will assume it's something for the store or the people who work there, not for actually people who are going into the shop.” Steve

As Steve would assume that this technology is not meant for him as consumer, he would not even consider trying it. Also, Jen shares his opinion.

“Okay, it will probably caught my attention. I will look at all of that, but if I don't know what it is about I will not like just pick up one, you know. I would not.” Jen

From Jen’s statement one can understand that there is a lack of information for customers from the grocery store about the self-scanning devices. According to her, customers will not try them if the features are not clearly communicated. Also, Simon and Ann talk about this lack of communication and information.

“First, I've never seen it and I'm doing quite often my grocery at ICA. So, I first of all think it's not really visualized, so people are not even aware of it. I think they're not aware of it.” Simon

“I think maybe they don't promote it. They don't promote they have this kind of stuff. So, you just don't know ICA has the digital devices.” Ann

Both, Simon and Ann, believe that customers are not aware of the existence of self-service technology in-store, as there is a severe lack of promotion and communication, which has also been stated by other interviewees, like Jens or Steve. Similarly, in a statement of Ann, the need for proper information becomes especially clear.

“I think I would love to use it, but I don't know because, for example, the ICA in the station. I think nobody uses it. So I don't know how to use it. [...] Just because I don't know the whole process of like how do I take out the machine and how do I use them and do I need to take the product with me or just like the scanner?” Ann

Ann seems to be really eager to adopt self-scanning tools, yet only the lacking proper information and instructions prevent her from trying it. From these statements, one can detect a lack of communication regarding the accessibility, the functionalities and the usage, which leads consumers to not adopt self-scanning devices. Therefore, it is the case, that even when

customers see these tools in retail stores, they are too insecure and shy take the initiative and try them in case of a lack of communication and information.

Lack of Necessary Information about the Usage of Digital Devices

Steve believes that many people are reluctant towards the adoption of digital tools in-store because they do not know how to properly use specific devices.

“I guess some people are afraid that they don't know how to use the machine or that the machine might say something or that they need something special. [...] I was in ICA, and these two guys they were like ‘ Oh we can go to the self- checkout’ and the other one was like ‘No but I think we need the ICA card to do that’. [...] that could be a reason why people don't go to do self- checkout.” Steve

In his statement, Steve underlines how people could be potentially interested in the use of such tools, but at the same time they lack specific knowledge for actually using them, and therefore decide to keep using ordinary checkout systems operated by sales assistants. Similarly to Steve, also Daniel thinks that many people are skeptical in adopting digital tools in-store because they do not want to incur in making mistakes that could easily derive from using digital tools they know little about.

“Mmm...they don't use for example self service technology, perhaps because they just want to save troubles or just don't see the value [...] I think it probably will be the reason that other people don't want to use it because they think it's kind of troublesome and they don't think they can get much value through it.” Daniel

Furthermore, Daniel believes that consumers might not be aware of the value they gain from using these digital tools, and therefore their low awareness in terms of value creation together with the chances of making mistakes prevent the customers from using them while shopping. Sharing personal experiences and impressions she had while using the self-checkout system, Jen states that when first using this, it is not that easy to understand its usability and functions. Starting from her observations she generalizes and points out how others, especially less

technology-savvy and older people might find these machines complicated. This aspects brought to light by Jen have been recognized also by other interviewees, especially by Steve claiming “*Oh definitely old people. Yeah, I think [...] because [...] they don't understand the technology.*” and Simon stating “*Well first generation. Older people are more inclined to have contact, cause they are used to it.*”. According to them, two of the major limitations for adopting digital tools are represented by both a minor propensity of older people in using technology in a general function and their inclination to a more traditional way of doing shopping in which sales assistants play a key role. Their adversity towards the usage of technology as well as their willingness to keep alive the contact with sales personnel might therefore lead to a reluctance in using digital devices in retail stores. Also Jen, thinks that using digital tools can potentially be complicated or difficult.

“I remember the first time that I used self-checkout, it can be kinda like complicated. You don't know exactly how to proceed, so for some people that might be. Especially like more older people, that are not that used to technology.” Jen

All these quotes show a missing communication regarding the functions and accessibility of digital devices as being crucial in the non-adoption of digital devices. Furthermore, some interviewees see the communication regarding information about how to properly use these devices by the retailers as being an essential point to be improved.

“I think in some ways I'm more conservative. So if I don't. I'm not sure what the whole process of using it. If they give me like instructions on the wall like this is step one, step two, step three, and what to do, then I will I would try but if I don't know before, I would leave it. And so, I tried the scanner machines in an ICA store like the self-checkout. I watched somebody doing it. I think it's quite easy. So it's not that difficult. So I thought ‘Oh, I can try someday’. So, I tried the self-checkout machine. Yeah. So I think before I want to try the new things I want to know what exactly the process of doing it is, then I would do it.” Jessica

Jessica declares that not knowing exactly how to use a digital tool in-store might prevent her from trying it. She is substantially afraid of making mistakes or being confronted with uncomfortable situations and therefore only when she is sure about how to use a tool she would

take the chance to try it. It goes without saying, that her low willingness to use digital devices in-store might be easily stemmed by the retailer providing her with a sort of guideline on how to use these devices. She refers particularly to the self-checkout machines present in ICA and how at the beginning she was demonstrating a reluctance towards them. Indeed, she decided to try them only after she saw someone else using these tools, and therefore was reassured about the simplicity of the whole process. Therefore, Jessica would be thrilled to try the digital tools made available for customers in-store, but she does not because she does not know how to use them: *"I wanna try, but I want to know... I really really want to try, but I want to know how to do it. Why should I choose that?"*. Jessica, just as the interviewees before, stresses again the miscommunication regarding the accessibility of information about these tools and also the values she can benefit from using them as being crucial in her adoption process.

All these quotes show, that a severe lack of information regarding the usage and functions of digital devices can be identified as a reason for the low level of consumer adoption. This lack of communication leads to uncertainties of the usage and therefore consumers rather stick to the old ways of shopping, than adopting new technologies, which they potentially have troubles or problems with the usage and therefore encountering uncomfortable situations.

Introducing self-scanning devices, Jessica sees a problem of complexity and uncertainty leading her not to try the self-scanning devices, even when she has the chance to.

"I remember, there's a store the ICA in front of the central station, they have a wall with the scanners. Yeah, but I have never tried how to use them, because I'm not sure. Like if I am scanning everything, should I pick up the items as well or they will give me a really big bag after?" Jessica

Jessica's statement leaves no doubt, that uncertainty about the usage and the functions of the self-scanning tools plays a fundamental role in refusing to try this new technology, which is also supported by Anastasia.

"Or another thing could be actually like people are different educated [...] and they find it difficult to see how to use it. So as soon as it's like unknown for them, why should they use it?" Anastasia

In compliance with Jessica, also Anastasia claims, that the missing information about how to use these products leads her and other customers to be reluctant in adopting or trying self-scanning devices. This consumer behaviour to avoid any uncomfortable situations in their actions can be seen as a strong reasons to not adopt self-scanning tools in-store, as due to a lack of proper information about their functions severe uncertainties regarding their usage arise.

Limited Accessibility of Self-Scanning Devices

Furthermore, a relatively often recurring topic is the one of loyalty cards and how they limit the accessibility of the self-scanning devices. Many of the interviewees claim, that the retailers do not make it easy enough for them as customers to adopt these tools, which is illustrated perfectly in Daniel's quote.

“I actually wanted to use it, but realized that I couldn't use it without a membership card. So I think it's since they don't communicate it and they somehow they don't like make it very easy for people to use it for example to show you how you can actually use it.”
Daniel

According to Daniel, the main reason for being reluctant in adopting self-scanning tools is the accessibility, as customers need a loyalty card, which not everyone has. He and also Simon, so states “*But it sounds quite hard. You say, first of all you need already a loyalty card, so that's really quite complex. It's not convenient.*” suggest to make this technology more easily and conveniently accessible for every consumer. Jen agrees with Simon, that having loyalty cards as a requirement to use the self-scanning tools prevents many consumers from using them: “*But like for some people, maybe they will not want to share, like a lot of personal information and so*”. Yet, for her loyalty cards are disadvantageous for the adoption of these tools, as some consumers might not be comfortable with sharing their personal data.

From this chapter it becomes clear, how essential information regarding the usage, the functions and the adoption is to encourage consumers for taking the first step in trying new technologies in-store. Furthermore, regarding the loyalty cards which can be seen as a barrier in adopting these tools, a strong need for making the initial adoption and usage of digital devices in-store

can be identified. Therefore, retailers have to provide consumers with sufficient information in order to counteract their fear of ending up in uncomfortable situations in case of facing any difficulties with the usage or adoption of these devices.

5.1.2 Consumers' Fear of Encountering Mistakes when Adopting Digital Devices

This fear of facing uncomfortable situations consumers show, will be elaborated upon in more depth in the following chapter. It is important to state how our interviewees recognize, that reluctance in their adoption derives mainly from a lack of self-confidence in using digital tools as well as a misinformation on how to use them. Some interviewees refer also to older generations as being not techno savvy enough, and therefore as being more skeptical and scared when using or adopting digital tools in-store. Anyway, it is possible to see how people that did not consider technology as being an essential part of their lives are the ones who demonstrate more resistance and flexibility in adopting digital devices in-store.

Complexity of the Usage of Digital Devices

One aspect mentioned by the interviewees various times was the one of complexity regarding the usage of the self-scanning devices. Especially Simon seems to criticise that this technology is not user-friendly and easy enough to use.

“It's too complex. Like if you need already this explanation, how to use then the design is already not intuitive. So it's already too complex too hard the design of how to use.”

Simon

For him, the whole design of this technology is too complicated, which indicates uncertainty leading to a reluctance in adoption. This aspect is also elaborated upon by Jen, who indicates this insecurity regarding the usage due to a not intuitive design and a lack of information.

“But in general, I think, like if you never use it. I remember like the first time that I used self checkout, it can be kinda like complicated. You don't know exactly how to proceed, so for some people that might be. Especially like more older people, that are not that used to technology. “ Jen

From these two statements, one can understand how important an easy and straightforward design and operation of digital devices is in order to take away a fear of facing uncomfortable situations due to mistakes or confusion with the technology.

Consumers' Adversity of Encountering Mistakes when Adopting Self-Scanning Devices

Steve sees the same problem of uncertainty, especially when using self-scanning devices for the first time, yet, for him this uncertainty seems to fade after having tried the technology a couple of times.

*“Interviewer: So even if you are into technology, you're still afraid of using it in a way?
Steve: Yeah. At least for the first couple of times. Yes, to give me that confidence of like okay you don't worry. Yeah, you can try this.” Steve*

Steve's quote indicates, that this initial fear of trying new technology might be the actual problem here. This view is also shared by other interviewees, like Simon, who states: *“Okay, maybe they're afraid for new technologies or not afraid but like have no idea how to use it and what. Yeah, but also do, how do you need to do it.”* As well as Jen, who claims: *“And also, technology can be scary. If you don't know how it is for and how you use it. You know especially for older people”*. Simon and Jen both state that uncertainty regarding the functions and usage of these tools makes them afraid of trying self-scanning devices. Both, Simon and Jen, seem to feel a kind of fear when trying this technology, resulting from an uncertainty of how to use it and possibly making mistakes. Ken therefore suggests, that the real problem behind this fear is, that people want to stay in their comfort zone in order to feel competent at all times.

"Everybody wants to feel competent. It's a basic, it's so natural, everybody wants to feel loved. Everybody wants to be competent, everybody wants [...] to feel comfortable. "
Ken

Ken seems to indicate, that his aversion of using self-scanning technology results from not wanting to step out of his comfort zone to ensure feeling competent and comfortable, which might not be the case when trying an unknown technology, like the self-scanning devices.

Yet, fear of technology is not the only reason for our interviewees to be aversive in adopting self-scanning devices in retail stores. According to Marie or Anastasia, also worries deriving from potential technological problems play a crucial role.

"I would worry if maybe the thing stops working halfway through, or forgetting to scan and stuff [...]. Yeah, like worrying about paying at the end." Marie

One can understand, that consumers are also reluctant in adopting digital devices in-store if there is a possibility of encountering mistakes regarding both, their own mistakes and mistakes due to not properly working technology. Therefore it must be the case, that consumers prefer to stay in their comfort zone where they feel confident, instead of stepping out with the possibility of feeling less competent when trying new technologies in-store. Accordingly, a strong need for taking this fear of encountering mistakes away from the consumers.

5.1.3 Lack of Awareness and Communication of the Benefits of Digital Devices

Yet, not only the lack of information regarding the usage and functions of digital devices play a role in their non-adoption, but also a missing communication and awareness of the benefits and values gained when using these devices are essential to consider.

Lack of Necessary Information about the Benefits of Self-Scanning Devices

For Daniel, a major reason for the consumer reluctance in adopting self-scanning tools in-store, is the missing communication of benefits and values for the consumers when using this technology. Also Jessica seems to be confused about the value of using these tools.

“I really really want to try, but I want to know how to do it. Why should I choose that? [...] I'm kind of confused. What's the difference between the self-checkout? What's the difference? Why this technology will make my shopping experience easier? Why should I choose to use that?” Jessica

Jessica, seems to be open to try this technology, but for her, the benefits she gains from adopting these devices are not well communicated by the retailer. As a consequence, this seems to generate confusion in her, making her stick with conventional ways of shopping, rather than adopting digital tools. To deal with this problem, other interviewees, like Simon, suggest a clear presentation of the benefits and values consumers might profit from: *“Just drawing the attention and then mostly presenting the benefits of it”*. For Simon, it is essential to communicate the advantages consumers can gain from adopting self-scanning devices, as otherwise he sees no purpose in utilizing them.

Yet, not only the missing communication of values and benefits is essential to consider, but also the promotion of certain advantages, which cannot be upheld by the technology seem to be a great aspect for the non-adoption. For Cameron, one of the major benefits of the self-scanning devices represents the convenience and time saving aspect, yet he claims, that the random control at the checkout slows down the shopping process, leading him to be aversive in adoption.

“Well, only actually negative side, downside with it, based on my experience is when you actually try to self-checkout and you have to pass to the random control, because it actually slows the process, you get the machine to get it to make it faster and then you get stuck into this control stuff, but I'd rather accept a random control once in a while then, yeah a fixed one yeah” Cameron

For Cameron, it seems to be especially frustrating to use the self-scanning devices to save time as a benefit, which he cannot in the end due to the checkout control. Therefore, he suggests to rather have a real random control than one he has to pass through every single time. Also according to Jens, these tools are not as time-saving as they should be compared to the traditional checkout.

"Well, probably faster for the store, but not faster for the customer really because they still have to spend about this same time minus a few seconds than the cash out, but they have to go around the store doing everything themselves. So it's faster for the store, I guess." Jens

Jens criticises, that if he is already putting more effort in his shopping process through using self-scanning technology, they should at least be considerably faster than the traditional checkout, for him. From this, one can understand, that without any benefit for him, he will remain aversive in adopting this technology. Therefore, it is essential that the retail stores really communicate the actual values and benefits gained for consumers when adopting digital devices in-store. A clear communication of the advantages possibly gained is especially important, as most interviewees are not aware of the benefits they can profit from through the adoption of digital devices and therefore see no purpose in utilizing them.

5.1.4 Lack of Incentives for the Adoption of Digital Devices

Even though the missing information and promotion of both, the functions and usage, as well of the benefits and values, seem to be a strong reasons for the interviewees to be reluctant in utilizing self-scanning devices, also missing incentives for using them are mentioned various times by them as being a reason for their non-adoption.

Lack of Incentives for the Adoption of Digital Devices

Brian claims not to use digital devices, especially the self-checkout, because the sales assistants are paid in order to ensure this service, which he is not. This indicates, that he believes not to gain any compensation for his extra effort when using digital devices during his shopping journey, which would be essential for him in order to adopt these tools.

“The people sitting there in the cashier [...] they're paid in that. I don't get any money off just because using this paycheck and have to do all the job myself. No, it was pretty nice to put it down on the band and let them take care of that. Put it down and let them take care of things, so it's much easier.” Brian

Brian seems to prefer going to the traditional checkout, as there the people get paid and if he would put more work when using the self-checkout, he would not get any reward for his plus of effort. Therefore, he believes that retailers should incitivate the use of these devices through giving discounts to consumers. Indeed, since he is not getting any incentives for checking out by himself, Brian does not recognize any advantages which he could benefit from when using the self-checkout instead of the ordinary cash desks with the personnel and therefore stays resistant in adopting digital devices. Also in another statement of Brian, he criticises, that he is putting extra effort during his shopping without getting any incentive, which leads him to not use this technology.

“I think there's a lot of different reasons why not to use the technology. [...] And I think it's kind of too much effort and job to do it. So it's much easier to have someone who knows what they're doing. Yeah. And also that you, as I said, doing all the job without getting anything back. It's kind of annoying” Brian

Brian seems to be rather upset about the fact, that he is not getting any incentives for putting more effort.. However, Brian is only one of the interviewees thinking like that. To solve this issue, Jens and Simon expect to receive small discounts or coupons as an incentive, which would make them use the self-scanning devices.

"Maybe they could give a small discount on them. It would make lots of people go for it. Yeah. Giant yellow signs saying discount. It's probably the easiest way or probably commercials." Jens

"And be able to offer discounts and those coupon codes and stuff. [...] There may be some kind of discount or I don't know. Yeah 10% off it and people are sensitive for discounts. " Simon

Most interviewees agree upon the fact, that for the plus of effort they have to undergo during their shopping journey when using digital devices, they expect to be compensated with compelling incentives. These incentives could be discounts or other kind of vouchers or special offers.

5.1.5 Social Aspects Preventing Consumers from Adopting Digital Devices

A further reason preventing consumers from adopting digital devices in retail stores are various social aspects of substituting the human interaction with a digital one. Many customers still seem to prefer human interaction when in store, despite or even because of the fact of living in a more and more digitalized society.

Unemployment Deriving from the Adoption of Digital Devices

Especially Ken presents a rather negative perception of digital tools, as he recognizes only disadvantages in using digital technologies in-store.

"I only see disadvantages. Because I've been working with business, I see the connection between a family or somebody owning a store and I want to go there [...] because I want that shop there if they have good quality of things, I would like them to survive." Ken

Ken seems to be reluctant towards the adoption of technologies mainly because he sees a connection between the personnel working in a shop and the consumers themselves. Ken states a strong aversion of adopting digital tools: *"No, no, no, no, no, no, no I will never use, because I don't want to make people unemployed."* According to Ken, one of these reasons is to not take job opportunities away from sales personnel through using these digital devices in-store. It is possible to argue that for Ken, using digital technologies leads people to lose their jobs and income, as they are substituted by technology. Since he is propense in establishing and creating a connection with the store itself, he exhibits his total aversion in adopting any kind of digital tools while shopping.

Missing Social Interaction Due to the Usage of Digital Devices

While Ken is more worried about taking away the employment of sales staff, for Anastasia the human interaction plays a key role as this makes her feel more connected to a store.

"I really like to have the social thing with it. So why should we replace these technical devices for like human contact, which can be really way more comfortable to feel loyal, as well as soon as the personnel is nice to me I really feel more desire to be loyal to one actually. "Anastasia

Anastasia does not seem to understand the purpose of having self-scanning tools instead of sales personnel, as they make her feel more loyal and comfortable towards a retailer. This could be a reason for her to be reluctant in adopting these tools. Brian shares this believe, stating that interaction between customers and retailers plays an important role for him, stating that:

"No, I think the funny part is actually to talk a little bit to the person behind there and whatever, even if it's like the typical Swedish way talking about the weather whatever. For some it is the only social contract you have during the whole day. But yeah, making fun, making jokes, go to the same person so you're actually kind of talking." Brian

Brian appears to be extremely inclined to engage in social contact with sales assistants, as he seems to value this crosstalk. Therefore the missing communication when utilizing digital

devices can be seen as a strong reason for the non- adoption of these tools, as many consumers still gain value from social interactions with sales personnel.

Miscommunication is not only recognized to be a problem when it comes to the digital tools present in-store, but it is an important limitation also when it comes to self scanning devices. Indeed, even though consumers would be potentially interested in trying them, a lack of communication and information from the retailer to the consumer regarding the usage and functions is revealed as being a crucial deterrent and source of not adoption. Another important cause for interviewees is the lack of a well-communicated set of values that users can benefit from when using both, digital tools in general and more specifically self scanning devices. Yet, also missing incentives for the plus of work the interviewees undertake when adopting digital devices in-store, as well as social aspects, like unemployment, can be identified as reasons for non-adoption. In other words, it is arguable how interviewees, recognize the potential of these digital tools, yet they do not have clear reasons why they should give up on the ordinary systems and adopt newer and more modern ones.

5.2 Suggestions to Overcome the Consumer Reluctance towards the Adoption of Digital Tools in Retail Stores

Interviewees not only have been asked to describe the reasons behind their low level of adoption when it comes to digital tools in retail stores, but they have also been questioned about the possible ways in which the latter might be improved. Interviewees suggested improvements for digital tools present in-store, as well as ways to overcome the consumer reluctance towards the adoption of these tools, which are described in the following chapter.

It is arguable that the main suggestions interviewees point out are easily ascribable to an enhancement in terms of communication. Indeed, interviewees believe that retailers should communicate how to use these digital tools as well as the values one can benefit from their use. Consumers are afraid of making mistakes; therefore, assisting them to properly using these tools represents one of the biggest improvements retailers should implement. Starting from the

improvements our interviewees believe should be made to digital tools in-store, also suggestions for self-scanning machines have been discussed.

5.2.1 Providing Information Regarding the Functions of Digital Devices for Raising Awareness Among Consumers

One major improvement retailers should undertake in order to improve the adoption rate of digital devices in-store is providing the consumers with enough information regarding the functions of those tools. Only then, the fear of not knowing how to use them can be counteracted, as well as the general awareness and confidence regarding those tools increased.

Promotion of Self-Scanning Devices

Regarding the promotion for raising awareness among the consumers, the interviewees see different ways, for example Jen and Cameron, think that one way could be to send information about the digital tools with a loyalty card of the retailer.

“So with the card like they could send you a letter, you know, saying everything that you can do with the card and maybe just showing like a step by step of this and also in stores instead of just having like a wall with the devices, maybe write something like.”

Jen

“They should have like the conditions to get them because [...]. Usually you need to have the fidelity card and yeah just this new option and then like a little bit of advertising like “faster”, “queue”. And so that's all.” Cameron

Cameron and Jen believe, that if consumers have to use their loyalty card anyways for using the self-scanning tools, the retailers should also create a connection between these two. For them, this connection can be established through sending them information and promotion material about these devices at the same time as they send them their loyalty card.

Other interviewees, also mention screens or folders promoting the self-scanning technology in-store as a tactic to get more consumers to use them, like also Anastasia suggests.

“The screen definitely. It needs to be there, a big screen like. You know, and not one, but like, you know, on both sides that you definitely can see it. Be aware of it [...], you know like ‘Oh it’s good to actually do it.’ [...] Maybe even like a folder on the table, you know. Because people especially older people, they maybe don’t touch the screen, they’d be like ‘Oh, I don’t know what it is’. So then just information which you can read.”

Anastasia

Anastasia seems to think about different generations in her statement, she suggests having big screens promoting the self-scanning devices, as well as folders for the older generation. Also Daniel mentions, that these kind of screens can be beneficial for promoting the usage of these tools.

“I think usually those things are placed very close to the entrance. So I think that’s the first step, they already have done it and nothing. [...] put some eyes-attracting signs and then saying like “By using these machines, [...] every time you can save your time and then you can check your information” and maybe if they really want to promote it, they can offer some price reduction or coupons, things like that.” Daniel

For Daniel, the retailers should mainly promote incentives and benefits the customers gain when using the self-scanning devices on signs or screens to draw attention. Steve and Marie enhance this idea further by proposing these screens to show full videos to advert these tools.

“No, I probably would just keep walking. Yeah, I guess they need a better like advertisement of it or something. I guess like making a video about it and like having it playing on the screen, maybe would help.” Steve

“They should have a commercial where people are using it and they make it seem really fast and efficient in the commercial like super easy.” Marie

Both, Steve and Marie, agree, that retailers should present the benefits in a short advertisement,

in which the usage is presented as uncomplicated and advantageous, on screens in-store. The same was also suggested by various other interviewees, like Anastasia and Jessica. Yet, Steve not only suggests to show these introduction videos in the retail store, but also send them directly to customers through newsletters, for example.

“So maybe if it comes with like some type of instructions or something so that or. Like I know ICA sends I think weekly newsletters to their members so maybe they can send like some instruction video or something.” Steve

All these quotes leave no doubt, how important promotion of the functions, usage and digital tools in general is. Without it, consumers are rather aversive in adopting digital tools in-store, while with a proper promotion they see great potential in improving the adoption rate. This promotion can be done through various ways, like big screens, signs or mails with videos; however in every way promotion seems to play a key role when it comes to adopting digital tools in-store.

Interactive Promotion of Self-Scanning Devices

Yet, the interviewees not only suggest more traditional ways of promotion, but also of more interactive ways to become familiar with the new technologies offered in retail stores. Anastasia is taking the approach of proposing promotion events, concentrated solely on advertising the self-scanning technology.

“I think it would be helpful to have at as well a promotion and then more as in like, okay: We have a discount those three days a week. [...] Come and try it out. You know like really go there because it will be introduced and then it will be there really introduced to the people that really don't know how it works. You know that people in-store walk with them to just can do first or second product. Just because they don't know how it works or some people might even don't know where is the barcode from a product. You know, so that would be actually helpful that.” Anastasia

At these events, Anastasia is suggesting, that sales assistants should not only be there in case of questions, but instead for really promoting and introducing the customers to this new technology through assisting them with the initial steps. With this, Anastasia presents a more interactive approach, which also Simon touches upon.

“I would say that kind of self- scanning devices. I would then say no, does not really add to the shopping experience. Unless it's going to be like some kind of game, like a pop up on a self- scanner system like if you scan this certain product now within 15 seconds, then you get a discount or 50% on this certain product. Right, then I would say yes, then it definitely enhances customer experience.” Simon

For Simon, the ideal promotion would be relatively interactive and in form of a sort of game, where one can win discounts during a fun shopping experience. He claims, that only through an interactive experience the self-service technology can possibly enhance his customer journey in-store. Therefore, the conclusion can be drawn, that consumers want to be aware and familiar with the usage of digital devices in-store before using them on their own, possibly to take the fear of encountering mistakes away.

5.2.2 Assistance of Sales Personnel for the Usage of Digital Devices for Counteracting Consumers' Fear Regarding Digital Tools

This fear of encountering mistakes can not only be decreased through proper promotion and information of digital tools, but mainly through assistance of sales personnel, which is explained in detail in the next sections.

Assistance with the Usage of Digital Devices from Sales Personnel

According to our sample, with the presence of digital tools in-store, customers should not be left alone, instead the personnel in-store should help them with technical problems or uncertainties regarding the usage that might eventually arise while using these devices.

According to Cameron, digital tools can be helpful for the whole experience, but he still believes that:

“In some sense, like it's a good thing. Overall, but still I guess there should be like a human, some human person, present in case of problems or even to provide them an alternative if someone wants to.” Cameron

He is eager to try digital tools as long as sales assistants are in-store helping customers to solve problems or explain functionalities. Anyhow, Cameron’s statement is supported by Jessica who believes, referring to her personal experience in ICA, that staff is needed as consumers should be helped when something wrong happens, either when the machine crashes or the consumers incur into human errors.

“Emh.. like... because, here in ICA, like, when you scan if something goes wrong and you want to correct it, you need the staff to help you to do that. So I think you there definitely need somebody to be there to help you with the checkout.” Jessica

This indicates, that the previously mentioned problem of preventing to face problems or other difficulties when using digital devices can be solved, through having sales personnel assisting the consumers with the usage. Through this, they can feel more confident and competent when using these tools, leading to a more positive experience.

Sales Personnel for Promotion of Self-Scanning Devices

Some of the interviewees also claimed, that a sales assistant to promote the self-scanning technology would work better for them than an advertisement, as they prefer personal contact. Steve mentions, that in addition to various screen there should also be sales personnel present for information, assistance and promotion.

“Yeah, a person will look better. I think it's like, that the digital screen will be like more for like people who will forget, who forgot how it actually works. Like I go in and if there's a video playing I can see how it works. But if it's for someone new, who has no

idea what it is, I think it's easier to have someone there who actually explains how it works. Because I feel like it's kind of more like there's more connection between the human interaction.” Steve

Steve seems to prefer sales personnel to support him when first using the self-scanning devices, as he feels they can better inform and assist him in case he has any questions or problems. For him, the previously mentioned videos have more a reminder or instruction function. Steve seems to be able to relate more to a person than to technology, which is also shared by other interviewees, like Ann.

“I think they should have the people standing there and then teach you how to use it. Otherwise, you just don't understand because that's in Swedish then you just don't understand.” Ann

Ann states, that she would prefer sales personnel explaining her this technology and assisting her with using it all the times. Yet, Jen adds to this, that these people should not actively approach her and try to promote the self-scanning technology, but rather just be there in case she has any questions or needs help.

“Well depends on the approach, because like if the person is just they're annoying people you know like ‘Do you want to try this and this and this?’ and then I'll be a bit annoyed. You should have someone there just in case you don't know how to use it. So like you can get there and say ‘Can you explain to me what it is about?’ But this should be more like they shouldn't be that proactive, they shall be there just to assist you in case you ask for their help.” Jen

For Jen, being actively approached by sales personnel to promote this technology would be rather “annoying”. Therefore, she suggests to have these employees present just in case someone needs assistance.

Another suggestion comes from Cameron, who besides suggesting various improvements retailers should make to self scanning devices, recognizes that the most important one consists of providing customers with information on how to use these devices.

"I'm speaking about old people. So there has to be like kind of a trainer or I mean a familiar that teaches like a formation, like teaches how to use how to handle the technological devices like self-checkout machines." Cameron

This chapter shows the need for sales personnel being present in-store, both to assist with the usage and to inform about various functions, as well as to promote digital devices. Customers not only value the personal contact provided through this, but also the reassurance that nothing bad happens if they make any mistakes or are uncertain about certain aspects of the usage.

5.2.3 Providing Information Regarding the Benefits of Digital Devices For Enhancing Adoption Willingness

Another crucial finding consists of the low awareness of why consumers should use the various digital devices offered in-store, as they do not see any values or advantages for them. Therefore, many interviewees claim, that the adoption of digital devices could be advanced through promoting the benefits and values gained when adopting digital devices in-store.

Communication of the Benefits of Adopting Digital Devices

Many of our interviewees believe, that presenting the benefits when using various digital devices through advertisements or other kinds of promotions can be valuable for enhancing the adoption rate. This is shown especially good in a statement of Anastasia.

"I think to increase it, is to show the advantage out of it. So first introduce it in a really good way that it's like easy, convenient, those kind of things, that you actually save time on it." Anastasia

Anastasia points out how essential it is to present the advantages of using certain digital devices in-store for making people use them, which Simon agrees upon.

"There has never been a campaign or something to do differently. It is that they just put

it there and then you can do it, if you want to can also do all the way around [...]. Not being communicated or something like that, at least not that I'm aware of. So, awareness, convenience and habit, I think.” Simon

For Simon, retailers missed out in properly introducing their new technological devices they offer in-store and therefore people are not aware of it, which can be changed through promoting them from their implementation on.

Yet, interviewees state, that there is not only a shortage of the awareness regarding the benefits of digital tools in general, but especially regarding self-scanning devices. Here, interviewees clearly present the advantages and benefits of adopting self-scanning machines, like in the following statement of Simon.

“And if they want people adopt this kind of stuff they should communicate better, I think. A marketing campaign around it. I think in store because then people people can ‘Hm let’s try this one. This for once.’ Just drawing the attention and then mostly presenting the benefits of it.” Simon

Simon leaves no doubt, that the self-scanning technology and its benefits are not advertised clearly enough, which needs to change in his opinion. He believes, that this way more consumers would try this new technology. For this purpose, Anastasia suggests what retailers could inform their customers about.

“In my opinion, it's what I said really really important to introduce it as a really easy device. Like, you know, the best solution to get the easiest all your shopping thingies.” Anastasia

For Anastasia, especially the aspect of convenience and fastness should be presented as an advantage for promoting self-scanning technology. Generally, the benefits are not clearly communicated and therefore consumers claim this to be a reason for reluctance of adoption, which has to be improved considerably through proper communication strategies regarding the advantages gained when adopting various digital devices in-store.

5.2.4 Providing Incentives for the Usage of Digital Devices

Yet, not only the benefits gained for using digital devices are essential to guarantee the adoption, but also providing incentives can be seen as a crucial aspect when it comes to the utilization of these tools. Many consumers feel, that they spend more energy and time when using digital tools during their shopping journey, while being aware they are helping the retailers to decrease personnel costs, and therefore they want to be compensated through various incentives.

Incentives for Adopting Digital Devices

This means, our interviewees not only suggested more advertising, but also to offer incentives for using these digital devices. Simon and Jens for example mentioned, that these incentives could be discounts for using digital devices in store, as, according to them, customers are sensitive to discounts. Also Ann agrees with them.

"Maybe they have the discount. If you use this one to self- checkout, then you can get more discount." Ann

Ann seems to be more likely to use digital tools if she can get a discount for doing so, which also Anastasia states.

"Maybe you can even get like a small discount on something too. So not only like knowing what is in discount right now, but more: Okay you bought more times a week milk and milk is in discount. And then made as well special for you a voucher which was like: 'Okay you know you like a lot of chocolate sprinkles. So what you can do right now, the second is for free as soon as you print this voucher and go to this and this store.' Honestly that works. Because you get to the store again and then you're like, oh, but I, you know, I get a second pack of chocolate sprinkles. So I actually need a bread as well and you buy it." Anastasia

From Anastasia's statement it becomes clear, that personalization is a big word for discounts,

especially for incentivising the use of digital devices. Furthermore, Anastasia seems to be convinced, that personalized offers would make her visit a store not only more often, but also make her buy more products. The Interviewees, mainly suggest more promotion of the advantages and benefits of the digital tools in-store. Furthermore they stated, that incentives, like discounts, would increase their willingness to try or adopt various technological devices. From this, one can understand the importance of communicating clearly the value and benefits the consumers gain from using digital devices in-store, for enhancing their adoption rate.

These incentives are not only beneficial to boost the usage of digital tools in general, but especially the one of self-scanning devices. For Jessica, as well as other interviewees, an incentive to try the self-checkout tools would be to get a discount for the first-time usage.

"Maybe like for first time using this machine, because they were asking for your membership card, maybe you get like 5% of discounts. Yeah. So then I really like to try"
Jessica

Also Jens and Simon are convinced, that offering discounts for using this technology would make more customers adopt it.

"There may be some kind of discount or I don't know. Yeah 10% of it and like people are sensitive for discounts." Simon

"Maybe they could give a small discount on them. It would make lots of people go for it. Yeah. Giant yellow signs saying discount. " Jens

Both, Simon and Jens, seem to be certain about the fact that the store should offer discounts as an incentive for the usage of digital devices in-store. Brian sees this the same way, but he adds the component of personalizing these discounts.

"So yeah, I usually buy those so when they have discounts I usually get them as personal offers and I think that could be something to evaluate more so." Brian

For Brian, personalization of incentives seems to be really valuable and a compelling reason to try a new technology, like the self-scanning tools.

Discounts seem to play a relatively important role for almost all of the interviewees, as they mentioned various times, that when using the self-scanning devices they have to put extra effort in their shopping journey without getting anything back from the retailer. In the previous chapter, the interviewees mentioned that they are actually doing the sales personnels' job and therefore helping the store, but do not get any incentives for doing so. This is also mentioned in Marie's statement.

"Maybe if they offer a discount if you use it like if you use that thing you get 5% off. As incentive for people for sure. Like for the first time it says you get 5% off if you use it. [...] I mean, I wouldn't expect it every time, maybe like the first couple of times you use it or once a month or whatever, I don't know. Like, or if you use it more, like if you use it 10 times in a row executively then they give you a reward for that. The more you use it I guess. That would make me use it more." Marie

Marie indicates, that the more you "work" for the retailer through using the self-scanning devices, the more incentives, in form of discounts, you should get. From this, one can understand that in order to get more customers to use it, our interviewees believe, that mainly communication, advertisement, assistance and incentives are necessary. What the interviewees expect from the store is really good summarized by Ken:

"Yes, but this is a transformation, this is a process. It's a process, in the beginning they will have many people help you. And then after a while when people are going to get use to it, it will decrease people, they will not do it in a you know in once. Yeah, because it's the big foundation in business, you have to make people aware, you have to be patient you have to learn about the system they have to get comfortable with it and then later slowly. So this is a business fundamental law." Ken

Ken seems to understand the time and effort a new technology, like the self-scanning one, needs until it is fully established and adopted from the customers. Yet, he sees this effort is not only needed from the retailer, but also from the customers.

For the interviewees, the main ways of promoting the usage of self-scanning devices is through providing them with clear information about the benefits, value and functions these devices offer them. According to them, they want clear statements in which way the plus of effort they have to undergo during their shopping experience when using these tools, add value to their shopping journey. Therefore, various interviewees also suggest to promote incentives, like discounts or enhanced customer experience. All these things would make them adopt or at least try self-scanning technology in retail stores, as the value gained from it becomes clear.

5.2.5 Suggestions on Improvements of Design and Functionality of Self-Scanning Devices

Furthermore, other important aspects mentioned by our interviewees are various improvements of the design and functionality of self-scanning devices specifically, which are presented in the following chapter.

Integration between Digital Devices and Personal Devices

At this purpose, Jen would find it helpful to have the possibility to go to a store equipped with tablets through which she could look for more specific information about the products she is interested in.

“If you for example, you could search for information about like the product right away in the stores with the tablet or whatever, that would be very good because sometimes you don't know what to get. And then, like, yeah, that can help your decision.” Jen

Similarly to Jen, but suggesting a slightly different solution for the implementation, Daniel would like to be able to know more about the products scanning their QR directly on the price tag instead of on the packaging of the product itself.

“Put really interactive perhaps ads or promotional stuff or messages they want to communicate with the consumers to the display or through the price tag. I mean, it

would be perfect if they would be able to put maybe perhaps to put a QR code on the price tag. I mean something that can lead you to additional information if you really want to know more about this product, [...] I think will be very interesting. [...] I think those new possibilities are something that really can enrich the experience." Daniel

From Daniel's quote it is deductible how he is looking for additional features to be included in digital tools aimed at enriching his shopping experience. He suggests an implementation of the above-mentioned feature directly using his own personal device, the only thing the retailer should provide him with it is a QR code exposed besides the price tag.

However, Daniel is not the only interviewee suggesting an add-on feature for a better experience in-store through personal devices. Anastasia declares also that she would appreciate having an application in her phone through which she can have updated information about new products and discounts.

"Maybe if it's a functional application where you can really like with one click and one just sees the discounts and make it like a personalized application, then I think I would have had it." Anastasia

Anastasia who was first suggesting the development of an app to keep track of the discounts in-store, is now imagining to have a sort of navigator in the self-scanning devices.

"But at the same time how cool would it be as well that they show in a bigger supermarket, where the product is. Like a way that you can search for a product and to get to find it easier you would never ever have asked that one person salesperson like 'Oh, where is the. Where can I find the rice, the pasta or whatever?'. So maybe and. Where it's placed and maybe some things as well." Anastasia

She believes that with such an improvement consumers could easily find out in which shelves the products are; therefore, the experience would be smoother and less difficulties in finding the products would be experienced.

In addition, Anastasia thinks that having the self-scanning devices directly integrated to her smartphone through a dedicated application would be beneficial. In fact, she underlines how having a self-scanning device per se, is not the best and most convenient solution. She therefore, would prefer to just have an application on her smartphone.

“Interviewer: But [...] wouldn't it be better to have an integrated device like your smartphone?”

Anastasia: Yes. Definitely.

Interviewer: Like an application from the retailer itself?

Anastasia: Yes, because it doesn't make sense to have it on one device. I think yes it would be easy.” Anastasia

Just as Anastasia, Marie suggests the development of an app to improve both, the accessibility and functionalities of the self-scanning devices.

“Yeah, I mean it doesn't really have to do the self scanner things, but maybe they could have like an app on your phone and you could have like point system or something. I don't know if that would make it more fun, it might make it more convenient and you can get like discounts if you buy certain things.” Marie

Marie states that this improvement would generate not only more convenience for the customers, but also a more exciting and more enjoyable experience. She finally mentions a feature according to which consumers might receive discounts on selected products using an app. However, not only Marie and Jessica refer to the potential development of an application to use instead of the self-scanning machines, but also Daniel mentions this.

“I think the same idea self scanning, but you can do it with your own cell phone. For example, they don't have to have those kind of stuff they can develop an app, then you download the app and then use like price scan or QR codes and then everything's on your cell phone and also just have to check your stuff and pay. I think that's also good idea. It's very simple.” Daniel

For Daniel an app would make the self-scanning process even easier as the only thing he would be supposed to do is to download and install this application on his phone. Some of the interviewees would strongly recommend the implementation of an application to use along with their own smartphone rather than with another device, as this makes their shopping experience more convenient and fast. From what our interviewees declared it seems that the majority of the improvements retailers can bring to their digital devices in-store are aimed at making the whole shopping experience integrated with the consumers' own digital devices.

Design and Functional Improvements of Self-Scanning Devices

Referring to the self-scanning device itself, Ann sustains that the design of the device should be improved in order to make it not only more appealing, but also more practical. She indeed suggests to make the devices easier to carry around during the shopping journey and design them as watches for example.

"Yeah. Or maybe I think they can just make it as the watch or something to make it easier to take it, instead of just holding it all the time because you also have to scan the products so it should be convenient for you to take it. [...] Maybe they should, I hope they will have the colourful devices so I can just choose from various colours."

In addition, she would also like them to be colourful and personalized, so that she can choose her favourite one. Anyhow, from a convenience perspective Brian underlines how he would find it easier to have the QR Code to scan directly on the shelves, rather than on the products.

"I think they have to be more kind of better order on the shelves better, easier to kind of read which codes is, where you can scan it directly on the shelf, which is in many places, but sometimes they don't kind of fixing those." Brian

From his statement one can see how he believes, that providing the shelves with price tags and QR codes directly on them would facilitate and improve the usability of the self scanning devices, making the whole experience easier for customers.

Jen as well, points out how an improvement in terms of usability would make the process faster. She indeed suggests to pay directly through the device just using a card connected to the person's account.

“They directly on the device (paying) that would be good. Also, so you scan everything and you just like have your credit card connected to your account and you can automatically pay there.” Jen

It goes without saying that having the chance to scan all the products one needs and to pay directly without any further action needed, would dramatically speed up the process. Having an integrated app without the need to use a different machine would make the consumers living a smoother and easier shopping journey which could be even faster if a payment opportunity is included. Of course, it the need that interviewees point out of being effectively communicated about the usability of the devices is recurring.

In this chapter various suggestions given by the interviewees on how to overcome the consumer reluctance towards the adoption of digital devices in-store can be overcome were analyzed. One of the main suggestions was the need for promotion of the functions, as well of the benefits and values of digital devices. This promotion can be either done through screens, folders, or also through interactive promotion events, like introduction days for raising the awareness about those new digital devices. Furthermore, sales personnel for promotion and assistance with the usage of technological tools are seen as beneficial for reducing the consumers' fear of encountering mistakes. Another important aspect for improving the adoption rate represents the integration of personal devices with the digital devices in-store, which can be for example done with an application on the phone.

6. Discussion

In the following section the reasons that lead consumers to be reluctant towards the adoption of digital devices as well as self-scanning machines will be presented and discussed referring to both our findings and previous literature. The reasons that lay behind consumer reluctance in adopting digital tools in-store as well as potential sources of improvements will be presented. In line with our abductive approach, our research findings will be discussed in relation to the findings already portrayed in the literature and similarities as well as discrepancies will be pointed out. This is serving as a starting point to answer our research questions leading to the creation of a new concept, which contributes to the existing literature.

The following discussion aims at answering the questions of the reasons behind the consumer reluctance towards digital devices in retail stores, as well as how retailers can overcome consumer reluctance towards these tools from a consumer perspective. As our research aims at understanding the various reasons lying behind the reluctance of consumers in adopting technological devices in retail stores, the next section will discuss the themes we found in our research, namely (1) the lack of information regarding the usage of digital devices, (2) the consumers' fear towards adopting digital tools, (3) the lack of communication regarding the benefits of these tools, as well as (4) the lack of incentives stimulating the adoption of them and how to overcome these.

6.1 Lack of Information and Miscommunication of the Usability of Digital Devices

In line with existing literature (Müller, 2008; Pratibha, Michelle & Ju, 2003; Kallweit, Spreer & Toporowski, 2014; Grewal, Roggeveen, & Nordfält, 2017), our findings position themselves as being an extensive explanation of the reasons for the reluctance in adopting digital devices in-store. Our findings can be considered as an extension of previous literature, according to which consumers are reluctant towards the adoption of new digital tools introduced in-store by retailers. Furthermore, previous literature (Elliott, Hall & Meng, 2013) points out how this reluctance exerted by consumers can be the direct consequence of an existing

miscommunication of retailers towards consumers. The latter issue is recognized as being one of the leading reasons for our interviewees not to start adopting new digital tools in-store. As a consequence, our findings show that the existing lack of communication between the two parties can be solved with the retailers implementing a communication strategy throughout the different channels they dispose of in order to reach out to customers and make them aware of the existence of certain devices, as well as their functionalities. At this purpose, according to our research, we suggest retailers to provide consumers with more specific information about newly implemented digital devices in-store. Our findings reveal to what extent being provided with the right information is crucial for consumers, as they want to be sure about the functionalities and the requirements for the usage of these devices before adopting them and being left uncertain. Furthermore, the existing literature (Müller, 2008; Pratibha, Michelle & Ju, 2003; Kallweit, Spreer & Toporowski, 2014; Grewal, Roggeveen, & Nordfält, 2017) suggests also to provide personnel with proper training in order to be fully competent and help customers if needed. Yet, our research shows, that this is not enough. In fact, consumers wish, in addition to having personnel helping them if needed, to receive an interactive introduction of the usage of digital tools. According to our findings, this can be done through introduction days where these new tools get publicly launched and consumers are lead through the process of using them. As a consequence, consumers are not only made aware of the existence of these digital devices, but also of their usage. Therefore, the literature, which is very limited regarding this topic, has been extended by our research in terms of deducting a lack of consumer awareness due to miscommunication, which could be solved through interactive communication strategies implemented in the various channels retailer have access to.

6.2 Consumers' Fear of Encountering Mistakes when Adopting Digital Devices

Our findings show that a great part of the consumer reluctance towards the adoption of technological devices in-store is due to the fact that customers do not feel confident and competent when using those tools. This finding is in line with previous research, as they both mention a lack of confidence, yet existing literature investigating in this topic, is very limited and only few authors are conducting research upon this topic. Therefore, we contribute to the previous research, by not only detecting a lack of confidence (Elliott, Hall & Meng, 2013), but

rather an actual fear of adopting digital innovations in retail stores. According to our findings, customers consider new technology in-store as being not user-friendly and potentially complicated and difficult to use. Therefore, it is arguable that a main reason for the non-adoption of digital tools in retail stores is mainly deriving from uncertainty about the usage of these technologies resulting in a fear of adopting them. Accordingly, we claim, that consumers try to avoid encountering possible mistakes and uncomfortable situations deriving from being uncertain about the functionalities and usage of digital devices in retail stores. Thus, we suggest, that consumers prefer to stay in their comfort zone, where they are able to feel competent and in control at all times, instead of leaving this zone when being confronted with unknown technologies. As a result, they stick to the conventional ways of shopping and stay in their comfort zones rather than adopting digital devices in retail stores. This means, that we especially extend the previous literature regarding the reasons for non-adoption of digital devices in retail (Bollweg, et al., 2015), with claiming that consumers have an initial fear of leaving their comfort zone and engaging with an unknown technology in-store, while at the same time they can just stick to conventional ways of shopping without encountering any problematic situations.

Therefore, we detect a strong need to counteract this fear of adopting digital devices in-store, that consumers show, through reinforcing confidence in the consumers' abilities in terms of usage of these tools and providing information about the usage, as well as assistance by sales personnel. Previous research (Elliott, Hall, & Meng, 2013; Bollweg, et al., 2015; Marzocchi & Zammit, 2006) only concentrates on the miscommunication of the retailers towards their customers, which leads to a lack of acceptance. However, we extend this literature with our findings showing that especially in the initial phase of a new digital implementation, assistance and explanations by staff are wished for. This means, that proper information is needed, so consumers can become familiar with new technologies from the beginning on, which can generate more trust in the technology and in themselves. Our research shows in particular, that consumers feel more comfortable in adopting digital devices when sales personnel is present for assistance. Therefore, we suggest, shop assistants to be available at all times, not only for the various questions consumers might have, but also to help them with problems that might arise when using digital tools in-store. Consumers claim, that they would be less afraid of making mistakes when someone is there to help them and they therefore do not need to leave their comfort zone. Therefore, especially in the implementation phase of technological devices

it is beneficial for the adoption rate, if shop assistants guide consumers through the usage process when trying new digital devices in-store for the first time. This need for shop assistants is also supported by the wish of consumers for sales personnel in-store, not only for social interaction, but also due to them seeking to prevent unemployment which might derive from the adoption of digital devices. As existing literature (Müller, 2008; Pratibha, Michelle & Ju, 2003; Kallweit, Spreer & Toporowski, 2014; Grewal, Roggeveen, & Nordfält, 2017; Ghali, 2014) only concentrates on retailers providing customers with proper information about the functions and usage of digital devices in-store, we enhance this by introducing the concept of sales personnel assisting the consumers and helping them to overcome their fear of adopting new technology.

6.3 Limited Information about the Benefits Deriving from the Adoption of Digital Devices

The conducted analysis shows, that a crucial reason for the reluctance of consumers in adopting digital devices in-store, especially self-scanning tools, is due to a lack of awareness of the advantages and benefits deriving from the usage of these digital tools. This is partly in line with previous literature, as they suggest that consumers have to be convinced that a technology is useful for them in order to adopt it (Ghali, 2014; Pratibha, Michelle & Ju, 2003). Our analysis contributes to the previous research by claiming, that in case of digital devices in retail stores this persuasion process of perceiving digital devices as something valuable is not only done by the consumers themselves, like existing research suggests, but also the retailers play an essential role in this. Our results show, that consumers express a strong urge for receiving information about the benefits and advantages they gain when adopting digital devices in retail stores. As for customers, using digital tools represents a plus of effort during their shopping journey and they are aware of the fact, that they are helping the retailer to reduce personnel costs and therefore increase profits when adopting these devices, retailers need strong arguments for convincing their customers of the benefits they can gain. Resulting from this consumer reluctance, we recognize a necessity of increasing the awareness towards the benefits deriving from adopting digital devices in retail stores. We suggest a profound engagement in both, promotion and communication, from the retailer presenting various advantages and values these tools can represent for consumers and accordingly, persuading them in the adoption. Therefore,

our results contribute to previous research (Elliott, Hall, & Meng, 2013; Bollweg, Lackes, Siepermann and Weber, 2015; Grewal, Roggeveen, & Nordfält, 2017; Ghali, 2014) with the finding, that only if the retailer properly communicates the benefits and value consumers gain from utilizing digital devices in-store, they see a purpose in doing so and adopt these tools accordingly.

6.4 Lack of Incentives for the Usage of Digital Devices

Another strong reason behind this consumer reluctance, can be identified in the lack of incentives retailers offer to customers for their adoption, in order to enhance and incentivize the usage of digital devices in-store. Indeed, the miscommunication regarding the new digital tools introduced in-store as well as their functionalities can be extended to an even more important type of miscommunication regarding the value consumers benefit and generate from using these tools, as mentioned above. Contributing to the literature (Müller, 2008; Marzocchi & Zammit, 2006; Grewal, Roggeveen, & Nordfält, 2017; Pratibha, Michelle & Ju, 2003), where we identified a gap, our findings stress how consumers do not see any incentives in using digital devices in-store as they expect sales personnel to assist them in-store, rather than being solely reliant on technology. Indeed, consumers cannot find any compelling reasons and sources of value for adopting digital devices in retail stores in form of incentives. Therefore, according to these findings, it is essential for retailers to provide consumers with appealing incentives, which justify the additional effort consumers invest in their shopping process. Accordingly, we contribute to the existing literature by recognizing another reason for reluctance (Elliott, Hall, & Meng, 2013; Bollweg, et al., 2015), namely the one according to which consumers miss incentives that stimulate them in adopting digital tools in-store.

6.5 Extension of Value Appropriation and Co-Creation

Our research shows, that consumers and retailers are both interplayers in the co-creation of value, that derives from utilizing and implementing digital devices in retail stores. We see the concept of value co-creation as being applicable here, as both, consumers and retailers gain

value from this interaction mediated by technological tools in terms of enhancing the consumers' in-store experience, as well as the retailer's long-term benefits. In line with previous literature (Prahalad and Ramaswamy, 2004), our research shows that consumers are actively involved in the creation of value through interacting with the retailer via various digital channels leading to benefits for both parties. The concept of value co-creation has been investigated in the literature, but not that much in relation to digital tools in retail stores. Therefore, our research positions itself as being an extension and a further contribution to the reasons of reluctance for the adoption of digital tools in retail stores from a consumer perspective. Accordingly, our findings contribute to the literature stream of value co-creation (Prahalad and Ramaswamy, 2004; Payne et al, 2008; Vargo and Lusch, 2008), through analysing the reasons of consumer reluctance in being actively involved in this process. While previous research assumes, that consumers are aware of the benefits they gain from this interaction and are therefore eager to engage in a co-creation process, our research shows that this is not the case. With this thesis, we are able to proof, that consumers need information about the value and benefits they gain from this value creation process, as otherwise their increased effort during their shopping activities seems groundless and rewardless. Therefore, it is essential for retailers to effectively communicate not only the value consumers gain through the participation in co-creation activities, but also provide them with additional incentives.

In line with these results, we contribute especially to this literature stream (Prahalad and Ramaswamy, 2004; Payne et al, 2008; Vargo and Lusch, 2008), by extending the value co-creation concept with our own approach. Our findings show, that as retailers fail in communicating the benefits and thus incentivizing their customers to adopt digital devices in-store, consumers are reluctant, if not even aversive in participating in this value co-creation through the adoption of digital tools. Therefore, with our findings we suggest retailers to engage in a communication strategy aimed at making consumers aware of all the benefits deriving from using digital tools in-store. It follows that, if consumers are aware of the advantages they gain from adopting digital technology in-store, they are more willing to participate in this value co-creation. This means, that retailers play a key role through proper communication and incentivisation in making the value co-creation for both parties possible.

Since previous research (Prahalad and Ramaswamy, 2004; Payne et al, 2008; Vargo and Lusch, 2008) focuses merely on the concept of value co-creation from a corporate point of view,

research on this literature stream in retail stores is very limited to one perspective, the one of retailers. As a consequence, our research positions itself as being a valuable contribution and source of future investigation to gather better insights in the field of value co-creation in retail stores from a consumer perspective. Accordingly, we contribute through finding solutions to the identified failure retailers encounter when implementing the co-creation concept in retail stores through digital devices and how they can persuade consumers in using these devices.

7. Conclusion

This master thesis aims at investigating the reasons behind consumer reluctance towards the adoption of digital devices in retail stores from a consumer perspective. Hence, the research question investigating the reasons behind the consumer reluctance in adopting digital tools in retail stores was studied to shed light on the underlying reasons behind this consumer reluctance. With this research question as a starting point, we identified themes throughout our empirical research representing a complementary and extending contribution to previous literature, which culminated in the development of a new approach and concept. According to our findings, we extend previous literature (Müller, 2008; Pratibha, Michelle & Ju, 2003; Kallweit, Spreer & Toporowski, 2014; Grewal, Roggeveen, & Nordfält, 2017) with the following topics: (1) insufficient information and miscommunication regarding the usage and functions of digital devices, (2) consumers' concern about encountering mistakes when adopting digital devices, (3) insufficient information regarding the benefits of digital devices, (4) missing incentives for the adoption of digital devices, and (5) novel approach towards value appropriation and co-creation.

These themes represent the latent motives of consumer reluctance towards the adoption of digital tools in retail stores, which accordingly lead to our second research question regarding the various improvements retailers should take into consideration. Namely, in this question the strategies retailers can implement for overcoming consumer reluctance towards the adoption of digital tools were investigated in. Drawing upon the identified themes in the first research question, we answered this second question according to the described reasons for reluctance through presenting possible solutions from a consumer perspective. These solutions, which are drawn from a consumer point of view, concentrate mainly on solving the various mentioned communication issues through providing proper information to the consumers in order to reassure them about the functions, advantages, value and incentives they gain when adopting these devices in-store. Our research extends previous literature (Elliott, Hall, & Meng, 2013; Bollweg, Lackes, Siepermann and Weber, 2015; Grewal, Roggeveen, & Nordfält, 2017; Ghali, 2014; Müller, 2008) through identifying the following topics regarding this research question, and therefore overcoming the consumer reluctance towards digital tools in-store: (1) providing information regarding the functions of digital devices for raising awareness among consumers,

(2) sales assistance for the usage of digital devices for counteracting consumers' fear regarding these tools, (3) providing information regarding the benefits of digital devices for the consumers' enhancing adoption willingness, (4) providing incentives for the usage of digital devices, and (5) communication of possible value gained from adopting digital devices for incentivizing a value-co creation participation.

7.1 Theoretical Contributions

Regarding the previously mentioned themes, our theoretical contributions can be identified as being extensive and comprehensive in comparison to the very limited existing literature in the field of consumer reluctance towards the adoption of digital tools in retail stores (Elliott, Hall, & Meng, 2013; Bollweg, Lackes, Siepermann and Weber, 2015; Grewal, Roggeveen, & Nordfält, 2017; Ghali, 2014; Müller, 2008). Therefore, with this thesis, we position our research in this research gap.

Combining both research questions with all the previously mentioned relevant themes in one concept, we draw attention to the fact, that value co-creation is applicable in the context of the implementation and adoption of digital devices in-store by both parties, retailers and consumers. Therefore, we state, that consumers conceive this process of value co-creation as being beneficial for them, only if the incentives as well as the benefits and values gained are clearly communicated by the retailers. In the case of a lack of communication of retailers regarding advantages for customers deriving from this process, consumers might feel exploited by retailers in terms of creating value for them without receiving anything in return. Consequently, it is fundamental for retailers to actively provide consumers with substantial information regarding the value, benefits or incentives deriving from the process of value co-creation for both parties.

Finally, we contribute to the existing literature (Payne et al, 2008; Vargo and Lusch, 2008; Müller, 2008; Pratibha, Michelle & Ju, 2003) with combining the previously mentioned themes in this one concept of value co-creation. The latter has been largely investigated so far from a corporate perspective, while with our thesis we enhance this concept and perspective through introducing it to a retail setting. Especially with claiming, that consumers are not always willing

to be involved in this process of value-co creation, like the literature states, we contribute by providing practical solutions to enhance their willingness for participating.

7.3 Managerial Implications

The findings and knowledge generated throughout this thesis not only play a key role in terms of theoretical contributions, but also provide various managerial contributions, which should be taken into consideration when looking at practical implications. From a managerial perspective, the results of this study justify the considerable need retailers have for understanding the reasons for the slow adoption process regarding digital tools in-store from a consumer perspective, as well as for practical solutions to counteract this phenomenon. These results relate to the identified topics mentioned when answering our research questions.

First, as already mentioned, it is important for retailers to adopt a communication strategy for raising awareness of the existence, the functionalities and the benefits of digital tools among consumers. This is essential not only to take away the fear of technology and of encountering mistakes from consumers, but also to stress the value generated with their usage, which represents the main reasons for consumers not to adopt these tools. More specific managerial implications are the following: (1) Guarantee the availability of sales assistance for help and promotion of digital tools in-store, (2) extend the accessibility of these tools through removing the necessity of a loyalty card, (3) provide a more convenient shopping experience through the integration between digital and personal devices, (4) incentivize the usage of digital devices through offering discounts, (5) guarantee a fast and convenient shopping experience and checkout when using digital devices in-store, (6) provide a personalized and intuitive design of digital tools in-store for increasing the attractiveness.

All these suggestions aim at improving the appeal digital tools have towards consumers and therefore build the foundation for successfully implementing these devices and consequently guarantee the consumer adoption in retail stores. Therefore, through the implementation of these managerial implications the retailers benefit from a rewarding value co-creation process, that will ultimately be translated into profits and long term success.

7.4 Research Limitations and Suggestions for Future Research

This thesis focuses on the investigation of the consumer reluctance towards digital devices in-store from a consumer perspective. Indeed, one of the main limitation of this research is its solely concentration on consumers and their perceptions about the introduction of digital tools in retail stores. Therefore, the retail perspective is disregarded, which means that there are no considerations or attitudes towards this topic included from a retailer point of view.

Moreover, the study has been conducted merely considering consumers' individual perceptions, but no empirical observations regarding their actual actions in-store while shopping have been examined. This means, that in our research we solely trusted what the interviewees claimed to believe and how they act in a shopping situation, without being able to absolutely proof their words.

Another limitation of our research represents the focus on consumers not or not anymore using self-scanning devices, which could possibly lead to biased research findings, limited to the perspective of non-usage. Yet, there is a possibility that consumers using these devices can have a more comprehensive understanding which can lead to further results.

These above mentioned reasons represent a limitation of our research, as it leads to a one folded perspective which might be seen as confining for a full understanding of the issue. Therefore we suggest further research to extend the generated knowledge and continue to explore the literature gap regarding the reasons for non-adoption of technology in-store from a consumer perspective.

Firstly, we suggest further research on this topic from a retail perspective as well, which has not been included in this study. Furthermore, due to the fact that only consumers not using self-scanning devices have been included in the sample, we recommend a further study also including those using them. These extensions are both equally recommended, in order to guarantee a further-reaching understanding. Yet, not only further research with retailers and users of self-scanning devices can be beneficial, but also observations can lead to more reliable outcomes. Finally, as this study has been an initial attempt in identifying both, reasons for

reluctance of the adoption of digital devices in retail stores and suggestions for improvements, we also recommend that future research proves the concept of value co-creation we found as a result of this thesis through a qualitative analysis methodology, also through a quantitative one, aiming at proving the results generated by our research.

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9. Appendix

In this section additional information regarding the methodology and the findings are presented. First a short overview of our sampling criteria and a sample overview is provided, before moving on and presenting the rather broad topic guide for the conducted interviews is shown. Furthermore, additional findings from our empirical research regarding positive aspects, as well as a more in-depth introduction to the sample is provided.

9.1 Criteria for Inclusion in the Interviews

Criteria	Applicable
Shopping regularly at ICA	
Living in Skåne	
Not (or not anymore) Usage of Self-Scanning Devices	

9.2 Sample Overview

Name	Nationality	Age Range	Adoption Phase	Usage Technology	Perception of Shopping
Ann	Taiwanese	26-30	Early Majority	High	Enjoyable Activity
Anastasia	Dutch	20-25	Late Majority	High	Enjoyable Activity
Jessica	Taiwanese	26-30	Early Adopter	High	Compulsory Activity
Steve	Puerto Rican	20-25	Late Majority	High	Enjoyable Activity
Cameron	Italian	20-25	Early Majority	High	Compulsory Activity
Simon	Dutch	26-30	Early Majority	High	Compulsory Activity

Jens	Swede	15-19	Laggard	High	Compulsory Activity
Brian	Swede	55-60	Late Majority	Medium	Neutral Activity
Daniel	Taiwanese	31-35	Early Adopter	High	Neutral Activity
Jen	Brazilian	31-35	Early Majority	High	Neutral Activity
Ken	Swede	46-50	Laggard	Low	Enjoyable Activity
Marie	American	20-25	Early Majority	High	Compulsory Activity

9.3 Topic Guide for Interviews

a) General questions & technology:

- Would you say that technology and digital devices are important for how you live your daily life?
- What role does technology play in your life? Please describe one typical day in your life?
- In which situations is technology especially important for you? Where could you not live without it anymore?
- What role does technology play during your shopping experience in physical retail stores?
- How much shopping do you do online? Do you have a lot of retail apps installed on your phone?
- What is the last version about their smartphone? Is it important to you to have the latest version of a smartphone or other digital devices?
- Do you usually check products you are interested in online before buying?
- Do you in general like to try new technologies?

b) General in-store technology:

- What are the kinds of digital technologies you remember seeing in retail stores? And what do you think about them?
- Do you use these technologies in-store? Why do you use them? Why not?

- What do you feel when you use these technologies?
- Why do you think some people don't use digital devices in-store?
- Do they add value to the visited points-of-sale? How do they add value?
- Does it enrich the experience of choice and sale?
- Do these technologies enrich the relation with the visited point-of- sale?

c) In-store self-scanning:

Explanation: At ICA and other major grocery stores they offer these self-scanning tools, that you take with you through the supermarket and scan everything when putting it in the basket. Then you just pay at the checkout without scanning it again. - Show pictures of self-scanning devices!

- What comes to your mind when you hear about these self-scanning tools?
- Why would you use these self-scanning devices?
- Why would not you use them?
- Have you ever used them or are you using them regularly? Why? Why not?
- A lot of customers do not use them, why do you think this is the case?
- How do you think retailers could increase the popularity among these self-scanning devices among consumers?
- How could retailers increase the customer experience journey even more with these devices?
- Grocery stores claim it to be faster, as offering more control for the shoppers and also as more enjoyable than a traditional checkout? Do you agree or disagree with this statement?
- Summarizing: Why would people not use it?

9.4 Sample Overview

In order to better understand what drives consumers to the adoption of digital devices in retail stores, it is paramount to first identify the role technology plays in their lives. With technology being present in the majority of activities one daily carries out, our results confirm our sample to be highly influenced by technology. Indeed, the majority of the interviewees when asked to talk about their relation with digital devices, admitted to involve technology in almost all of their daily activities.

"I think I've used technology more than 12 hours maybe, because every day when I wake up, I just take my cell phone and see what time is it." Ann.

Ann is only one of the interviewees who declares technology to be essential in her life; indeed, like her, also Jen, Marie, Jessica, Cameron, Daniel and Jens picture themselves as being heavy technology users. However, Anastasia, who can be identified as a technology moderate-user, sees a problem with her relatively heavy technology use.

“So yes right now they actually have an everyday role they play in my life and I can tell that I sit more on it than I actually do want to. So, yeah I spend more time on technical devices that I actually would love to.” Anastasia

Anastasia declares how technology is currently playing an important role in her life, even more than she would like to. She seems to recognize the importance of technology as well as its being potentially noxious in her life. While Simon, a moderate-user of technology, on the other side, is firmly convinced that technology does not play a key role in his daily activities, stating that:

“Yes they're important but not that important that my life depends on it. It's more like a nice additional feature to my life, make some things easier and make a lot of things convenient.” Simon

He believes that technology can be an add-on feature to his life, but not a leading one. Supporting what Simon says, Ken, believes that technology is not important in the way he lives his life insomuch that he could even live without it.

“You know, I don't think if somebody will take away phones, iPods tomorrow, I will not be sad. I will not in any way miss it. So that's why it's very difficult to say that it's important in my life.” Ken

From this, it becomes clear, that technology plays a very different role in the lives of our interviewees; yet for the majority of them it seems to be rather important in the way they live their lives at the moment. In addition, some interviewees recognize the large importance technology plays in their lives, but admit not to be happy about it and would like to have a more moderate attitude towards it.

Yet, it is not only important to consider the role technology plays in the lives of consumers, but also how fast they adopt new technology for later being able to draw connections and conclusions about the interplay of their adoption pace of technology in their daily lives and the adoption pace of technology when in-store. In general, our findings show, that most of the interviewees can be seen either as adopting new technology after some time passed by, while other consumers already tried and approved of it.

Jen and Marie both agree upon the fact, that they both prefer to wait a couple of weeks or months until reviews about technology innovations are available, before making up their mind about this technology and deciding whether they are going to adopt it or not. Simon supports their opinion describing an adoption process he went through.

“But when I was also more hesitant to something, for example the iPad when it got released [...] why do you need something like that? You always got your phone. You got your laptop. So why do you need an iPad? I was very critical towards that one, and I was never able to buy it, but then few years later I bought myself an iPad.” Simon

Simon describes some kind of hesitance towards adopting a digital innovation, yet as soon as others approve this innovation and it becomes more established on the market, he also adopts it. From his statement it becomes clear, that a sort of uncertainty about the benefits deriving from the usage of newly launched digital products might cause reluctance in adopting them.

This view is shared by Brian, who seems to check out new technologies on the market really early, but also prefers to wait with the actual adoption.

“Usually I check it out pretty early, but I don't buy it until it's been out for a bit.” Brian

Part of our interviewees, therefore, although might be passionate about new technologies, is still reluctant in its adoption because they do not recognize the benefits they could have. In addition, they feel skeptical if the technology is not well-established in the market. Yet, there is also Jessica really enjoying to try new technologies and always looking forward to embracing

them if they can make her life easier or more convenient. Also Daniel seems to be an early adopter of technological innovations.

“Sony, they have a VR thing [...] I bought right after it went live. [...] I think that's something that is really interesting. So I bought it like right after it got released.” Daniel

Here Daniel illustrates his willingness to adopt digital innovations as soon as they get released, if he feels they are worth it and interesting for him.

On the other hand, Brian just wants technology to work according to his needs and indicates, that he sees no purpose in adopting a new one if his current technology still works. Ken shares this view and goes even that far referring back to the advantages of relatively old technology.

“They have a tendency to be slow, after a while, but you know, Nokia has a brand new telephone, which is not a smartphone. You know, it's not a smartphone and they've been selling a lot of it.” Ken

Ken seems to be extremely reluctant, if not even resistant in adopting new technologies.

After having analyzed both, the usage rate and the adoption phase of new technologies by the interviewees, it is important to understand how they perceive the activity of doing shopping. Indeed, in order to draw conclusions later on, it is essential to understand whether or not our sample enjoys doing shopping,

The activity of shopping is perceived very controversial by the various interviewees. Ann and Ken, for example, are referring to shopping as something they really enjoy doing and can even be seen as a leisure activity in some cases. Anastasia supports this view with a rather strong opinion towards shopping.

“I think grocery shopping is my hobby and my leisure. Because I have a lot of pressure in my life. For example, writing my thesis. So I think grocery shopping [...] you can just relax, maybe you just don't need anything but you just want to see the new stuff on the shelf or the new discounts nothing. It's really funny, for me it's a leisure.” Anastasia

Anastasia expresses the joy she has when doing grocery shopping through stating, that she even goes to a grocery store when she does not need anything, just because it is her hobby. For her, shopping is a leisure activity, which she seems to really enjoy.

However, not everyone shares her point of view, Cameron and Marie rather dislike going shopping and see it as something they have to do, rather than something they actually enjoy doing. A statement of Simon supports this view especially well.

“Again, [...] a grocery store is really some we need to go in, we need to do it. It's not something like ‘Yes I can go today I can go grocery shopping again.’ It's more like ‘Okay I need to do some groceries because otherwise I have nothing at home. Because otherwise we die and no one wants to die’.” Simon

Simon expresses a strong dislike of doing grocery shopping, as for him shopping, it seems to be a necessity he has no other choice than doing. For him grocery shopping is not at all connected with enjoyment or entertainment, it has just one purpose: the one of survival. Even though, he said this more as a joke, we could still understand his strong dislike towards the activity of shopping.

9.5 Positive Aspects of Digital Devices in Retail Stores

The following chapter will mainly concentrate on how the interviewees' relationship with digital devices influences their view on positive aspects of various digital tools in-store. In compliance with the fact, that most of the interviewees claimed, that technologies are important for the majority of their activities in their daily lives, they also see various advantages arising when adopting digital devices during their shopping experience.

Especially Steve and Simon seem to see technology as something making their lives easier and more convenient through helping to create certain processes easier. Also Ann seems to be convinced of this.

“I think technology makes us safe time.” Ann

However, for Ann, not only the convenience aspect of technology represents an advantage, but she also mentions a certain image digital devices represent for her.

"I think it's trendy in a way so I can [...] take some pictures on my social media or something. I think it's really trendy because I want to be a really trendy person in a way" Ann

With this, Ann addresses the fashion aspect of technological tools for making her appear in a certain way. From this, one can understand that if technology is appealing in her eyes, she might even share it via various social media platforms with her community to contribute to her image as being a trendy person.

However, not only in the interviewees' leisure time technology is perceived as being beneficial, but also in retail stores it is seen as a valuable asset, which might even add value to the customer experience journey. This is especially good illustrated in a statement of Simon.

"Yes, technology would make me bond with a retail store if the technology fulfils my requirements and expectations." Simon

Here Simon makes clear, that as long as digital devices in-store meet his needs they will also strengthen his relationship with the retailer. This point of view is also supported by Jessica, who believes that retail digitalization can add various advantages to her shopping journey. Marie and Jen claim furthermore, that technology can enhance the overall perception of a specific retailer, as it makes them seem more modern or concerned about their consumers.

"The technology [...] it's going to give me the impression that they are more modern, and that they think more about the consumer." Jen

"Maybe I'll just get a feeling that they want to be more efficient. [...] Yeah, I guess it feels more futuristic and the store cares more about the experience." Marie

This kind of reputation the retailers can benefit from according to Marie and Jen can even go that far, that some customers would choose a retail store with digital devices over another one

without. For example, Daniel expresses a strong willingness to choose a digitalized retailer, as he feels that he can gain value, like for example saving time, from it.

"The self-service technology can help me to save my time and I feel that this is perhaps the place that I want to visit again because I can anticipate there some sort of value for me. So, I think I will become more willing to go to that kind of retailers." Daniel

This view of more willingness to visit digitised retailers is also supported by Simon, who claims that he would choose, out of two identical retail stores, mostly the one offering self-checkout machines, which means the one that offers digital tools in-store.

"For example, I live at Delphi and at Delphi there is a Lidl and a Willy's which you can select from. Both are walking distance and I actually prefer to go to the Willy's because they got a self-service system." Simon

With this, Simon seems to indicate, that digital tools in-store can lead to become an habitual customer or might even lead to be more "loyal" towards this retailer. This enhanced loyalty towards a retail store, could be due to the many positive aspects of digital devices in retail stores the interviewees mentioned. Especially Brian and Jen claim, that digitised retailers can enhance their customer experience at the point of sale. According to Anastasia this can even lead to an extended shopping stay within one store.

"But yes, it is true that people buy more. I think they will spend more time in a store as soon as there's more technical devices, since it's like checking really out like 'Oh this is cool!'" Anastasia

Anastasia seems to believe that a digitalized store increases not only the time customers spend in-store, but also the amount of products they purchase.

However, others like Jessica or Ann perceive rather the feeling of control digital tools give them, as a benefit for them. Also, Steve shares this perception of increased control over his shopping experience.

“I feel in control. I'm the one like that's actually doing the whole process and the whole job. Like if I have some eggs or like a bag with the vegetables in it, then I can scan it and just put it safely in a bag and if it's the cashier, they can just roll it and I'm like ‘Oh, the eggs’.” Steve

For Steve, being able to finish the majority of his shopping by himself lets him feel in control, which is also supported by a statement of Jessica.

“I think it makes it faster and makes it more interesting. Like for me for the first couple of times it is quite interesting because I have never tried before, but it is faster and I feel in power I think. I can just do it by myself.” Jessica

With this, Jessica not only addresses the power or control aspect of digital tools, but also that they lead to a faster and more interesting shopping experience. Especially the aspect of fastness is shared by many of the other interviewees, like Jens, Brian or also Daniel, which becomes clear in this quote.

“I think for the customer's point of view, it gives you an opportunity to save time, it gives you an opportunity to take control of the whole process.” Daniel

For Daniel, digital tools seem to represent ways of controlling his own speed and shopping process. This view is also shared by Simon, who claims that digitised stores help quickening his shopping.

“But, for example, if I'm in a hurry at a stage when there is a self-scan store and conventional store. I would definitely go to the self-scan store because it's faster, in my opinion. I'm not sure it is, but it feels like it's faster because you have more control about your own speed and if you need to catch up a train, then I would definitely go to a digital store instead of a conventional one.” Simon

With this statement, Simon makes clear that control and shopping speed are that important for him, that he would choose a store according to these features. Also, he claims, that if a retailer

meets his needs through digital devices in-store he is willing to choose this retailer over another one. This opinion seems to be supported by Steve.

“Like if there's a huge line on the cashier, and there was no self-checkout [...], I probably just dropped everything if it's not important, just drop everything and leave. But if there's a self-checkout, I will just like just got to the self-checkout.” Steve

For Steve shopping speed seems to be that important, that he would even leave a store if there are too long waiting times. However, according to him this can be prevented if the store offers digital tools to improve the fastness of checkout.

Another aspect mentioned by the interviewees is, that if the store offers digital tools the customers feel less need for sales personnel. Ann, for example, seems to prefer enjoying the shopping experience rather by herself than to interact with any staff. Jessica feels the same way about the ratio between technology and personnel.

“I think I would say that technology takes like 80% and the staff 20. I mean, I don't need staff around, I just need one or two that can solve my problems. But the technology is so important, because it connects to the whole shopping experience.” Jessica

Jessica's statement leaves no doubt, that for her technology in retail stores plays an essential role and is way more important than sales personnel. She goes even that far to claim, that technology should make up 80% and the staff only 20% of the whole in-store shopping experience. In her statement the real importance of retail digitalization becomes very clear.

Yet, also Brian or Simon agree with Jessica by saying, that they prefer contact to technology over personal contact with sales personnel.

“For those self-registers. I always use it. Mostly those self-registers are much faster than having contact with a salesperson.” Simon

For Simon, the main reason to prefer digital devices is, that they are faster than personal contact. However, for Anastasia having personal contact seems to be seen more as a distraction, which makes the checkout-process longer.

“You know, you want to go to this self- checkout just to say ‘I want to have it done and I don't need to have contact with everybody’.” Anastasia

This is also supported by Jen, who stresses her low willingness to engage in any social interactions with sales personnel while shopping.

“Like if you enter a shop everyone like the sales guys would come and try to push you stuff, you know. [...] I don't like to interact with people when I'm shopping. So yeah so it's better.” Jen

She believes that sales assistants do not genuinely help her in the selection process, but instead can turn to be insistent, pushing her to buy and try goods she does not need. Just as Jen, sales assistants are perceived as being disturbing rather than helpful by Simon as well.

“It's always those annoying sales people. Like I'm just there to look I don't want to buy anything. Like if I need help I will come to you to ask. They're very, very aggressive. Yeah, very pushing and I don't like that.” Simon

Simon is even referring to them as being “aggressive” and from his words the extent to which he is adverse to social interactions while shopping is clearly deducible. For a considerable part of our sample, social interactions are not a positive aspect while shopping, insomuch that Jens declared to prefer doing the self-checkout in order to avoid contact with the staff and keep doing what he wants to do, such as listening to music.

“With the self-checkout, I can listen to music all the time, so I would probably choose it.” Jens

The great majority of our interviewees seem to not like social interaction with staff, while other interviewees, like Ann, do not like to be approached and asked if any help is needed, but when they need to be advised, they would ask the personnel.

"When I have questions, I will ask them [...]. So I like to buying stuff by myself." Ann Antipodal to what the above-mentioned interviewees think about social interactions in a retail stores, Brian believes that interaction between customers and retailers plays an important role for him, stating that:

"No, I think the funny part is actually to talk a little bit to the person behind there and whatever, even if it's like the typical Swedish way talking about the weather whatever. For some it is the only social contract you have during the whole day. But yeah, making fun, making jokes, go to the same person so you're actually kind of talking." Brian

Brian appears to be extremely inclined to engage in social contact with sales assistants. Differently from the other interviewees, he does not perceive the contact with the staff as being irritating, but instead he values this crosstalk.

From the previous quotes, one can already understand, that one of the positive aspects of digital tools in-store is doubtless the possibility that shoppers have to avoid social interactions with sale assistants. In addition, what is considered to be extremely valuable is the fastness that these devices guarantee to the consumers as well as the convenience. Furthermore, our interviewees see it as a positive aspect, that they feel more in control over their shopping process when using digital tools in store.

Advantages of Self-Scanning Devices in Retail Stores from a Consumer Perspective

After having discussed the benefits of digital tools, it is essential to move to a more specific topic: self-scanning devices. At this purpose, Daniel seems to underline how using these self-scanning devices in-store provide him with more power over his purchase decisions. Indeed, he states how the consumers are totally responsible and free to take their decisions regarding the products they want to buy. He therefore seems to believe, that self-scanning machines provide customers with more control over their purchase.

“With this you can handle it independently. I think that's the sense of taking control there, you can finish the whole process on your own, without anybody's help.” Daniel

Similarly to Daniel, Anastasia believes that self-scanning devices provide customers with more control over their budget; indeed, they allow consumers to check how, product after product, the total amount increases. These machines can give customers a better overview on the total amount of money they are about to spend, without then being surprised at the checkout.

“What is a plus that it's really cool to actually see with every product you scan that it's increased obviously. Like increase your receipt so that you actually can see how much you already have. [...]I think that's interesting.” Anastasia

Another positive aspect of self-scanning machines is represented for Steve by the fastness they ensure to consumers. Steve claims that when purchasing few items he prefers using the self-scanning machines so that he does not have to queue for a long time.

“You have like three items, then you scan three items and you just take the thing to the reception and they scan that instead of like scanning all the other things. So you don't have to wait for everybody. Like if the person in front of me has 10 items and they already use the small device then just scan one and that's it I guess. It's makes life easier.” Steve

Steve seems to believe, that using self-scanning tools provides him with a more convenient and faster shopping experience. Just as Steve, also Jen believes that self-scanning machines make her shopping experience smoother, and therefore faster.

“It gives me the impression that the whole shopping process will be faster.” Jen

Besides being fast and allowing more control, self-scanning machines are seen as being convenient in the eyes of various interviewees. Daniel underlines how these are an improvement of the self check-out and how they represent an integrated shopping process for him. In other

words, it is possible to state that for Daniel self-scanning machines seem to provide greater control and are fast and convenient.

"I think it's an advanced step comparing to the self check out, because in terms of self-checkout you do it at the very end [...]. I think it's not integrated, because you put all the things in your cart and then you have to take them out and check it again. And then compared to this what you just said, I think it provides me [...], an integrated shopping process because now I can just get everything and put it in my bag and then there's [...], there's something they can just scan again and then I just pay [...] the total amount of money and I think this saves time." Daniel

In relation to the convenience of self-scanning machines brought to light by Daniel, also Jessica believes that the consumers might have a facilitated shopping experience, stating that:

"I like self check machine because it's easier, more convenient faster and enjoyable because [...] it's easier to communicate with the machine than the person." Jessica

Our interviewees appear to be in general relatively dependent on technology when it comes to their daily lives and habits, going even that far with some of them stating, that they could not live without technology anymore. Also, in retail stores technology seems to be perceived as something rather positive, which can drive also to loyalty and help the choice of store. Having gone through a set of benefits pointed out by the interviewees, it is possible to affirm how our interviewees perceive self-scanning machines as providing more control and as being fast and convenient during a consumer shopping experience. Nonetheless, interviewees recognized a diametrical opposite set of negative aspects that make them reluctant in adopting these devices in-store.