

A Radical Shift in Customer-Retailer Interplay? Designing the Omnichannel Interactions and Touchpoints

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Abstract

New retail technologies are changing the interplay between customers and retailers - thereby altering the roles of all actors involved. Retail touchpoints have now transformed the traditional dyadic customer-retailer interactions by enabling new actors to interact and co-create the experience. In this study, the authors propose an interaction design model to facilitate the design of customer-retailer interactions aiming to ensure a positive customer experience. The proposed model combines retailers' and customers' views and takes into account the transformation of the touchpoints and changes in interactions between different actors within the retail context. The model is based on an extensive literature review and a case study conducted with an Irish retailer. This study contributes to retailing literature by elaborating on a new multi-perspective approach towards customer-retailer interactions.

Keywords

Retailing, customer experience, omnichannel, technology interactions, interaction design

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Abstract

New retail technologies are changing the interplay between customers and retailers - thereby altering the roles of all actors involved. Retail touchpoints have now transformed the traditional dyadic customer-retailer interactions by enabling new actors to interact and co-create the experience. In this study, the authors propose an interaction design model to facilitate the design of customer-retailer interactions aiming to ensure a positive customer experience. The proposed model combines retailers' and customers' views and takes into account the transformation of the touchpoints and changes in interactions between different actors within the retail context. The model is based on an extensive literature review and a case study conducted with an Irish retailer. This study contributes to retailing literature by elaborating on a new multi-perspective approach toward customer-retailer interactions.

1. Introduction

Retail is one of the biggest industries in the world with a huge economic footprint. Global retail sales reached an enormous US\$24.78 trillion in 2019 with more than 16 million people employed in the retail industry only in the US (Hult et al., 2019; O'Connell, 2020). Traditional retailers, however, have been recently facing numerous challenges from a host of innovative competitors who are actively using various retail channels and technologies (Roy et al., 2017). Successful retailers in the recent past such as Sears and Toys "R" Us have gone bankrupt and most other traditional retailers are losing their market share (Cakir et al., 2020). Moreover, the COVID-19 pandemic has caused a seismic shift in the retail industry which among other things led to an increased focus on digital offerings. New technological advancements enable the 'contact-free' shopping experience while providing innovative interactions along the shopper's purchase journey (Willems et al., 2016). Retailers worldwide are embracing technological transformations to achieve a positive customer experience (Roy et al., 2017). According to Gartner, global investments in retail technologies will reach \$225 billion by end of 2022 (Moore, 2018). Several studies advocate this by validating that a positive customer shopping

experience ensures a competitive advantage for a retailer (Giraldi et al., 2016; Tandon, 2018; Terblanche, 2018).

Traditional beliefs about customer experience and customer interactions are no longer valid as there has been a significant shift enabled by new technologies in retail (Hult et al., 2019). The rapid introduction of digital technologies such as augmented and virtual reality, beacons, mobile apps etc. has fundamentally changed the interplay between customers and the retailers – thereby altering the roles and effects of different elements (Larivière et al., 2017). The convergence of the aforementioned technologies has induced increased fusion of the digital and the physical world leading to new ways of customer interaction. Customers can now interact with retailers through a myriad of touchpoints in multiple channels and use multiple devices (Lemon & Verhoef, 2016). These changes have motivated retailers to embrace the concept of omnichannel retailing (Mirsch et al., 2016).

Omnichannel represents a vision of the business approach which unifies various channels and services (Beck & Rygl, 2015). The smart combination of traditionally successful and innovative technological touchpoints can help retailers deliver a positive experience to customers, thereby creating an emotional connection with customers, which in turn reduces retailers' reliance just on price competition and ultimately leads to a rising pool of loyal clients which makes the business profitable (Grewal et al., 2017). However, the design of touchpoints and implementation process is often focused on the question of how to encourage customers to decide in favour of one or another channel and not on creating a unified customer experience (Chen et al., 2018). Also, the new touchpoints are often introduced without evaluating the effect of new interactions facilitated by these touchpoints on the overall experience. Therefore, most retailers are still struggling to recognise the effects of the transformed interactions to ensure a positive customer experience in the omnichannel setting (Neslin, 2022).

In the extant literature, there has been a scarcity of research on the design of different types of interactions facilitated by innovative technologies in omnichannel retail (Roy et al., 2017). Despite a rich foundation of research in customer experience, the researchers still have a limited understanding of how new developments in interactions enabled by emerging technologies influence customer experience (Moore et al., 2022). Combining retailers' and customers' perspectives can help in understanding how the relationships among customers, retailers, and potentially third parties are developed and contribute to customer experience (Barwitz & Maas, 2018). Since research aligning both perspectives on customer experience is scarce, this study aims to contribute to retailer and customer research by answering the calls from Kranzbühler

et al. (2018) and Barwitz and Maas (2018) by providing an interaction design model that helps get deeper insights into the design of customer-retailer interactions in omnichannel settings.

In the remainder of this paper, we start with the literature review that consists of customer experience, the transformation of touchpoints and customer-retailer interaction modelling. We follow with a brief description of the research methodology. We then discuss findings from the case study following up with the interaction model. The paper is concluded with a summary of the contributions and suggestions for further research.

2. Literature Review

2.1 Customer Experience

Customer experience in retail encompasses active transactional and non-transactional interactions of a customer with the retailer, third parties and other customers (Lemon & Verhoef, 2016; Mosquera et al., 2017). Customer experience mainly results from direct interaction with retail employees or digital service interfaces, indirect communication and the actual use (Wong, et al., 2016). This includes core, pre-and post-core phases of an offering and can be face-to-face in an actual service setting or online (Voorhees et al., 2017). Verhoef et al. (2009) developed a conceptual model of customer experience creation and identified “social environment, service interface, retail atmosphere, assortment, price and promotions, retail brand, customer experiences in alternative channels, and previous experiences with the company as independent variables impacting the customer experience” (Verhoef et al., 2009, p.33). Customer experience is however not solely shaped by the retailer-controlled variables (e.g. store layout, advertisement, frontline shop assistant, etc.) but is also impacted significantly by the customers’ constructs that companies do not control (the aim of shopping, personal circumstances, etc.) (Meyer & Schwager, 2007).

Table 1 demonstrates the result of the literature review where the authors analysed studies that focused on the effect of customer interactions on retail customer experience. These studies cover a range of customer experience aspects in terms of customer interactions such as customer-employee interaction (Lee, 2015), service design (Larivière et al., 2017; Voorhees et al., 2017; Zomerdiijk & Voss, 2010), technology-enabled customer interactions (Cruz et al., 2018; Hilken et al., 2018; Parise et al., 2016), customer interaction management (Cambra-Fierro et al., 2018; Chen et al., 2017), and customer interaction modelling (Grenha Teixeira et al., 2017; Teixeira et al., 2012). All of these studies except Kranzbühler et al. (2018) and Vrontis et al. (2017) have focused on either customer perspective or organization perspective

in understanding, designing or enhancing customer experience. Both these perspectives are vital, but a model which guides the interaction design for retailers is missing which combines the perspective of both retailers and customers.

Table 1. Representative studies on customer interaction and experience

Representative Studies	Study Focus	Study Type	Study Setting	Perspective of Study	Insights
Ramani and Kumar (2008)	Identification of the antecedents of interaction orientation and its effect on the performance	Empirical	Customer Interaction Management	Organization	Relationship building with customer and profit performance are not related to each other.
Zomerdijk and Voss (2010)	Set of propositions for experience design based on literature	Empirical	Service Design	Organization	Proposed six different design principles including designing from the customer journey and managing the presence of fellow customers.
Teixeira et al. (2012)	Development of customer experience model for service design.	Conceptual	Service Design	Organization	The proposed customer experience management structure allows designers to pinpoint the effect of design changes from the overall service level to just one moment of interaction.
Seck and Philippe (2013)	Explored effect of customer's interaction in physical and virtual channels on customer satisfaction	Empirical	Service Design	Customer	Customer satisfaction depends not only on interactions in all channels used but also on the integration between channels.
Lee (2015)	Effect of consumer-to-store employee and consumer-to-self-service technology interaction qualities on consumer retail patronage.	Empirical	Customer-Employee Interaction	Customer	Establishes a direct link from self-service technologies usage frequency to the perception of their service quality.
Stein and Ramaseshan (2016)	Identification of customer touchpoint	Empirical	Customer Interaction Management	Customer	The study provides a holistic understanding of

	elements that influence the customer experience in multi-channel retail contexts.				the touchpoints and a classification of different types of touchpoints.
Melero et al. (2016)	Key issues in the management of touchpoints across all channels in an integrated manner.	Conceptual	Customer Interaction Modelling	Customer	Firms must adopt a customer-centric approach, delivering personalized customer experiences and redefining the role of the physical store and embracing mobile marketing.
Roy et al. (2017)	Constituents and key dimensions of smart customer experience.	Empirical	Technology-enabled Customer Interaction	Customer	Smart customer experience consists of relative advantage, perceived enjoyment, personalization, perceived control, and interactivity
Vrontis et al. (2017)	Value-based analysis of B2C relationship in a smart retailing context.	Conceptual	Technology-enabled Customer Interaction	Customer and Organization	Through smart technologies and social networks, retailers have 'invaded' consumers' lives, but correspondingly, consumers have 'invaded' retailers marketing processes due to their use of these technologies.
Kranzbühler et al. (2018)	Classification and examination of customer experience from customer and organizational perspective	Conceptual	Customer Interaction Management	Customer and Organization	Proposed that a combination of insights from the retailer as well as customer perspective can help the retailer to effectively manage customer experience.
Kumar et al. (2019)	Developed a framework to ensure customer engagement in services by adopting a customer-centric approach.	Conceptual	Customer Interaction Modelling	Customer	Types of the market can influence factors that lead to a positive service experience.

Koetz (2019)	Case study of the retailer “Sephora” for identification of the best practices in customer experience management	Empirical	Customer Interaction Management	Organization	Sephora’s strategy is based on blended in-store and digital experiences to trigger a positive emotional response in social shopping dynamics.
Kuehnl et al. (2019)	Identification of value drivers of customer experiences and effective customer journey design.	Empirical	Customer Interaction Management	Customer	An effective customer journey strongly affects utilitarian brand attitudes, while brand experience influences hedonic brand attitudes.
(Ameen et al., 2020)	Proposed a theoretical model to capture omnichannel customer experience in shopping malls	Empirical	Technology-enabled Customer Interaction	Customer	In smart shopping malls, physical environment interactions and customer-customer interactions affect customer experience significantly.
(Tran et al., 2021)	Impact of chatbots on customers’ sentiment towards human agents and chatbots	Empirical	Technology-enabled Customer Interaction	Customer	The customer sentiment towards online human agents becomes more negative after the implementation of a chatbot by the retailer.
(Moore et al., 2022)	Customers’ interactions with conversational AI agents as part of the in-store shopping experience.	Empirical	Technology-enabled Customer Interaction	Customer	Customers show diverse and contrasting responses in terms of their need to get or avoid human interaction when interacting with conversational AI systems.

2.2 Transformation of Interaction Touchpoints

Retail touchpoints have undergone a dramatic change which opened up new avenues for retailers and customers with regard to their interactions (Straker et al., 2015). It also provides retailers with opportunities to analyze and influence these interactions (Iftikhar & Khan, 2020). Technological developments have changed shoppers' in-store behaviour and preferences as customers are exposed to a multitude of technologies in today’s physical store (Betzing et al., 2018). Retailers are offering their products and services through an ever-increasing number of

touchpoints (Seck & Philippe, 2013). While traditional retailing primarily dealt with retail channels (corporate-owned touchpoints) in a dyadic interaction (between retailers and customers), omnichannel retailing accentuates the interactions among the customers, products (brands), retailers, machines and other retail touchpoints (Kranzbühler et al., 2018). Retail touchpoints can be part of the purchase, pre-and post-purchase part of the customer journey and may develop across various retail channels (Meyer & Schwager, 2007; Zomerdijk & Voss, 2010).

In the extant literature, omnichannel retail touchpoints have been classified based on various parameters including their medium, functionality, type of interaction, human/non-human contact, and level of interaction. Vannucci and Pantano (2019) classified touchpoints into human and digital touchpoints. Loshin and Reifer (2013) described touchpoints based on the type of interaction they facilitate. Straker et al. (2015) formed a typology of digital touchpoints based on the purpose of touchpoints and the direction of the interaction. Table 2 exhibits a subset of the existing retail touchpoints and emphasizes the fact that retailers and customers now have the opportunity to use a wide range of digital means to interact with each other at different stages of the customer journey. The nature and level of interactions vary across each touchpoint, which facilitates the personalization of interactions for each customer, but on the other hand, it also makes the design of interactions a lot more complex. Furthermore, the authors also included the type and purpose of interaction along with a type of ownership for the classification of touchpoints as it plays an important role in customer experience design.

Table 2. Examples of touchpoints in omnichannel retail

TouchPoints	Example of Interaction	Type of Interaction	Nature of Interaction	Owner of contact Points
Website	Browsing for information	Customers to retailers (Non-Human)	Communicative	Corporate-owned
Augmented Reality App	Observing products in an alternative environment	Customer to Products	Informative	Corporate-owned/ Third-Party Owned
Self-service kiosks	Interaction with touch screen	Customers to retailers (Non-Human)	Purchase/ Revenue	Corporate-owned
Live Chat	Engaging with an agent virtually	Customers to retailers (Human)	Support, Communicative	Corporate-owned

Web Enquiry	Filling a form for information	Customers to retailers (Non-Human)	Communicative	Corporate-owned
E-News Letters	Marketing email with new products	Customers to retailers (Non-Human)	Informative/Promotion	Corporate-owned
Digital Loyalty Programs	Log in using your credential on the retailer's website	Customers to retailers (Non-Human)	Informative/Promotion	Corporate-owned/ Third-Party Owned
Product Reviews	Writing a review of your purchase	Customers to retailers (Non-Human)	Informative	Third-Party Owned
Digital Signage	Seeing an interactive digital advertisement	Customers to retailers (Non-Human)	Informative	Corporate-owned
Instagram/Facebook	Expression your opinion	Customer to Customers	Communicative/ Informative	Third-Party Owned
Employee	Asking for advice	Customer to Retailer (Human)	Communicative	Corporate-owned
Digital Showroom	Trying on products virtually	Customer to Products	Support	Corporate-owned
Beacons	Receiving promotions on mobile when shopping in-store	Machine to machine	Informative/promotion	Corporate-owned /Third-party owned

2.3 Modelling Customer-Retailer Interactions

Early work on the encounters between retailers and customers was focused on face to face interaction between retail employees and the customers (Czepiel, 1990). However, with the advancement of technologies, the focus was broadened. The more recent approach to customer-retailer interactions encompasses all the moments when customers interact with any retail interface. The retail interface refers to people (i.e., employees), the physical environment, service processes, and technology (Patrício et al., 2011). Interaction between retailers and customers, which is believed to be one of the most important factors influencing customer experience, has moved away from a dyadic viewpoint to a dynamic one (Zomerdijk & Voss, 2010). Taking this dynamic perspective of customer experience, Teixeira et al. (2012) advocate for abandoning the dyadic view of the interactions and argue that interactions take place within a broader network which consists of customers, retailers, third-party technology providers,

other customers, and products. Even today, when retailers design an interaction landscape, other customers and third-party service providers are often outside of the scope. However, in the technology-enabled retail of today, customers learn about the details of the offerings as they advance along their customer journey. This brings them to different third party touchpoints or interaction platforms where they engage with other customers. This increases the complexity of customers' journeys, while also reducing the control retailers have over their interaction with customers (Roy et al., 2017).

Customer interaction design models such as service blueprint (Bitner et al., 2008) or customer journey maps (Rosenbaum et al., 2017) usually focus on the customer journey steps that customers go through in the retailer-controlled touchpoints (Trischler & Westman Trischler, 2021). With customers in their shopping journey being enabled by different technologies, the retailer can directly control only a part of the overall customer experience. The retailers also need to consider how their service design is accounting for third party services and technologies and also what is the effect of the newly designed interactions on other customers i.e. customer-customer interactions (Pantano et al., 2018). To fill this gap, the authors propose a model based on the literature review and a case study with an omnichannel retailer, which takes into account external factors in designing interactions. Vrontis et al. (2017) and Kranzbühler et al. (2018) have proposed the integration of both customers' and retailers' perspectives in modelling customer experience. Vrontis et al., (2017) specified retailing-influencing communities factors as significant factors that contribute to technology-enabled retailing and the design of smart retailing interactions. Kranzbühler et al. (2018) argue that retailers have to evaluate the entire service network to understand the customers' perspectives and needs before designing their interactions. These studies serve as a solid foundation for the authors to investigate customer interactions from the perspective of retailers and customers and propose a model for designing retail interactions aimed at improving customer experience in omnichannel retail.

3. Research Methodology

3.1 Research Design

This research focuses on combining retailers' and customers' perspectives to design digital customer interactions in omnichannel retail. As a relatively new and unexplored phenomenon (Shi et al., 2020), it can be better explored with direct access to the phenomenon (Picot-Coupey et al., 2016). For this purpose, the authors conducted a single exploratory qualitative case study

to understand the unexplored dynamics of customer interactions in omnichannel retail. A single-case study is an appropriate approach for addressing this research as it allowed the authors to build a deeper understanding of the phenomenon from different viewpoints thanks to greater access to the company (Yin, 2017). In line with the recommendations from Yin (2017), the rationale for the current case selection was based on theoretical sampling by selecting an omnichannel retailer which was in the process of designing a new type of interaction for its customers and provided in-depth access to researchers.

3.2 Case Selection

The retail company (hereafter called “AB”) selected for the case study was established over 50 years ago to help Irish designers grow and create an extensive market of handcrafts in Ireland. Today AB is one of the largest Irish companies that sells high-quality design products through numerous stores across the country and an e-commerce presence with over 25,000 stock keeping units (SKUs). The product line is extremely versatile and includes a wide range of items such as fashion, knitwear, accessories, jewellery, cutlery, art and others. The company’s major competitive advantage, however, lies in providing an outstanding in-store customer experience via the knowledgeable, empathetic, and helpful sales associates who provide pleasant interaction with customers and create an authentic and amiable atmosphere.

AB has been investing substantial funds in improving the in-store experience, but the COVID-19 lockdown caused the large drops in daily footfall. AB required innovative approaches and restructuring of customer-retailer interactions. The retailer was in search of efficient solutions which would be able to reflect their emphasis on personal interaction, would be completely safe in nature and would be accepted by the customer in the new retail reality. One of the solutions proposed by the research team and approved by the company was the design, development, and implementation of a remote sales assistant (RSA) service. RSA represents an effective way to build a bridge between online and offline shopping experiences (Parise et al., 2016). By combining technologies and personal touch, RSA service provides customers with a great shopping experience while retaining the benefits of personal interaction, which helps establish personal relationships and increase customer loyalty (Chi et al., 2016).

3.3 Data Collection and Analysis

In the context of the current work, the research team joined efforts with the practitioners towards the development of the model for customer-retailer interactions based on the RSA

case. The authors engaged with AB from February 2019 to August 2020 and collaborated directly with the Brand & Commercial Director, Director of e-Commerce, and Head of Stores Manager. The data were collected through a range of semi-structured and unstructured interviews, workshops and access to internal analytics which encouraged depth and vitality and helped the authors in understanding the current model extensively and in the development of new concepts (Dearnley, 2005).

The information gathered through the case study was elaborated by applying data categorization and contextualization techniques suggested by Miles and Huberman (1984) and Silverman (2013) before data analysis. The authors then followed a structured process for data analysis, made up of a within-case study analysis following the “relying on theoretical propositions” strategy suggested by Yin (2017). The authors iteratively analysed the qualitative data by moving back and forth between the data from the case study and the literature review.

4. Findings

The COVID-19 pandemic had a significant impact on consumer behaviour and has also transformed the structure of customer-retailer interactions. Online shopping is getting more popular and digital technologies open up new interactions between retailers and their customers (Frishammar et al., 2018). The rise of ‘contact free’ shopping has its obvious challenges for retailers; however, this situation also provides new opportunities. AB aimed to benefit from COVID-19 restrictions by introducing new technology-enabled interactions to stay ahead of its competitors. Even though revenues decreased, AB decided to invest in making online shopping and virtual operations more personalised and increasing the online customer experience. The company is already well-known for its ability to provide an incredible in-store experience to its customers by investing a lot of resources into training the frontline shopping assistant. This approach has helped AB create a positive brand image and increase loyalty among its customers. When considering the design and development of the new digital technology-enabled interactions, the overarching goal expressed by the Brand & Commercial Director was to keep utilizing the ability of the AB’s highly knowledgeable and professional sales staff:

“They know their products the best. They know how to deal with customers. This is the part of the AB business”.

The analysis identified initial efforts and considerations made by AB related to the RSA service. Initially, the retailer started the service practising a silo approach without having all the sub-processes integrated into a unified, convenient, and engaging stream. The Commercial Director noted about the service at the beginning of the engagement.

“Up until now, it's been a call-in approach. We send a WhatsApp picture of the product to a person or pointing them on the website. The other thing that's been working is Facebook live or Instagram live where we were bringing to life products, describing them and then selling the items off. The customers also jumped onto the website and the products that we were featuring.”

The importance of online selling has been evident even before the sudden increase due to COVID-19 (Kim, 2020) as digital shopping provides greater convenience compared to traditional in-store shopping (Rangaswamy & Gupta, 2000). However, a huge majority still shop in-store; one reason why some people still prefer brick-and-mortar stores is that it is more difficult to get the same type of information and experience when they shop online (Rohm & Swaminathan, 2004). When consumers shop online, the product information they see is often limited to product descriptions and pictures provided by retailers. Having the mentioned observations in mind, AB management wanted to design an RSA service in a way to utilize technologies and help their clients make decisions easily while they shop online and also integrate it with other channels.

“It could be having a video call and showing the person products going through the website and helping people make the purchase there. And then the link is sent to the customer as well as an email to follow up afterwards. You click on the link; make a purchase and you can collect the items in store”

AB recognises that despite the wide adoption of online shopping worldwide, some customers are still sceptical about making purchases in the digital space (Stouthuysen et al., 2018) and ‘trust’ can be a key factor to predict whether a person is going to make a purchase online (Bilgihan, 2016). Customers are more loyal to the retailers that focus on human connection during interaction with customers in-store and online alike (Aggarwal & McGill, 2012). Engagement with RSA has proved to be very successful so far and AB is planning to

use the service more extensively during the busy period of Christmas also in a post-purchase setting.

“We are building up relationships with people from a customer service point of view and they regularly ring our customer support and leave lovely feedback. We are now considering putting in a reminder once a month to ring people to ask how are they getting on? And also when Christmas is coming up, we could be contacting our customers to help them get in ahead of the crowds”.

Moving from a siloed approach for RSA service to integrating this service into the omnichannel setting and ensuring a positive experience pre- and post-RSA service was the most challenging stage of this process. Observations and a series of interviews helped identify the steps and aspects the AB team considered when designing a new type of interaction with its customers. The approach followed by AB mainly consisted of identifying the aspects which are needed before the customers can engage with the RSA, the actual engagement with RSA and the resulting process which includes engagement with other customers and the overall experience of the customer throughout the engagement with the retailer.

5. Interaction Design Model

In this section, the authors discuss the proposed model for designing customer-retailer interactions, which combines customer and retailer perspectives and includes the classification of touchpoints. Customers’ perspective of customer experience is the “experiential perspective which is phenomenological in spirit and regards consumption as a primarily subjective state of consciousness with a variety of symbolic meanings, hedonic responses, and aesthetic criteria” (Lemon & Verhoef, 2016). On the other hand, from a retailer's standpoint, “an experience occurs when a customer has any sensation or acquires knowledge from some level of interaction with the elements of a context” created by the retailer (Kranzbühler et al., 2018, p.439). Customer experience is, however, influenced not only by their interaction with the service providers but also by various types of touchpoints that can be within or beyond a retailer’s control. Therefore, when designing interactions and assessing how these interactions and customer journeys are perceived, a retailer must consider all the actors involved in this network. The model in Figure 1 captures the relationships that determine the creation of a customer experience based on the different interactions, relationships between parties involved,

and touchpoints. Stein and Ramaseshan (2016) identified seven distinct elements of customer experience touchpoints i.e. “atmospheric, technological, communicative, process, employee-customer interaction, customer–customer interaction and product interaction elements” (Stein & Ramaseshan, 2016, p.10) which the authors adopted for the model. Each group of touchpoints has been colour-coded and numbered in order to have a holistic view of how these touchpoints can be integrated into the overall context of customer-retailer interactions.

Table 4. Colour coded and numbered definitions of the touchpoint elements (adapted from Stein and Ramaseshan, 2016)

Touchpoint elements	Definition	
Atmospheric (1)	The physical environment and surroundings that a customer experiences when interacting with the retailer	
Technological (2)	Direct interaction with any form of technology during an encounter with a retailer	
Communicative (3)	Retailer-to-customer communication, including both promotional and informative messages	
Process (4)	The steps customers need to follow to achieve a particular outcome on their customer journey.	
Employee–customer interaction (5)	The direct and indirect interactions customers have with employees of the retail organization.	
Customer–customer interaction (6)	The direct and indirect interactions customers have with other customers.	
Product interaction (7)	The direct or indirect interactions customers have with the core offering of the retailer	

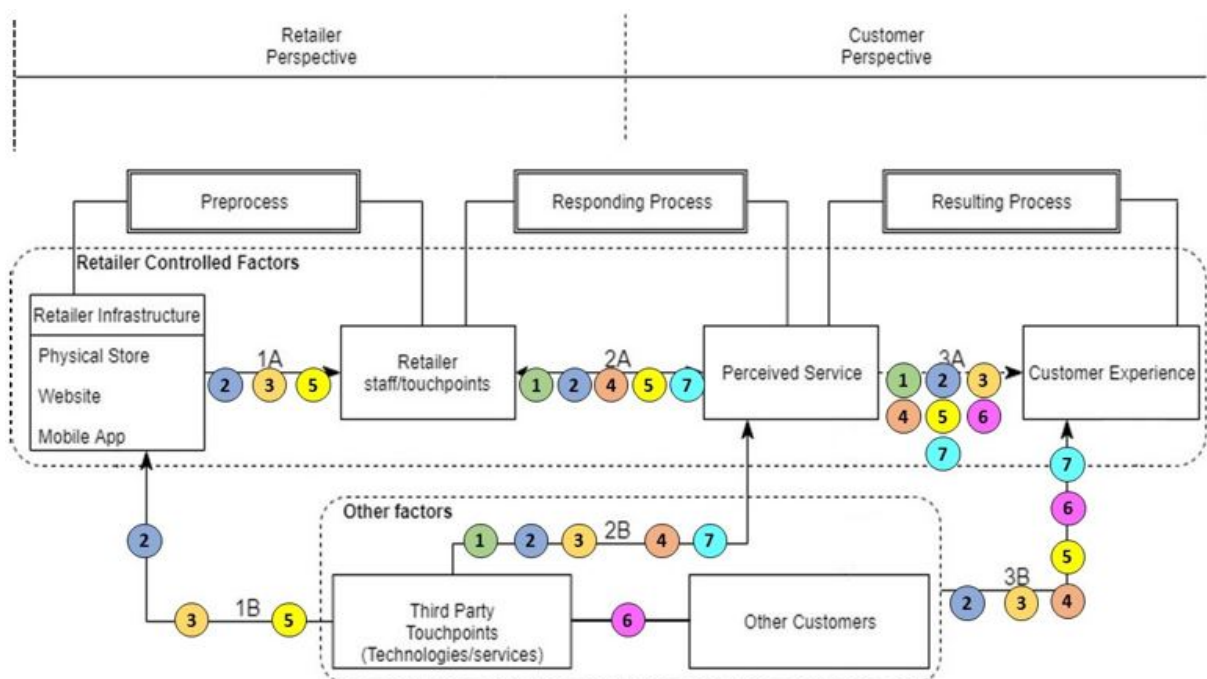


Figure 1. Model for designing interactions with customers

With the information from the case study, the research team mapped the elements which were currently utilized by AB and added the elements that extended beyond the firm's boundaries i.e., third party touchpoints, and other customers. The integration of these elements supported the interaction design by leveraging the external elements to improve customer interactions. The interaction design process was also strengthened by establishing links between different elements and adding different touchpoints to facilitate the consideration of specific types of touchpoints for all the elements of the model.

Figure 1 demonstrates the final customer interaction model, which consists of relations among the company's employees, partners, prospective customers, other customers, third party technologies/services, and touchpoints in retail. Viewing customer experience as a phenomenon that goes beyond the boundaries of the retailer's controlled touchpoints exposes the potential predicament that retailers face, as they fear the consequences of greater complexity in designing the interactions with customers. Of course, the ideal vision where retailers try to cater for customers' access to all third-party technologies, services and other customers in their customer experience design has a profound impact on the effectiveness and efficiency of retailers. For example, adding variety in terms of linking to different third-party services and customization (altering the organization's processes) may improve customer experience but reduces efficiency (Tax et al., 2013).

5.1 Pre-process (1A and 1B)

1A refers to the utilization of retailers' infrastructure by its employees to provide better services to the customers. Employees' help from other sources such as technology positively impacts their engagement with customers (Stock et al., 2017). Being in the 1A phase customers normally go through technological, communicative, and employee-customer touchpoints.

1B implies that the third-party touchpoints can create a better experience indirectly, for example, by providing an opportunity to reach out to retailers. A third-party web search page can provide information regarding the retailers' timing, assortment, promotions etc. which makes it easier for customers to get familiar with a certain retailer and thus get a positive experience. Retailers need to adapt their interactions design to harmonize these with the complimentary third-party providers those customers might use before or after a direct interaction. If the retailer wants to facilitate customers' use of many different complementary

services provided by third parties, the internal processes of the organization need to be more flexible to allow for this technological variability. There are different third-party applications and services for customers, which directly affect their perceived experience with retailers. Better alignment of retail infrastructure with third party touchpoints can lead to better-perceived service in the eye of a customer. At this stage, customers encounter technological, communicative, and customer-retailer touchpoints. Therefore, 1A and 1B can be considered as indirect antecedents of the overall experience.

5.2 Responding Process (2A and 2B)

2A process reflects customer interactions with retail staff and direct technological touchpoints such as self-service technologies. Frontline encounters are significant to a retailer as these form the boundaries between the retailer and its customers (Singh, 2017). In “high-touch, low-tech” encounters, frontline employees are fundamental for driving successful outcomes by creating social interaction that is pleasing and rewarding for the customers (Giebelhausen, 2014). This type of interaction affects hedonic products, particularly when a customer's personal preference dictates the choice of the products (Kurata, 2019). These interactions may be started by the retailer or by customers. Retailer-initiated interactions begin to communicate with its customers and affect future customer behaviour. These can take the form of a direct approach to a customer when in-store, through e-mail, chat etc. Customer-initiated interactions are mostly used for information seeking or support and take the form of call centre calls, web enquires etc. Although customers do not always interact with the same staff and may not build a positive relationship with the employees, they might nevertheless develop certain expectations about the service based on previous interactions with the retailer. So, the consistency of experience from all employees is pivotal in ensuring a positive customer experience. At this stage, customers move along the atmospheric, technological, process, employee-customer interaction, and product interaction touchpoints.

2B is the contact with other customers during the customer journey and its effect on perceived service through using third-party technologies and services. For example, a customer can discuss his/her needs on social media, where someone can recommend a certain retailer or service and share personal experiences. Moreover, the customer's opinion expressed on social media also affects the choice and expectations of the potential customers. Online posts, word of mouth, dissatisfaction, complaints etc. contribute to the expectation of the customer from

the retailer and can influence either positive or negative perception of a brand. Therefore, ease of access customers have to other customers greatly impacts perceived service and should be among the major considerations for retailers when it comes to designing the customer experience. Normally, customers encounter the following touchpoints when moving along this transition: atmospheric, technological, communicative, process, customer-customer interaction, and product interaction touchpoints.

4.3 Resulting Process (3A and 3B)

Phase 3A in the model represents the transition between the instances where customers get a perception of a certain service provided by the retailer and the customer experience that follows. In their research Pine and Gilmore (1998) state that positive perceived service experience is a factor that differentiates a competitive position of organizations. According to Kumar et al. (2019) perceived service experiences in omnichannel context cannot be evaluated in isolation. Whereas facilitating a positive perceived service experience can be a top priority for retail companies, Kumar et al. (2019) argue that recognizing that the outcomes of such instances can have an aggregated effect on the customers' overall experience with the firm is of high importance for the service providers. In effect, an exploration of perceived service experience in the long run against the most recent instant experience is crucial for gaining a better understanding of how a positive perceived service experience can ultimately influence the overall customer experience (Kumar et al., 2019). At this transitional stage, all the touchpoints presented in the classification by Stein and Ramaseshan (2016) are valid because customer experience develops throughout all touchpoints customers pass during the service delivery process. At this transitional stage, all the touchpoints are possible as the journey along the 3A process results in gaining a certain experience, these touchpoints are atmospheric, technological, communicative, process, retailer-customer interaction, customer-customer interaction, and product interaction touchpoints.

3B refers to customers' use of third-party technologies associated with various channels, such as websites, mobile apps, social media pages, retail stores etc. Each of these channels offers a unique experience to customers. Webrooming and showrooming are two famous examples of the frequent interaction sequence customers are forming when doing cross-channel shopping (Flavián et al., 2019). Webrooming sequences usually consist of two episodes. In the first episode, the customer searches and finds a product that best matches his

or her needs and in the second episode, the customer visits the physical store to touch, feel or test the products and makes the purchase (Arora & Sahney, 2017; Flavián et al., 2019). Showrooming is a similar concept but with information search and purchase channels reversed to webrooming. Experience-centric service providers create the prerequisites that enable customers to have the desired interactions. So, in the cases of webrooming or showrooming mentioned above, the experience-centric retailer will provide its customers with the option to switch/hop channels as they please and is convenient for them. 3B also reflects how other customers' behaviour influences the customer experience. For example, a customer might not directly interact with the staff but staff engagement with other customers also influences the overall customer experience. In sum, these interactions should be considered a powerful and important resource for customer experience creation. The following touchpoints normally dominate along the 3B path: technological, communicative, process, retailer-customer interaction, customer-customer interaction, and product interaction touchpoints.

This model considers the continuous development of the customer journey, from initiation to ultimate customer experience with the number of important touchpoints depicted along with the model, which help facilitate customer-retailer interactions and lead to the creation of a positive customer experience. A well-developed customer experience design process will ensure that customers' requirements are effectively integrated with retailer-provided experiences at all touchpoints. Advanced technology provisions should be provided keeping in mind the main target customer of the retailer. Finally, retailers should make sure they are protecting personal information when collecting it throughout this process.

6. Conclusion

The study provides insights into designing interactions for omnichannel customer experience by exploring changing customer-retailer interactions, describing the different interactions with retailer-controlled factors as well as non-controlled factors such as third-party touchpoints, as well as customer-to-customer interactions. Non-controlled factors can have a significant impact on the customer experience and retailers should monitor and assess these when designing interactions with their customers. It is not enough for retailers to offer a seamless experience omnichannel experience across their online and offline channels. The seamless experience should extend to all touchpoints across the ecosystem. The model proposed illustrates a holistic approach to the burgeoning issue of customer interaction design based on combining both perspectives - customers' and retailers' – on customer experience designing

the interactions. In the proposed customer interaction design model, retailers' and customers' perspectives are both considered as enablers for designing effective interactions in this customer experience ecosystem. It includes all the main components involved in formulating and perceiving customer experience.

This study adds to the literature by analysing the effect of technology on customer interactions in the retail context and improving the understanding of omnichannel customer experience design. The second contribution lies in modelling the constituents of customer experience in a retail ecosystem and proposing designing of customer experience using a model which accounts for diverse aspects of the omnichannel retail ecosystem and the relationships between them. The study also clarifies the role of different types of touchpoints in the omnichannel customer experience. For retail practitioners, the proposed model can guide the design process of customer-retailer encounters at various internal and external touchpoints.

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