



## Editorial

## Retail digitalization: Implications for physical stores



## 1. Introduction: digitalization and physical stores

Digitalization is dramatically transforming society, and distinctly so within the field of retailing. Following the emergence of the Internet and new technology, new patterns and logics have emerged, and scholars have paid increasing attention to what is described as a digital transformation of retailing. However, until recently the focus has primarily been on e-commerce (Hagberg et al., 2016). E-commerce is certainly growing and increasingly encompassing both large and small retailers, and the growth of e-commerce platforms such as Alibaba and Amazon is strongly influencing the competitive environment. Still, while e-commerce is a central aspect of digitalization, the implications of digitalization extend far beyond e-commerce (e.g. Pauwels et al., 2011). To take an example, mobile applications are used by consumers not only for e-commerce but also in fixed store settings in order to compare prices, evaluate products, and compare health, environmental, and ethical considerations, in addition to facilitating payment or creating shopping lists, among other things (e.g. Ström et al., 2014; Groß, 2015; Pantano and Priporas, 2016). Emerging technologies such as the Internet of Things, augmented reality and artificial intelligence are also starting to be applied in the field of retailing (Grewal et al., 2017). Big data also offers a lot of possibilities, and Grewal et al. (2017: 1) note that those retailers who are able to draw conclusions from big data are better prepared and can better predict consumer behaviour, thereby targeting consumers more effectively.

New technology is developing fast and retailing is increasingly considered to be in rapid transformation. We are already witnessing not only new shopping behaviours, but also new retailing behaviours. The implications of digitalization for physical stores are of key importance, since the majority of retail sales still take place in physical stores. E-commerce was estimated to have a share of 8.7% of total global retail sales in 2016, which was expected to increase to 14.6% in 2020 (Statista, 2017). Of the remaining 92.3% and 85.4% respectively, the absolute majority of sales (except for some itinerant trade) is still, and will continue to be, conducted in physical stores. While there are examples of physical stores in crisis and decline (Corkery, 2017; Peterson, 2017) as a consequence of increased competition from e-commerce suppliers and an emerging digital retail logic, there are also examples of new retail formats and adjustments in retailing concepts that strengthen the role of the physical store (Hagberg and Fuentes, in press; Hagberg and Jonsson, 2016; Hultman et al., 2017). Moreover, these physical stores both impact and are impacted by digitalization in retailing. Many online retailers are establishing new physical store concepts as a complement to their online business, and physical stores are often considered a key component in the omni-channel concept that is becoming increasingly common in the retailing landscape (e.g. Brynjolfsson et al., 2013; Verhoef et al., 2015; Blom et al., this issue; Hure et al., this issue). Digital devices also increasingly populate the physical stores and are provided by retailers (Soutjis et al., this issue) or brought in by consumers (Fuentes et al., this issue) and increasingly connected to each other (Pantano and Timmermans, 2014; Balaji and Roy, 2017). Thus, rather than separating retail digitalization, understood as e-commerce, and the physical store, understood as traditional commerce, we are now witnessing initiatives for the integration of the digital and the physical logic of retailing (Hagberg and Jonsson, 2016). Recent examples of this trend include the cooperation between Apple and IKEA regarding augmented reality applications (Maggio, 2017), and the Amazon takeover of Whole Foods Market (Business Wire, 2017). It is this interaction and integration of the digital and physical that needs more scholarly focus, as we must evaluate the existing models and frameworks, as well as (re)search for new ways in which to understand retailing in an emerging and digitalized society (see also Grewal et al., 2017).

While it is clear *that* digitalization will have implications for physical stores, it is less clear *how*. To date, there has been limited research addressing this question—a gap this Special Issue attempts to redress. We, the editors of this Special Issue, have participated in a two-year project on retail digitalization, with special consideration of how digitalization affects business models for retailers with physical stores.<sup>1</sup> In the project, we identified implications for the physical stores that warrant further attention and that must be understood from multiple perspectives, epistemological views and research traditions. The digital transformation and its rapid development calls for joint efforts to understand this emerging phenomenon. In consequence, we decided to initiate a scholarly discussion about these issues via, first, a special session at the EIRASS conference in Edinburgh 11–14 July 2016 and, second, an open call for papers to the Special Issue on *Retail Digitalization: Implications for Physical Stores*. The aim of this Special Issue is to identify and analyze emerging trends and transformations that digitalization brings to the retail industry, with special emphasis on the physical store setting. This is central for fostering an understanding of how retail companies and employees can benefit from digitalization

<sup>1</sup> Catrin Lammgård and Malin Sundström were also part of the project, “Digitalization and changing business models in retail trade”, at the Centre for Retailing, University of Gothenburg, and financed by The Swedish Retail and Wholesale Council. The project was conducted in the form of case studies of Swedish retailing companies, based mainly on interviews with managers in different functions of these companies. The companies studied included IKEA, ICA, Nudie Jeans, Hemtex, Media Markt, Mat.se, Gekås and Byggmax (see e.g. Hagberg and Jonsson, 2016).

opportunities and ultimately create conditions for sustainable growth and profitability.

As this Special Issue calls for the development of an understanding of retail digitalization and the implications for the physical store, it is important to define how we interpret and understand “implication”. In the following section, we introduce three understandings of the notion of implication in the context of digitalization and physical stores, give examples of findings from our project of such implications, and describe how the individual contributions to this Special Issue focus on different aspects of these implications. In the subsequent section, we provide a brief summary of the papers in this Special Issue, both in order to introduce the papers and to illustrate how they complement each other in relation to the topics discussed and methods used. Finally, we conclude with a discussion of the contribution of this Special Issue and outline ideas for further research.

## 2. What does “implication” imply?

“Implication” is a common word in research papers and there are often requests from journals to include it in headlines such as “research implications”, “managerial implications”, “practical implications”, etc. However, what does the notion of “implication” actually imply? On the basis of the papers included in this Special Issue, we can distinguish at least three nuances of the term implication, each with a different emphasis, which also have significance for how we understand retail digitalization and its implications for physical stores. The three nuances are:

- Implication as *effect*
- Implication as *integration*
- Implication as *value*

Implication as *effect* refers to how something is affected by something else in terms of consequences and results. In the case of retail digitalization, this for example refers to how the physical stores are affected by the growth of online shopping. Implication as *integration* places an emphasis on actual involvement. In the case of retail digitalization, this refers to the interweaving and entanglement of digitalization in the physical stores, and in particular when addressing processes of entangling and interweaving the digital and the physical. Implication as *value* refers to how the significance, meaning and roles may change. In the case of retail digitalization, the physical stores may change, and the meaning of the store as such may change and take on a different role in an increasingly digitalized retail landscape.

In the following subsections, we elaborate on each of the three nuances and understandings of implication in the context of digitalization and physical stores. We use these understandings of implications as a framework for discussing how the six papers included in this Special Issue together contribute to our knowledge and understanding of retail digitalization and the implications for physical stores. It is also our ambition that this framework will guide the discussion on implications for future research in more general terms.

### 2.1. Implication as *effect*

Implication as effect refers, in this context, to how physical stores may be affected by digitalization. From the individual papers and our research project, we identify at least five main implications of digitalization for physical stores. These areas of impact are: i) store sales, ii) transparency, iii) purchase processes, iv) store settings and formats, and v) store employees or co-workers.

The first important aspect of the effects of digitalization on physical stores is how sales in the physical stores are impacted by the growth of online sales and shopping. It was pointed out early on that such “cannibalization” may occur via the transfer of sales from physical stores to online (Alba et al., 1997; Doherty and Ellis-Chadwick, 2010; Hernant and Rosengren, *this issue*). With the above-mentioned frequent media reports of decline and large-scale closures of physical stores, we may have reached the point at which such cannibalization is a reality for many retailers. Although such potential effects were pointed out early on in the literature in relation to the growth of e-commerce, there has been a paucity of empirical studies that investigate such effects. Hernant and Rosengren (*this issue*) contribute to these issues by investigating how adding online sales impacts the sales of the physical stores, and to what extent this leads to a cannibalization of sales in the physical stores when sales are transferred from one channel to the other.

Another aspect that may impact sales in physical stores is the reduction in prices arising from increased price transparency (Brynjolfsson and Smith, 2000; Hernant and Rosengren, *this issue*). However, in our research project, we were also able to observe other emerging forms of transparency, in addition to price transparency, that affect physical stores and staff. In addition to price comparisons, other types of information in relation to, for example, other product characteristics, working conditions in the supply chain (Egels-Zandén and Hansson, 2016), and advice from other consumers (Fuentes et al., *this issue*) are becoming increasingly available to consumers. While early examples of transparency primarily concerned information prior to a store visit (e.g. comparing prices before deciding whether to buy online or offline, or which store to purchase from), the smartphone increasingly allows this kind of information to be available in the physical store, which also affects both the purchase process and the staff (see below).

Although personal computers have long been used in relation to purchase processes that include the physical stores, it was through the increased presence of smartphones that digitalization started to have a significant impact on the purchase process in physical stores. Digital technologies are part of the exchange process before, during and after the purchase (Grewal et al., 2013) and may be involved in various aspects of the exchange, such as communication, transaction and distribution (Peterson et al., 1997; Hagberg et al., 2016). The physical stores are becoming part of an increasingly digitalized retailing landscape that, in the terminology of Fuentes et al. (*this issue*), can be described as new *informationscapes*, *socialscapes* and *experiencescapes* in which the physical stores themselves are reconfigured. The physical store can be considered one (or several) of many touch points in this increasingly digitalized retail landscape.

The use of digital technologies in the purchasing process also affects the store settings (Pantano and Viassone, 2015), as well as inspiring the emergence of different retail formats that combine digital and physical aspects (e.g. Colla and Lapoule, 2012; Hagberg and Fuentes, *in press*). Inside the stores, such changes include the presence of digital technologies such as motion sensing equipment (Mathmann et al., *this issue*), electronic shelf labels (Soutjis et al., *this issue*) or different forms of self-service technologies (Fuentes et al., *this issue*). In addition, the digital and the physical are increasingly being combined in the new retail formats of physical stores that are emerging in the increasingly digitalized retailing landscape.

A fifth example of the effect of digitalization on the physical stores concerns the employees who work in these stores. Fuentes et al. (*this issue*) emphasize that the use of the smartphone in shopping may engender the avoidance of interaction with store staff, the removal or modification of activities previously occurring in the store, as well as the fact that activities previously performed before the store visit are now increasingly

performed during the store visit, enabled by the use of smartphones. [Soutjis et al. \(this issue\)](#) point to the question of whether the introduction of digital technologies replaces or transforms work previously conducted by store staff. [Hure et al. \(this issue\)](#) discuss how staff roles are changing in the physical stores in an increasingly digitalized context. According to the authors, sales staff must be more oriented towards information and guiding consumers during the purchase process, which has implications for how staff are recruited and trained as well as how they are evaluated and compensated. This aligns with our research project, which demonstrates that firms place great emphasis on the customer experience, not only in terms of a seamless shopping experience, but also in terms of personal advice based on experience and retail knowledge. Further, the companies considered it important to match the right competencies and skills in order to balance technical knowledge and customer knowledge.

## 2.2. Implication as integration

The integration, interweaving and entanglement of the digital into retailing takes many forms. In addition to providing store equipment, suppliers provide numerous digital solutions for retailers to use as part of their store concepts ([Soutjis et al., this issue](#)). Consumers also bring their devices to the stores ([Fuentes et al., this issue](#)). Of the many digital devices that have been introduced in recent decades, smartphones warrant particular attention. As [Fuentes et al. \(this issue\)](#) suggest, smartphones are increasingly being integrated into everyday life, including into shopping contexts, where they have multiple usages.

A key issue, then, is *how* digital devices such as the smartphone are integrated into in-store shopping activities. As [Fuentes et al. \(this issue\)](#) state, digital technology is a device that is reconfigured as it is used, at the same time as it re-configures the activities of the users of the device. They suggest that digital devices, for example smartphones, contribute to the reorganization of the activities of shopping, and via this interweaving process also contribute to re-configuring the retail stores.

The digital devices also come with a number of expectations. However, as pointed out by [Fuentes et al. \(this issue\)](#) and [Soutjis et al. \(this issue\)](#), digitalization should not be seen as a deterministic natural force and an unavoidable course of events, but rather as a process with uncertain outcomes. For example, [Hure et al. \(this issue\)](#) found that although different offline and online touch points contribute to increasing omni-channel shopping value, the mobile touch point was not a significant contributor to this value. As the authors point out, mobile phones are linked to high expectations that often lead to disappointment when they are used for shopping purposes. Further, [Fuentes et al. \(this issue\)](#) state that although the use of smartphones may be observed in retail settings, they are far from omnipresent in the context of shopping.

Digital devices are also entangled with existing store equipment, rendering some of this equipment either less important or important in new ways ([Fuentes et al., this issue](#)), yet one can also observe a form of resistance from such previously existing store equipment ([Soutjis et al., this issue](#)). As emphasized by [Soutjis et al. \(this issue\)](#), digital technologies should not be considered in isolation, but rather as part of the more complex web of interrelationships they constitute.

Another kind of digital technology that is increasingly important in the physical store settings is the ability to track movements. [Mathmann et al. \(this issue\)](#) explore the use of digital technologies to track consumer movements in the store and how they may be used for promotions that are adapted to such movements. [Blom et al. \(this issue\)](#) examine how such traces can be used in the design of in-store promotions and what the effects of such promotions are. Similarly to [Mathmann et al. \(this issue\)](#), this is related to the increasing opportunities for tracking consumers' in-store activities and adapting to such activities by providing specific, customized offers.

Although the contributions of [Mathmann et al. \(this issue\)](#) and [Blom et al. \(this issue\)](#) with regard to promotions point to the many opportunities offered by digital technologies, the study by [Soutjis et al. \(this issue\)](#) illustrates how other forms of promotion relied more on physical representation via paper. This means that the integration of the digital within the physical store setting may lead to unexpected outcomes and new combinations perhaps not conceived from the outset.

Traditional store devices such as the shopping cart have favoured shopping activity that is less of an individual activity and more something conducted by a “cluster” of people and devices ([Cochoy, 2008](#)). However, with the increasing number of digital devices, the integration of people and devices takes new forms. As [Fuentes et al. \(this issue\)](#) observe, distant others become increasingly integrated during the shopping visit, mediated via digital devices and involved in making in-store choices while not physically present.

However, as [Fuentes et al. \(this issue\)](#) point out, while the integration of digital devices may extend, prolong and improve the experience of the store visit, it may also disrupt and alter this experience by effectively disregarding what the store provides in terms of staff interaction, background music and so on. This leads to challenges for the retail stores and staff regarding how to approach and handle the various consumers that appear with digital devices. However, there could also be an alignment between the consumers' devices and the digital equipment provided by the stores, and such integration is likely to increase with the inter-connectivity that the Internet of Things may bring to the scene.

## 2.3. Implication as value

So far, we have considered the implication of digitalization for physical stores through the nuances of effect and integration. It is clear that with the increasingly visible effects and instances of integration, digitalization has significance and meaning for physical stores. However, this third notion, or nuance, of what implication entails also turns the question of digitalization and physical stores around. That is to say, implication as value also directs attention to the meanings and significance of the physical stores in an increasingly digitalized retailing landscape.

Even if [Hernant and Rosengren \(this issue\)](#) found that the introduction of an online channel cannibalized sales in the physical stores, it led to an overall increase in customer acquisition, among whom a minority made further offline purchases after their online purchase. However, they also found that this group of customers contributed much more to sales than the consumers who only shopped online, leading to the conclusion that it is essential for retailers to persuade online customers to also shop offline. This raises key issues concerning the values, roles and significances of the physical stores in an increasingly digitalized retailing landscape. [Hernant and Rosengren \(this issue\)](#) raise an important issue: fewer visits to physical stores and less personal interaction might in the long run lead to weaker bonds and decreased satisfaction with and loyalty towards the retailer, which further underscores the importance of considering what the physical stores actually offer and what kind of values they provide. If that is the case, is this something that the online retailers have already identified, since they are now also opening physical stores? It will be interesting to see which retailers, in relation to the traditional retailers and the “born e-commercers”, will be able to drive market development and which will be left to the fate of being driven by it.

As pointed out by [Verhoef et al. \(2007\)](#), and further underscored by [Hernant and Rosengren \(this issue\)](#), physical stores and online stores may provide different appeal and value to consumers. Moreover, from having been originally conceived as a single channel, physical stores are

increasingly becoming part of omni-channel customer journeys and one of many so-called touch points in multi, cross and omni-channel retail concepts (Beck and Rygl, 2015; Ailawadi and Farris, 2017; Hure et al., *this issue*; Blom et al., *this issue*). As part of such an omni-channel journey, physical stores may contribute to an overall increase in consumer value that omni-channels provide (Hure et al., *this issue*).

On the basis of previous literature (Babin et al., 1994; Rintamäki et al., 2006), Hure et al. (*this issue*) distinguish between three dimensions of shopping value that are relevant when considering what physical stores may provide in such an increasingly digitalized context: utilitarian, hedonic and social. Contrary to findings in previous research based on the physical stores as a single channel, the authors found that the utilitarian value of the physical stores in the omni-channel context is less about finding and buying what one is looking for, and suggest that the utilitarian values that should be considered are those of information and convenience.

Mathmann et al. (*this issue*) direct attention to the fact that shopping in physical stores entails physical movement, and therefore it becomes increasingly interesting to understand how such movement affects the value. Digitalization enables both the tracking of movements and the opportunity to adapt to such movements, for example in the form of promotions that are location-specific. Such adaptation to the physical movements of the consumers in the stores could, according to Mathmann et al. (*this issue*), be considered a source of value.

In this emerging landscape of omni-channel shopping, it is important to further emphasize what Hure et al. (*this issue*) point out, namely that the physical stores are the touch points that contribute most to omni-channel shopping value, but also that the role has been transformed by retail digitalization, which in this context means a reconsideration of the utilitarian values that physical stores provide. The authors found that physical stores continue to provide hedonic value as well as social value, which could be further emphasised by physical stores increasingly fostering dialogues between store staff and consumers, and between consumers.

All in all, this Special Issue shows that physical stores still provide value and have significance in an increasingly digitalized retail landscape. Although there has to date been a significant focus in practice and in the literature on online retailing, physical stores seem to display a “resistance” analogous to the resistance of the paper labels in the case of electronic shelf labels (ESL) as analyzed by Soutjis et al. (*this issue*). Thus, although there is certainly some competition between the digital and the physical (e.g. between shopping online or in physical stores), there is nevertheless an increasing cooperation between the physical and the digital that in many ways may contribute to increasing opportunities for physical stores to provide value in an increasingly digitalized retailing landscape.

### 3. The papers

In this section, the six appended papers that, after a double review process, comprise the Special Issue, will be briefly summarised. Together, the papers lay a promising foundation for how to understand retail digitalization and the implications for the physical store as discussed above. Not only do these papers represent and discuss different aspects of retail digitalization and the implications for physical stores, they also build on different methods and methodological considerations. The diversity in methods strengthens the explanation power of this Special Issue, as questions relating to what, and also to how and why, are addressed.

The first paper, *Smartphones and reconfiguration of retailscapes: Stores, shopping and digitalization*, by Fuentes et al. (*this issue*) focuses on the integration of digital devices and physical stores and how that reconfigures the retailscapes. Based on an ethnographic study of mobile shopping, a number of “scapes” arise, such as informationscapes, socialscapes and experiencescapes that affect the relationship between consumers and retailers. In-store shopping activities are reconfigured as a consequence of new technology in digital devices, and the authors illustrate how a particular digital device has become part of the retailing context. New retailscapes unfold through the study of mobile phones, and the authors note that the relationship between consumers and retailers is recreated in this unfolding process, where stores are reconfigured and agencies change.

The second paper, *Every step counts: When physical movement affects perceived value*, by Mathmann et al. (*this issue*) also takes its starting point in the intersection of the physical and the digital. Based on three experiment studies, it illustrates how retailers can track customers’ movements in a physical store, in particular by means of mobile promotions. In this paper, digitalization is understood as an enabler for tracking customer movements using so-called accelerometers. The paper illustrates how physical movements in a store are dependent on the consumers’ locomotion behaviour, and that this affects the perceived value of products and promotions. The authors contribute to research focusing on “regulatory fit” and consumers’ decision-making strategies, and stress that digitalization can be viewed as a means for increasing value for the physical retailers by creating new opportunities to optimize the marketing mix.

In the third paper, *Omni-channel-based promotions’ effects on purchase behaviour and brand image*, we learn more about promotions and the effects of omni-channels. Blom et al. (*this issue*) examine the effect of digital shopping traces and in-store promotions through two experimental studies. Consumers use digital channels to search for information and/or to purchase what they are interested in, and they leave digital traces from which retailers can benefit by creating individualized, in-store promotions. In order to understand how retailers can benefit from these traces, the authors investigate the reactions of consumers during their shopping in an omni-channel setting. It is noted that digitalization is turning consumers into omni-channel customers who use both digital and physical channels. It is also noted that congruent shopping goal promotions have a positive effect on both performance (promotion redemption) and experience (retail brand attitude) across different retail settings.

The fourth paper, *An ethnography of electronic shelf labels: The resisted digitalization of prices in contemporary supermarkets*, focuses on electronic shelf labels as an example of a digital innovation and develops an understanding of the resistance towards digital innovations within retailing. Based on an ethnography and archive study of the trade journal *Progressive Grocer* from 1922 to the present, Soutjis et al. (*this issue*) discuss what is referred to as a “resisted evolution” of digitized prices. They show that electronic shelf labels do not replace the usage of paper prices, but are, rather, used in combination with these. By adopting the concept of “agencements”, alluding to both agent and agency, the price display techniques or electronic shelf labels are understood as something more than an abstract and automatic “price adjustment” mechanism. This shows that price technology should not be seen as an isolated technique, but rather as a web of practices and market agencements.

In paper five, *Now what? Evaluating the sales effects of introducing an online store*, a framework for how to evaluate sales impact by adding online sales to a network of existing physical stores is presented. Based on pooled customer data from online and offline stores, the purchase behaviour is examined before and after the introduction of online sales. Through the data set, although previous research is lacking, the authors are able to match customer behaviour data from purchasing online and purchasing offline (i.e. in physical stores). Hernant and Rosengren (*this issue*) illustrate that the introduction of the online channel has significant and substantial effects on customer acquisition, in addition to a certain cannibalization of the physical stores. The paper contributes to the understanding of multi-channel customers and offers a framework for customer management for how to evaluate the effects of online sales on offline sales.

The sixth and final paper, *Understanding omni-channel shopping value: A mixed method study*, proposes and investigates a model for omni-channel



shopping value and key characteristics. Hure et al. (this issue) identify, through a mixed-method study using both quantitative and qualitative data and guided by an abductive logic, a number of key omni-channel characteristics. As noted by the authors, the shopping journey is becoming increasingly seamless, and customers are travelling between different channels – and they expect the journey experience to be consistent. In order to capture the opportunities that arise, retailers are in the phase of trying to optimize creative offerings through multiple channels. It is stressed that the framework is a first attempt at developing both a theoretical and an empirical understanding of how to structure omni-channel shopping value.

#### 4. Contributions and future research

The aim of this Special Issue was to focus on retail digitalization and implications for the physical stores. Based on the six papers, a promising research agenda arises. First of all, and contrary to how retail digitalization—at least to date—has been described in the context of physical stores, the authors of this Special Issue point towards not only challenges but also opportunities. All of the papers contribute to a more nuanced discussion on the implications of retail digitalization for the physical stores. They demonstrate and contribute to an understanding of such implications in all the three nuances of the term as outlined above as *effect*, *integration* and *value*. Based on these six papers, several research questions arise that warrant future study.

Although some of the *effects* of digitalization are becoming increasingly visible for physical stores, we are still in the initial stages of such changes. As the paper by Soutjis et al. (this issue) highlights, insights concerning the implications of digitalization for physical stores may benefit from taking a longer time perspective. Hernant and Rosengren (this issue), who used data from customer purchases during a twelve-month period, also point to the need for even longer data series in order to investigate the long-term effects. Although digitalization in retailing is currently a hot topic that may contain some elements of a “fad”, it seems likely that digitalization will continue to be an important aspect within the field of retailing, including, of course, the implications for physical stores. This development implies a further need for thorough and careful longitudinal studies that may provide insights into how such developments unfold. As outlined above, these effects include areas such as sales, transparency, purchase processes, store settings and formats, and store co-workers. However, at the same time, we must develop our understanding of how such processes are understood by those actors that are today viewed as pure e-commerce actors, and how they search for new business opportunities. We are already witnessing interesting new collaborations between traditional retailers and what, in this context, we might refer to as “the born e-commercers” (inspired by the literature on born globals and represented by researchers such as Knight and Cavusgil, 2004). To take one such example, IKEA is collaborating with Amazon and, as Hure et al. (this issue) point out, Adidas and Zalando have also initiated a collaboration—in order to create seamless shopping and valuable behaviour. It is likely that some of these effects, as well as other effects, will become increasingly visible in the long run and, given the significance of retailing in contemporary society, these warrant continuous attention.

Concerning *integration*, Fuentes et al. (this issue) note, amongst other things, that digitalization of in-store shopping is a result of the many opportunities offered by smartphones, and that few efforts have been made by retailers to support smartphone-enabled shopping activities. Thus, change programmes are not necessarily centrally organized, but may emerge from opportunities arising from technology offered by other stakeholders. For future research, it would be interesting to understand who initiates the changes, and how and if customers are involved in the value chain from which many retailers have benefitted, in particular do-it-yourself retailers. How can customers contribute to the retail value by offering ideas and solutions that retailers themselves seem incapable of foreseeing? This is further underscored by the studies by Blom et al. (this issue), as well as by Mathmann et al. (this issue), which both direct attention to the opportunities enabled by digital technologies concerning the tracking of consumer activities as well as adjustments and adaptations to such activities. These opportunities become increasingly available in different types of channels, as well as in combination (Hernant and Rosengren, this issue; Hure et al., this issue). As emphasized by Fuentes et al. (this issue), and Soutjis et al. (this issue), these developments may lead to unexpected results that warrant particular attention. All in all, and more broadly, the papers included in this Special Issue point to the need to investigate the interactions between retailers and consumers, and how such interactions unfold with the increasing intensity of digitalization.

When it comes to *value*, it is important to emphasize that physical stores will not have a single role but can have several and different roles. This was evident in our case study of IKEA (Hagberg and Jonsson, 2016), and, as mentioned above, we can already witness new formats and new collaborations that may provide different forms of value in an increasingly digitalized retail landscape. Moreover, as the title of this Special Issue suggests, physical stores should be considered in the plural; that is to say, variety among existing and future physical stores should be taken into account when considering the implications of digitalization. For example, Hure et al. (this issue) suggest that physical stores, rather than being conceived of as one touch point, should be thought of as multiple touch points in terms of the various available formats and what these formats provide. The variety of store formats will also affect their roles and meanings, which stresses their variety rather than the emergence of one single format that fits all. The value of physical stores in the digitalized retail landscape is not restricted to what they may provide for consumers as part of the purchase processes, but also for retailers and retail employees, as well as, more generally, what value they provide for the economy and society as a whole.

Taken together, the papers of this Special Issue combine a number of approaches and methods ranging from experiments (e.g. Blom et al., this issue; Mathmann et al., this issue) retailer transaction data (Hernant and Rosengren, this issue), mixed-methods design that combines quantitative and qualitative methods (Hure et al., this issue) to ethnographic observations and interviews (Fuentes et al., this issue; Soutjis et al., this issue). For future research concerning the implications of digitalization on physical stores, a variety of methods should of course be encouraged, not least because it is important to further understand the multi-faceted implications for the physical stores. Further, this Special Issue contains contributions from several academic disciplines, including marketing, sociology and psychology. Given the major and far-reaching implications of digitalization on physical stores, future research should preferably include contributions from other disciplines, including, but not limited to, management, logistics and urban studies.

Much more work will undoubtedly be needed to understand the digitalization of retailing and implications for physical stores; nonetheless, this Special Issue marks an important step, with the individual contributions of the six papers concerning different aspects of such implications, as well as their combination. We are confident that with this Special Issue and the individual contributions of the papers, the research agenda exploring the digitalization of retailing, and with a special consideration of physical stores, is taking important further steps, although it is, at the same time, a topic that will remain and probably be even more crucial in the future, as we may see more of the implications of digitalization for physical stores unfolding.

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