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SOCIAL CONSTRUCTION OF RETAIL DIGITALIZATION: MANAGERIAL PERSPECTIVES

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ABSTRACT

Digitalization is a pervasive movement, shifting society rapidly into the next industrial revolution and causing disruption to traditional ways of working. This movement has had major ramifications on brick and mortar retailers, redefining the traditional business model and offering opportunities to enhance the customer experience. The purpose of this study was to gain a holistic understanding of the digital transformation of retail from a retail manager's perspective, thus, this study explores the ways in which retail managers are socially constructing retail digitalization. To address the lack of an established conceptualization of digitalization from a retail managers' perspective, I applied an exploratory, framing analysis approach to this research gap. This procedure involved integrating field-based insights from 26 managers within the retail sector across Finland and the UK with supplementary literature on the topic of retail digitalization.

Through conducting this research, three framing categories were identified, including: 1) investing in digital strategy and management, 2) changing organizational competences and mindset, and 3) shifting power to the retail customer, which were formulated based on nine managerial framings that were developed in the analysis. The findings indicate that though managers are aware of the various threats caused by digitalization, overall, they consider it a positive movement that stimulates innovation, offers new solutions, improves business processes, and enables a better service offering for customers. This study suggests that undergoing the digital transformation is not only a technological change in processes and systems, but a human change in terms of ways of thinking and working. The findings further indicate that retail managers must develop with the organization and have a thorough understanding of their business and the retail market.

This study makes theoretical contributions by supporting ideas that are explored in existing literature such as the challenges related to creating the omni-channel business model, while adding the managerial perspective on various issues surrounding this organizational change. This study also contests some points made in the current literature on the death of high street by highlighting the hedonic value that brick and mortar retailers offer their customers which cannot be replaced by other channels. New perspectives were also contributed through this study by exploring how managers view data and analytics as important tools in organizational decision making and understanding the business. Finally, this study highlights an unexplored area in the literature, more specifically, the significance that retail managers place on the human side of the organization through the digital transformation.

Keywords: Digitalization, digital transformation, retail, brick and mortar, customer experience, retail-customer interface, omni-channel

The originality of this thesis has been checked using the Turnitin OriginalityCheck service.

Table of Contents

List of Tables

List of Figures

1 Introduction

1.1 Research Background

Due to the complex and multifaceted nature of retail digitalization, this study contributes toward both the marketing and management disciplines. My research is situated at decision maker level which enables exploration of how managers utilize digitalization as a tool, respond to industry changes, and assimilate digitalization into company strategy. In addition, the marketing orientation in my study is prominent as I aim to uncover how firms are positioning their customer offering by utilizing digital tools, interacting with their customers through multiple-channels, and enhancing the customer experience both in-store and online. In recent years an increasing number of retailers have been unable to acclimate to the various changes in the retail sector, resulting in household names such as Toys'R'us, British Home Stores, and Seppälä disappearing from the high-street, a demise referred to as the 'retail apocalypse' (Helm, Kim, & Van Riper, 2018; Mende & Noble, 2019). At present, digitalization is one of the largest worldwide movements that is transforming the retail sector as we know it, challenging traditional business models and setting new industry standards (Hänninen, Smedlund, & Mitronen, 2018). As such, my research aims to identify the current issues that managers are facing, which should in turn, provide a better understanding of how retailers and managers can navigate the digital transformation.

Nowadays consumers are more knowledgeable than ever before, with a wider selection of options available to them they can search for products, select the optimum to meet their needs, and make a purchase at the click of a button (Stein & Ramaseshan, 2016). Digitalization affects the ways in which customers interface with a firm, which in turn impacts the customer experience. From the customer perspective, digitalization serves as a tool that supports the value creation process; enabling them to make better choices by giving them access to more information such as product attributes, comparable pricing, and customer reviews (Kestenbaum, 2018; Labrecque, Vor Dem Esche, Mathwick, Novak, & Hofacker, 2013; Lubis, 2018), as well as playing a major role in enhancing the customer experience (Balaji & Roy, 2017) and improving levels of satisfaction (Ilcus, 2018). From the firm's perspective, digitalization has transformed the entire business operation, not only in terms of the front-end capabilities that digitalization offers to its customers, but also with regards to back-end processes that make the customers' 'seamless' experience possible (Hagberg, Jonsson, & Egels-Zandén, 2017).

This topic has gained interest in research in recent years due to the implications of digitalization on the role of physical stores (Hagberg et al., 2017). Digitalization has enabled the entrance of new online players in the retail space which has presented intense competition from multi-sided platforms such as E-bay, Amazon, and Alibaba (Hänninen et al., 2018) and has also led to an increasing number of manufacturers offering their products directly to consumers via online platforms (Reinartz, Wiegand, & Imschloss, 2019). Digitalization is redefining the shopping experience, witnessing the movement from 'bricks and mortar' to 'bricks and clicks' (Picot-Coupey, Huré, & Piveteau, 2016). With technology taking over all manner of business, brick and mortar retailers have adapted their service offer in the new digital environment, increasingly digitalizing more of their business operations, a process that is widely referred to as the digital transformation of retailing (Hagberg et al., 2017).

An illustrative example of digital transformation in retailing can be taken from the UK's leading retailer, Tesco PLC, who aim at "improving and expanding Tesco's business performance by leveraging on technology to improve customer experience" (Satish & Kumar, 2015, p. 1). Early efforts in Tesco's digital transformation saw the introduction of Tesco Clubcard, Tesco's e-commerce platform, click and collect, home deliveries, and 'scan as you shop', resulting in huge successes for the firm and evoking fierce competition among UK retailers. Satish and Kumar (2015, p. 8) found that there was a consensus among Tesco management that "any future success would depend upon the successful integration of both offline and online points of contact", thus promoting the concept of multi-channel retail strategies. These new channels effect how firms interact with their customers, meaning that new forms of thinking must be employed by managers to determine how to respond to digital transformation and understand how digitalization will continue to transform the retail industry.

1.2 Research Purpose

This study focuses on the digital transformation of brick and mortar retailers with the aim of gaining a holistic understanding of retail digitalization from the managerial perspective. Though the topic of digitalization is growing in the literature, it seems that the approach to digitalization in retailing is somewhat limited, particularly when studying brick and mortar firms. To be more specific, research centres on two key areas; customer-facing technology and operational digitalization, that is, how customers use digitalization to enhance their own shopping experience (Huré, picot-Coupey, & Ackermann, 2017; Yrjölä, Saarijärvi, & Nummela, 2018a) and how operations are streamlined through technological advancements

(Willems, Smolder, Brengman, Luyten, & Schoning, 2017). However, there is little to no research on digitalization from the perspective of retail managers, despite its significance in terms of how digital technologies are assimilated into the business and the role of managers in determining the customer journey. In this sense, my research has the potential to offer new insights on this topical subject.

Another important recognition in studying digitalization is noting that the transformation of many brick and mortar retailers has happened incrementally, meaning that while some elements of the business are digital, the main proportion of their business operations are not. The issues presented by this situation are twofold. Firstly, this can lead to conflict within firms in terms of the aim of digitalizing their functions. For the top management team, it may be considered a vital part of company strategy, whereas operational managers may deem it fundamental for business processes. Secondly, there is a risk that business models will become increasingly fractured if firms are not able to integrate the digital aspects of the business cohesively within the physical stores.

An additional concern is that the term 'digital' has become synonymous with 'online platforms' and 'e-commerce', which although is an important aspect in retail digitalization, is only a one example of the digital transformation. Much research focuses on the digital transformation of retailers as almost entirely the shift to or threat of online channels, yet recent research has recognized the gap this has left in understanding the scale of digitalization (Hagberg, Sundstrom, & Egels-Zandén, 2016). Therefore, the intention will be to discover the different ways of thinking that have been adopted by managers in relation to the digital developments in the industry and to further distinguish the differences between digital and e-commerce.

The impact of digitalization on retailers has been all-encompassing, specifically in terms of rethinking business strategy, changing traditional business models, and redefining how they create the customer experience. A causal effect is that the digital transformation requires different approaches to be adopted by management. As technology continues to evolve, new competition emerges, and new channels for customer interaction develop, thus, managers will need to be flexible in their response in the ever-changing environment. For this reason, I want to study how managers perceive the digital transformation of retailing. This study will provide an insight into how managers are framing digitalization within the retail sector, as well as how they foresee the future for brick and mortar retailers. Therefore, the question that this study intends to answer is as follows:

1. How are managers framing the digital transformation of retail?

When unprecedented developments cause the world as we know it to change, old ways of working become obsolete in new contexts, and thus, our ways of thinking must change to reflect this. Examples of this can be seen from the developments in industrial manufacturing that saw a shift in manual labour jobs to knowledge-based professions, and likewise can be seen in the present day with knowledge-based jobs being replaced with artificial intelligence (Davenport, 2016). A well-known example in retail is Blockbuster who Sorescu, Frambach, Singh, Rangaswamy, and Bridges (2011) claim were reluctant to change their traditional business model, which ultimately resulted in their bankruptcy. For this reason, gaining managerial insights on retail digitalization will enable me to explore the new ways of thinking that must be adopted by managers in order for firms to respond to and thrive in the new digital environment. At present, the dynamics of these new ways of thinking are yet to be found, but through this study, I intend to conceptualize the ways that managers perceive digitalization.

The research procedure for this study involved integrating field-based insights from 26 top executives and senior managers within the retail sector across Finland and the UK with supplementary literature on the topic of retail digitalization. Through reviewing the literature, research recommendations were taken into account which illuminated how my study can answer the calls for research on this topic. Of equal importance, is that this process provided me with a solid understanding of the body of literature surrounding my study. To obtain the required information, the 26 participants were interviewed and asked questions that enabled exploration of the following four themes; managerial insight, digital strategy and management, customer experience, and omni-channel integration. As the managerial perspective is fundamental to the research aims, framing analysis was used to identify similarities and differences in managers' interpretations of retail digitalization, which helped to build a holistic picture of the most dominant frames used to understand this phenomenon.

1.3 Thesis Structure

The structure of my thesis will be as follows. First, I turn to the literature on the topic of digitalization in the context of the retail industry. At this point, I also detail my theoretical approach to the study and provide justification for my theory of choice. In the section that follows I focus on data generation to elaborate how my work was conducted and explain the data analysis process along with possible limitations of my research methods. Thereafter, I detail my findings and summarize the most prominent issues raised by retail managers. In my

final chapter, I present the discussion and conclusions drawn from my research. In this section, I also outline the theoretical contributions and propose managerial implications aimed at professionals working in the retail sector. Finally, I discuss the limitations of my study and suggest future research on the topic of retail digitalization.

2 Conceptualizing Retail Digitalization

The beginning of the research process started with an extensive review of the literature on the topic of digitalization. The search terms included, "retail digitalization", "omni-channel retailing", "mobile shopping", "online shopping", "e-commerce of retail", and "brick and mortar retailers", to name a few. This helped me to understand the vast range of topics that have been analysed in relation to retail digitalization, further narrow down the specific areas that require further exploration and understand where my research would be situated within the academic field. In this chapter I conceptualize retail digitalization through synthesizing the current literature on this topic.

2.1   Contextualizing the Research

Retail has long been a highly competitive industry, with stores positioning their brands on the highstreets and buying power playing a major role in gaining a competitive advantage. The so-called 'race to the bottom' has been a central feature in the retail industry, with large retailers using economies of scale to keep suppliers' prices low and margins high (Duke, 1992), while maintaining low costs to beat competitors and entice customers (Retail Systems Research, 2012). Though this battle continues, digitalization has begun to change the playing field in terms of the role of the retailer, particularly at the retailer-customer interface (Hagberg et al., 2016; Reinartz et al., 2019). Some of the key changes witnessed in the retail industry include online stores taking market share from physical stores (Hänninen et al., 2018), suppliers and small independent manufacturers selling products directly to customers via online platforms (Reinartz et al., 2019), and the increasing complexity of consumer shopping behaviour (Huré et al., 2017; Fuentes, Bäckström, & Svingstedt, 2017). As such, digitalization plays a major role in challenging traditional ways of working, setting new industry standards, and has caused a dramatic shift in the ways in which retailers position their offer in the market.

Put simply, the term 'digitalization' refers to the "conversion of analogue information into digital information" (Ilcus, 2018, p. 350). This, however, does not capture the meaning of digital transformation in terms of its overall impact in retailing. In line with Hagberg et al. (2016, p. 696) this research focuses on digitalization as "the integration of internet-connected digital technologies in particular on the interface between retailers and consumers". One point that is worth reiterating is that the use of the term 'digital' is not limited to online or mobile shopping, though they are major components in the digital transformation of brick and mortar retailers in terms of the customer experience and interaction with a brand. Hagberg et al. (2016)

further that digitalization offers much more than an online platform and claim that this movement will have a profound impact on retailers, consumers, employees, and society, and advocate the further exploration of the digital transformation.

2.2 Disruption at the Retail-Customer Interface

It is important to recognize that the concept of digitalization in this sector is not new and has long impacted on business processes and the customer experience. A detailed account of technologies used in the retail sector is provided by Dawson and Sparks (1986) who begin by discussing early innovations adopted by retailers, and continue by focusing more specifically on the digital transformation of 'micro-electronic based computing' and 'micro-electronic communications' that were initially utilized with the aim of reducing direct and indirect costs. Examples of such technologies include payment systems, energy management systems, and computer-based planning systems (Dawson & Sparks, 1986). Duke (1992) noted that the retail industry experienced a dramatic increase in new technology from 1980 into the 1990s, with one of the biggest transformations being the introduction of 'Electronic Points of Sale' (EPOS), more commonly referred to as 'check-outs'. Inman and Nikolova (2017) claim that the installation of EPOS paved the way for the technological advancements that followed.

The next major phase of digital development saw the influx of the first self-service technologies in supermarket retailers in 1992 with the implementation of self-service checkouts. This technology enables one employee to manage between four to six cashiers simultaneously while shoppers scan and bag their own products (Inman & Nikolova, 2017). Several studies detail the benefits for both retailers and customers using self-service checkouts, these include more efficient service (Dabholkar, Bobbittt, & Lee, 2003; Demirci Orel & Kara, 2013), simplicity (Inman & Nikolova, 2017), and convenience for the customer (Amorim, Lago, Moscoso, & Preito, 2016; Cassidy, Baron, & Lu, 2015) as well as; reduced labour costs (Demirci Orel & Kara, 2013; Inman & Nikolova, 2017), improved efficiency (Amorim et al., 2016), and increased productivity for the retailer (Cassidy et al., 2015). These benefits have been tangible for retailers and customers alike and have served as an influencing factor in the journey of innovating and adopting new technologies. However, as with many new technologies, there are notable challenges that have limited widescale adoption, with the most commonly cited issue being lack of customer willingness to use the technology (Cassidy et al., 2015; Cooper & Hoffman, 2000), (please see section 2.3.2 on customer acceptance and adoption of technology). Other challenges that have hindered digital development in retail can be attributed to the large investments required on the part of the retailer coupled with limited

technical capabilities. However, Porter and Heppelmann (2014) suggest that these barriers have been largely overcome, meaning that the implementation of digital technology is now feasible both economically and technically.

Since the phrase was coined by Kevin Ashton in 1999, there has also been a surge in interest on the 'Internet of Things' (IoT) which has made digitalization more affordable for retailers and more accessible to the everyday customer (Fagerstrøm, Eriksson, & Sigurðsson, 2017). According to Balaji and Roy (2017, p. 7), IoT is "a paradigm where everyday things or objects are embedded with technology that equips them with sensing, identifying, networking and processing capabilities which enable them to communicate with other devices and services over the internet to accomplish objectives". Typically, much of the information about the customer could be gained at the point of sale, however, IoT presents the opportunity to interact with customers in real-time at any point in the customer journey (Fagerstrøm et al., 2017). Even though the potential of IoT has been recognized among retailers, customers, and researchers, there is still work required to better understand how it can be comprehensively assimilated into retail operations to create value (Fagerstrøm et al., 2017).

With the host of new technologies available as well as opportunities presented by IoT to enhance existing parts of the store, the impact of digitalization on brick and mortar retailers has been all-encompassing. Research has already acknowledged its far-reaching effects on retail value-chains (Hagberg et al., 2016); business models (Sorescu et al., 2011; Matzler, Eichen, Anschober, & Kohler, 2018), channels for customer-interface (Brynjolfsson, Hu, & Rahman, 2018; Yrjölä et al., 2018), and customer experience (Fuentes et al., 2017; Hagberg et al., 2017). Though the overall impact on retailers is yet to be analysed due to the speed in which digital technology has advanced and the progressive nature of digital development. Table 1 provides an overview of the key literature on retail digitalization used in this study. All articles included in this list have contributed toward building the case for this research and gaining an understanding of retail digitalization.

2.2.1 The Growth of E-commerce

Almost parallel to the growing literature on digitalization has been the extensive research on the e-commerce of retailing and the disruption that this has caused on the traditional consumer buying process and retail business models (Brynjolfsson et al., 2018; Hagberg et al., 2017; Reinartz et al., 2019; Saarijärvi, Kannan, & Kuusela, 2013). Early research on brick and mortar

Table 1. Main literature contributing toward the understanding of retail digitalization

Literature	Conceptualization/Research Perspective on Phenomenon	Research Design	Problematization of Phenomenon	Contribution
Hagberg, Sundstrom, & Egels-Zanden (2016)	"digitalization refers both to a transformation from "analogue" to "digital" (e.g. a shift from cash to electronic payments) and to the facilitation of new forms of value creation (e.g. accessibility, availability, and transparency)" (p.696)	Conceptual paper	The digital transformation of retail has impacted on retail exchange, offering, setting, and the actors (retailers and consumers)	- Develop a conceptual framework to analyse the current retail transformation -Guide future research and retail practitioners
Hänninen, Smedlund, & Mitronen (2018)	"Digitalization has accelerated the shift from product- to service-based businesses, affecting fundamentally how firms compete and transact with consumers" (p.154)	-Conceptual paper and literature review - Qualitative case study	Digitalization requires reconfiguration of business models and redefinition of transaction logic of retailing	-Provide an overview of how digitalization is changing retail exchange logic -Help practitioners to understand how to respond to changes in the retail environment
Helm, Kim, & Riper (2018)	"Due in part to the introduction of the Internet in the past decades and increased competition, the power structure between consumers and retailers has arguable tilted in favour of the customer" (p.1)	-Qualitative data collection (online customer interviews) - Secondary data collection (customer feedback)	Digitalization has caused consumer shopping behaviour to change, showing a growth in online shopping and leading to the demise of physical retail stores	-Develop a framework of customer evaluations on the current reshaping of the retail environment - Better understand the changing role of the customer to a 'change agent'
Inman & Nikolova (2017)	"new technologies provide value by either increasing revenue through (a) attracting new shoppers, (b) increasing share of volume from existing shoppers, or (c) extracting greater consumer surplus, or decreasing costs through offloading labor to shoppers" (p.7)	-Literature review -Quantitative data analysis	Digitalization has caused retailers to assess the benefits of new technologies in terms of firm value, however, retailers should evaluate the adoption of shopper-facing technology based on shoppers' perceptions	Develop a framework for examining consumers' perceptions of shopper-facing technologies (influencing factors include; distributive fairness, satisfaction, value perception, trust, commitment and loyalty)
Picot-Coupey, Huré, & Piveteau (2016)	"Indeed, consumers can nowadays ubiquitously access the internet thanks to an increasing number of digital devices. So they expect to be able to consistently, interchangeably and simultaneously use an ever-growing number of offline, online and mobile channels and touch points when shopping" (p.337)	Longitudinal case study (observations, interviews, and secondary data)	As digital technologies continue to develop, retailers are faced with the challenge of how they deliver the omni-channel experience through channel design	-Provides conceptualization of different retail channels and associated channel strategies -Provides insights into how to navigate the transition to omni-channel retailing
Piotrowicz & Cuthbertson (2014)	"The increased deployment of new technologies such as smart mobile devices and social networks and the growing importance of in-store technological solutions create new opportunities and challenges for retailers. As the line between online and physical channels is blurred, a new approach to channel integration is emerging—the omnichannel, which aims to deliver a seamless customer experience regardless of the channel." (p.1)	Qualitative data collection (focus group discussions)	Retail digitalization is placing increasing pressure on retailers to integrate channels and consider the future of retail, yet retailers are unsure of how to navigate the changes in the retail environment	-Provide an overview of the changes taking place in the retail environment with focus on the role of information technology -Develop a framework of key themes emerging in the retail sector that demand attention from retailers
Reinartz, Wiegand, & Imschloss (2019)	"Digital technologies enable new forms of market behaviors, interactions, or experiences and reshape customer relationships, internal processes, and value propositions" (p.4)	Conceptual paper	Digitalization has disrupted the traditional customer-retail interface and enabled new forms of value creation	Develop a framework that identifies 5 new sources of value creation (automation, individualization, ambient embeddedness, interaction, transparency & control) to be utilized by retailers to gain competitive advantage
Sorescu, Frambach, Singh, Rangaswamy, & Bridges (2011)	"The growth of the Internet has powered upheavals in the retail landscape that are revolutionary in scope, and unprecedented in nature. Some firms have created new markets, such as Apple with iTunes, and some have changed existing markets, such as Priceline.com. Today, most large retailers have morphed into multichannel firms, where the same customer visits the retailer via different channels for different purposes" (p.3)	Conceptual paper	Digitalization has contributed toward the shift in retail activities and processes, meaning that to gain competitive advantage, retailers must innovate their business models	Develop a framework for retail managers to guide retail business model innovations
Verhoef, Kannan, & Inman (2015)	"In recent years, we have observed a further digitalization in marketing and retailing with specific challenges. More specifically, with the dawn of the mobile channel, tablets, social media, and the integration of these new channels in online and offline retailing, the retail landscape continues to change. The popular press is suggesting that we are moving from a multi-channel to an omni-channel retailing model" (p.174)	Conceptual paper	Digitalization has continued to disrupt the retail sector, effecting business models and customer behaviour	Provide an overview of multi-channel retailing, while considering the shift to the omni-channel to help guide research in this area
Von Briel (2018)	"Driven by continual advances in digital technologies, the number of new channels keeps growing. As a result, while a simplistic distinction between online and offline channels was sufficient in the early 2000s, today a more nuanced view of online channels must distinguish among web stores, mobile apps, and social media" (p.217)	A four stage Delphi study	Digitalization has enabled the transition to the omni-channel. Four study insights require recognition: creating holistic consumer experiences, developing human capabilities and changing organizational mindset, reinventing physical stores, and shifting to new retail business models	-Proposes that research needs to promote better understandings of how touchpoints interact across-channels -Helps to form an understanding of how traditional retail business operations need to change with regards to the four insights that emerged from the study
Willems, Smolders, Brengman, Luyten, & Schoning (2017)	"With the increasing adoption of digital technologies by physical retailers, technological aspects become ever more important elements in customers' encounters, and this at different touch points along the customer journey" (p.231)	Literature review and affinity diagram	Digital technologies employed by retailers primarily offer utilitarian value, cost savings and convenience, with only few offering hedonic value opportunities.	-Explore the conditions when new technologies will enhance the offline shopping experience. - Draws attention the retail technologies, highlighting their strategic potential - Provides an interdisciplinary inventory of retail technologies
Yrjölä, Saarijärvi, & Nummela (2018)	"Newer technologies, business models, and predictive analytics are reshaping the boundaries of retailing, and as a result, retailers are provided with ample tools to generate differentiating value for customers and build deeper customer engagement" (p.1133)	Conceptual Paper (case examples)	Digitalization offers retailers new opportunities for value creation through various channels, yet many retailers are digitalizing processes without clear purpose.	Provide a framework that can be utilized by retailers to understand different channel strategies and their associated CVPs.

retailers expanding their offers in e-commerce channels claimed that they would begin cannibalizing their own stores through introducing online channels (Enders & Jelassi, 2000). Though there is much debate around this subject, with some advocating that adding an online channel complements the physical store offer (Herhausen, Binder, Schoehel, & Herrmann, 2015), which can in turn increase store footfall and improve the customer-retailer relationship (Doherty & Chadwick, 2010), while others persist that over time online channels cannibalize physical stores (Hernant & Rosengren, 2017).

Since the 'e-tailing' boom of the millennium there have been many predictions about the impact of e-commerce on the retail sector (Burt & Sparks, 2003). Doherty and Chadwick (2010) predicted that over half of the UK population would engage in online shopping by 2013, estimating an 11.5% increase in online consumers from 2011-2013. Recent figures show that the rate of growth surpassed this prediction, and that in 2017 consumers engaging with online shopping was at 82% in the UK and 61% in Finland (AudienceProject, 2017). Even though a lower percentage of the Finnish population were utilizing e-commerce channels in 2017, the proportion of total business turnover was higher, at 21% (Eurostat, 2019), compared with 16.5% in the UK (Office for National Statistics UK, 2018). It has been suggested in research that the increasing rate of growth in internet usage and online shopping will render many brick and mortar firms obsolete if they are unable to adapt their offering to meet consumer preferences (Helm, Kim, & Van Riper, 2018). According to multiple studies, online based retailers or 'pure plays' such as Amazon, Zalando, and ASOS pose serious threats to physical stores as they have lower overheads (Reinartz et al., 2019), can offer cheaper prices (Brynjolfsson et al., 2018), and claim to deliver more transparency for customers (Reinartz et al., 2019; Yrjölä et al., 2018). An example of such a threat is highlighted in a study by Brynjolfsson et al. (2018), who found that a common feature of modern shopping is for customers to go in-store to find their preferred product, then purchase the same product online in favour of cheaper pricing.

Other forms of competition have also emerged such as manufacturers selling their products directly to consumers via online platforms (Cattani, Heese, Gillan, & Swaminathan, 2006; Reinartz et al., 2019). This has given manufacturers the opportunity to reach customers without the need for retailers as the 'middlemen' to realize transactions (Doherty & Chadwick, 2010), a process referred to as 'disintermediation' (Alba et al., 1997). Reinartz et al. (2019) note multiple benefits for manufactures who sell in dual channels including; better understanding of their customers, more insights for product development, and higher margins. Thus, not only are traditional brick and mortar retailers trying to contend with pure plays, but

in some cases, they are even competing with their own suppliers. Reinartz et al. (2019) further that in this sense the retailer-customer interface has been affected as customers can interact directly with suppliers and manufacturers, meaning that through digitalization new value propositions have been made possible (please see section 2.2.3 on value creation).

Various growing threats have forced retailers to improve their digital capabilities in response to both direct and indirect competition. Walsh and Godfrey (2000, p. 90) claim that retailers' adoption of new digital tools was already in development prior to the rise of e-commerce, however, the threats posed by multi-sided retailers created a "new urgency and interest in them". With increasing competition from online retailers, retailers who conduct their operations predominantly in physical stores have broadened their offering through new channels (Hagberg et al., 2016). For brick and mortar retailers it is becoming industry standard to have an online offering (Doherty & Chadwick, 2010), this can range from a simple landing page that allows customers to find stores and search for product information, or more complex integrated services such as 'webshops' that display the entire instore range online, offer online payment and home delivery services. Despite the extant literature and news headlines on the 'death of the high street' (Baggi, 2014) and the 'retail apocalypse' (Helm et al., 2018; Mende & Noble, 2019) which have been in part attributed to the rise of e-commerce (Willems at al., 2017), there are also more conservative responses suggesting that the hysteria surrounding the decline of the high street has been overemphasised and blown out of proportion (Doherty & Chadwick, 2010). Furthermore, the most recent research on this subject has begun to recognize e-commerce not so much as a threat to brick and mortar retailers, but in fact as an opportunity, offering another channel they can use to interact with their customers, and thus, leveraging their position in the market (Brynjolfsson et al., 2018; Hagberg et al., 2016; Willems et al., 2017).

2.2.2 Omni-channel Retailing

The latest in the turmoil of disruption has been the increasing number of studies that refer to cross-channel (Chatterjee, 2010; Picot-Coupey et al., 2016), multi-channel (Fornari, Fornari, Grandi, Menegatti, & Hofacker, 2016; Verhoef, Kannan, & Inman, 2015), and omni-channel retailing (Brynjolfsson et al., 2018; Huré et al., 2017; Picot-Coupey et al., 2016; Von Briel, 2018; Willems et al., 2017; Yrjölä et al., 2018). Though there are some distinct differences between these multiple channel strategies (see e.g. Picot-Coupey et al., 2016; Yrjölä et al., 2018), the main similarity is the use of technology to integrate resources to build customer value and create a unique customer experience (Blitz, 2016; Yrjölä et al., 2018). The most

commonly cited channel approach in recent literature is 'omni-channel retailing', which is said to offer a 'seamless' experience for the customer between physical, online, or mobile touchpoints (Chatterjee, 2010; Huré et al., 2017; Jocevski, Arvidsson, Miragliotta, Ghezzi, & Mangiaracina, 2019; Verhoef et al., 2015; Yrjölä et al., 2018). Though there are many definitions, Verhoef et al. (2015, p. 175) astutely label it as "the synergetic management of the numerous available channels and customer touch points in such a way that the customer experience across channels and the performance over channels is optimized". To express the increasing connectivity across the business using digital technologies, researchers suggest that omni-channel supports the creation of "brand ecosystems", meaning customers should be able to interact with a brand through various channels in a frictionless manner (Huré et al., 2017; Picot-Coupey et al., 2016).

The motivation for retailers to digitalize processes are plentiful, with some main drivers including improving customer experience (Reinartz et al., 2019), increasing customer retention through customer satisfaction (Ilcus, 2018), the capability to predict customer behaviour (Hagberg et al., 2017), improving cost efficiency (Willems et al., 2017), and streamlining processes (Hagberg et al., 2016; Sorescu et al., 2011). Despite the potential to achieve many benefits for both the customer and the retailer, the main challenge that retailers are facing is understanding what digitalization means for their firm and knowing which digital technologies to include in their arsenal. According to Jocevski et al. (2019), assimilating digital into the business not only calls for a revision of business strategy, but a re-evaluation of existing retail business models in the shift to omni-channel. Furthermore, Inman and Nikolova (2017, p. 7) claim that "retailers are understandably overwhelmed by the options and may adopt technologies without a clear picture of both how they fit into their strategy and, potentially more important, how shoppers will react".

Regardless of the unknown path to achieving omni-channel retailing, it is fast becoming the recommended strategy to implement in an effort to build a superior customer experience and gain a competitive edge (Brynjolfsson et al., 2018). Yrjölä et al. (2018) highlight several channels available for retailers such as websites, phone applications, pick up points, and social media sites, all of which are made possible through the developments in digital technologies. These technologies blur the lines between virtual and physical as brick and mortar stores expand their online offering and utilize more digital tools in stores (Piotrowicz & Cuthbertson, 2014). Saghiri, Wilding, Mena, and Bourlakis (2017) claim that the omni-channel experience should allow customers to choose their own path to purchase, for example; a customer may prefer to browse products on the manufacturer's website, order through an online merchant,

and receive the product through an independent courier. When employed, omni-channel strategies such as this can provide several benefits for the customer including; transparency, cost savings, and a more convenient purchasing process (Piotrowicz & Cuthbertson, 2014). An example of digital technologies implemented in store is provided by Yrjölä et al. (2018) who discuss the digital dressing rooms used by US fashion retailer, Rebecca Minkoff. This technology is said to provide customers with functional benefits such as the ability to view product information and to contact a service assistant from their dressing room; as well as more personal services that create emotional value such as ordering drinks and controlling the lighting to change the ambience (Yrjölä et al., 2018).

Although there are associated benefits for the customer, retailers face a whole host of challenges when it comes to realizing the omni-channel experience (Picot-Coupey et al., 2016). With the creation of new technologies and channels to interact with customers, retailers feel the need to increasingly integrate their business; a move that requires reconfiguration of traditional business models to prevent the business working in 'silos' (Piotrowicz & Cuthbertson, 2014; Verhoef et al., 2015). Yet, making large scale changes of operations requires huge investments in technology as well as the willingness to change (Jocevski et al., 2019; Sorescu et al., 2011). Sorescu et al. (2011, p. 12) claim that "path dependencies and prior investments may limit a retailer's flexibility to make significant changes to its prevailing logic of value creation and appropriation". Moreover, Hänninen et al. (2018) recognize the challenges facing personnel, more specifically, they suggest that retail managers must be flexible to adapt to the ongoing changes in the retail space, as well as understand new business models so that they are able to meet customer expectations. Thus, creating the omni-channel not only requires technical capabilities, but also a readiness to change, and the finances to support the digital transformation. Brynjolfsson et al. (2018, p. 24) claim that with the growth of omni-channel retailing "the distinctions between physical and online will vanish, turning the world into a showroom without walls", but how to make this an actuality is an ongoing challenge.

2.2.3 Value Creation: Challenges and Opportunities

One major influential factor in the adoption of digital technologies is the growing consensus that digitalization supports different types of value creation (Balaji & Roy, 2017; Reinartz et al., 2019; Saarijärvi et al., 2013). In research, the concept of 'value' has been unclear, with many definitions assigned over the years due to its complex and multidisciplinary nature (Sánchez-Fernández & Iniesta-Bonillo, 2007). Traditionally, value was considered

transactional, meaning that value was delivered by the firm to the customer at the point of transaction, a concept widely referred to as 'value-in-exchange' (Grönroos, 2008). However, more recent research has begun to recognize 'value-in-use', which refers to the idea that value creation is an interactional process and that value is in fact determined by the customer (Khalifa, 2004; Rintamäki, Kuusela, & Mitronen, 2007; Saarijärvi, 2012). This prevailing view has stirred discussions on how retailers can utilize digital tools in their value propositions. A comprehensive overview of value creation opportunities for retailers is provided by Reinartz et al. (2019, p. 6) who advance that digital tools allow them to enhance their service offering through "automation, individualization, ambient embeddedness, interaction, and transparency and control". Reinartz et al. (2019, p. 5) provide a conceptual framework of the value chain that details the digital capabilities for retailers and the subsequent effect on customers and the market. From this framework, three key themes were identified as having prominence across various literature on retail digitalization, these include automation, individualization, and interaction. Thus, this framework will be used as a foundation to further explore the 'sources of value creation' that are available to retailers.

Automation

One of the most prominent and longstanding digital transformations for brick and mortar retailers has been the process of automation which to date is considered to mostly deliver utilitarian value (Willems et al., 2017). In this sense, utilitarian value refers to task-related, functional benefits such as convenience and efficiency, as oppose to hedonic value which emphasises the emotional and experiential benefits like pleasure and fun (Babin, Dardin, & Griffin, 1994). Matzler et al. (2017, p. 15) suggest that the current stage of automation is still in its infancy, claiming that the next stages of retail automation are said to include "industry 4.0, Big Data, algorithms and artificial intelligence" being used to drive decision making. In its current form, automation is the process by which retail activities can automatically operate without human intervention (Reinartz et al., 2019). A typical example of retail process optimization using digital technology is automated inventory replenishment systems that can be used to manage stock replenishment orders in retail stores. Despite several associated drawbacks highlighted by Van Donselaar, Gaur, Van Woensel, Broekmeulen, and Fransoo (2010), such as system inadequacy or managers overriding the system to retain product surplus, this technology is widely used by large retail chains to increase efficiency of stock management. The source of value in the case is automation, the result is the creation of firm value through cost savings (be it less waste of consumables or reduced labour) and customer

value through convenience of having products that they require readily available in the store. Reinartz et al. (2019) further that search convenience, purchasing convenience, and use convenience are key customer benefits that can be achieved through automation, which create functional value.

A more recent innovation that illustrates customer-facing automation is the use of electronic shelf labels (ESLs). ESLs serve the same purpose as paper price tags in that they show product pricing and information, but rather than being static, printed on paper and replaced by hand, ESLs are digital devices that retailers can use to update product pricing and information instantaneously through the use of digital transmitters (Soutjis, Cochoy, & Hagberg, 2017). Several benefits of this technology are highlighted by Garaus, Wolfsteiner, and Wagner (2016) such as elimination of price discrepancies, real-time stock availability within the store, and the ability to make easy price adjustments, which are said to deliver utilitarian value for both the firm and the customer. Though the benefits of such digital technologies are recognized, Garaus et al. (2016) along with several others (Soutjis et al., 2017), note the lack of widescale adoption of this technology. Reasons for the "resisted evolution" of digital pricing are largely due to the initial investment costs as well as the lack of understanding about how consumers will perceive the introduction of this technology (Garaus et al., 2016; Soutjis et al., 2017). Thus, though there is potential to implement a dynamic pricing solution through digital technologies and automation, retailers must consider how this technology will be perceived by their customers before making any significant investments (Grewal et al., 2011).

Individualization

According to Reinartz et al. (2019), individualization includes personalization and customization of the shopping experience, both of which emphasize customer preferences and the relevance of the content shared with the customer. Personalization has long been recognized as a key source of value creation, even before the millennium retailers believed that they could better serve their customer by approaching them as individuals and making their interactions catered to their specific wants and needs (Burke, 2002). At this time, 'personalization' was based around the concept of 'SERVQUAL' (see Parasuraman, Zeithaml, & Berry, 1988), and determined as the "the social content of interaction between service employees and their customers", thus, the emphasis was placed on human interaction to ensure a positive customer experience (Mittal & Lassar, 1997, p. 96). Though certain elements of SERVQUAL are applicable today when considering the process of personalization, the dimensions utilized in

this original model are antiquated due to the new channels created at the retail-customer interface, whereby personalization can take place without the need for human interaction. 'Empathy' for example, one of the components of SERVQUAL, is challenging to imitate if there is no human encounter in the purchasing process. As we move further away from human-to-human interaction at the retailer-customer interface, increasingly shifting to technological solutions such as scan and go, self-service checkouts, and mobile shopping, technology enables new forms of personalization and serves as a facilitator of value creation (Reinartz et al., 2019).

Due to the shear amount of customer data available to retailers and new channels for interaction, information such as purchase history can be used by retailers to make customer communications more relevant (Inman & Nikolova, 2017). In recent years there has been increasing recognition from retailers that digital marketing can be used to create a more personalized shopping experience for their customers, which Homburg, Jozić, and Kuehnl (2017) suggest is aiding the transition from transactional business models to more relational models. Examples of such technology include personalized communication with customers through email which are largely automated through customer relationship management systems. Personalized messages can include propositions to support an existing purchase such as offering associated sales, sending coupons to be redeemed in-store, or providing information about products and promotions (Huang & Shyu, 2009). This type of personalization enhances customer interaction with a retailer by connecting both the in-store and online experience which helps to build a brand ecosystem (Reinartz et al., 2019).

Personalization takes place predominantly from the direction of the retailer to the customer, in that the retailer uses their knowledge of the customer to share relevant information. Conversely, customization can be determined from the customer to the retailer with the use of digital technologies (Burke, 2002). Examples of customization include building shopping lists using retailer applications (Inman & Nikolova, 2017), creating 'wishlists' when online shopping (Walsh & Godfrey, 2000), or even more elaborate offerings such as designing your own products as illustrated by Nike ID who allow customers to customize their own shoes (Ramaswamy, 2008). Reinartz et al. (2019) assert that customization offers a multitude of value creation opportunities, more specifically, the chance to create emotional, cognitive, and relational value. Ramaswamy (2008) further that utilizing digital tools that offer personalization and customization are important retail activities that help in gaining competitive advantage as the emphasis shifts from 'products' to 'customer experience'.

Interaction

With the growing interest in omni-channel retailing and continuous developments in digital technologies to make the omni-channel a reality, now more than ever retailers are inundated by the options available to interact with their customers. From the retailers' perspective, opportunities to interact with customers are widely referred to as 'customer touchpoints', which are defined as "an episode of direct or indirect contact with a brand or firm" (Verhoef et al., 2015, p. 175). Reinartz et al. (2019) claim that digital technologies offer multiple customer touchpoints which can maximize interaction with customers, leading to better customer relationships and stronger brand association. Moreover, Picot-Coupey et al. (2016) profess that offering customers more opportunities to interact with a retailer may encourage cross-channel purchasing, thus, maximizing firm value. Digital technologies have also enabled new types of interaction to take place in the retail space, no longer are interactions limited to one-way communication from retailers to customers, but now, two-way interaction can take place between the customer and the retailer, as well as among retail customers (Verhoef et al., 2015). Hänninen et al. (2018) further that through social media, discussion boards, and feedback systems, new forms of social value can be created through the interactions between customers.

Scholars have already acknowledged that technology enriched experiences allow customers to take on new roles in the value creation process (Balaji & Roy, 2017; Ramaswamy, 2008; Saarijärvi, 2012; Saarijärvi et al., 2013). This new outlook can be partly attributed to the process of digitalization, which Saarijärvi et al. (2013) claim has enabled more opportunities for 'value co-creation' through providing tools that customers can use to facilitate value creation. Value co-creation is a complex process that refers to customer and firm collaboration through utilizing various tools that create value for both parties. Activities that are said to co-create value include co-production (customer participation in production) and co-design (customer involvement in the design process) (Saarijärvi, 2012). In their study, Balaji and Roy (2017) explore the concept of value co-creation by taking a customer perspective and focusing specifically on IoT retail technology. Drawing on service-dominant logic they conceptualize customer value creation when utilizing IoT technology compared with the existing retail technologies, and their results suggest that IoT enables superior customer value creation which leads to a better overall shopping experience (Balaji & Roy, 2017). Another more explicit example is provided by Saarijärvi et al. (2013) who details Dell's Ideastorm platform, which serves as a tool to connect the firm with its customers. This channel gives customers the opportunity to provide feedback about Dell products, while enabling the firm to gain insights

into how their customers feel about their offering. Through the use of technology, customers are "provided with a sense of belonging and empowerment and the firm gains access to customer resources; customers' thoughts and ideas about Dell's products" (Saarijärvi et al., 2013, p. 13). Thus, digital tools have changed the role of the customer in the value creation process, moving from being 'passive' to more actively involved in building their own experience with a brand (Saarijärvi, 2012).

Another major innovation that has had a significant impact on the retail sector is the use of smartphones that serve as an important channel for customer interaction, meaning that communication with customers can take place in store or on the go (Fuentes et al., 2017). The use of smartphones in retail has stirred much interest in research, with 'm-shopping', 'm-services', and 'm-commerce' receiving much recognition and exploration (Groß, 2015). In the retail context, Fuentes and Svingstedt (2017, p. 137) refer to smartphones as "multipurpose shopping tools" that can be used to complete various activities such as; browsing to learn about products and services, for price comparison, to make payments, and to leave product reviews. Taylor (2015, p. 172) gives several examples of how smartphone technology presents the opportunity to transform brick and mortar retailers including, "endless aisle", "click and collect" and "mobile wallet". Smartphone technologies are growing, offering retailers myriad opportunities for value creation and customer interaction.

Shankar, Venkatesh, Hofacker, and Naik (2010) highlight that historically the most important factor in gaining competitive advantage was a retailer's location on the high-street, however, smartphones have turned the tides in this area as they enable interaction to take place anytime, anywhere. Smartphones provide retailers the opportunity to interact with customers at different points in the customer journey. Yang (2010) suggests that m-shopping can act as a personal assistant for customers, offering real-time retailer-customer interaction, sending personalized mobile marketing, and providing useful information to assist a purchase. One way in which this can be achieved in store is through proximity marketing. On this topic, Inman and Nikolova (2014) explore the different digital tools that can be used by retailers to make this a reality, one such innovation includes 'smart shelves' that use iBeacons and Bluetooth to connect with a customer's smartphone, offering relevant promotions and product information based on the customer's location in the store. Through integrating digital tools into the in-store experience, customers are able to use their own devices to improve their shopping experience, while the retailer is able to interact with the customer in real-time with relevant information.

There is much debate in the literature around customer motivations to use smartphones in the retail experience and the benefits they receive for utilizing this technology, specifically

around hedonic and utilitarian value (Fuentes & Svingstedt, 2017; Holmes, Bryne, & Rowley, 2013; Lee, Dong, & Chen, 2012; Yang & Kim, 2012). Through conducting a study on how consumers utilize mobiles for shopping, Holmes et al. (2013) found that customers consider convenience and accessibility to be the key benefits of using smartphone technology. Though they argue that if customers only associate smartphone usage with utilitarian value, this may deter customers from utilizing devices in the shopping process (Holmes et al., 2013). The findings of Lee et al. (2012) concur that the utilitarian perception of smartphone usage in retail has a negative impact on customer experience, in their research they also found that hedonic factors are more positively associated from the customers' perspective. Yang and Kim (2012) take a different position, claiming that utilitarian and hedonic aspects are not mutually exclusive, and both must be taken into consideration when integrating smartphone technology into the brick and mortar retail experience. Therefore, even though smartphones present the possibility to effectively interact with customers, the ways in which customers perceive the value they gain from using smartphones in the retail environment impacts on customer engagement with the technology.

Holmes et al. (2013) claim that despite the potential of smartphone technology, the adoption of smartphones in the retail sector has been slow, with many setbacks, and negative associations with different aspects of the technology including trust, excitement, and friendliness. Taylor (2015), for instance, focuses her research on retailers use of mobile payments, highlighting that retailers need to focus their efforts on managing the risks around the use of mobile technology. She furthers that customer adoption of new technologies relies around 'trust and security', and without mitigating the associated risks, customers will not embrace new innovations. Though there is much research on smartphone technology, it would be fruitful for further research to make recommendations to retailers on how to best find a balance between utilitarian and hedonic features, as these aspects are integral to customer adoption, and thus, the success of the smartphone integration.

2.3   The Retail Customer

Whichever strategy traditional retailers adopt, they must mobilise their organizations into thinking and acting differently. The internet has changed the retail environment. The balance of power has shifted. The customer reigns. Traditional retailers must respond to these changes or they are in danger of becoming extinct.

(Walsh & Godfrey, 2000, p. 91–92).

This quotation captures the profound impacts of digitalization on brick and mortar retailers, showing a shift in power from the retailer to the customer. This move has widely been referred to as 'consumer power' (Doherty & Chadwick, 2010; Hagberg et al., 2016; Helm et al., 2018; Labrecque et al., 2013), calling for a change in organizational mindset and forcing retailers to reconfigure their operations in a bid to sustain competitive advantage. The modern-day retail customer is sophisticated and knowledgeable, equip with product information before they even enter the store, and in many cases better informed than retail employees (Ramaswamy, 2008; Stein & Ramaseshan, 2016). Instigated by technological innovations, the role of the retail customer has changed, moving from a passive consumer to an active participant in creating the customer experience (Ramaswamy, 2008; Saarijärvi, 2012). Reinartz et al. (2019) further that digitalization has provided customers with more transparency and control. Through online services, customers have access to product information and pricing, and communication can take place between consumers, leading to a situation where the customer is king (Kim & Aggarwal, 2016) as they are empowered with knowledge, options, and a voice to share their experiences with the world (Helm et al., 2018).

2.3.1 Customer Experience

The subject of customer experience or 'CX' as it is commonly referred to in both theory and practice, is highly topical, with retailers taking a customer-centric approach and focusing their efforts on improving the overall shopping experience. Customer experience is said to be "holistic in nature and involves the customer's cognitive, affective, emotional, social and physical responses to the retailer" (Verhoef et al., 2009, p. 32). Bustamante and Rubio (2017) further explore the concept of customer experience, considering multiple approaches including the stimulus, interaction, sensemaking, dyadic, service-eco-system, and customer-ecosystem perspectives. Yet their focus takes a sense-based approach which lays emphasis on the fact that both internal and external components impact on the customer experience, as the social element is determined by the customers' interaction while they are in store (Bustamante & Rubio, 2017). This highlights that there are elements in creating the customer experience that are both controllable and uncontrollable for the retailer. Other insights on the topic, propose that both 'customer experience' and 'marketing activities' are the predecessors to 'customer experience management' (Homburg et al., 2017), which is referred to as "the process of strategically managing a customer's entire experience with a product or company" (Schmitt, 2003, p. 17). What is emphasized here is the retailers' role in managing the customer experience,

assimilating old and new aspects of the business together while controlling the environment (be it online or physical) to the best of their abilities to make a superior customer experience.

A combination of changing customer behaviour coupled with the cascade of new technologies has urged retailers to take an outside-in perspective, meaning that in the bid to create value for their customers, retailers must adapt to the external changes in the environment (Sorescu et al., 2011). Willems et al. (2017) use the term 'competitive imperative' in reference to technologies that retailers are required to invest in as they become the norm to meet the minimal expectations of the retail customer, examples of this include barcode scanners and checkouts. Retailers that wish to remain at the forefront of the industry in terms of retail innovations may choose to adopt an outside-in approach so they can lead the way in terms of early technology adoption and creating the new competitive imperatives for the retail sector.

With fierce competition in the retail sector and increasing customer expectations, retailers recognize the importance of creating a customer experience to improve customer satisfaction and maintain market share (Grewal, Levy, & Kumar, 2009). Piotrowicz and Cuthbertson (2014, p. 8) note that "customers expect consistent, uniform, integrated service and experience, regardless of the channel they use", hence, the ways in which the customer experience is created is to some extent dictated by the customer as retailers must meet customer demands. This view is supported by other researchers who highlight the importance of "easy interactions between the customers and the firm, consistency of the message across all the communication channels, providing multiple channels to interact and shop, and finally being responsive to customer needs and feedback" (Grewal, et al., 2009, p. 1–2). Bustamante and Rubio (2017) further claim that creating a positive customer experience encourages customer loyalty and improves customer satisfaction. Their findings suggest that retailers need to respond to this by adopting service-dominant logic in recognition that it is the experience rather than the product that builds the customer-retailer relationship, which in turn, impacts on firm success (Bustamante & Rubio, 2017).

The process of retail digitalization has supported the change in approach from thinking about 'products sold' to 'services provided' as digital technologies offer more experiential shopping options for customers (Poncin & Mimoun, 2014). Brick and mortar retailers are investing more in innovations to improve the customer experience, these technologies include self-checkouts, scan and go devices, QR codes, mobile apps, virtual fitting rooms, ESLs, RFID, and A.I. Some more elaborate examples can be seen with the IKEA augmented reality (AR) mobile application that uses computer generated digital information to allow customers to interact with their products and see how they would look in any environment (Rese, Schreiber,

&, Baier, 2014), Kroger's QueVision technology that uses sensors to predict the queue times at each checkout (Inman & Nikolova, 2017); and IBM's personal shopping assistant that mounts onto shopping carts enabling customers to compare products, self-checkout, and place orders from different departments as they browse (Pantano & Naccarato, 2010). These innovations are also referred to by Pantano and Naccarato (2010) as forms of 'entertainment' that enrich the customer experience by offering various benefits, such as stimulating interest, saving time, and providing relevant information. With regards to AR technology, the merits are said to be perceived enjoyment and perceived usefulness resulting in an overall positive experience (Rese et al., 2014). From the retailers' perspective, digital technologies can be used as tools to support them in differentiating their offering and creating the customer experience (Willems et al., 2017).

2.3.2 Customer Acceptance and Adoption of New Technologies

As retailers try to navigate and understand the continuous innovations available on the market, they must consider customer perceptions and their willingness to accept and interact with new technologies. A number of researchers have explored customer motivations and customer readiness to adopt new technology, which subsequently impacts on customer adoption and participation (Amorim at al., 2016; Cassidy et al., 2015; Cooper & Hoffman, 2000; Verhoef et al., 2009). Inman and Nikolova (2017) claim that the potential benefits available to retailers may cause managers to overlook the customers' perspective, despite required customer participation in utilizing the technology. They propose that understanding customer needs is fundamental in choosing technology, highlighting six areas in which customer perceptions play a role in the adoption of new technologies including; fairness perception, value perception, customer satisfaction, relationship trust, commitment and loyalty, and privacy concerns (Inman & Nikolova, 2017). One of the most prominent issues in recent years relates to privacy concerns over data protection as customers increasingly share more of their personal details with retailers through various means, such as through loyalty programs. These concerns have been substantiated through data breaches such as the data breach at Target in 2013 that resulted in the theft of personal data for over 70 million households (Inman & Nikolova, 2017). Other privacy concerns have been voiced over marketing efforts to personalize communications and track customer behaviour, which is referred to by Piotrowictz and Cuthbertson (2014, p. 11) as a challenge in finding the "balance between personalization and privacy".

Based on Davis's (1985) technology acceptance model (TAM), the two key factors in determining the successful adoption of technology are perceived ease of use and perceived

usefulness. Drawing on this model, Garaus et al. (2016) explore customer perceptions of ESLs, claiming that customers make inferences about the retailer based on the technology they invest in, which can include their assessment of the store, products, and price fairness. Though ESLs offer retailers the opportunity to implement dynamic pricing models, eliminate price discrepancies, and reduce labour costs, they have yet to become ubiquitous in the retail sector (Soutjis et al., 2017). One contributing factor towards the low adoption of this technology is the customer perception that retailers are able to inflate prices if stock is low or demand is high (Inman & Nikolova, 2017). In this case, Inman and Nikolova (2017, p. 14) highlight that retailers may alienate customers "if the benefits of a new technology accrue to the retailer at shoppers' expense". Thus, though technology may offer benefits for retailers, they must consider customer perceptions through the digital transformation.

An important topic that has received little recognition in the literature is the challenge that retailers will increasingly face in the short to mid-term as the generation transitions from the x-generation, born between 1961-1979, to those known as the y-generation or millennials who were born into technology between 1980-1999, and further to the z-generation and generation alpha who were born after the millennium. Lissitsa and Kol (2016) explore the differences in terms of online shopping habits of the X and Z generations, they found that while the X-generation are sceptical regarding new technologies, the Z-generation are 'digital natives' who demand an experiential and highly personalized shopping experience. Priporas, Stylos, and Fotiadis (2017, p. 376) further investigate the expectations of the z-generation, claiming that they "have higher expectations, no brand loyalty and care more about the experience". Through their research they propose that the use of smart technologies in the retail environment may well be integral to building the retailer-customer relationship (Priporas et al., 2017). Not only is this important in terms of directing marketing activities which must account for generational differences, but also when considering customer capabilities so as not to exclude customers that do not use digital tools (Immonen, Sintonen, & Koivumiemi, 2017; Piotrowicz & Cuthbertson, 2014). Cassidy et al. (2015) explore this concept with self-service technologies, claiming that retailers must recognize their customer competences, capabilities, and willingness to engage with new technologies. Customers' perceived ease of use is important in their adoption of new technologies (Inman & Nikolova, 2017; Demirci Orel & Kara, 2013), thus, retailers must bridge the gap between customers who are less tech-savvy and do not wish to engage with digital technologies and those that expect comprehensive smart technologies as a part of their retail experience.

2.4 The Retail Manager

As can be seen through the various literature reviewed on the subject of retail digitalization, research has recognized both challenges and opportunities for brick and mortar retailers. Though notably the way that digitalization is presented by academics is that the changes that it has brought about are said to face retailers (Grewal, Roggeveen, & Nordfält, 2017; Hagberg et al., 2017; Willems et al., 2017), effecting the structure of the retail sector and retail business models. Yet it is the managers, or actors within these organizations that are tasked with dealing with these changes, understanding changing customer behaviour, and implementing business strategies. Moreover, in the reviewed literature, academics primarily take a customer perspective, using customer data and customer insights to base their recommendations. While there is no doubt that this is invaluable information for retailers to utilize, this only illustrates part of the story. What is seemingly unexplored in the area of retail digitalization is the managerial perspective which is required to gain a holistic understanding of how the digital transformation is being experienced and navigated. Though some research involving managers has been conducted (Piotrowicz & Cuthbertson, 2014; Von Briel, 2018), the vast majority of studies take the customer perspective, leaving managerial insights on the subject limited. Despite this fact, literature on the topic has provided useful information for managers, with numerous researchers using their findings to offer guidance through providing recommendations on how to respond to retail digitalization. Table 2 provides a summary of the papers analysed, focusing specifically on the implications for the study of managerial framing. As retail digitalization progresses at such a rate and priorities continuously shift, only the most recent literature has been included in this review, over a five-year period, dating from 2014 to 2019.

Based on the literature, three key themes emerged that represent the most notable challenges facing managers, including; (1) the retail business model, (2) the role of employees, and (3) the organizational mindset and managerial skillset. Though it is worthy of noting that there is crossover between the themes discussed within certain articles. With regards to the first theme, the growing consensus is that the omni-channel business model is the next progression in retail digitalization (Jocevski et al., 2019; Piotrowicz & Cuthbertson, 2014; Verhoef et al., 2015; Von Briel, 2018), meaning that retailers need to map out their journey toward seamless channel integration. Yrjölä, Spence, and Saarijärvi (2018b, p. 261) investigate the challenges

Table 2. Literature summarizing the key implications for the study of managerial framing

Theme	Literature	Topic	Research Design	Study Participants	How the issue is problematized	Implications for the study of managerial framing
(1) The retail business model	Hernant and Rosengren (2017)	Brick and mortar retailers introducing online channels	Database study (customer data)	(Customers)	Online channels cannibalize physical store sales	Mangers should prioritize marketing activities that **encourage customers' cross-channel** purchasing by providing promotion and reward offers to customers based on their degree of cross-channel purchasing
	Piotrowicz and Cuthbertson (2014)	The journey to the omni-channel	Focus group discussions	Senior retail employees	How to achieve the omni-channel	Retailers must learn **how to assimilate** mobile and social network channels
	Poncin and Mimoun (2014)	The impact of e-atmospheres on physical stores	Field study-questionnaires	Customers	Difficulties with technology integration into physical stores	-Retailers need to **plan when** they implement technologies to enhance store atmospheric perceptions. -Analyse the **integration** of in store and online channels to understand the holistic atmosphere
(2) The role of the employee	Inman and Nikolova (2017)	Shopper-facing technologies	-Literature review -Quantitative data analysis	Customers	Shoppers' perceptions impact on technology adoption	-Retailers need to take **shoppers' attitudes** into consideration to gauge the success of technology adoption versus preferences for human interaction -Managers need to focus not only on what digitalization can potentially deliver in terms of firm value, but also the **shopper reactions to technologies** as this will dictate what will be delivered.
	Huré, Picot-Coupey, and Ackermann (2017)	Omni-channel shopping value	-Qualitative data (interviews) -Quantitative data (questionnaire)	Consumers	Creating the omni-channel is complex to manage and measuring shopping value in this context is challenging	-Managers need to **adopt a customer approach** when creating the customer journey, envisaging the experiential factors in the retail space. -Managers **must contemplate the role of employees** (social value & utilitarian value) in physical stores, which needs considering when hiring and training employees
	Rafaeli et al. (2017)	Frontline service workers and the effects of technology	Commentaries	N/A	-New technologies such as AR, SST effect frontline service employees -Research cannot keep up with the rate of technology-induced modifications	-Managers need to **understand how technology can add value** to the service experience. -Managers need to **understand how/if personal connections can be made with technology** in the service encounters -Managers must **recognize the importance of employee** emotions and CRM
(3) Organizational mindset and managerial skills	Hänninen, Smedlund, and Mitronen (2018)	Business model innovation: multi-sided digital platforms	-Literature review -Conceptual analysis -Qualitative case study	N/A	Digitalization requires reconfiguration of business models and redefinition of transaction logic of retailing	-Managers need to be prepared to meet changing **customer expectations** - Retails should provide retail executives with 'executive education programs' to **teach new skills such as data analytics**
	Helm, Kim, and Riper (2018)	The 'retail apocalypse'	-Qualitative data collection (online customer interviews) -Secondary data collection (customer feedback)	Customers	With the growth in online shopping, customer shopping behaviour has changed, leading to the demise of physical retail stores	-Managers should understand the significance of '**consumer power**', as well as customer preferences, perceptions, and expectations
	Mende and Noble (2019)	Retail frontline management	Commentaries	N/A	New challenges and opportunities require an 'evolution of retail frontline management'	-Retailers need to **rethink customer relationship management** as they introduce new technologies as well as **the retail experience for consumers and employees** - Retailers need to consider when it is appropriate to replace humans with technology **as retail employees offer the 'human touch' that cannot be replaced**
	Von Briel (2018)	Omni-channel retailing	A four-stage Delphi study	Retail experts (consultants, professors, & reporters)	The challenge of integrating brick and mortar stores into the omni-channel experience	Retailer must **consider the holistic consumer experience** and **change their organizational mindset** to consider the entire enterprise

facing retailers in terms of achieving the omni-channel, in particular, they highlight "increasing touchpoints, the adoption of new channels to create multiple, complementary paths to purchase, and the need to forge alliances with media/technology partners to develop value creating and value capturing resources". For retail managers, this means they must see the bigger picture and view the business in its entirety rather than as disparate channels or individual touchpoints (Huré et al., 2017). An explicit example of this challenge is the isolated view of the business that can be seen within many retailers, viewing retail channels as independent of one another, or in some cases, even as competition (Piotrowicz & Cuthbertson, 2014). To avoid divisions within organizations and prevent channel cannibalization, retailers must focus on creating cross-channel synergies as they transition to the omni-channel (Avery, Steenburgh, Deighton, & Caravella, 2012). On this front, retail managers are tasked with prioritizing retail activities that encourage and reward cross-channel purchasing (Hernant & Rosengren, 2017).

The second theme calls for a redefinition of the role of retail employees in physical brick and mortar stores. This discussion is longstanding in retailing literature, with early research casting speculations about the impact of technological advancements on employees (Dawson, Findlay, & Sparks, 1987), suggesting that technology would change the role of the retail employee, or indeed replace many retail roles entirely (Dawson & Sparks, 1986; Gilchrist & Shenkin, 1979). This has been a reoccurring issue in both news headlines and the literature (Deloitte, 2017; Baird, 2018; Manyika et al., 2017), though more recent works tend to explore what kind of role the employee will play in the new retail environment, rather than role reduction (Huré et al., 2017; Pantano & Migliarese, 2014; Rafaeli et al., 2017). There is a consensus that technology should not be seen as a replacement for human-interaction, nor a superior service, instead it should be used as a complementary addition to the in-store experience (Piotrowicz & Cuthbertson, 2014; Verhoef et al., 2009). To create this experience, retail managers must consider how to empower their employees (Von Briel, 2018) and support technology adoption among staff members (Rafaeli et al., 2017). In this way, technology can be used as a support tool for employees, such as equipping store employees with tablets that can be used to provide customers with useful information if they need assistance (Piotrowicz & Cuthbertson, 2014), providing call centre agents with data and analytics so that they can better match callers with service agents (Rafaeli et al., 2017); or providing retail buyers with endless streams of data about suppliers, products, and customers, to improve role performance (Fiorito et al., 2010).

Research has also laid emphasis on the importance of the 'human component' in service encounters (Huré et al., 2017; Immonen et al., 2018; Johnson, 2017; Rafaeli et al., 2017). The

role of employees in the service encounter has many associated benefits from the customer perspective, namely that customer interactions with employees can deliver social, relational, and utilitarian value, that as of yet, cannot be replicated by digital technologies (Huré et al., 2017; Immonen et al., 2018). Moreover, Rafaeli et al. (2017) found that customers may opt for dealing with 'machines' or 'people' depending on the type of encounter. Hence, as already highlighted, customer preferences must be taken into consideration when managers design the new shopping environment. It is possible that customers may react negatively if employees are replaced with new technologies, to which, Johnson (2017, p. 91) furthers that "shopping's future might be frictionless, but it could also be devoid of people. Customers who've experienced these stores of the future not only talk about their convenience and efficiency but also comment on their eerie silence". The implications for retail managers lie in the decision making process, more specifically, when evaluating the benefits of technologies such as those that offer economic benefits by way of reduced labour, they need to consider the customer perceptions of shopping value and remember the importance of the 'human touch' (Belleghem, 2015; Mende & Noble, 2019; Rafaeli et al., 2017).

The third theme challenges managers as individual actors in the retail transformation process, focusing on their knowledge, skills, and ways of thinking. One major factor that has contributed toward this present challenge is the change in function of brick and mortar retailers which is referred to as the shift "from product- to service-based businesses" (Hänninen et al., 2018, p. 154) or "from selling to supporting" (Yrjölä et al., 2018b, p. 263). Where traditionally retailers would focus on products, prices, and selling, they are now tasked with delivering services, creating experiences, and adding value for customers. As a result, managers must change their mindsets and come to understand the new role of the brick and mortar retailer as an experiential channel for consumers, a role which is increasingly referred to as 'showrooming' (Picot-Coupey et al., 2016; Piotrowicz & Cuthbertson, 2014; Verhoef et al., 2015). This role transformation requires managers to develop new organizational mindsets to understand the changes in the retail environment and employ appropriate strategies to create the seamless omni-channel experience that is in demand (Matzler et al., 2017; Von Briel, 2018). Willems et al. (2017) highlight that the retail industry has typically been a 'low technology sector', thus, retail managers will also require new knowledge and skillsets to manage the digital transformation. For example, Hänninen et al. (2018) propose that retail executives should complete training to ensure that they are equip with the necessary skills to cope in the digital age, such as the ability to understand complex data analytics and channel design.

With all manner of digital tools developing for retailers, 'managing' the digital transformation requires further recognition in research. Though research is growing on the omni-channel, customer experience, and retail digitalization, it fails to adequately address the topic from the managerial perspective. What is lacking in research is a comprehensive study that deals with the topic of digitalization as the all-encompassing phenomenon that it is, warranting efforts to understand how the digital transformation will continue in its pervasive nature to effect brick and mortar retailers. In this way, my study should contribute to the growing body of literature on retail digitalization, by complementing the literature already available on the customer perspective, and offering an insight into the, as of yet, limited research into managing the digital transformation of retail.

2.5 Developing the Theoretical Frame: A Social Constructionist View

As the focus of my research is on retail digitalization from the managerial perspective I build on this research in the fields of business and management. I also draw from the field of marketing when considering value and customer experience as they are two of the key areas explored in my research. To make a substantiated contribution toward research in these fields I will provide justification for my research approach and discuss the reasons for my choices. As my focus is on examining how managers are framing the digital transformation of retail, this influenced me to select social constructionism as a theoretical approach. Social constructionism is an epistemology that is concerned with the 'social construction of knowledge' (Andrews, 2012). This theory is widely used across the field of social sciences (Pernecky, 2012), and has served as the guiding principle for other prominent social theories such as Bourdieu's 'genetic structuralism' and Gidden's 'theory of structuration' (Vera, 2016). Though it is noted that it's overuse, and in some cases misuse, has led to broad and unspecific definitions of the term[1] (Fairhurst & Grant, 2010). In which case, a good place to start is with Berger and Luckmann (1966, p. 43) who brought to fruition the theory of social constructionism, claiming that "the reality of everyday life is shared with others", more

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[1] The author notes that there has been considerable cross-over between the usage of social constructionism and social constructivism in research (Pernecky, 2012). However, in this research the differences between these two theories has been recognized, and social constructionism was considered the more appropriate approach. Social constructivism tends to focus on how things came to be, such as the learning process and individual sense-making, rather than how phenomenon is collectively understood (Cassell, Cunliffe, & Grandy, 2018). As the aim of this research is to understand how retail managers are framing digitalization, the construction of knowledge in forming collective understandings was the key focus.

specifically, that reality is socially constructed and that only through human interaction is meaning created and assigned.

As one of the most influential social theories of the 20th century, social constructionism has been famously critiqued (Hacking, 1999; Sokal, Bricmont, & Mermin, 1999), widely applied across academic fields (Fairhurst & Grant, 2010; Pernecky, 2012; Vera, 2016), and has served as a foundation from which other theories have been shaped and developed (Elder-Vass, 2012; Galbin, 2014; Meyer, 2008). Moreover, social constructionism is referred to under several guises, as a theory, approach, method, and technique, to name a few (Galbin, 2014; Pernecky, 2012). As a result, there are numerous authors who provide different insights on this theory, though as highlighted by Pernecky (2012), the social constructionism of 'everything' dilutes it away from its origin and has led to misrepresentations in research. To ensure that social constructionism is understood as it was intended, I begin with the work of Vera (2016) who provides a comprehensive yet simple explication of the 'social construction of reality'. Vera (2016, p. 7) details the meaning behind the title, claiming that the word 'social' was used to ensure the term was distinguished from psychological theories, while 'construction' refers to human interactions that build shared knowledge, and 'reality' is "shorthand for what is regarded *as* reality". Though this is a terse simplification, it provides a foundation for understanding how social constructionism should be employed in research, highlighting the importance of social interaction in creating shared knowledge of reality.

Social constructionism is rooted in symbolic interactionism (Fairhurst & Grant, 2010), a concept which proposes that "society is neither a system, a mechanism, nor an organism; it is a symbolic construct composed of ideas, meanings and language, which is all the time changing through human action" (Parton, 2008, p. 823). Symbolic interactionism, as is in the name, emphasises that meanings are formed through interactions between people within a particular social context; these meanings are subjective, dynamic, and can be recreated over time. Social constructionism also shares similarities with discourse theory as it seeks to understand how words are assigned meaning in different contexts, cultures, and through interaction (Heikkinen, 2014). One of the main connections between these theories is the importance of language as a facilitator of creating shared meaning. With regards to my study, it is the managers in the retail industry that make sense of digitalization through their interactions, therefore, their interpretations are of great importance in understanding the digital transformation. From a social constructionist perspective, knowledge is not a given, it "arises from a socially constructed communal process" (Allen, 2017, p. 3). Hence, the way in which

we make sense of the world is based on how we are socialized, which in turn shapes our understandings and influences our behaviour.

A prominent argument presented by Berger and Luckmann (1966) was that other theories at the time laid too much emphasis on scientific and theoretical knowledge, meanwhile negating the social influences and other factors that contribute towards our understandings of reality. In fact, a large part of Berger and Luckmann's (1966) book argues that theories must be holistic in recognizing both objective and subjective realities. In simple terms, objective reality refers to that which exists independent of human interpretation, physical facts such as trees, the moon, and the sun; while subjective reality refers to perceptions, experiences, and memories. An explicit example in the context of retail digitalization is that it is an objective reality that mobile phones are used to make payments in retail stores, this is a fact, however, how this capability is perceived by retail managers and consumers is a part of the subjective reality. Hence, these two 'realities' are intertwined, and both must be recognized when analysing a phenomenon. In line with the work of Berger and Luckmann (1966), my viewpoint is that both realities are of equal importance, yet my focus lies on the subjective. My research considers the subjective dimension of key importance as opinions and perceptions influence how objective reality is shaped, i.e. how mobile phones are used in the retail experience will be determined by their perceived usefulness to retailers and consumers (Davis, 1985).

Despite its merits, critics of social constructionism claim that there is a lack of recognition for the natural sciences, rationality, and connection between biological influences over human behaviour (Sokal et al., 1999). The concept of socially constructing reality does not sit well with those who favour the laws of physics and mathematics. Constructionist claims that language is the cornerstone of creating reality have also received much criticism from realists. From a social constructionist perspective language is "a fundamental aspect for the process of knowledge production, is not conceived of as describing and representing the world, but as a way of constructing it, being a form of social action" (Galbin, 2014, p. 90). Therefore, for a constructionist, the world is shaped by social interaction, whereas a realist would argue that the world exists independent of our interpretations (Allen, 2017). In agreement with the argument presented by Walker (2015, p. 37), my research approach considers that these views are not conflicting, and that "one can believe that concepts are socially constructed, yet maintain that they correspond to something in the real world". The assumptions on which I base my research do not deny the importance nor influence of natural sciences. Yet social factors require recognition as they raise the question of how we come to understand the world and share meaning if it is not for language and sharing knowledge.

Another critique of social constructionism surrounds the idea of subjectivism. In this sense, realists are sceptical about the results that qualitative research methods can produce due to the fact that a single event is open to myriad interpretations, rendering accounts inconclusive (Allen, 2017). However, as is highlighted by Vera (2016, p. 8), "one of the most common misconceptions regarding the idea of 'construction' is to see it as a proxy for subjectivism or, even worse, for an individual's unique point of view". Based on my research aims, I am not concerned with the one account of retail digitalization or one managerial perspective, as all viewpoints contribute toward how digitalization is constructed. The aim of social constructionism is not to find the one and only 'truth' (Galbin, 2014), but instead to learn about how phenomena is being experienced and how meaning is assigned through social interaction. Another interesting point that is worthy of recognition comes from within the work of Berger and Luckmann regarding the idea of institutionalisation. Berger and Luckmann (1966, p. 127) claim that "he who has the bigger stick has the better chance of imposing his definitions of reality". However, in the context of retail digitalization, both small and largescale businesses are involved in constructing reality as they are presented with the same opportunities to digitalize their operations, with no clear path to omni-channel success.

As social constructionism supports the notion that shared understanding is constructed using language and that social realities are created through human interaction, it is deemed that this theoretical approach will be highly applicable when exploring retail digitalization. As is highlighted by Slife and Williams (1995, p. 78), taking a social constructionist approach means that there is a focus on "explaining how people experience and describe the world in which they live. Social constructionists look for common forms of understanding, common "constructs", or views of the world, that are created and shared by most people in society". Digitalization is a process that is taking place, it is not quantifiable or visible, rather it is a concept that has been socially constructed, a transformation that has been recognized by researchers and practitioners alike. Consequently, we are in the early stages of socially constructing 'digitalization', and only through interaction can we make sense of it and assign meaning. Furthermore, Walker (2015, p. 37) highlights that "within constructionism language is the primary way thoughts and feelings are transmitted; in fact, language makes thought possible by constructing concepts". Based on the aims of this research, adopting a social constructionist approach will enable me to gain an understanding of digitalization as it unravels, integrating the different managerial interpretations of the digital transformation to find emerging themes and dominant frames. This theoretical approach will be complemented in my data analysis by Goffman's (1974) framing analysis which is said to "conceptualize and

explain internal, self-conscious, and cognitive processes of individual sensemaking" (Cornelissen & Werner, 2014, p. 182). Therefore, approaching the phenomenon through this theoretical lens will provide an understanding of how managers socially construct digitalization within their firms and in the wider context of retailing.

A challenge that faces researchers across multiple fields is that phenomena continue to evolve as research is published, meaning that interpretations may change as new threats and opportunities arise, which can result in reflections that may not depict the nature of the phenomenon at the time. This is particularly true for this study due to the fast-paced nature of digital developments. However, as specified by Vera (2016, p. 5), "social construction of reality is an element of the continuing human activity in the world, and one of the essential dynamics in the production and reproduction of social life". This implies that we use our past knowledge and experiences to form new understandings, therefore, past interpretations are valuable to learn from as they contribute towards our understandings of phenomena. This is supported by Allen (2017, p. 5) who claims that "people experience the world subjectively. Each experience in turn imposes additional subjective knowledge upon subsequent experiences. Each experience lends value to all experiences that follow."

In this study, retail managers are perceived as 'knowledge agents' as their experiences and interactions shape how digitalization is socially constructed. Gioia, Corley, and Hamilton (2012, p. 17) utilize the term "knowledgeable agents" in reference to individuals that socially construct their "organizational realities". This term guided me to consider retail managers as 'knowledge agents'. Though the meaning is similar, relating to individuals who share their knowledge and interpretations to understand a phenomenon, the difference in terminology is considered important. A 'knowledgeable agent', as is used by Gioia et al. (2012), suggests that an individual has a certain level of skill or knowledge in a specific area, whereas a 'knowledge agent', as is termed in this research, refers to an individual who is involved in creating knowledge through sharing their thoughts, experiences, and interpretations. As retail managers face the challenges and opportunities presented by the digital transformation, their role as a knowledge agent is deemed integral to how digitalization is understood and thus, warrants exploration.

Figure 1 illustrates the role of retail managers in understanding digitalization. The left side of the figure highlights the role of knowledge agents and how their interpretations contribute toward the understanding of a phenomenon. While the right side puts this concept into the retail context, showing retail managers as knowledge agents whose collective thoughts, experiences, and knowledge form the understanding of retail digitalization. Thus, the thoughts

of the retail managers shared throughout the interviews will enable me to explore how retail managers are socially constructing retail digitalization and develop the managerial framings used to understand this phenomenon.
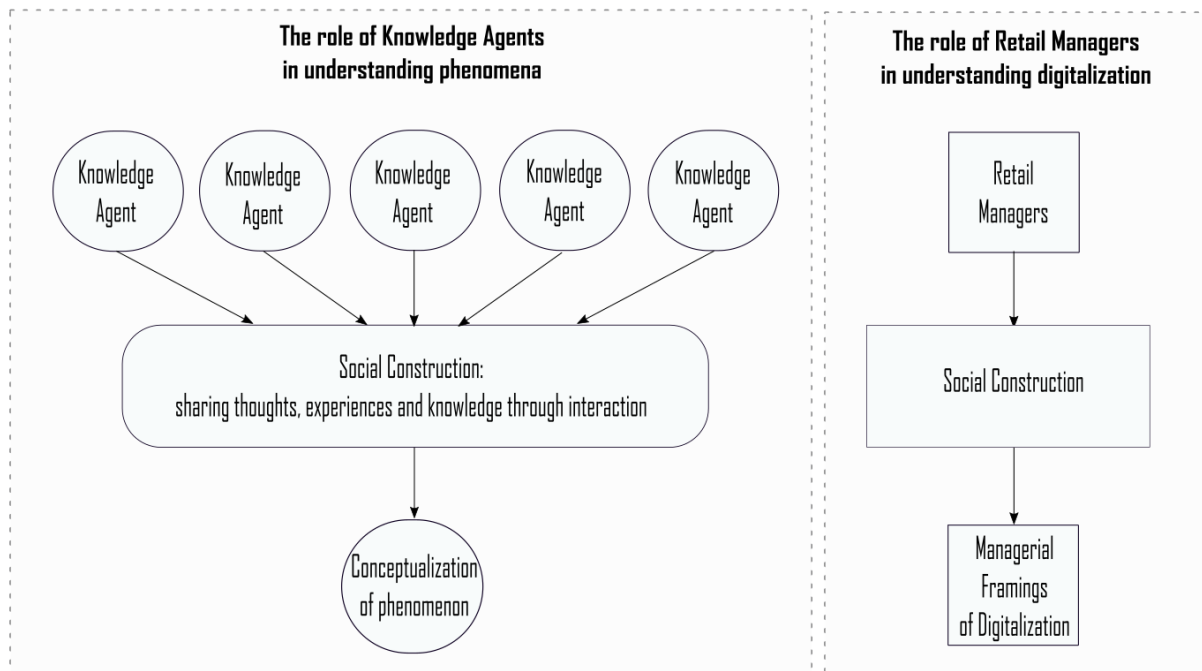
Figure 1. Retail managers as knowledge agents in the social construction of digitalization

Social constructionism has been advocated by Gioia et al. (2012, p. 18) who contend that "the single most profound recognition in social and organizational study is that much of the world with which we deal is essentially socially constructed". To the best of my knowledge, there are no other articles that have taken a social constructionist approach to retail digitalization. As I have previously mentioned, research in this area tends to take a customer-focus, predominantly relying on quantitative research methods such as customer feedback as the key source of data (Helm et al., 2018; Hernant & Rosengren, 2017; Poncin & Mimoun, 2014), along with qualitative case study work (Hänninen et al., 2018; Picot-Coupey et al., 2016). Therefore, taking this approach will allow access to a rich data source that has not been thoroughly explored in research. Through my work, I aim to discover shared understandings of retail digitalization from the management perspective. Thus, gaining an understanding at this point in time will enable practitioners and academics to make sense of the digital transformation and serve as a point of reference as we continue to socially construct 'digitalization'.

3 Methodology

The thesis process involves making many decisions about how research will be conducted based on scientific theories, prior knowledge, and research aims. This section summarizes the decisions that I made through detailing the research journey, data generation and the data analysis that I employed to respond the posed question of how managers are framing the digital transformation of retail.

3.1 Research Philosophical Choices

Research philosophy helps to guide a researcher through their work, justify their research choices, and remain focused on achieving specific aims. In this regard, an interpretive constructionist research philosophy was adopted throughout the study. Though social constructionism was detailed in the previous section, there are various approaches to constructionism. Therefore, to clarify, the philosophical approach to this research was interpretivist, which shares with constructionism the focus on how individuals form shared understandings (Eriksson & Kovalainen, 2008). As such, this study is not concerned with ontological issues such as seeking the truth of reality, but on the subjective, posing epistemological questions that enable to gain an understanding of how managers are socially constructing retail digitalization. As is highlighted by Rubin and Rubin (2005, p. 29), "interpretivists are usually not interested in averages but in syntheses of understandings that come about by combining different individuals' detailed reports of a particular event or cultural issue". Accordingly, in this research, the focus was on managerial interpretations leading to the shared understandings of retail digitalization. The research philosophical choices taken throughout this study are illustrated in figure 2.

Throughout the research I adopted an inductive approach, one that involved qualitative data generation and analysis. For this study, qualitative methods were considered the most appropriate as they recognize the importance of individual actors or knowledge agents and their experiences in making sense of phenomenon (Gioia et al., 2012). The aim of conducting qualitative research is not to prove truths, quantify or measure, but to better understand a phenomenon (Lichtman, 2014). As I aim to understand how retail managers are socially constructing digitalization, qualitative methods that allow for exploration, explanation, and description were deemed best suited to my research. As has been detailed by Alasuutari (2010), there is a longstanding debate between researchers regarding the use of qualitative research methods, this idea will be explored later in this chapter (Almeida, Faria, & Queirós, 2017).

Though I adopted an inductive approach towards my research, it is also worth noting that I used deductive reasoning to formulate my interview questions as will be further elaborated in section 3.2 on data generation.
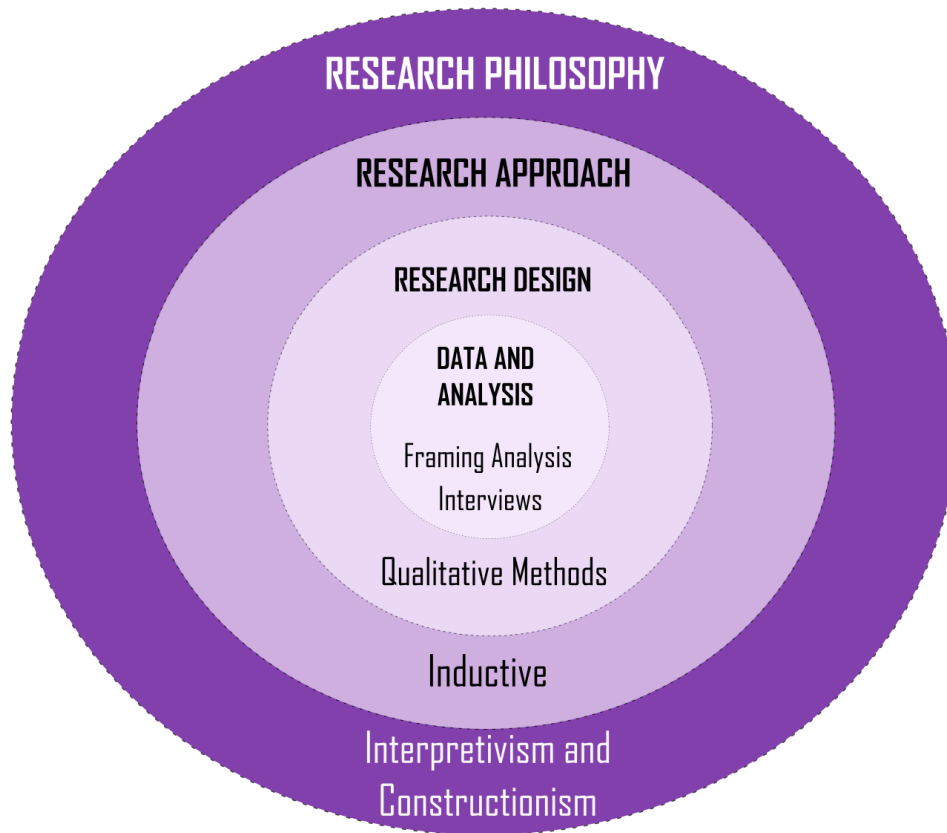
Figure 2. Research philosophical choices

As an exploratory piece of research, semi-structured interviews were considered the most suitable method of generating data. As the ways in which digitalization is understood from the managerial perspective has been little explored in research coupled with the fact that theories on digitalization are in their infancy, it was believed that themes may emerge in the discussions that would offer new insights, and thus, require further exploration. In this way, the key advantage of conducting semi-structured interviews is that questions are predetermined, organized, and the interview has logical flow, but there is also freedom to investigate ideas in more detail as they arise in the discussion (Almeida et al., 2017; Eriksson & Kovalainen, 2008). In semi-structured interviews the questions act as 'scaffolding' that can be used to guide the discussion yet need not be followed to the letter (Olsen, 2012). It is worthy of noting that for this study the researcher predominantly followed the interview questions, only asking follow-up questions to elicit further information if it was considered that responses would add to the understanding of digitalization from the managerial perspective.

The chosen method of data analysis for my research was Erving Goffman's (1974) framing analysis. Framing analysis is widely regarded as a useful approach to take when studying complex research problems such as retail digitalization, and is said to be useful when examining "how different groups of people make sense of large-scale phenomena" (Mills, Duerpos, & Weibe, 2010, p. 3). In line with my research aims, this type of analysis complements the theory of social constructionism by enabling me to explore how managers are framing the digital transformation of retail. In the study of organizations and management there has been an increasing number of data analysis methods adopted that focus on language, mean-making, and experiences such as discourse analysis, narrative analysis, and content analysis, to name a few. Framing analysis is a part of this list, specifically focusing on the "organization of experience" (Goffman, 1974, p. 15), allowing researchers to learn and explain how people make sense of situations. As is famously quoted by Entman (1993, p. 52), "to frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation". My intention when analysing and presenting the data is to do just that, to select the most prominent parts of the data generated throughout the study that reflect how retail digitalization is understood from a managerial perspective.

Cornelisson and Werner (2014) detail three different levels of analysis for frame constructs including, micro, meso, and macro. In respect to these levels, my research aims at capturing the managerial frames at the micro level as they appear in the interview in an effort to gain a more macro level understanding across the sector. Cornelisson and Werner (2014) also discuss 'technological frames' in the meso level, which is considered relevant to my research area, however, this construct is more concerned with analysing one specific type of technology within an organization rather than its widescale application and impacts across an industry. My aim is broader, looking at how retail managers, as a group of people responsible for managing different aspects of the digital transforming, are socially constructing retail digitalization. One issue that has been the subject of discussion in the literature and must be clarified is the distinction between 'frames' and 'framing' (Cornelisson & Werner, 2014; Vliegenthart & Voonen, 2011). Where 'frames' refer to an individual's subjective interpretation of a situation, while 'framing' encompasses the "schema of interpretation" (Goffman, 1974, p. 21), meaning a collective understanding of a situation that is formed through social interaction in a specific social and cultural context.

3.2 Data Generation

Due to the growing interest in this topic, myself and another student who is also an alumnus at Tampere University chose to research the same subject and use qualitative research methods, thus, we decided to conduct interviews together to maximize the number of participants involved in our study and ratify our understanding of the data. A deductive approach was taken when formulating the interview questions as they were based on the themes that emerged in the available literature, these were agreed upon by my research partner and I, and included; the managerial perspective, digital strategy and management, customer experience, and omni-channel integration. Using these four themes, the interview questions were devised and organized, comprising of a total of 19 questions with prepared follow up questions if further clarification was required or topics were discovered that could offer new insights on retail digitalization (refer to appendix A).

The structure of the interviews was carefully considered when organizing the interview questions. As is highlighted by Berger and Luckmann (1966) individuals become anchored in their understandings based on their subjective identity and other factors such as socialization and institutionalization. For example, individuals may feel a sense of belonging to an organization, and with or without intent present an organizational viewpoint rather than a personal interpretation. Therefore, to minimize this influence, the questions posed to each participant begun by focusing on their own interpretations so as not to anchor their explanations in organizational jargon or impose prior theories or frames. As my research aims at understanding the managerial perspective, rather than that of the firm, it was deemed necessary that the interviews be structured in this manner. Moreover, in this way new insights can be gained on digitalization, to which, Gioia et al. (2012, p. 17) further that researchers should lay emphasis on representing participants' "voices prominently in the reporting of the research, which creates rich opportunities for discovery of new concepts rather than affirmation of existing concepts".

All the participants were selected through theoretical sampling, with a focus on their managerial role and responsibilities within their respective organizations. According to Eisenhardt and Graebner (2007), theoretical sampling is appropriate in situations where researchers seek to better understand a phenomenon from a particular perspective, which in this case, is the perspective of a retail manager. To clarify, individuals were selected not on their representativeness with regards to their organizations, but in terms of their appropriateness (Eisenhardt & Graebner, 2007). The sample criteria were limited to professionals working in

the retail industry holding middle to upper level management positions. In terms of experience, it was important to have a range of younger and less experienced managers as well as those that have a long history in retail and digital development. Therefore, the participants' number of years' experience in retail and digital development ranged from two and a half years to 30 years, with a mean of 16 years. This sample was chosen to account for the generational differences in perspectives as well as to enable an insight into the digital transformation over a longer period as many of the participants have held senior positions within one organization for ten years or more. It is also necessary to specify that two of the participants were digital retail consultants, one from the UK and the other from Finland. As their roles involve influencing retailers in their adaptation to and adoption of digital strategies and digital ways of working, it is believed that they could offer a more holistic perspective on how digitalization has impacted the sector at large. Please refer to table 3 for the details of the participants involved in this study.

Table 3. Participants involved in the study

Code	Position[2]	Experience (Years)	Country
M1	Head of Technology	21	Finland
M2	Customer Marketing Manager	6	UK
M3	Chief Information Officer	8	Finland
M4	Chief Digital Officer	20	Finland
M5	Digital Customer Experience	5	Finland
M6	Commercial Manager	2.5	Finland
M7	Store Manager	10	UK
M8	Chief Executive Officer	30	UK
M9	E-commerce Manager	6.5	Finland
M10	Project Manager	25	UK
M11	Managing Director	20	UK
M12	Chief Technology Officer	30	UK
M13	Regional Manager	30	UK
M14	Digital Business Advisor	22	Finland
M15	Marketing and Communications Manager	8	UK
M16	General Manager	20	UK
M17	Head of Digital & Technology	20	UK
M18	Head of Digital Marketing	11	Finland
M19	Country Manager	20	Finland
M20	Chief Digital Officer	15	Finland
M21	Strategy Manager	7	Finland
M22	Market Manager	24	UK
M23	Head of Customer Experience	16	UK
M24	Country Manager	19	Finland
M25	Communications & Insights Manager	16	Finland
M26	Country Transformation Manager	10	Finland

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[2] Several participants requested that they remain anonymous and as such, their job titles were altered if they were too specific to ensure that they cannot be identified, though their positions are still indicative of their role.

The researchers used LinkedIn and company websites to select suitable individuals for the study, once identified, they were contacted via email or LinkedIn regarding involvement in the study. The snowball technique was used throughout the interview process, this refers to a researcher asking the individuals already involved in the study to identify other potential participants that may be relevant (Noy, 2008). Out of the 26 participants, 24 were identified by the researchers directly, while two of the interviewees were recommended throughout the interview process by other participants. The number of interviews conducted was determined by the responses provided by the participants. The original aim was to conduct 20 interviews, however, both researchers deemed that saturation was not met at this time as new themes still emerged within the discussions. Glaser and Strauss (1967, p. 61) claim that "saturation means that no additional data are being found whereby the sociologist can develop properties of the category. As he sees similar instances over and over again, the researcher becomes empirically confident that a category is saturated". For this research, the focus was placed on gaining a holistic understanding of retail digitalization, therefore, it was important that theoretical saturation was met before data collection was discontinued.

As can be seen in Table 3, the participants held different managerial positions, the aim of this was to maximize the variety of roles and heterogeneity of perspectives on digitalization (Shu & Lewin, 2017). The participants were interviewed to share their interpretations of how digitalization has affected their role, firm, industry, customers, and the retail-customer interface. Thus, the variety of positions that they held within the organizations enabled exploration of the different aspects of digitalization. Through conducting the interviews, the intention was to gain the retail manager's perspective on digitalization in the retail sector through discussing examples of digitalization within the firm, as well as the challenges and opportunities presented.

In terms of sector, the participants worked for a wide range of retailers, including home furnishings, supermarket, electronics, discount, beverages, cleaning supplies, pet supplies, fashion, sport, optical, and department stores. As digitalization has affected the entire retail sector, the sample includes a range of small to large scale organizations, which should allow me to understand how digitalization is socially constructed by retail managers across retailing. The smallest company has two retail outlets and only national presence, whereas the largest has over 7,000 stores internationally. The aim of the study is to gain an insight into how retail managers are framing digitalization, therefore, a holistic approach has been taken to discover how it is perceived in the retail sector at large, rather than focusing on one specific size or type of retailer. What they have in common is that all the selected retailers started their businesses

as brick and mortar retailers and continue to operate their businesses predominantly through physical stores.

The data was collected from retailers in both the UK and Finland between April and August 2019. As both countries are developed countries with a similar retail infrastructure, which comprise many of the same pan-European and international retail brands, it was considered that this would not impede the findings. A total of 26 interviewees were involved in the study, five females and 21 males, from 23 different companies. Of the participants interviewed, 17 out of the 26 participants worked for pan-European or international companies, while the other nine were categorized as national retailers, of which four were local to Finland and five were local to the UK. Moreover, seven of the participants involved in the study worked for international retailers that operate in both countries. Overall, 14 of the participants were based in Finland, while the other 12 were from the UK[3]. A list of the retailers included in this study can be found in appendix B, though there is no affiliation between the managers and retailers to ensure participant confidentiality is maintained.

The interviews ranged in length from 30 to 56 minutes, with an average of 39 minutes per interview. All interviews were conducted online with the participants selecting their most convenient method of communication, the following platforms were used; WhatsApp, Skype, Skype Business, Google Hangouts, and Webex. All the interviews were recorded with the permission of the participants and once completed, my research partner and I transcribed them in their entirety, though word repetition or filler words were excluded. To ensure that confidentiality of the participants was maintained throughout the research process, all the audio files and transcripts were safely stored on two encrypted external hard drives and locked in a secure location. Storage offline was considered the most secure option and data was accessed directly from the hard drives when in use through analysis. The audio files for the interviews totalled 16 hours and 42 minutes, which were subsequently transcribed into 197 pages. This process was laborious, yet it allowed both researchers to become familiar with every aspect of the interviews. To ensure accuracy, each interview was transcribed by one researcher and then checked and edited by the other. The completed transcripts were sent back to each participant so that they had the opportunity to verify that there were no discrepancies in understanding.

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[3] Though the comparative aspects of the study were considered, there were no significant differences highlighted between the UK and Finland throughout the data analysis. Irrespective of location, retail managers indicated that they are facing similar issues across the industry, which supports my research aims of gaining a holistic understanding retail digitalization.

During each interview notes were taken, after which, they were formulated into an interview synopsis and written up into interview reflection memos, these notes totalled 79 pages (refer to appendix C). The purpose of writing this diary was to ensure that any distinctive comments or important reflections from the interview could be captured in the participant's own words. As such, the notes were written immediately after completing the interviews so that information was still vivid. Gioia et al. (2017, p. 19) supports this by claiming that notes aid researchers when "conscientiously trying to use their [the participant's] terms, not ours, to help us understand their lived experience". In addition, there was no collaboration or discussion between researchers until after the memo was written, to ensure that researchers did not influence each other's interpretation of the interview at this early stage.

3.3 Data Analysis

With regards to the data analysis process, an inductive approach was taken as it was assumed that learning would continuously take place as more interviews were conducted as well as the fact that during the data analysis codes would likely be added as notes were compared between researchers. The data analysis process entailed three levels of interpretation which are illustrated in figure 3, though the path was not always linear as it involved revisiting data and moving between different stages as more interviews were conducted. As is highlighted by Saldaña (2015, p. 8), "coding is cyclical. Rarely is the first cycle of coding data perfectly attempted", as was the case in this research. The data was analysed continuously throughout the research process in varying levels of detail. Preliminary data analysis was conducted after the first three interviews to ensure that the data collected would enable the researchers to meet their research aims, this involved highlighting parts of the text to identify the manager's units of thought throughout the interviews. At this early stage 45 typical units of thought were identified throughout the interviews, though they were long and descriptive with some overlap
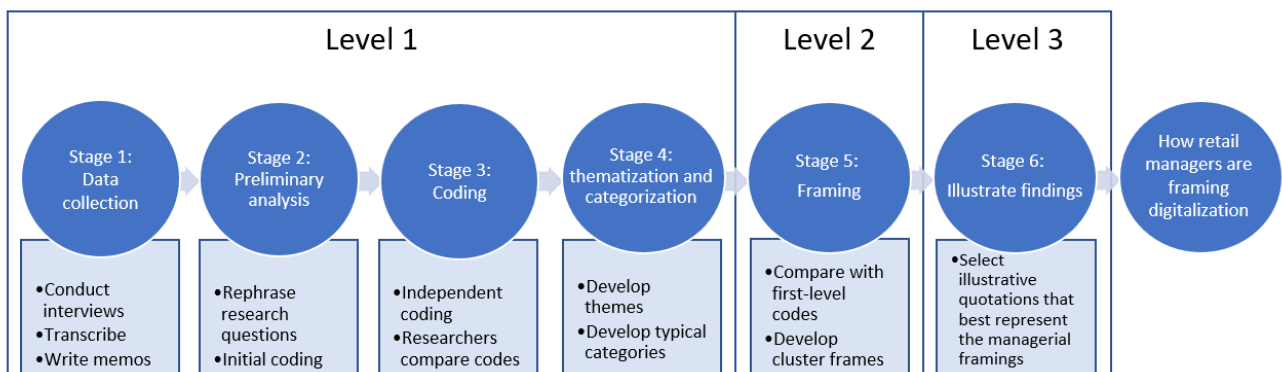

Figure 3. Data analysis process map

in terms of meaning. At this point several of the research questions were rephrased to make them clearer and more concise.

Once the interviews were completed, the interview transcripts were imported into Atlas.ti, a data analysis program that enables researchers to organize and analyse qualitative data. At this point, the notes were independently coded by both myself and my fellow researcher, after which, we compared our findings so that inconsistencies could be discussed and resolved. During this stage we were able to further refine the units of thought, condensing the original 45 into 28 so we could begin the next cycle of coding. Coding is integral to the quality of research, as has been emphasised by Strauss (1978, p. 27) who states that "the excellence of the research rests in large part on the excellence of the coding". For this study, the researchers utilized 'In-Vivo' coding in the data analysis process. 'In vivo' comes from the Latin, meaning "in that which is alive" (Saldaña, 2015, p. 74). This type of coding aims at maintaining the participant's voice, ensuring that their words are captured and that codes are representative, not of the researcher's interpretation, but of the participant's descriptions (Given, 2008). After the coding was completed, the codes were used to develop themes which enabled similarities to be highlighted and helped the researchers to gain a thorough understanding of the data, an example of this can be seen in table 4.

Table 4. Example of coding and thematization of the data

Quotation:	In-vivo codes	Theme
M23: "*We still operate in silos and we don't think about the total offer. We are getting much better and our leadership team are setting precedent on that. But I think it is a real big challenge. I suppose the parallel I would draw is 5 years ago a Store Manager would see online as competition. So, a Store Manager who has got...their profit/loss account, they would see an online shop as competition from in store, rather than a complementary. So, we have a culture of seeing them in isolation, but we are getting better at taking a more integrated approach*".	• Silos • Leadership team • Challenge • Total offer • Online as competition • Complementary • Isolation • Integrated approach	Organization has a 'Silo' mentality when it comes to online and physical stores

At this point, the researchers employed grounded data analysis to identify typical framing categories using the constant comparative method proposed by Glaser and Strauss (1967). This approach was taken as it is said to "develop a set of framing categories that apply within and across the different cases" (Mills et al., 2010, p. 2), enabling categories to be compiled into a master list until theoretical saturation was reached. This resulted in the development of five framing categories, though there were various framings that were difficult to place as they were considered unrelated to the category or overlapped across various categories.

The second level of analysis was performed independently to achieve different research aims. First, I narrowed down the categories by considering my research aims, through doing

so I was able to concentrate on three categories that were the most relevant to my research focus. After which, I began developing the managerial framings based on the codes, themes, and categories developed throughout each level of analysis, a total of nine framings were developed within the three categories. I continued by standardizing framing categories through utilizing a quantitative method, taking frequency counts of frames from each interview to develop cluster frames. All the themes that were identified in the first stage of analysis were inputted into an excel document so that counts could be visualized, making for clear data analysis and illustrating the most salient participant interpretations (refer to appendix D). Following that, the third level of analysis required a second, more defined, comparative analysis of the first-level codes and the cluster frames developed from the quantitative study. Mills et al. (2010) propose that this allows for a more holistic understanding of a phenomenon, which is consistent with the studies research aims. This stage also enabled the researcher to revisit the preliminary data to ensure that analysis was thorough.

3.4   Advantages of the Research Method

There are several noted benefits to using framing analysis in my study. First, framing analysis aims at capturing the interpretations of the participants, in this regard, it has been argued that "meanings only arise in processes of interaction, interpretation and contextualisation" (Vliegenthart & Van Zoonen, 2011, p. 103). Therefore, to understand digitalization from the perspective of the participants, their description and explanations will best illuminate their interpretations. Second, Mills et al. (2012, p. 3) claim that framing analysis provides an "insight into the ways people make sense of what is going on in a particular situation and helps explain what joins them together as well as sets them apart". Through utilizing framing analysis, it is possible to identify contending frames, thus, frames can be contested or aligned among participants. Consequently, this method should allow for a comprehensive approach to my research phenomenon and enable me to effectively respond to my research question.

Literature also recognizes advantages to combining multiple methods when analysing data, all of which cannot be listed here, but in relation to my study the following are deemed the most relevant. Plano Clark and Ivankova (2016) highlight that analysing the data from different perspectives allows researchers to compensate for the weaknesses of one method with the strengths of another. One major criticism of utilizing qualitative data is that there is "creative theorizing on the basis of rather thin evidence" (Gioia et al., 2012, p. 18). With those who favour a statistical approach casting speculation surrounding the reliability and credibility

of qualitative research methods (Bryman, 1988). Though the nature of this debate has changed somewhat in recent literature as more researchers utilize multiple methods, including both qualitative and quantitative methods with the aim of giving more validity to their research findings (Alasuutari, 2010; McKim, 2017; Plano Clark, & Ivankova, 2016). Thus, employing qualitative (framing) and quantitative (content) data analysis should help to compile evidence that will go some way to alleviating this concern. In addition, as the research aims to understand how retail managers as a group are framing digitalization, the combination of different types of analysis will provide triangulation, that is, the ability to see the convergences and divergences between managerial interpretations by taking a multidimensional approach (Plano Clark & Ivankova, 2016).

3.5   Disadvantages of the Research Method

One of the main criticisms of framing analysis is said to be the lack of clarity throughout the different levels of analysis (Cornelisson & Werner, 2014), which Entman (1993) suggests can lead to a "fractured paradigm". This refers to the idea that framings are constructed according to the focus on specific themes in research that are already present, rather than how the framings came to be (Cornelisson & Werner, 2014). This concern influenced the researchers when deciding which interview style to adopt, which as previously mentioned was semi-structured interviews. As an exploratory study, it was considered that themes may arise in the interview that were not identified by the researchers and would require further exploration, thus, choosing semi-structured interviews meant that the interviewees' responses were not limited by the predetermined interview themes. Jameson (1976) highlights another drawback to framing analysis in relation to the objectivity of the researcher when analysing the data and in measuring the originality of an idea. From this, the importance of transparency in research is emphasised to show how findings are traced back to their roots, an idea that I employed in my research through utilizing in-vivo coding.

Plano Clark and Ivankova (2016, p. 6) also state several weaknesses of utilizing multiple methods, namely, that the use of quantitative methods will produce generalized results, meaning that the findings will not take into consideration the specific context of each retailer. Since this study aims at understanding managerial interpretations in the sector at large, rather than a specific type or size of organization, the results are not meant to be indicative of one case, but rather of multiple accounts across the retail sector as retail managers socially construct digitalization. It is also expected that from the researcher's perspective, utilizing

different approaches will likely result in large volumes of data, which can be time-consuming and challenging to analyse (Alshenqeeti, 2014; Mills et al., 2012). This is particularly true for this study as 26 interviews were conducted, however, as I conducted the first level of analysis with another researcher, this meant that there were more resources and time available to dedicate to the data generation and analysis which made the process more efficient while ensuring that results were consistent.

4 Findings

This chapter shares the findings of this study that address my research question, which was to understand how managers are framing the digital transformation of retail. Through detailed data analysis, I was able to develop the managerial framings presented throughout this section. In order to express my findings, various illustrative quotations taken from the interviews will be shared and discussed.

4.1 Managerial Framing Categories

The data presented in this section illustrates the issues, codes and themes that were prevalent throughout the sample, appearing frequently across the data. Through analysing the data in such way, the managerial framings were identified, together they form three main framing categories including; 1) implementing digital strategy and management, 2) changing organizational competences and mindset, and 3) shifting power to the retail customer. Within each framing category the managerial framings used to form the understanding of digitalization are presented, together they consist of nine managerial framings that are displayed in table 5, each of which will be elaborated in the sections that follow.

Table 5. Framing categories and managerial framings

Framing Category	Managerial Framing
Investing in Digital Strategy and Management	**A**: Digitalizing the retail business places strain on the market
	B: Transforming the retail business is a journey that stimulates innovation
	C: Creating the omni-channel business model through channel integration
Changing Organizational Competences and Mindset	**D**: Viewing the business with a 'silo' mentality
	E: Understanding data and analytics in driving organizational change
	F: Employing digital solutions requires personnel to develop new skills
Shifting Power to the Retail Customer	**G**: Rising customer expectations places pressure on retailer
	H: Enhancing the customer experience using digital tools
	I: Servicing customer needs still requires the 'human touch'

4.2 Investing in Digital Strategy and Management

As was previously highlighted in the existing literature on the digital transformation (Baggi, 2014, Helm et al., 2018; Mende & Noble, 2019, Picot-Coupey et al., 2016; Von Briel, 2018), digitalization has placed increasing pressure on brick and mortar retailers to adapt to survive, foster sustainable growth, and gain competitive advantage, which are congruent with my research findings. Through the interviews, digitalization was termed as the "next industrial revolution" (M23) and recognized as a process that requires retailers to respond now, and on a continuous basis going forward. All but three participants described digitalization as having a significant impact on the entire retail sector, calling for retailers to make changes to their business models and develop their service offering.

4.2.1 A: Digitalizing the Retail Business Places Strain on the Market

When asked what they consider to be the main driver for retailers to digitalize, participants laid emphasis on digitalization as a necessary process in the bid to continue their operations. Various terms were used to relay this opinion, including words and phrases such as "survival/survive" (M8, M13, M16, M18, M19), "keep alive/in business" (M14, M20) and stating it as a requirement to remain "competitive" (M4, M10, M12). The Chief Executive Officer of a national retailer in the UK continuously stressed this throughout the interview:

> *"The main drive…I mean, survival. The smaller firms and the mums and pops industry in our sector are still probably a third of the sector. Those who don't digitize, don't have a website, don't allow the customers to purchase at home or on the move on their mobile, factually, they will fail in the next few years, they will not survive. So being blunt about it, survival is the need to move there." (M8)*

Further, due to the competitive nature of the retail sector, it was also mentioned that digitalizing the business is not optional, rather it is a necessary transformation that retailers must undergo.

> *"I think they have to…I mean, it's not an option. It's something that everybody has to do." (M6)*

This illustrates that, to an extent, retail digitalization has been imposed on retailers and is fast becoming an industry standard. It is also worthy of noting that many of the participants

involved in the study hold top management positions within organizations. As key decision makers who are responsible for determining business strategy, the perception that digitalization is a necessary undertaking builds the case for retail digitalization. Furthermore, as managers view digitalization as a requirement or an inevitable shift, this helps to legitimize the heavy investments required to implement digital technologies, while putting pressure on retailers to develop their offering.

4.2.2 B: Transforming the Retail Business Is a Journey That Stimulates Innovation

Looking towards the future of brick and mortar retailers, several managers referred to digitalization as a continuous journey rather than a goal that can be accomplished. This supports the work of Von Briel (2018, p. 217) who claims that over the next decade there will be an "ongoing transformation" in the retail sector as retailers continue to integrate channels to create the seamless shopping experience. As such, managers view digitalization as a movement that will require their ongoing attention. This was discussed by a number of participants (M3, M4, M5, M7, M8, M10, M11, M12, M14, M17, M18, M21, M24), of which, three illustrative quotations that capture this managerial framing are provided below:

> *"We are constantly evolving because the space is constantly evolving." (M8)*

> *"It is ongoing and probably will still be ongoing for another 10 years because technology changes faster than we change, so we will just keep going with it." (M10)*

> *"We don't believe that it is only one stop, but it is something that will have to continue every single year." (M18)*

These quotations demonstrate that managers recognize digitalization as a process that retailers will have to manage in the years to come. Building on this idea, further interpretations of the nature of digitalization show that this is considered a positive aspect of digitalization, as constant transformation is considered an important factor in driving innovation in the industry. The following raw data samples share managerial interpretations of this idea:

> *"I think innovation goes faster through digitization than it did before, in the digital age you can move from one step to another to another, improving things much quicker than you could before. To change processes previously was a really long and arduous thing to do." (M10)*

"I think one of the good things about that is it really generates innovation and sort of urge to move quickly" (M12)

Moreover, by being in a constant state of transformation, managers mentioned that organizations will be able to utilize digital tools to improve business processes, respond to issues faster, and find new ways of working.

4.2.3 C: Creating the Omni-Channel Business Model Through Channel Integration

In the literature, the 'omni-channel' has become increasingly prevalent, however, unlike many terms that are used by academics but not practitioners, this has been adopted in the managerial lexicon and was mentioned continuously throughout the interviews (M1, M4, M5, M9, M18, M19, M21, M22, M23, M24). Though just under half of the participants used this exact term, almost all the participants used the term "channels" at some point throughout the interview with various prefixes including; "digital", "online", "social media", "retail", "customer", "any", "different", "all", "marketing", "sales", "multi", and "separate", showing recognition that various channels exist in the retail business model. Managers also acknowledged that other organizations in the sector are in the same position, struggling with the complex process of channel integration as there is no step-by-step guide to follow. Examples of this in the data are as follows:

"Almost everyone that has started as a brick and mortar store is facing the same challenges that we are facing at the moment. How to combine this omni-channel experience, how to create the perfect omni-channel experience. Everyone is trying to find that recipe and no one has found it yet, everyone is searching for it." (M1)

"That is probably one of the challenges for all of the companies, all the retailers are trying to achieve how we can do the omni-channel…how we are combining the online with our brick and mortar stores." (M9)

"So, that means that you have offline touchpoints, online and so on, and these are not really in an organized fashion. So, that is a huge challenge for companies." (M14)

These quotations capture the complexities surrounding the omni-channel business model regarding integration of physical and digital aspects within the business. In addition, most of

the challenges related to creating the omni-channel business model were said to be around two main issues, legacy systems and investment. The problems regarding legacy systems were more apparent when speaking with managers from larger and more established organizations as they explained that antiquated systems and processes need replacing with new technologies (M4, M5, M6, M9, M10, M12, M13, M14, M15, M16, M20, M22, M23, M25, M26). However, regardless of the size or type of retailer, almost all the managers recognized the huge investments required to build the omni-channel business model, framing this as an outstanding challenge that must be overcome (M2, M3, M4, M5, M6, M8, M9, M10, M11, M12, M13, M14, M16, M17, M18, M19, M20, M22, M23, M25).

4.3 Changing Organizational Competences and Mindset

In addition to the technical and financial challenges facing brick and mortar retailers, managers discussed several issues in relation to how people within the organization think, as well as their skillsets when it comes to dealing with changes instigated by digitalization. The 'human aspects' of digitalization are beginning to appear more in the literature (Hänninen et al., 2018, Mende & Noble, 2019; Von Briel, 2018) and were considered to be of significance to managers as they present many challenges with regards to how organizations function, how they manage their workforce, and how the organization makes decisions.

4.3.1 D: Viewing the Business With a 'Silo' Mentality

One of the main challenges that was suggested as a hinderance to the creation of the omni-channel business model is the 'silo' mentality that is present in organizations that operate in multiple departments or as separate functions. Managers claimed that while they are working to bridge the gaps in their organizations, they are presented with difficulties when trying to integrate channels that were traditionally considered independent of one another as employees have tunnel vision when thinking about their own goals and responsibilities (M1, M4, M6, M7, M8, M9, M13, M14, M15, M18, M19, M22, M23, M25). This was particularly highlighted as an issue for Store Managers who have typically focused their efforts on meeting targets for their organizational unit. The following raw data examples show interpretations of the organizations that are viewed in isolation:

> *"Depends on the person you are asking, if you are asking a department store manager, they might say that digitalization has affected the department store sales, which is kind of a ridiculous comment because it is all coming to the same pocket." (M1)*

"We still operate in silos and we don't think about the total offer. We are getting much better and our leadership team are setting precedent on that. But I think it is a real big challenge. I suppose the parallel I would draw is 5 years ago a store manager would see online as competition. So, a store manager who has their profit and loss account, they would see an online shop as competition from in-store, rather than a complementary. So, we have a culture of seeing them in isolation, but we are getting better at taking a more integrated approach." (M23)

Though issues surrounding the silo mentality were discussed in various interviews, one participant explained that their organization recognized this potential conflict early on, realizing that for the different channels to be viewed as united by its employees, the organization must change the responsibilities of store managers to support the new business structure. When asked to describe the changes that have taken place as a result of digitalization, the manager explained that within the last two years his job title had changed from Store Manager to Markets Manager to account for his expanded remit in terms of meeting organizational targets. An extract of this explanation is shared below:

"My job title is the perfect indication of it really, that we are now responsible for online sales within our market as well as services and products. So, it's a bigger thing, it's not about just going into store somewhere and we market to those people to come to the store, driving visitation…whether it would be online or physical visitation to a store, but how we manage the business from a KPI perspective has changed. So, now we look at the total market and within that obviously you can see that different streams of where they come." (M22)

Hence, managers understand that digitalization requires a change in organizational mindset, viewing the business in its entirety rather than as isolated units, and have begun taking the necessary steps to minimize conflicts throughout their organizations.

4.3.2 E: Understanding Data and Analytics in Driving Organizational Change

As a result of digitalization, retailers have gained access to more sources of data, this was a reoccurring topic throughout the interviews. The word "data" was mentioned by 20 of the participants and used 153 times during the discussions. Managers acknowledged the importance of data and analytics, emphasizing the role of data in understanding their customers (M1, M4, M5, M8, M10, M11, M12, M20, M23). As retailers continue to integrate different

parts of their organizations, they are able to pool data together which increases the range of information they have on each individual customer. This idea is captured by M23 who shares his interpretation of data and analytics within the retail business:

> *"It allows us to speed up our understanding is what I would say, it has allowed us to be smarter with our analysis of pulling in data from multiple sources. So, we get…we never really get a full picture of the customer, a single view of the customer, but we get closer than we ever have in the past." (M23)*

Managers also mentioned that learning more about their customers aids in organizational decision making and influences which course of action is taken. In addition to the customer data that retailers are able to collect, having access to various data streams throughout the organization was said to provide useful information for managers about their operations which not only helps managers when making decisions but also increases the efficiency in which they are executed (M4, M5, M8, M9, M19, M12, M18, M19).

> *"I would say data and analytics. So that has been so crucial in many ways. For example, how we understand our business better, what kind of decisions we make, and also the data has been super important in driving the change. So that we really can show, that the data shows this…and we do it that way…should we kind of change our way of thinking and processes…and I would say that the data is really valuable for us." (M4)*

> *"So that means that what used to be a very labour intensive and manual data intensive process is now much slicker, but the important bit really is that we can get to decisions much more quickly." (M12)*

These quotations illustrate the significance of data and analytics for organizational decision making and improving processes. Managers also mentioned a change in orientation when it comes to data and analytics, they noted that while collecting customer data is useful, it is not a new practice in the retail sector. However, the current focus has shifted towards how "clean" the data is (M8) and how retailers can effectively understand and utilize the data to make decisions (M8, M9, M20, M21).

4.3.3 F: Employing Digital Solutions Requires Personnel to Develop New Skills

Many of the participants discussed how retail digitalization has affected the people within the organizations. The issues raised in the interviews varied from how the integration of technology into the service environment requires employees to learn how to utilize new technologies (M9, M10, M12, M19, M20, M23), how the role or workload of employees has changed (M4, M5, M7, M8, M9, M10, M14, M16, M18, M20, M21, M23), and how head count has reduced as people increasingly become replaced by digital solutions (M4, M6, M12, M14, M21, M23). While others discussed that a combination of the above issues have created the need for both managers and employees to develop new skills (M4, M5, M8, M10, M19, M12, M16, M19, M20), these interpretations are captured in the below data:

"If you are talking about skills and competences, not everyone has the relevant skills anymore, and if they don't want to keep up-to-date with the skills, it is very sad to say that we have…they don't have a future with us or the company anymore. So, it is super important for every level that employees… that they have the right skill set." (M4)

"We have a challenge with staff. We employ around 700 staff in Finland, and we can see that some of the employees that used to be considered as…let's say for example a top store manager, a well-performing manager, might not be able to keep with the pace of digitalization. And once you are not being able to adapt and develop new ways of working and using digital tools, it will make you go from being a high-performing store manager to a low-performing store manager." (M19)

From these interpretations a gap in current literature was identified as much of the 'people-focused' literature on retail digitalization centres on the impacts on customers, looking at topics such as the customer behaviour and the customer experience (Huré et al., 2017; Fuentes et al., 2017), while giving little to no recognition to the personnel issues within the organizations. While managers recognize the effects on the retail customer, throughout the interviews, it was apparent that managers are also concerned for their own workforce, placing emphasis on the issues facing managers and employees within organizations.

4.4 Shifting Power to the Retail Customer

As a result of growing consumer power and intense market competition, retailers are focusing their efforts on improving the retail-customer relationship by enhancing their service offering.

Issues in this framing category were discussed throughout the interviews in detail and were mentioned by every retail manager, covering several different issues including, changing customer behaviour, increasing customer expectations, improving the customer experience, and servicing customers using a combination of technological and human aspects. Many of these issues were described as complex and difficult to navigate as managers are in the midst of responding to market needs while simultaneously managing the business transformation.

4.4.1 G: Rising Customer Expectations Places Pressure on Retailers

Customer preferences have long been important to retailers, however, managers explained that the intense competition in the sector has created a paradigm where customers have more influence over service levels due to increasing customer expectations (M2, M3, M4, M5, M8, M11, M12, M14, M15, M16, M18, M20, M21, M23, M25, M26). This was particularly highlighted by M11 who explained that customers are concerned with their own convenience, and with the multiple options available to them, they will not hesitate to buy the same product from a different retailer if service delivery is not as they expect:

> *"Well, there are so many that have just disappeared, and you forget that they are gone. And maybe that in itself is testament to how the consumer is actually adjusting to digital transformation. For the businesses it hurts them more, so for them, it is more of a headache, but as a consumer, we don't really care. If you can make it easier for us, we will just switch and before you know if we are saying Woolworths who? Or Toys'R'us who? Because to us, all we care about is our own personal convenience." (M11)*

Managers explained that one of the main factors contributing towards rising customer expectations is the increasing competition presented by multi-sided platforms. This has led to a situation where the industry standard is being set by global players, not only local competition, making it a constant challenge to be as good as the market leaders. Though this issue was mentioned in multiple interviews, the following quotations were selected to illustrate these interpretations:

> *"If for example our customers are buying online, they want the check-out experience to be as good as the likes of Amazon, because they are buying globally, they are using global windows, so of course we have to be on the same level as them [...]. Whatever we do online, we really have to keep the bar very high, because our customers are used to high quality services in general." (M4)*

"So, basically if the customer is happy with Zalando's service level, we have to be as good as they are for them to come to us. So, that is what is greatly driving everything." (M21)

These quotations show that managers are broadening their sights and aiming to create an experience for customers that matches the standards set by multi-sided platforms and other competitors. Managers also claimed that now more than ever 'speed' is a key customer demand that must be met (M2, M3, M4, M8, M13, M15, M16, M18, M21, M23). When managers discussed speed, they referred to different parts of the buying process from the time spent queuing in the store to the delivery of the goods. They further discussed that the modern-day customer, and in particular the younger generations have become increasingly "impatient" meaning that retailers have to consider this when creating the customer journey (M15, M21). Another area that was also highlighted as important to consumers was the speed of the search in the buying process if customers are searching online. M8 went as far as saying that the speed of the site is considered a "key point of difference" and if an organization's online presence is not on par with its competitors it will result in failure.

4.4.2 H: Enhancing the Customer Experience Using Digital Tools

With fierce competition in the retail sector, retailers have started focusing their efforts on creating a unique customer experience to differentiate their offering. Of all the managerial framings this was the most dominant, appearing frequently in the data, with all but 6 managers discussing the opportunities presented by digital technologies to improve the customer experience both in-store and online. Managers claimed that digital tools have made it easier to shop (M1, M5, M7, M8, M9, M10, M12, M13, M14, M18, M19, M20, M21 M22, M23, M26), improved the customer journey in-store (M10, M12, M20), enabled more relevant marketing communications (M4, M5, M8, M12, M17, M18, M23, M24), created a more personalized shopping experience (M1, M4, M20, M24), and given customers more access to information (M7, M8, M10, M12, M18, M20, M21, M23, M24, M26). Managers gave multiple examples of the various digital tools used by retailers to enhance the customer experience including handheld devices that can be utilized by both colleagues and customers, these are shared below:

"Well, the whole of society is becoming user-friendly, that is the huge thing. You don't feel hassle anymore to get things done, in the same way as before. It is really like… in some

industries it has been a struggle to buy, to use, to consume, to get stuff done, and that is all going away, and a lot of that is thanks to mobile phones" (M14)

"So, the inform app is for colleagues only, not customers, and you can put in a product code, if a customer wants to know about a product, where it is, how many we have got, you put it into the inform app and it allows a colleague to instantly know where it is, what it is, if we don't have it, why we don't have it, when it might be in. So, that enables a colleague with information to then give better service and a better customer experience. A nice example being, I was with a customer when they were asking a colleague about a certain Heinz product and they were annoyed that we weren't stocking it anymore, yet the colleague that looked it up was able to see that Heinz had discontinued the line. So, instead of that customer being frustrated with us, they were frustrated with Heinz, and then the colleague was able to say well we do this instead, and sort of be proactive in offering them an alternative." (M23)

These concrete examples show how digital tools can be used within brick and mortar stores to improve the customer experience. Managers specified that different digital tools are utilized within their organizations to make the path to purchase easier for customers and ultimately enhance the customer experience. In this regard, M22 and M25 claimed that digital tools have enabled their organizations to "remove barriers" for customers and make their offering accessible to more people.

4.4.3 I: Servicing Customer Needs Still Requires the 'Human Touch'

With more people buying online and technological solutions continuously implemented in stores, humans are increasingly removed from the service encounter. Though there are notable benefits to this in terms of cost savings to be made, many of the managers recognize that the 'human touch' is still required when building the retail experience (M5, M6, M7, M8, M9, M10, M11, M14, M16, M22, M25). In this regard, managers referred to various elements where humans are needed in the service encounter to create meaningful interactions including; offering advice, building personal relationships, and establishing human connections. The following examples taken from the data show how various managers recognize the importance of the human side of the organization:

"...we sort of use technology to help build that, but again it is still very human-focused, you would be surprised at how many people come in and they do just want to talk to someone, and get their opinion and ask...like obviously online shopping has become very big, but every

Christmas I am still shocked at the sheer amount of people who come into store and they just want your advice or your opinion." (M7)

"So that tells me that the technology is important and needs to be involved, but we always have the human aspect there…we see that, if we think about what we are doing in the stores, that the service component is very important, we are trying to make it our competitive advantage, that we offer a service where we are treating the customers as humans and trying to make them feel better and help them." (M9)

"It is quite easy to see that the most common feedback that customers are giving… positive feedback in our stores, is that the sales reps are remembering the pet names by heart […]. It is quite easy to do; it doesn't cost anything… we are not using any system which are showing the pet names when a customer is entering the store. So, I think that's one example of the customer experience we try to improve even more. So, bring some feeling to this global and digitalized world." (M24)

To add to these interpretations, M5 specified that a combination of both human and technological aspects are required when trying to build the customer experience and create customer value.

"It is not just the digital things but connecting the human aspects into the digital world, and create more value from there." (M5)

Managers described integrating human and technological aspects of the business as a growing challenge, as the retail business model continues to transform, and more investments are made in digital tools. However, managers recognized that humans add value to the service encounter, and as such, cannot be entirely replaced as they can help retailers to gain competitive advantage.

4.5   Summarizing and Interpreting the Managerial Framings

To clearly express my findings and illustrate how the managerial framings were developed from the data, each framing has been summarized into figure 4. In this figure, each managerial framing is represented by its associated letter and consists of the issues highlighted by the managers that contributed toward its development. Through further analysing the issues within

Changing Organizational Competences and mindsets

D
- separate entities
- independent functions
- various pricing structures
- conflicting incentives
- organizational culture
- different goals

E
- decision-making
- understand business
- understand customers
- less gut feelings
- informed actions
- act faster

Investing in Digital Strategy and Management

A
- sustain growth
- remain competitive
- keep in business
- multi-sided platforms
- global competition
- recognize the trend

B
- continously evolving
- process improvement
- stimulates innovation
- uncontrollable factors
- progressive approach
- dynamic development
- ongoing journey

C
- complex process
- huge investments
- difficult integration
- different systems
- change business model
- legacy systems
- no model to follow

F
- old to new
- new skill sets
- replaced by technology
- data literacy
- redeployment
- more workload
- job loss

G
- consumer power
- well-informed staff
- demand for speed
- match service levels
- lack of loyalty
- global standards

Shifting Power to the Retail Customer

H
- buy on the move
- remove barriers
- interactive shopping
- improved customer journey
- access to information
- streamlined processes
- convenience
- more options

I
- human connection
- meaningful interactions
- feelings
- offer advice
- conversation
- help

Social Construction of Retail Digitalization

Figure 4. Managerial framings contributing towards the social construction of retail digitalization

each managerial framing, it was possible to gain a deeper understanding of the data set, showing managers to consider the changes instigated by digitalization as posing both opportunities and threats. In this context, opportunities are defined as areas that can be developed to improve the retail business be it for the retailer in terms of process improvement or for customers with regards to meeting their expectations and delivering a unique customer experience. On the other hand, threats refer to challenges that need to be overcome, though it is important to highlight that they are not all necessarily regarded as negative aspects, rather issues that require managers to find suitable solutions. The reason for emphasizing this point is to ensure that the managers' thoughts are not distorted, as many of the issues they discussed were complex, meaning that one market development could result in positive, negative, or neutral impacts simultaneously. An example of this is the omni-channel business model which though presents managers with many challenges, was described as a good move for the business, one which will streamline processes and enable the organization to reap benefits in the long-term.

It is notable that within these threats and opportunities, there are elements that are both uncontrollable and controllable by the retailer. This further illustrates the highly complex nature of retail digitalization, as there are multiple factors that retailers have to concurrently respond to effectively. Uncontrollable aspects are also referred to as environmental or external factors that influence how retailers develop their business operations, these include factors such as technological developments, customer demands, and other competitors in the retail space. Framing A, B, and G are considered to be uncontrollable as they are dictated by the environmental factors, while a high proportion of the opportunities and threats raised by managers are controllable by the retailer to varying extents, these include framing C, D, E, F, H, and I. These controllable factors place managers in a situation where they must decide where their efforts are best spent, and if the organizational focus should be on mitigating threats, seizing opportunities, or a combination of both in a bid to sustain competitive advantage. Though both controllable and uncontrollable factors warrant recognition and may instigate a response from retailers.

Baring these thoughts in mind, the managerial framings have been clustered into either threats or opportunities based on the interpretations that the managers shared throughout the interviews. These clusters are illustrated in figure 5 and detail only the most salient issues discussed by the retail managers. The inner ring indicates which managerial framings are considered to be opportunities and those which present threats, exemplifying the most dominant thoughts mentioned by managers throughout the interviews. The middle ring

illustrates the different managerial framings identified in the data which are expressed using their code and a short phrase that captures their meaning. Finally, the outer ring displays the units of thought that were used to develop each managerial framing. This figure helps to illuminate the myriad issues that have been instigated by the digital disruption, highlighting the current threats and opportunities facing retail managers and retailers.
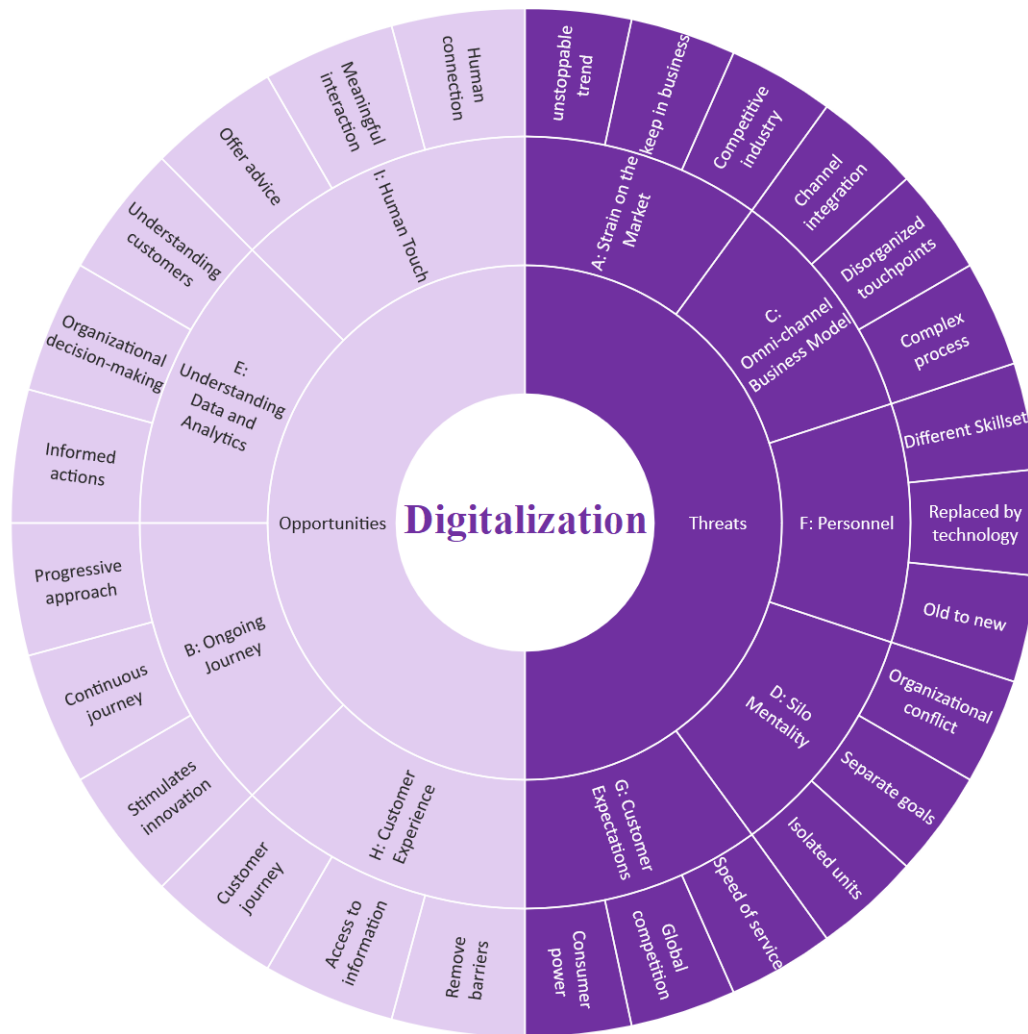
Figure 5. Managerial framings of digitalization as opportunities or threats

4.6   Summarizing the Findings

The three framing categories developed in the analysis; 1) digital strategy and management, 2) changing organizational competences and mindset, and 3) shifting power to the retail customer, helped me to interpret the ways in which managers understand retail digitalization. Managers recognized that in order to remain in business and gain competitive advantage they must

consider how digitalization can be incorporated into organizational strategy, employing digital solutions throughout the organization and embarking on a journey to create the omni-channel. As retailers continue to digitalize more of their operations, managers also emphasized the role of humans within the organization. These thoughts were around organizational competences, including the increased use of data and analytics within organizations that can aid in making more informed decisions, as well as the skills required by both managers and employees to adapt to new digital ways of working. This encompassed other challenges around the organizational mindset, referring to the ways in which the organization is viewed by its employees, either as a unified entity or as isolated units. Managers also acknowledged the trend of growing consumer power, forcing retailers to respond to rising customer expectations and work on creating a unique customer experience. Finally, though managers consider digital technologies as useful tools, they stressed that the service encounter still requires the human touch to meet customer demands and enhance the experiential aspects of a brand.

5 Discussion and Conclusion

5.1 Research Summary, Reflection and Conclusions

The purpose of this study was to complement the current literature while addressing the existing research gap with regards to the managerial perspective on the digital transformation of retail. With little to no research in this area, the aim of this study was to gain a holistic understanding of digitalization in the retail sector. To guide my research, the central question posed was, "how are managers framing the digital transformation of retail?" To respond to this question, a social constructionist approach was adopted which enabled the exploration of how retail managers explain, describe, and interpret retail digitalization. In this research, retail managers were perceived as knowledge agents which in the context of this study are understood as individuals who are involved in creating knowledge through sharing their thoughts, experiences, and interpretations. Therefore, taking this approach illuminated the ways in which digitalization is understood through gaining managerial insights.

The methodology employed in this study involved qualitative data collection and analysis. To understand the ways in which managers are framing the digital transformation of retail, 26 interviews were conducted with retail managers from both the UK and Finland. The data analysis process involved various techniques including coding, thematization, categorization and framing, which called for a thorough understanding of the data set. Through this analysis three typical framing categories were developed, namely, 1) investing in digital strategy and management, 2) changing organizational competences and mindset, and 3) shifting power to the retail customer. Each category consisted of the relevant framings, totalling nine managerial framings which were labelled A-I. After further analysis on each managerial framing, the framings were subsequently grouped based on if they were considered as threats or opportunities for brick and mortar retailers.

Upon reflection of the findings, the managerial framings were plotted on a four-dimensional graph to display the external factors influencing the digital development of brick and mortar retailers and the extent to which they are perceived as opportunities or threats, this illustration can be seen in figure 6. This figure represents a conceptualization of retail digitalization in relation to brick and mortar retailers, with the X axis indicating the threats and opportunities facing brick and mortar retailers, while the Y axis displays if the digital developments were considered to be technology or customer driven. As can be seen in this figure, the managerial framings are scattered across the spectrum, with the extreme of each

dimension being reached with various framings. This indicates the complexity of the digital disruption on brick and mortar retailers and highlights the various issues facing retail managers for which they must respond. In the already highly competitive retail market, digitalization has placed further pressure on retailers to transform their business models in an effort to remain competitive and satisfy customer needs.

Figure 6. Conceptualization of retail digitalization

Despite the volatility of the retail market and increasing pressures retailers face, as a researcher, I was surprised by the predominantly positive perspective adopted by retail managers in relation to digitalization. Although the managers recognized the various threats in the market, they mainly laid emphasis on the opportunities it presented them with to improve their organizations. Rather than viewing digitalization as a negative movement, retail managers perceived threats as challenges to be overcome that create an urge to innovate and improve the retail business. In this sense, new technologies are seen as tools or support devices that will

bring the retail business into the digital era, improving back-end processes for the retailer and front-end capabilities for the retail customer.

5.2   Theoretical Contribution

The purpose of conducting research is to contribute to an existing body of knowledge. The aim of this study was to gain a better understanding of retail digitalization from the perspective of retail managers, through which, this study makes theoretical, methodological and practical contributions towards research on retail digitalization. A key *theoretical* contribution of this study is that though there is extensive literature on retail digitalization, to the best of my knowledge, there are no other studies that take the perspective of retail managers, meaning that new insights on digitalization were highlighted throughout the study. In terms of *methodological* contributions, this study was unique in that the data sample was expansive and included managers from two different countries. As digitalization is a global trend, this contributed towards gaining a holistic understanding of the phenomenon from two developed European countries. With regards to the *practical* contributions, taking the managerial perspective resulted in much information that has implications for retail managers (see section 5.3 on managerial implications).

This study makes contribution to the existing literature on the topic of omni-channel retailing, in which, numerous scholars advocate that the next progression for brick and mortar retailers is to create the omni-channel business model (Brynjolfsson et al., 2018; Von Briel, 2018; Huré et al., 2017; Jocevski et al., 2019; Picot-Coupey et al., 2016; Verhoef et al., 2015). The discussions on this topic centre around the challenges presented to retailers as they design and implement the omni-channel, such as the difficulties around channel integration (Von Briel, 2018; Piotrowicz & Cutherbertson, 2014; Verhoef et al., 2015), managing touchpoints (Yrjölä et al., 2018b), and making investments (Picot-Coupey et al., 2016; Sorescu et al, 2011). While all these issues were consistent with my findings, managers connected these issues with a central challenge relating to legacy systems within their organizations. This was particularly raised as a concern for organizations that were larger and well-established with multiple locations, as updating the systems and processes requires more effort and resources to navigate. While smaller organizations considered themselves more agile and able to adapt to digital ways of working as they were faced with less technical challenges.

This study also challenges some pre-existing knowledge in the literature on the 'retail apocalypse' (Helm et al., 2018), in which scholars suggest that the rise in e-commerce will lead

to the continuous demise of physical stores. Helm et al. (2018) claim that due to the competitive service levels offered by pure plays in comparison with the offering from brick and mortar retailers, the decline in the high street does not phase customers and is fast becoming an expected reality. On the contrary, the findings in the study indicate that customers appreciate the hedonic value offered by brick and mortar retailers such as the human touch and experiential aspects of shopping in-store that cannot be replicated by online or mobile shopping platforms. Many of the study participants hold top management positions within organizations and they stressed that physical stores are very much an important part of their offering and are not seen as a weakness to the business. The findings suggest that physical stores are an important channel through which retailers operate, enabling retailers to differentiate their offering and deliver a unique customer experience that is relevant to their customers. Thus, this study highlights that where pure plays have been able to gain competitive advantage previously, most of the tools available to them have been exhausted, while the majority of new technologies on the market offer brick and retailers myriad opportunities to innovate and improve the in-store experience.

While much research has noted the positive impacts of retail digitalization with regards to improving firm processes (Hagberg et al., 2017; Fiorito et al., 2010; Sorescu et al., 2011) and enhancing the customer experience (Balaji & Roy, 2017; Picot-Coupey et al., 2016; Reinartz et al., 2019; Willems et al., 2017), research is lacking in terms of managerial perspectives on the digital transformation of retail. To the best of my knowledge, only one other article to date has highlighted the positive impacts on retail managers (Mende & Noble, 2019). In their study, Mende and Noble (2019, p. 84) present digitalization as a phenomenon that offers opportunities for frontline managers, claiming it is "an exciting time" to work in the industry. My research builds on the work of Mende and Noble (2019) by adding new managerial insights on the ways in which retail managers perceive retail digitalization. The findings from this study demonstrate that the increased access to data and analytics have been invaluable for retail managers when it comes to organizational decision making. Managers who have previously relied on their gut feelings when making decisions are now supported by detailed data that can guide them to make informed decisions based on all the information at their disposal.

Furthermore, this study contributes by gaining managerial insights that have not yet been explored in the current literature. While retail managers recognize numerous challenges facing the business through the digital transformation, they specifically raised concerns regarding personnel in terms of their skills and ability to adapt to digital ways of working. As

has been highlighted by Willems et al. (2017) retail has traditionally been a low technology industry where employees have not required the skills that are becoming imperative to working in increasingly digitalized environments. The findings in this study indicate that retail managers value their employees, especially those who have been with the company for a long time and may struggle with the adaptation to new digital ways of working. Thus, this study highlights the human side of the organization as an important factor from the managerial perspective which is significant as it will influence the ways in which organizations digitalize.

To summarize, this study contributes by confirming ideas that are explored in existing literature such as the challenges related to creating the omni-channel business model, while connecting these issues from the managerial perspective, recognizing legacy systems as one of the barriers hindering progress in this area. This study also contests some points made in the literature on the death of high street by highlighting the hedonic value that brick and mortar retailers offer their customers which cannot be replaced by other channels. New perspectives were also contributed through this study by exploring how managers view data and analytics as important tools in organizational decision making and understanding the business. Finally, this study highlights an unexplored area in the literature, more specifically, the significance that retail managers place on the human side of the organization through the digital transformation, noting that issues with personnel are not only about job loss, replacement, and redeployment, but also how they can retain their employees who do not possess the necessary skills and competences to work with digital technologies.

5.3 Managerial Implications

In this section the practical contributions of this study will be elaborated, showing how the findings of this study can aid retail practitioners. The results of this study have various implications for both managers and consultants working in the retail sector. Though this study produced various findings, several of which do not have direct implications for retail managers, as such only those threats and opportunities that can be acted upon have been highlighted, these results can be found in table 6. In this table, the findings from the study are presented along with several issues that were raised by the retail managers. The issues discussed by retail managers in this study were complex and posit various challenges that need to be managed and overcome. The following managerial implications are outlined to provide guidance to retail managers who are currently navigating retail digitalization.

Table 6. Managerial implications based on the findings of this study

Findings	Issues Raised	Managerial Implications
Retailers viewing the business with a 'silo' mentality	• Separate entities • Various pricing structures • Conflicting incentives	Managers need to consider the ways in which they can connect the different parts of their organizations not only technically, but also the organizational mindset. While the physical stores are an important part of the business they must not be viewed in isolation. Managers must ensure that pricing structures are uniform and organizational goals do not conflict with one another to reinforce the unification of organization. This will likely require more collaboration between the different functions within organizations.
Understanding data and analytics is important in driving organizational change	• Lacking skills • Less gut feelings • Informed actions • Act faster	Managers should look to develop their skills and improve their ability to understand data in order to effectively utilize the information available to them. Data is seen as a valuable tool that can guide managers to make better decisions in shorter timeframes. Thus, access to data streams will likely impact the traditional decision-making process, whereby managers will be expected to base their decisions on the data.
Employing digital solutions requires personnel to develop new skills	• Old to new • New skill set • Digital literacy	Managers must understand the skill sets of their employees and consider if they can adapt to digital ways of working, particularly if their organization has many long-serving staff members who do not necessarily have digital literacy. To retain these employees, they must offer the necessary training to keep these employee's skills up to date. In cases where employees are reluctant to change, managers must recognize that this could contribute toward the 'silo' mentality within the organization and hinder the effectiveness of digital developments.
Rising customer expectations places pressure on retailers	• Consumer power • Match service levels • Global standards	Rising consumer power is a growing trend in the retail industry and has been recognized by retailers. In response, managers must be more vigilant than ever in understanding the service level demands of the customer. Since competition is no longer only local, managers must also understand how their customer value proposition addresses the market needs in line with global competition.
Retailers have the opportunity to enhance the customer experience using digital tools	• Improve customer journey • Remove barriers • Access to information • Interactive shopping	With customer demands ever-increasing, managers should realize the opportunities presented by digital tools to make the customer journey more seamless by removing barriers and providing more access to information. The physical store experience is an area in which retailers can differentiate their offer from online retailers, thus, managers need to consider how they can make the shopping experience more interactive and enjoyable to drive visitation and retain customers.
Customers still require the 'human touch' in the service-encounter	• Human connection • Offer advice • Help the customer	While online and mobile shopping offer speed and convenience, shopping in a physical store is a sensory experience where people still enjoy the element of human interaction. While technology can replace many human tasks within stores, when shopping in-store customers still expect staff members to offer advice and help them with their shopping. Hence, managers must strike a balance when it comes to investing in digital technologies, deciding where the human touch can add value to the service-encounter.

Retailers are amid transforming their organizations through integrating channels, changing business processes, and employing digital solutions. While embarking on this journey managers must remember that in order for the business to be viewed in its entirety, they face both technical challenges and issues regarding organizational mindset. The role of a retail

manager in this respect is to facilitate the transition through ensuring consistencies throughout the organization and fostering collaboration. While retail digitalization requires managers to take on new responsibilities and broaden their remit within the organization, it has also presented them with digital tools that can aid in understanding the business. Retail managers who choose to learn how to understand data and analytics will be rewarded with streams of data on their operations, processes, and customers that can provide guidance with organizational decision making. More than just their own skills, managers must also understand the skill sets of their employees if they are to remain a part of the business and support them as they adapt to digital ways of working.

While rising customer expectations place pressure on retailers, organizations must also consider their own expectations and aims in the digital transformation. As there are numerous digital technologies available on the market, many retailers are perplexed and unsure of where to make investments. It would be advisable that managers wade on the side of caution when it comes to adopting new technologies as customer expectations change rapidly and there is little understanding of how they will react to new technologies they are faced with. Thus, making heavy investments into new technologies can be risky as it is unknown how they will be received by the customer. Examples of this can be seen with current branded mobile applications on the market that are struggling to attract customers (Tseng & Lee, 2018). Research suggests that first retailers should ensure they focus on the 'competitive imperatives' (Willems et al., 2017), meaning that they invest in those elements that meet the minimum expectations of the customer before deciding on ways in which to innovate and deliver a unique customer experience.

As we continue to shift into the digital era, another consideration is how the technological and human aspects of the business can be used to complement one another. Research has already noted the "eerie silence" of the digital transformation as humans are increasingly removed from the service encounter (Johnson, 2017, p. 91). While adopting technologies that replace employees may offer labour cost savings for the retailer, retail managers must remember the needs of the customer (Inman & Nikolova, 2017). There is growing research on the importance of the 'human touch' which shows customers value human interaction in the retail shopping environment (Belleghem, 2015; Mende & Noble, 2019; Rafaeli et al., 2017). While online and mobile platforms offer convenience and speed, they are not able to offer this type of service for their customers, meaning that retailers can leverage their position through the human side of the organization. Thus, retail managers must consider

when technology can be used to complement the service-encounter, rather than how it can replace their human counterparts.

The findings from this study suggest that undergoing the digital transformation is not only a technological change in processes and systems, but a human change in terms of ways of thinking and working. The findings further indicate that retail managers of today must develop with the organization and have a thorough understanding of their business and the retail market. The managerial implications can thus be summarized as follows; retail managers can lead the way in retail digitalization by facilitating the integration of the organization, developing skills in data analytics, expanding the skill sets of their employees, understanding their customers, and making careful investments in digital technologies while remembering to balance the human aspects of the business with technology.

5.4   Limitations and Future Research

This study set out to understand how managers are framing digitalization in the retail sector. With such a broad research aim, research limitations are an inevitability. The main limitations of this study relate to the subject matter, data sample, and qualitative research methods. In accordance with the work of Mende and Noble (2019), one study limitation surrounding this topic is the speed of digital transformation compared with the rate of producing research. The fact that the research process can be long and arduous means that the results or impacts observed at the time of data collection are likely to evolve by the time a study has been published. Notably, this is an issue with various types of research, yet is even more prominent when studying a subject such as digitalization. That said, one of the benefits of this study is that the timescale for this master's thesis is relatively short. From the data generation stage to publishing, this study was approximately eight months, meaning that the ways in which managers socially construct digitalization will still be relevant, topical, and useful for other retail practitioners as they try to make sense of the digital transformation.

The second limitation relates to the data sample selected for this study as this research involved conducting interviews with retail managers from both the UK and Finland. Though it should be highlighted that this research was not conducted with the intention of being a comparative study and the results did not signify differences in terms of managerial interpretations, there may be some aspects that warrant further attention. As has been recognized in the work of Piotrowicz and Cuthbertson (2014), the UK is considered one of the most advanced countries in terms of retail digitalization, specifically with regards to multi-

channel and e-commerce. As a result, there may be more intricate differences between these two countries that were not explored in this research. However, due to the scope and timescale of this study, the comparative aspects between these two countries could not be investigated.

Another issue relating to the data sample was the wide variety of retailers included in the study. The aim of this research was to gain an overall understanding of digitalization in the retail sector, as such, the retail managers in this study came from various types and sizes of retailer. While this helped to gain a holistic understanding, it produced generalized results that are indicative of the broad impacts of digitalization, but do not take into account each specific case and context. As previously mentioned, while no anomalies were found in this study, further research could be conducted on a narrower sample size such as a specific type or size of retailer to reveal new insights on retail digitalization.

There were also limitations in relation to the qualitative research methods employed in this research, these are not unique to this study and exist when conducting interviewees with practitioners. Alshenqeeti (2014, p. 43) highlights certain validity and reliability concerns when using interviews in data generation, specifying that "interviewees will only give what they are prepared to reveal about their perceptions of events". Thus, there is a concern that as representatives of their organizations, study participants may not share the realities of the situation so as to protect the interests of their organizations. This was considered by the researchers during the data collection process, consequently, two approaches were adopted to minimize this influence, 1) offering anonymity to the interview participants and 2) by not affiliating retail managers with their organizations. Furthermore, when contacting the participants, it was highlighted that the aim of this research was to understand their interpretation of retail digitalization, not the official company position.

The data produced throughout the interviews was rich and offered new insights that have not been discussed within the current literature on retail digitalization. However, as the purpose of this study was to produce a master's thesis, there were many other avenues that could have been further explored but could not be indulged as they were not in keeping with the aims of this research. Thus, this study also led me to consider the opportunities for future research on retail digitalization. This subject is topical, exuberant, and all-encompassing, offering scholars myriad research opportunities. Based on this study, three research gaps were identified that could be explored to complement the existing body of literature, these include; employee perspectives on retail digitalization, justification for investing in digital tools, and the human side of digitalization.

For this study, I assumed a top-down approach looking at managerial perspectives on the digital transformation of retail. With little to no research in this area, retail managers were considered to offer important insights as they are the individuals responsible for digital strategy and technology implementation. At this point in time, there are many organizational challenges facing retail managers, which were illuminated in the findings. However, as was highlighted by the retail managers in this study, employees are also facing numerous challenges when it comes to adapting to new digital ways of working. As employees are involved in technology adoption, they also have an influence on its effectiveness within organizations. Moreover, retail employees are aware of both customer needs and operational needs (Cornelisson & Werner, 2014), meaning they could also offer new insights. Thus, a bottom-up approach to retail digitalization could be adopted to explore the ways in which employees perceive this movement.

One salient issue raised throughout the interviews were the huge investments required in order to undergo the digital transformation. This mainly revolved around updating legacy systems, relating to the improvements required in infrastructure and systems so that front-end capabilities for the customer can be enhanced. In their research, Piotrowicz and Cuthbertson (2014) already question the justification for up-front investment in digital tools, suggesting that while new technologies can improve the customer experience, the benefits for the retailer are less tangible. At present, customer perceptions of new technologies are little understood, which could result in low adoption. Though there is consensus that the digital transformation of the business is necessary, retail digitalization is in its infancy, meaning that there are few successful cases for managers to use as a guide and substantiate their investment decisions. As a result, research could explore how retail managers build the case for retail digitalization and justify investments in digital tools.

Another topic that warrants further exploration is the human side of digitalization. Retail managers noted the significant impact of digitalization on their employees, specifically with regards to their competences and skills to adapt the new digital ways of working. Retail has long been a low-technology industry and the people have been an important part of the business. Research in this area could explore a multitude of different topics from various perspectives. Building on this study, the focus could be how retail managers support their employees through the digital transformation. In this regard, there may also be value in conducting a series of interviews with the same participants, both managers and employees, to see how their interpretations, competencies, and skills change over time. Moreover, as already highlighted throughout this study, customer expectations and technology adoption influence

the types of technologies in which retailers invest, therefore, a further study could focus on how humans add value to the service encounter from the customer perspective.

5.5 Evaluating the Research

When conducting research, it is important for the researcher to be aware of their own practices throughout the data generation and analysis process as well as the ways in which the research is presented to ensure quality work is produced and the research can be evaluated accordingly. When conducting qualitative research, Lincoln and Guba (1985) claim that the study must be conducted in such a way so as to respect the participants through naturalist inquiry. Naturalistic inquiry places emphasis on the objectivity of the researcher, meaning that they study things 'naturally', ensuring they do not influence the participants in data collection and likewise do not interfere with and manipulate the data during analysis. Lincoln and Guba (1985, p. 225) stress that the ideas must "emerge, develop, [and] unfold" through naturalistic inquiry allowing the researcher to make sense of the data in an unadulterated fashion.

My approach when conducting this research recognized both deontological and consequential ethical values, thus, various steps were taken to ensure that the research was carried out as naturalistic inquiry. I placed importance on remaining true to the data used in the study by being transparent through my work through the different methodological choices I made in my study. An example of such choice is the method of data analysis for this research which was in-vivo coding. Utilizing this type of analysis ensures the findings remain close to the participant's interpretation by using their own voice to code the data (Given, 2008). Moreover, the coding conducted throughout this research is shared with the reader not only to demonstrate the method of coding, but in an effort to show the transparency of the research, clearly illustrating how the data was used to form the themes and framings within this study. The memos that were written after each interview also aided to capture the most salient points raised by the participants while the information was still vivid, this process was detailed in section 3.1 on data generation and a sample can be seen in appendix C.

As my research involved industry professionals comprising individuals who hold management positions in retail organizations, I recognize the importance of considering the ethical implications of my study. To ensure that my research adhered to ethical standards, I conducted my study in accordance with the six key principles detailed by the UK Economic and Social Research Council (ESRC), which for the purpose of my research are best summarized by Carpenter (2018, p. 39–40) into the following four categories; 1) maximizing

benefits, 2) respecting rights, 3) ensuring inclusivity, and 4) researching with integrity. These principles guided my research when referring to the work of others as well as during my own data generation and analysis process, ensuring that it was carried out ethically, responsibly, and with due accountability. As I worked alongside another student from the Faculty of Management and Business, Aaron Donnelly, we both agreed the ethical standards that we wish to sustain prior to beginning our research. Moreover, I also utilized the academic writing standards set by Tampere University as a guide and reference point when considering research ethics and quality (Bethwaite, 2017).

The issue of privacy was considered important to protect the confidentiality of my study participants (Hammersley, 2018). As the data collected as a part of this research may be used in further studies in the future, all the interviewees were required to confirm both verbally and in writing if they would prefer their data to be made public or remain private. Throughout the interview process, each participant was sent a content release form to give written consent to release the information for research purposes (refer to appendix E). Despite all the participants giving their oral consent to use the material during the interview, be it public or private, it was not possible to receive the signed written consent forms from all participants, this is likely due to professional obligations as many of the interviewees held senior or top management positions within organizations. To protect the confidentiality of the participants within the study, it was decided that all the individuals would be referred to using a code and there would be no affiliation with their organization. Moreover, several participants requested that they remain anonymous and as such, job titles in section 3.2 table 3 were altered if they were too specific to ensure that they could not be identified, though their positions were still indicative of their role.

In terms of maintaining a high level of research ethics throughout the entire study, one key advantage of this study is that the researchers took on multiple roles; that of a researcher, an interviewer, a transcriber, and an editor, meaning that the data was only handled by the two researchers throughout the process. Mero-Jaffe (2011) supports this research method claiming that it enables the researcher to be more familiar with the research and can also reduce the number of errors in the transcribing process due to research expertise and contextual knowledge.

5.6   Conclusion

The aim of this study was to gain an understanding of digitalization on brick and mortar retailers from the perspective of retail managers. In order to achieve this, the following question was posed, 'how are managers framing the digital transformation of retail?' Throughout the research process, I have been able to respond to this question by employing qualitive research methods, a process which began with conducting interviews, and the subsequent coding, categorizing and thematization of data that enabled me to develop the managerial framings presented in this study. Based on the data analysis, it can be concluded that there are multiple framings used to understand retail digitalization, reflecting the complex nature of the phenomenon. The results indicate that digitalization effects managers, employees, and customers in diverse ways, with both positive and negative associations around digital technologies. The findings also suggest that digitalization requires retail managers to respond and adapt to the changes within the retail environment. Though managers recognize the various threats posed by digitalization, they are focused on the opportunities it can bring to their organizations both for their business operations and their customers.

Based on the conclusions drawn from this research, practitioners need to prepare themselves for ongoing transformation in the retail sector as more digital technologies are implemented in brick and mortar stores. While new innovations may offer retailers various benefits, managers should consider the customer perceptions, technology acceptance, and employee skill set before making investments and allocating resources. In addition, retailers should remember that though digital developments are rapid, many organizations suffer from the 'silo' mentality which will inevitably hinder the business transformation. In this regard, retailers must set realistic expectations for their digital development based on their organizational competencies and ability to overcome challenges with the organizational mindset.

Though the research on retail digitalization is extensive, the managerial perspectives on the subject are limited, thus this study addressed an existing research gap by focusing on retail managers. Through comparing my findings with the existing literature on retail digitalization I was able to contribute through corroborating with research on the omni-channel, challenging the literature on the 'retail apocalypse', and revealing new managerial insights on the human size of digitalization. This study complements the current literature, while highlighting possible areas for further research on the noteworthy movement of retail digitalization.

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Appendices

Background & personal insight on the phenomenon

1. How long have you worked for the company?
2. Can you tell me about your position?
3. In your opinion, how has digitalization affected the retail industry/your firm?
4. What do you feel is the main drive for firms to digitalize?
5. Can you tell me a little bit about the company?

Digital strategy

6. Does your company have a formalized 'digital strategy'?
    a. If so, how long have you had it in place? How frequently do you plan? Who participates in the process? What instigated the development of the plan? What is included in it? How is it helpful?
7. Which department is responsible for the management of the company digital strategy?
    a. Do you think that this influences how your firm implements the digital strategy?
8. In terms of digital capabilities, what differentiates your firm from your competitors?
9. Could you provide some examples of how digitalization has changed business processes?
10. Does your digital strategy focus more heavily on ways in which digitalization can optimize back-end processes or front-end capabilities?

Customer experience

11. What is your firm's philosophy in terms of creating a customer experience?
12. To what extent/how does digitalization help you to realize this philosophy?
13. In what ways has digitalization improved the customer experience?
14. Could you provide some examples of how digitalization affects the customer interaction with the firm?
15. Research suggests that the traditional buying process consists of the following stages: need, information search, comparison, buying, consumption, which area do you think has been the most effected for your firm/in the retail industry?

Omni-channel integration

16. To what extent do you feel that the digital and physical aspects of the business are integrated?
17. Can you name some positive effects that digitalization has had?
18. Do you offer any addition services through digitalization that are solely for the benefit of the customer?
19. Do you think that digitalization has had any negative impacts on your firm?

The below list shows the organizations from which the managers were interviewed. The list is alphabetized and has no relation to the numerical system used to code the managers within the study.

RETAILER	TYPE OF RETAILER
ASDA	Supermarket
Alko	Beverage
Dreams	Bed and Mattress
Electrolux	Electronics
GAME	Games
IKEA	Home furnishings
JYSK	Home furnishings
Kekäle	Fashion
Kesko	Supermarket
Killis	Cleaning
LIDL	Discount
Musti ja Mirri	Pet supplies
Puma	Sport and Leisure wear
Sainsbury's	Supermarket
S-Group	Supermarket
Specsavers	Optical
Stockmann	Department store
Tokmanni	Discount
Tesco	Supermarket
Wilko	Household
XXL	Sport and Leisure wear

Appendix C: Interview reflection diary

Please refer to physical copy. Below is an image taken from the diary that shows a sample of one interview memo for M23.

Retailer: ▮▮▮▮▮
Job Title: Head of Customer Experience Strategy
Name: ▮▮▮▮▮
Code: M23

that need and information search are the most effected areas, but buying is an area they will focus on next to meet customer demands.

M22 said that the integration between physical and digital has been made easier by the company making all sales combined rather than store vs. online. This means employees can offer the most suitable service for customers regardless of channel.

In terms of positives, M22 claimed it has been easier to communicate with customers as a result of digitalization. Having more channels available has made meeting KPIs more achievable. He also said building an instore experience to attract customers has become more important. This is achieved through workshops, demonstrations etc. and communicated via ▮▮▮▮▮ loyalty scheme (email).

The negatives were believed to be that the playing field has changed and brick & mortar retailers have a harder job to stay in business. Although he added that "crisis brings opportunity" and who knows what the high street will look like in 5 years time.

M23 began by noting the huge impact of digitalization on retailers. He claimed that digitalization has redefined the retail space, changed how consumers buy, and effected interactions between customers and retailers.

M23 said that ▮▮▮▮▮ have identified 5 trends that need responding to; demographic change, technological advancements, social responsibility, loyalty, and definition of value. Many of these have contributed toward the change in consumer behavior and caused a need to change.

In terms of digital advantage, M23 said that they are not so different from their competitors, though their scope and reach enable them to utilize digital tools to profit from ordering & delivery options that are not possible from their rivals.

The business processes have been affected both back and front end. Examples provided by M23 were as follows; Backend – people progress programme has changed jobs into systems so there is less paper and operations are managed digitally rather than on paper (self-serve tech). On the front-end the call centres now have much more information about the customer so they don't need to transfer to other departments – this was said to improve customer experience.

Building on the above, M23 said that their aim is always to improve the front-end yet due to legacy systems these changes are not possible or require back-end updates. One example given was that much data is in silos. He added that change is more complex for large, old organizations.

From a customer experience perspective, M23 claimed they aim to save money, time, and effort for their customers – overall making the "easiest shopping trip" and identify moments where they can "inject

personality" and make a more experiential brand. Digitalization enables this process & experience.

M23 suggested digital tools are useful in that they enable faster service, more sophisticated understandings, and agile change to take place. Although he also recognized that the cost is sometimes too high to realize these (e.g. "▮▮▮▮▮ app" for colleagues that shows all product info).

From a positive perspective, M23 claimed that there are multiple benefits for the customer including; more choice, information, flexibility, speed, simplicity, competitive pricing.

On the other hand, digitalization has been a challenge to the business historically as they operate in silos (e.g. store managers see online channel as a threat). Moreover many jobs have been redefined, reduced, redeployed and some people don't want to adapt while others have lost their jobs.

Finally, M23 gave an example of services offered to customer that solely benefited them - online offer for online clothing purchase which was made at a loss but supported customer experience. However, this was stopped in 2018 due to heavy losses

Framing Categories

1	Investing in Digital Strategy and Management
2	Changing Organizational Competences and Skillset
3	Shifting Power to the Customer

Category	Code	Framing Description	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	Total
1	A	Digitalizing the retail business places strain on the market	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓							17
1	B	Transforming the retail business is a journey that stimulates innovation		✓	✓	✓			✓	✓		✓	✓	✓		✓				✓	✓			✓		✓			13
1	C	Creating the omni-channel business model through channel integration	✓	✓		✓	✓			✓			✓		✓					✓			✓		✓				10
2	D	Viewing the business with a silo mentality	✓			✓		✓	✓	✓	✓			✓	✓	✓				✓	✓			✓	✓		✓		14
2	E	Understanding data and analytics in driving organizational change				✓	✓		✓	✓	✓		✓							✓	✓								8
2	F	Employing digital solutions requires personnel to develop new skills		✓		✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓		✓	✓	✓	✓		✓				17
3	G	Enhancing the customer experience using digital tools	✓			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓		✓	20
3	H	Rising customer expectations places pressue on retailers		✓	✓	✓	✓			✓			✓	✓	✓	✓	✓	✓		✓		✓	✓		✓		✓	✓	17
3	I	Servicing customer needs still required the human touch					✓	✓	✓	✓	✓	✓		✓			✓		✓				✓		✓				11

Appendix E: Consent Form

Content Release Form

During the interview, you will be recorded on audio so that your information may be used by the following researchers, Charlotte Walker and Aaron Donnelly, contributing toward their master's theses at Tampere University, Finland. Upon completion of the interview, Charlotte Walker will compile the recording into a written transcript and the written transcript will be made available to you on request. With regards to the content release, you have two choices regarding the transcript of the interview. The materials may be designated either **"public"** or **"private."**

If you designate the materials **"public"** the transcript will be accessible to researchers who may wish to use the materials from the interview for future exhibits and research activities. Within the indicated studies, the transcript will be analyzed by the researchers and you will be identified in the study.

If you designate the materials **"private,"** the transcript will be analyzed by the researchers and your information will be used to complete only the indicated research. It will be released and submitted to the Tampere University as a part of the thesis, but your information will be reported in a way that does not identify you, and your materials will be destroyed after the study is complete.

If in the future you wish to change the status of your transcript, you may contact Charlotte Walker: charlottewalker556@googlemail.com

___   I hereby designate the materials as **public** and give permission for my transcript to be used openly.

___   I hereby designate these materials as **private** and do NOT give my permission for my transcript to be used by third parties. The materials will be given to you for your own private use and I want my materials to be reported so that they will not identify me and destroyed when the study is complete.

By signing the below, you also confirm that your participation in this research study is voluntary. You may choose not to participate, and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

Print Name: _____

Signature: _____

Date: _____

You will receive a copy of this form for your records.
Charlotte Walker and Aaron Donnelly will maintain the materials of this research.