Disruptions Through Digital Transformation in Retailing

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Abstract: The increasing interruption of business models through digital technology offers retail companies and their network partners possibilities and difficulties. Digital transformation – the digitization process of formerly analogy activities, procedures, organization tasks, and management processes to provide value for consumers, workers, and other stakeholders – is on the agenda. In this context, this article provides a purposeful overview of research on digital transformation, with a focus on digital technology's retail and customer-facing functions like the management of customer journeys, the impact assessment, on the one hand, of sensory marketing, and the use of service robots and their strategic consequences for business patterns such as service delivery. Digital disruptions are changing the digital world of customers. It coexists with and coexists with the intensively changing digital technologies, the explosion of diverse digital devices, various digital channels across the customer contact points, and the continuously developing client Behaviour. There is no exemption and the communications sector is also affected. Digital disruptions have caused enormous technological changes, increased service experience from digital companies and constantly changing customer expectations, forced Communications Service Providers (CSP) to embrace constant change and provided customer experiences with a personalized seamless environment. Digital disruptions provide a CSP the chance to change its whole ecosystem and remain relevant for hungry consumers' digital aspirational experience and maintain a place on the market. CSPs need to convert themselves into a digital enterprise with digital skills to manage the changing experience across the many contact points and to meet customer expectations constantly changing via new digital goods and services. Traditional business models of CSP are still declining and have a null impact. You need a multi-model strategy continuously to keep or recruit today's self-organizing consumers and improve decreasing revenue. The improved experience for customers provides a perceived value for customers and leads to customer loyalty that generates a continuous business value or revenue stream for CSPs. This essay closes with a focus on disruptive technologies, developments, and trends that retail marketing management will probably encounter shortly. The way we conduct business, from health to education, has altered with digital transformation. The retail industry is no exception in this situation. Advances in digital technology are constantly being impacted and lead to substantial, often dramatic, and/or disturbing competitive landscape changes. Retail is currently becoming more digital, as multi-faceted markets bring together online and physical sectors to offer greater customer purchasing opportunities. Consumers expect to discover technology-enriched shop experiences in this connection. Distributors seek benefits, for example by utilizing technology tools to develop and generate new market possibilities, establishing new business models, streamlining and modernizing processes with a consumer-focused approach. The provided study seeks to present an overview of the sector's important sectors, conduct a trend analysis of the main technologies used and help forecast future retail trends.

Keywords- Business Models, Communications Service Providers, Digitization Process, Digital Disruptions

I. FUNDAMENTAL ISSUES IN DIGITAL DISRUPTION

Apart from the more immediate challenges that stem from the research reported in this article, digital disruption might have further, long-term consequences for the retail industry. It is worth noting that recent contributions to disruptive innovations and business model transformation have questioned some of the characteristics that constitute disruptions (e.g. Muller 2020).

Christensen's (1997) disruption theory postulates that disruptors enter the market at the lower end in terms of price and quality and that the disruption (necessarily) leads to failure of (some) incumbent firms (Christensen 1997; Christensen et al. 2015). However, recent disruptions have occurred independently of the entry point in a market or the failure of incumbents. New technology is disruptive if it eventually supplants the incumbent technology, and significantly changes the behaviour of most of the stakeholders, customers, providers, and competitors (Muller 2020). With that in mind, digital disruption fundamentally changes the way customers interact with firms in an attempt to create value; disruptors might enter the market at all entry points in terms of price and quality, and incumbent firms might not necessarily exit the market, but transform their business model. Such business model transformation can be successful if the reconfigured value proposition is in tune with sustained, fundamental changes in customer behaviour, the transformation is not restricted to some parts of the firm but the entire organization and the employees are seen as empowered change agents (Rudolph and Schweitzer 2019).

The "readiness" for changes in customer behaviour is particularly important for the success of disruptive technologies. Therefore, it is important to monitor long-term changes and trends in the wider society. One such key trend – amplified by the recent COVID-19 pandemic – is the *New Domesticity*. Cantering life around the safety and comfort of "home" will have fundamental implications for the way we live, shop, and work, thereby offering windows of opportunities for digital disruption. For instance, more research is needed to clarify and measure the social and economic consequences of the *digital divide*, that is, differences between those who can fully benefit from digital opportunities and those who cannot (Bartikowski et al., 2018).

II. INTRODUCTION

Digital provides opportunities for retailers to acquire new customers, engage better with existing customers, reduce the cost of operations, and improve employee motivation along with various other benefits that have a positive influence from a revenue and margin perspective. For this report, digital has been defined as a technology-enabled combination of resources (can include instruments, devices, bots, tools, teams, protocols, processes, networks, methodologies) which enables the availability of content (can be data, information, expert/social reviews, reports, analysis, games) for the user (employee or customer) to make more productive (can impact cost, time or service level) decisions and satisfying choices. In a world with social and physical barriers, even more, defined due to COVID-19, technology is now gaining centre stage as a solution to bridge this gap and bring people together. The Digital India program was started with a vision to 'transform India into a digitally empowered society and knowledge economy. The program completed five years in 2020. The current pandemic has greatly influenced behaviour change. We have seen a 24 percent increase in Internet consumption, indicating an overall penetration of 41 percent in 2019. India's Internet consumption is expected to reach 639 million by the end of 2020. This has catalysed the consumer to be more connected with the devices, payments, shopping, e-medicines, etc. All these factors are contributing towards digital transformation wherein digital technologies are being used to create game-changing business innovations that disrupt and reimagine existing industries or create whole new ones, and it is this transformation that we see happening in the retail world.

The retail industry is most impacted by consumer demand as today's consumers want immediate, easy, 24/7 shopping experiences. The global retail industry has also undergone many changes and transformations, and most of these changes have been facilitated by technology. This allowed brands to carry out a better consumer experience, gather valuable feedback from users, and even anticipate and customize trends well in advance. One of these technological changes has been the advent of augmented reality (AR), a technology that superimposes a computer-generated image on a user's view of the real world. The fashion retail industry is, in many respects, suited to augmented reality. Until now, buying clothes, trying on jewellery, watches, rings, bracelets meant visiting our favourite store to try on clothes, or one had to order online, but wait for days for the package to arrive before trying it on.

Augmented reality is being harnessed across the globe to enable try-ones because it works in real-time. The technology is so powerful that it can automatically recognize and snap the face as soon as the interaction is initiated. Advanced technologies need no manual adjustment and transport users to the closest digital possibility of an in-store experience, thereby giving these brands a stronger market positioning, increased sales, and higher customer engagement. Augmented reality comes with all the strengths to give physical stores a high level of liveliness and speed as people have in an e-store, such as checking hundreds of products, keeping them on the wish list, and then making the final list to buy the ones selected. In addition to that, the technology goes a step further than a physical retail store and enables consumers to virtually try on accessories, jewellery, watches, makeup, clothing, etc. It allows consumers to superimpose a product in an actual physical setting, providing them with a precise understanding of its look and feel. This stills confidence in the users about their purchase and significantly helps to reduce return rates.

Having said this, many still believe that the technology of augmented reality is just limited to fun and entertainment. However, that's not the case. Today's augmented reality technology has come a long way since it was introduced in the market. Businesses in the retail industry recognize the value that it brings and is even looking at the practical requirement of an AR app development. The rise of global connectivity means consumers are no longer bound by location. On comparing both augmented reality and virtual reality, research has shown that 20 percent of companies have plans to adopt AR in the next year, compared with 13 percent who are looking at VR. That number goes to 10 percent for both in the next three years and 37 percent for AR and 25 percent for VR with regards to long-term adoption. There are still shoppers who favour physical stores over online ones, as is apparent from just 11.2 percent of e-commerce sales out of the total retail sales in the last quarter of 2018. Currently, retailers are taking one step forward in modernizing with augmented reality to bridge this divide between online and offline shopping.

As the digital India program is reaching out to more people in tier II and tier III cities, digital technologies are being increasingly used by us in our everyday lives. The rapid consumerism of technology has impacted the Indian retail industry and the current landscape is marked with developments that are as shocking as real. This technological evolution of e-commerce, digital and mobile wallets, mobility, cloud computing, artificial intelligence, Internet-of-things, the emergence of social media in the past few years, real-time analytics, automated personalization has completely changed the way retail business is being conducted. With the current times, the retail outlets are now going digital by introducing virtual trial rooms, augmented reality, and the use of artificial intelligence, etc. The idea is not just to optimize the in-store experience but also to offer a combination of aids that can help you to quickly make the right purchase decision.

The ability to collect, process, and share large quantities of data has led to some fundamental disruptions in the design of business models. The key factors impacting this change include:

- **Convergence:** The traditional boundaries between sectors are collapsing. Innovation at the boundaries of sectors such as payment systems (Financial Services & Telecom), e-commerce (Retail & Telecom), Industry 4.0 (ICT and Manufacturing), etc. is fundamentally disrupting businesses. Any disruptive approach in digital transformation for retail hence needs to factor in a multidisciplinary view of implementation with a mix of analytical and creative capabilities.

- **Customer centricity:** Functional boundaries within organizations are also being dismantled to align structures to customer needs. The process has been further accelerated through digital as big data is now making it possible to analyse shopper behaviour in great detail and customize the delivery format to individual consumer requirements through personalization.

- **Co-opetition:** This is a revolutionary mindset that combines competition with collaboration. Suppliers and retailers are no longer competing for limited resources but are working together to profit from enhanced customer value being delivered. There have been several instances of collaboration between retailers even from an Indian context (e.g.: Future Group and Flipkart).

- **Co-ownership:** From a retail context digital has helped monitor and control quality in franchising agreements to achieve greater alignment of the business model to shopper requirements presenting an enhanced opportunity for retailers to drive scale at a fast clip without compromising on the brand promise and sharing the investment burden with their partners.

- **Co-creation:** The new digital shopper is highly interconnected with his social peers and is more willing than ever before to share experiences and let others profit from his/her interactions with products/services. Consumers help co-create the value proposition basis their willingness to provide feedback which helps refine delivery models on an ongoing real-time basis.

- **Continuous learning:** Self-learning systems through AI and cognitive modelling have enabled feedback from past experiences to optimize the shopping experience for consumers and hence impacting satisfaction and loyalty to be enhanced.

III.   BACKGROUND

Using Data to Understand Customer Journeys
Due to the rise of new devices and channels and the explosion of digital technologies, shoppers now interact with retailers through a myriad of touchpoints (Shankar et al. 2011; Verhoef et al. 2015). Today's shoppers do not simply move from

search to purchase to post-purchase by using one or two touchpoints offered by one retailer; rather, they create their very own journey that includes online and offline touchpoints operated by the retailer, its competitors, manufacturing brands, independent providers, and other customers (Grewal et al. 2016; Lemon and Verhoef 2016). Different touchpoints entail different benefits for the customer (e.g., convenience, fun) and the retailer (e.g., high margins, elevated opportunities to foster customer retention) in different stages of the purchasing process (Avery et al. 2012). Thus, the ultimate goal for retailers is to integrate touchpoints and their comparative advantages in such a way that they provide customers with an elevated and seamless experience while contributing to the retailer's profitability (Brynjolfsson et al. 2009). Subtly steering customers to strategically important touchpoints along the journey is challenging as customers want to make their own choices and take control over their journey (Trampe et al. 2014; Valentini et al. 2011). However, in light of the multitude of new digital touchpoints that are easily available to the consumer but hard to control by the retailer, successful customer journey management has become even more challenging. Resulting from the more extensive and versatile journeys that customers travel from search to purchase to post-purchase, retailers struggle to manage these complex journeys and to understand the motivations and unique characteristics that drive customers to travel-specific paths. Despite a large number of different online and offline touchpoints, most retailers gather information on their customers' journey solely based on the usage of their own touchpoints and, thus, fail to examine how the usage of competitor-owned, customer-owned, and independently owned touchpoints affects the journey (Baxendale et al. 2015). Given that retailer-owned online touchpoints are easy to track through cookies, researchers typically examine how the usage and the sequence of usage of touchpoints influence short-term customer journey outcomes such as conversion or the content of shopping baskets (Anderl et al. 2016a; Becker et al. 2017). As a result, little is known about customers' combined usage of online and offline touchpoints in the customer journey, nor on the long-term effects that certain touchpoints may have on customer loyalty. Understanding touchpoints in the customer journey is particularly challenging since the unique experiences that consumers make on such touchpoints are interdependent (Lemon and Verhoef 2016; Li and Kannan, 2014). Some challenges that retailers encounter due to the increasingly complex, iterative, and network-structured journeys that customers travel in the course of their purchasing process can be summarized in the following five questions:

1) How can retailers gain insights into the usage of various touchpoints and touchpoint sequences that influence search, purchase, and post-purchase perceptions in customer journeys?
2) How can retailers manage complex customer journeys successfully and create seamless customer experiences when many touchpoints used in the customer's journey are not under the retailer's direct control?
3) How do various customer touchpoints mutually influence one another along the different stages of the customer journey?
4) How can retailers identify the most valuable customer touchpoints for different segments, and how can they steer customers to them?

5) How can retailers measure the long-term effects of different customer touchpoints and touchpoint sequences?

IV.   OVERVIEW OF STATUS QUO IN THE FIELD OF CUSTOMER JOURNEY MANAGEMENT

In the early 2000s, researchers started to examine how retailers can make customer journeys more seamless by integrating their own touchpoints, i.e., providing access to and/or knowledge across multiple touchpoints (Bendoly et al. 2005). Since then, several studies found that integrating touchpoints may help to reduce customers' likelihood of switching to competitors (Bendoly et al. 2005), increase purchase intention and willingness to pay (Herhausen et al. 2015), customer trust (Darke et al. 2016), sales growth (Cao and Li 2015), and profitability (Oh et al. 2012). As non-proprietary touchpoints are hard to monitor and adapt, integrating owned with non-owned touchpoints is still a challenging task for retailers that is underrepresented in contemporary research. In an attempt to shed some light on this challenging task, a few studies examined the effects of both, retailer-owned a non-retailer-owned touchpoint on a retailer's performance. In an online setting, Li et al. (2017) collected data from a French database consultancy to examine how customer adoption of a retailer's new online shop is influenced by their past shopping behaviour at competing for online shops. Results show positive spill over effects from the competitor to the retailer. Specifically, the authors show that customers who visited a competitor's online shop for their last purchase are more likely to use the retailer's new online shop for their next purchase. In an offline setting, Baxendale, Macdonald, and Wilson (2015) tracked real-time customer experiences at six different retailer-owned and non-retailer-owned touchpoints (manufacturer-paid media, retailer-paid media, communications in the physical store, word of mouth, peer observation, and earned media). They asked customers to assess touchpoint usage frequency and touchpoint valence in real-time and estimate their relative impact on changes in overall brand perception. They found that peer observations are an important but neglected touchpoint that influences brand consideration, and that in-store communications are more influential than other advertising activities. Both, information disseminated by competitors or manufacturers and communication initiated by other customers during a customer's decision journey affect purchase behaviour significantly

(e.g., Sands et al. 2016). For instance, attribution models of firm-initiated (TV, radio, e-mail) and customer imitate touchpoints (referrals, price comparison sites, search engines) find that customer-initiated content is more effective than firm-initiated content in inducing conversion (De Haan et al. 2016). In order to integrate touchpoints and create seamless customer journeys, retailers need to understand how their customers travel from search to purchase to post-purchase. Customer clickstream analysis, based on cookie data, is now widely used to examine online sequences within customer journeys. Studies in this field found that paid search touchpoints may be followed by either paid or unpaid search (e.g., SEO) touchpoints, whereas unpaid search touchpoints are foremost followed by other unpaid search touchpoints (Anderl et al. 2016a). Moreover, research shows that online purchase propensity is highest if customers travel from a retailer-initiated touchpoint (e.g., display or e-mail advertising) to a customer-initiated touchpoint (e.g., price comparison portal, branded and generic search queries, Anderl et al. 2016b). For another example, clicks on display ads have been shown to stimulate clicks to search advertisements, which are much more likely to result in conversion than display advertisements (Xu et al. 2014). Knowledge of customer journey sequences across online and traditional touchpoints and their interrelationships is still limited. One study in this domain combined retailer advertising and online/offline store traffic data with search data from Google and electronic word of mouth data from an online data library. The authors found that more than a third of the variance in offline store traffic is created by indirect effects of TV and print ads via electronic word of mouth and organic search (Pauwels et al. 2016).

Customer journey sequences where customers search at an online touchpoint but end up purchasing at an offline touchpoint (so-called web rooming) and where customers start their journey at an offline touchpoint but end up purchasing at an online touchpoint (so-called showrooming, Neslin and Shankar 2009) are examined in detail in research and practice. Given the prevalence of showrooming and especially web rooming behaviour in today's retail landscape, several studies have investigated their drivers and consequences. Drivers of web rooming, such as perceived ease of online search and lack of trust in purchasing online (Arora and Sahney 2017), as well as consequences of web rooming, such as increased purchase intentions search process satisfaction, and choice confidence (Flavi´an et al. 2016), are reported. Research on showrooming shows that not only price-related factors, but also perceived gains in product quality, waiting time in the physical store, decreased online search costs, and time pressure has an impact on showrooming decisions (Gensler et al. 2017). Indeed, showrooming may be very harmful to retailers as salespeople who perceive showrooming among customers may suffer from lower levels of self-efficacy and decreased performance (Rapp et al. 2015).

Best-practice examples of Successful Customer Journey Management

In today's digitalized world where data has become the most valuable currency, more and more online retailers are opening up physical stores in order to collect customer data also from physical touchpoints and provide their customers with a seamless cross-channel customer experience. Google opened up several Google Hardware Stores, Amazon conquered the physical world with Amazon Go and Amazon 4-Star Stores, and Alibaba introduced Foreships (originally called Hema) in order to present the supermarket of the future. The innovative and consumer-centric supermarket Foreships is a vivid example of how retailers may create a seamless online/offline experience for their customers. The company collects data from all of its online and offline touchpoints and processes it to add value for the customer. For instance, similar to online shops, Foreships tracks, and stores consumers' search and purchase history from mobile devices used in the store (e.g., scanned barcodes, mobile payment used) in order to determine and recommend products of interest at a subsequent in-store visit. Electronic price tags in the store enable real-time synchronization of prices in accordance with the inventory status and the prices offered online. Instore high-tech elements, such as robots that carry the goods to the cash desk, cashless payment via an app or facial recognition (using Alibaba's payment service Alipay), or barcode scanning for detailed product information and customer product reviews add convenience and excitement to the purchasing experience. A sound logistics system allows Foreships to deliver frozen food as well as warm meals to customers living in the range of five kilometres from the store within 30min.

Former pure online retailers such as Amazon, Google, or Alibaba are now disrupting retail in the digital and the physical world. Similarly, some traditional retailers have managed to react successfully to these developments and have invested in their digital transformation. For instance, Nike's House of Innovation in New York embraces technology in order to offer its customers a digitally connected journey to discover, learn about, and purchase sporting goods. In a time where more and more offline stores have to close down, Nike's business is flourishing. The company reimagined retail by delivering an immersive and frictionless customer experience via smartphones. Nike members can use the reserve & try service with digitally enabled pick-up lockers to pop in the store and quickly try on the items they reserved on the app beforehand. By scanning the QR codes on in-store mannequins, shoppers can browse every item the mannequins are wearing and check its availability online and in-store. With the help of QR codes, shoppers can also add products to a virtual fitting room; when they are finished with browsing, the app directs them to an actual fitting room where the items previously selected are waiting. There is an exclusive floor for Nike members where they can enjoy one-to-one appointments with Nike experts.

Numerous selfie spots, instant check-out, same-day delivery for products purchased in-store, and the possibility to return items bought online to make the in-store experience enjoyable. These best-practice examples show how some retailers have managed to benefit from the unique qualities of physical and digital touchpoints in order to offer their customers an elevated shopping experience. Still, with more and more digitally enabled touchpoints evolving, offering an integrated shopping experience across numerous touchpoints will remain a challenging task that involves continuous improvement.

V. CONCLUSION AND FUTURE WORK

Digital technology's increasing disruption of business paradigms offers possibilities and problems for retailers and their network partners. The digitization of formerly analogy activities, procedures, organizational duties, and management processes is the rule of the day. Deliberately focusing on retailing and customer-facing functions, this article assesses the impact of sensory marketing and the use of service robots on customer journeys, while also assessing their strategic implications for business models such as sterilization. Customer's Digital World is changing. It involves the co-existence of rapidly developing digital technology, diverse digital devices, digital channels across consumer contact points, and ever-changing customer behaviour. Similarly, the communications sector is affected. In response to these digital disruptions, communications service providers (CSPs) are being pushed to adapt and provide a customized seamless client experience. Digital disruptions allow CSPs to change their whole ecosystem, remain relevant to their digitally-savvy consumers, and maintain market share. CSPs must become digital businesses with digital skills to handle shifting consumer expectations via new digital goods and services. Traditional CSP business models are in decline and have little impact. They must continuously innovate to keep or recruit today's self-organizing consumers and increase income. The improved customer experience leads to customer loyalty, which leads to continuous business value or revenue streams for CSPs.

From health to education, the digital revolution has altered how we conduct business. The retail industry is hardly an exception. Advances in digital technology continue to impact the competitive environment, causing substantial, often dramatic, and/or disruptive changes. Multi-sided marketplaces integrate combine online and physical markets to improve customer purchasing experiences. Consumers demand technology-enhanced shopping experiences. Retailers are searching for ways to grow and expand their markets by using technology, developing new business models, and updating existing processes. The study provided attempts to provide an overview of the industry, analyse important technologies, and forecast future retail trends as a conclusion, this essay focuses on the disruptive technologies, developments, and trends that retail marketing-management will likely encounter in the near future.

REFERENCES

[1] Bosomworth, D. (2013). Mobile marketing statistics 2013. Retrieved from http://www.smartinsights.com/mobile-marketing/mobile-marketing analytics/mobile-marketing-statistics/

[2] Brynjolfsson, E., Hu, Y. J., & Rahman, M. S. (2013). Competing in the age of Omni-channel retailing. MIT Sloan Management Review,54(4), 23–29.

[3] Konuş, U., Multichannel customer segmentation: Does the after-sales channel matter? A replication and extension. International Journal of Research in Marketing,32(4), 453–456.

[4] Peppers, D., Rogers, M., & Dorf, B. (1999). Is your company ready for one-to-one marketing? Harvard Business Review,77(1), 151–160.

[5] Reddy, S., & Reinartz, W. J. (2017). Digital transformation and value creation: Sea change ahead. Marketing Intelligence Review,9(1), 10–17.

[6] Reinartz, W., & Imschloss, M. (2017).From point of sale to point of need: How digital technology is transforming retailing. Marketing Intelligence Review,9(1), 42–47.

[7] Verhoef, P. C., Stephen, A. T., Kannan, P. K., Luo, X., Vibhanshu, A., Andrews, M., Zhang, Y. (2017).Consumer connectivity in a complex, technology-enabled, and mobile-oriented world with smart products. Journal of Interactive Marketing,40(4), 1–8.

[8] W. W. Norton & Company. Pauwels, K., & Neslin, S. (2015).Building with bricks and mortar: The revenue impact of opening physical stores in a multichannel environment. Journal of Retailing, 91(2), 182–197.

[9] Deloitte, "Disruptions in Retail through Digital Transformation, Reimagining the Store of the Future", November 2017.

[10] Beneke, E. Adams, O. Demetriou, and R. Solomons, "An exploratory study of the relationship between store image, trust, satisfaction and loyalty in a franchise setting," Southern African Business Review, vol. 15, no. 2, pp. 59-74,2011.

[11] IBM Institute for Business Value research; Ellet, Linda K. "Growth among consumer goods companies continues to slow." KPMG website. June 14, 2018. Accessed on 27th July 2021. https://home.kpmg.com/uk/en/home/media/press-releases/2018/06/growth-among-consumergoods-companies-continues-to-slow.html; Anders, Melissa. "Retail Industry Expects More Sales Growth In 2018." Forbes. February 8, 2018. https://www.forbes.com/sites/ melissa landers/2018/02/08/retail-industry-poised-for-more-sales-growth-in-2018/#6eead5da4fa7

[12] A.T. Kearney (2016). The Global 2016 retail Development Index. Global Retail Expansion at a crossroads Retrieved from http://www.atkearney.com