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Alessandra Vecchi
London College of Fashion, University of London Arts, UK

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Chapter 6
A Review of Consumer-Facing Digital Technologies Across Different Types of Fashion Store Formats

Francesca Bonetti
The University of Manchester, UK

Patsy Perry
The University of Manchester, UK

ABSTRACT

Several current trends in the fashion retail and marketing landscape are associated with the ongoing digital revolution, including the increasing tendency for fashion retailers to adopt consumer-facing digital technologies across their online and physical store formats. Such technology helps improve the store environment by conferring a more engaging and stimulating shopping experience for consumers. This chapter provides a review of existing literature, supported by relevant industry reports and current examples from key players in the fashion retail sector, to provide a comprehensive analysis of different types of consumer-facing digital technology in various fashion store formats and how they impact on the overall shopping experience. The authors review a number of technologies including interactive touchscreens, RFID tags, beacon technology, magic mirrors and mobile apps, and consider how they are implemented in online stores, digitally enhanced stores, brand stores and pop-up stores in the fashion sector.

INTRODUCTION

The internet has significantly transformed the retail environment (Doherty & Ellis-Chadwick, 2010; Griffiths & Howard, 2008). Consumers' growing use of digital technology and devices such as desktops, laptops, tablets and smartphones, has made them active internet users who can be always connected. This has important consequences for the fashion industry and its retail channels (Retail Week, 2014b).

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Multichannel and omnichannel retail strategies increasingly pervade the retail scene as fashion retailers have implemented technology and digital marketing in retail channels, with services traditionally provided by bricks-and-mortar stores now offered online via websites and mobile apps (Tasha & Loker, 2015; BOF, 2015; Verhoef et al., 2015; Stephen, 2016; Marti, 2015; Pantano, 2015). Software applications enable modern shoppers to buy fashion products online via mobile apps; websites allow consumers to search and compare information online, anytime and anywhere (Rigby, 2011). Consumers can shop in the comfort of their homes, 24/7, enabling retailers to overcome physical barriers to establishing an international online presence (Bronnenberg & Ellickson, 2015; Moye & Kincade, 2002; Retail Week, 2014a). The development and diffusion of new consumer-facing technologies has profound effects on consumers' lives (Warschauer & Matuchniak, 2010), due to the affordability of new digital devices such as computers, tablets and smartphones, which influence consumers' habits, such as time spent online (Stephen, 2016). These sociotechnical factors impact on various demographic groups of internet users and have significant consequences for traditional store retailing (Verhoef et al., 2015; Fernie & Grant, 2015).

The on-going digital revolution is witnessing a massive transformation of retailing towards the use of the digital element (Stephens, 2013; Rigby, 2011; Marti, 2015; Catlin et al., 2015). Alongside the growth of online retailing, fashion retailers also increasingly use the digital element in-store, where consumer-facing in-store technology (technology applications or devices that the consumer deals with or experiences directly) represents an important component of the in-store shopping experience. This contributes to enhancing the shopping experience by conferring added value through the use of interactive touch points, in-store digital signage screens, digital kiosks and the possibility to access online information through screens and tablets in store (Karr, 2015; Roggeveen et al., 2015; Kilcourse & Rosenblum, 2009; Charlton, 2012; Greenwald, 2015). Online, fashion retailers use consumer-facing technology by facilitating the creation of online user-generated content (UGC), which comprises consumers' contributions such as opinions and experiences shared through social media platforms in the form of blogs, videos or a collection of images, reviews and product usage demonstrations (Montecchi et al., 2015). Moreover, digital technologies for enhanced product visualization such as touchscreen functionality, zoom facility, 2D and 3D rotation, mix-and-match technology, catwalk videos, virtual models and virtual fitting rooms all help increase the customer experience online (McCormick et al., 2014).

Global e-commerce has grown significantly in recent years (Dang, 2015; Stephens, 2015; Marti, 2015; Fernie & Grant, 2015). Online retailing has been facilitated by rising internet usage (Breidbach et al., 2014), which in turn has been facilitated by the increasing penetration of broadband, the improvement of the security of transactions, and the rapid growth of the mobile web which added a further channel to e-commerce, m-commerce (Fernie et al., 2015; Fernie & Grant, 2015; McCormick et al., 2014). Fashion retail has been particularly successful in the UK, despite the lack of try-on possibilities (Retail Week, 2014b). Those retailers that have no physical stores and trade using the internet as a way of exchange, such as Amazon, ASOS or Net-A-Porter, are called 'pure players', whilst those that combine online and physical retail formats are often named 'click-and-bricks' retailers (Fernie et al., 2015; McCormick et al., 2014).

The continuous evolution of consumer-facing technologies in retail is undeniable (Pantano, 2014, 2015). Keeping up with the fast pace of the digital revolution is fundamental for success and may otherwise lead to business failure (Rigby, 2011; Catlin et al., 2015). Digitalization is therefore a topic that fashion retailers cannot afford to ignore. Indeed, companies that until a few years ago had a solid market leadership have been overwhelmed by new entrants with innovative digital business models, destructing the existing ones. Today, there are few (if any) large fashion retailers that still use a bricks-and-mortar

retail strategy with no online presence. However, some luxury fashion brands still prefer to sell only through their physical stores to fully deliver an experience that cannot be replicated online, such as Hermès, which has never sold its iconic Birkin or Kelly bags online (Pike, 2016a) and uses its online presence to provide product and brand information, store locations and customer services.

The present chapter provides a review of consumer-facing in-store technology adopted by fashion retailers across different types of store formats. Whilst technology is commonly used in many retailing activities, including back office operations and supply chain management, this chapter focuses on the use of consumer-facing in-store technologies by fashion retailers. These represent a current and continuously evolving phenomenon, contributing to enhancing the overall store environment and customer experience across the different channels used, both online and offline (Pantano, 2015; Zagel, 2016). The chapter proceeds by providing an analysis of the existing literature, supported by industry reports and news articles, to gain a deep understanding of the topic. Relevant and current examples of the use of consumer-facing technology by key fashion players are provided to illustrate key ideas. The review begins by analyzing the influence of digital technology on fashion retailing and on consumer behavior. Subsequently, technology as a tool to track and study the consumer (taking into consideration privacy issues) is investigated. Different types of fashion store formats, both online and offline, are examined to assess their use of different types of consumer-facing technology and how it impacts on the store environment and shopping experience. The chapter concludes with observations on the use of digital technology in different fashion store formats and suggestions for future research directions.

THE INFLUENCE OF THE DIGITAL AGE ON FASHION RETAILING

The internet has expanded greatly over the past two decades, moving from the Internet of Information, characterized by Google and ranging from the 1990s until the early 2000s, to the Internet of People in the 2000s, manifested by websites such as Facebook, until the more recent Internet of Things (IoT), including digital devices such as the Apple iPad, Google Glass, Samsung Gear and Apple iWatch. The IoT opens up new opportunities to use unprecedented levels of data precision to identify flaws in existing value chains, enabling companies to improve the efficiency of their supply-chain operations (Kearney, 2015; Dörner & Edelman, 2015; Karr, 2015). The internet pervades several areas of retail marketing, enabling continuous new forms of e-commerce including business-to-business (B2B) exchanges and collaborations between partners to reduce costs, business-to-consumer (B2C) and consumer-to-consumer (C2C) transactions, using online intermediaries such as eBay, Gumtree or Amazon's Marketplace in deals between buyers and sellers. M-commerce, the use of wireless mobile technology for selling products and services, is developing even more rapidly (Fernie et al., 2015; Fernie & Grant, 2015; Breidbach et al., 2014).

The adoption and diffusion of modern retail technology are increasing competition, lowering operational prices and helping to develop better websites that offering product information and variety, price transparency, online interaction and 'click-and-collect' options (Fernie et al., 2015; Cho, 2015; Fernie & Grant, 2015; McCormick et al., 2014;Bronnenberg & Ellickson, 2015). To provide speedy fulfilment and returns services for online orders, which could be all over the world, the online order fulfillment function requires extensive backstage operations (Dörner & Edelman, 2015). These range from complex electronic data interchanges (EDI) between the actors involved in the supply chain, inventory management, customer relationship management (CRM) systems, continuous replenishment and on-time delivery

of items from the warehouse to the physical store or to the consumer's home (Cho, 2015; Marti, 2015; Fernie et al., 2015; Bronnenberg & Ellickson, 2015; Milnes, 2015; Fernie & Grant, 2015). Overall, digital capabilities can help design and deliver the best possible customer experience, where online fashion retailers' on-time delivery strongly contributes to consumer satisfaction and repeated purchase intention, also generating positive word of mouth (Rao et al., 2011; Fernie & Grant, 2015; Collier & Bienstock, 2006; Cho, 2015; Dörner & Edelman, 2015).

CONSUMER-FACING TECHNOLOGY TO INFLUENCE PURCHASING BEHAVIOR

From the internet that made home-based technologies available to consumers, to the more recent mobile technology and use of m-commerce (Fernie et al., 2015), digital technology is now an established part of the shopping process, as consumers are used to it and could not do without it (VanScoyoc et al., 2015). Retailers take advantage of consumers' constantly increasing use of technology to try and influence their purchasing behavior through the different stages of the consumer decision-making process (Fernie et al., 2015). According to the Engel, Kollat and Blackwell Model (EKB), consumer behavior is a dynamic ongoing process involving problem recognition (corresponding to the development and perception of a want or need), search (pre-purchase planning and decision making), evaluation of alternatives (during which the consumer uses information to evaluate alternatives in the choice set), choice, purchase (stage of the buying decision process in which the consumer actually buys the product or service) and post-purchase outcomes (which may lead to satisfaction or dissatisfaction, in terms of repeat buying, positive word-of-mouth or complaints) (Foxall, 2015). Retailers can provide much of the information consumers need to proceed through each of the phases from problem recognition to post-purchase evaluation, both online and in physical stores (Fujitsu, 2016; Stephen, 2016). Functional attributes, such as convenience and accessibility, no longer exclusively drive online buying, as enjoyment and hedonic motives increasingly influence e-commerce (Childers et al., 2001; Blázquez, 2014). Consumers may browse online for pleasure, without necessarily having the intention to buy. Online, all unplanned purchases (and many planned ones) come as a result of a consumer seeing something that promises pleasure (Underhill, 2009; Goworek & McGoldrick, 2015).

Online Stores

Fashion retailers use consumer-facing technology online to influence consumer behavior, starting from the problem recognition stage, by triggering a need or want through external stimuli such as other users' feedbacks and recommendations, or suggestions based on previous purchases and consumers' data previously provided (Foxall, 2015).

The research stage of the buying process comprises the use of the online channel before the shopping trip to search for information about the product or service, contact the company pre-purchase, compare prices online and look for inspiration from peers via electronic word-of-mouth (eWOM) shared through blogs, forums, or social networks (Blázquez, 2014; Fujitsu, 2016; Stephen, 2016; Pike, 2016b; Fernie et al., 2015; Rigby, 2011; Puccinelli et al., 2009; Pantano, 2015). This stage is increasingly characterized by the use of smartphones or tablet devices to read peer reviews, as well as mobile apps that gather consumer data from a range of sources to provide personalized recommendations (Fernie et al., 2015).

Online retailers use online advertising, social media and online communities, and in general Web 2.0, used to indicate a number of software developments that allowed the web to be used for the sharing of information and collaboration, to positively influence consumer behavior at this stage.

Today, consumers have a vast array of sources at their disposal to evaluate alternatives online. Whilst in-store, shoppers may simultaneously use their own mobile devices to search for more information, or even order the product online from another lower priced competitor, a practice referred to as 'showrooming' (Fernie et al., 2015). Alternatively, they may engage in the phenomenon of 'webrooming', whereby shoppers seek information online and then buy offline (Verhoef et al., 2015). This is further enhanced by search engine optimization (SEO) technology, which simplifies the search for information online by using less competitive long tail keywords which offer a higher return on investment (ROI) to retailers than generic keywords (Fernie et al., 2015).

In the purchase decision stage for online retailing, live chat or instant messaging assistance by operators and the call-me-back option are often offered on retailer websites.

The consumption or usage stage is characterized by online support provided by the company itself or blogs by other users, thus creating online communities. For example, Apple users can ask and find answers to many questions online (Apple, 2016; Stephen, 2016).

Finally, the after-sale experience sees the use of technology through online communities and online support of the company post-purchase (Stephen, 2016), such as customer reviews posted online that inform the decision-making process of others.

Physical Stores

Consumer-facing in-store technology is used from the initial phase of the consumer decision-making process to stimulate the perception of a want or need in consumers' minds. This may be achieved by style advice and recommendations provided by magic mirrors or interactive screens such as tablets, suggesting items that match chosen ones (Pantano, 2015).

It is then used to inform consumer research through digital panels and interactive screens, billboards showcasing collections or videos or providing information about the product or service used (Verhoef et al., 2015). The technology used to engage with consumers in physical stores depends on the retail format (Fernie et al., 2015); for instance, digitally enhanced stores such as Nike Town surround consumers with technology to stimulate the research process, for example by providing i-Kiosks to look up information in-store or screens to customize one's shoes.

During the purchase stage of the consumer buying process, retailers use consumer-facing in-store technology to inspire and engage with consumers, thus creating a better shopping experience that influences consumer behavior (Verhoef et al., 2015). Retailers such as Burberry, M&S, Nike and Macy's, for instance, have adopted interactive screens (e.g. iPads, i-Kiosks, tabletop computers) through which consumers can place orders, receive style advice, product suggestions and promotions information, thus stimulating their purchase probability. H&M's app contains a Scan and Buy function that consumers can use in-store to scan the barcode of products and check their availability in other sizes and colors, as well as online promotions, personalized offers and matching products. Fashion retailers also use in-store digital signage showing the latest seasonal campaign, catwalk videos and real-time pricing and product information that can be integrated with social media feeds that display consumers' reviews next to the merchandise.

Post-purchase behavior is fundamental in retaining loyal consumers. Feedback about customer satisfaction can be sought in-store, and customer service should always work efficiently to respond to possible complaints. To this end, retailers can use specific apps or in-store interactive screens to ask for consumer feedback on their experience in-store and interactions with sales associates, and use the results to rate employees' performance (Haslehurst & McKone, 2015) and optimize customer service levels (Marti, 2015). In-store technology such as tablets are fundamental for store associates to provide enhanced customer service, for example by looking up information through the system to assist the consumer, thus reinforcing brand values and delivering a good shopping experience (Sillitoe, 2016).

TECHNOLOGY AS A TOOL TO TRACK AND STUDY THE CONSUMER

Digital technologies can be used to track and study consumer behavior both online, by recording every click, and offline, by tracking where consumers go inside a physical store to improve retail marketing and the entire marketing mix, and hence the overall customer experience (Henry, 2013). Automated systems are now available to track consumers in-store without interfering with their buying behavior. Movement detectors at the entrance of stores or departments measure the number of people who walked past the store, the number who entered the store and whether they went in immediately or were persuaded by the shop front; ceiling sensors can detect unique signals from each shopping trolley, mapping the route and timing of progress through the store; small cameras around the store can automatically produce movement maps and visual images to follow consumer paths through the store, thus signaling how many shoppers went to a specific store area compared to a previous date (Datoo, 2014; Henry, 2013; Karr, 2015). Though the study of in-store consumer behavior, it is possible to observe and record the path taken by consumers to see how they perceive the store layout and merchandise display techniques and whether marketing banners and in-store communications are effective. This enables retailers to maximize the space in-store to increase revenue (Henry, 2013). Retailers are therefore able to obtain information such as footfall outside the store, engagement (how long consumers spend inside stores and if they actually bought), whether consumers are repeat shoppers or not, allowing them to compare trends over time to monitor the efficacy of a particular marketing action (Datoo, 2014; Henry, 2013). Tracking shoppers' movements within shopping centers or streets from one store to another is useful for understanding how shoppers combine visits to different stores.

Ongoing research and development results in more forms of technology to collect data on consumer behavior in-store and enhance the shopping experience, which allow retailers to qualify and quantify the experience they deliver and the impact on sales, both online and offline (Stephens, 2015; Zaryouni, 2015). Retailers can therefore understand the profile and behavior of consumers in their spaces and gather new insights about the level of engagement being created, as well as consumers' responses to products and services in different contexts. Via mobile ID tracking, retailers such as Swatch and American Apparel use the consumers' smartphone's Wi-Fi to track their behavior around the store, determining if they are a repeat visitor and to see which departments they visit and for how long, and allowing the retailer to send personalized recommendations to the consumer's smartphone when they enter the store (Henry, 2013; Verhoef et al., 2015; Haslehurst & McKone, 2015). Another form is eye tracking technology, which involves anonymously recording the consumers' eye movements' under naturalistic conditions to analyze

what they look at and thereby ascertain which visual marketing stimuli are more effective. Eye tracking technology, facial recognition and video analytics are used to track what consumers' mood is, through the use of extremely sophisticated cameras with sharper lenses and data-processing (Henry, 2013; Wedel & Pieters, 2015; Harwood & Jones, 2014). Eye tracking can also be conducted in the online shopping context, either with a device attached to the computer screen or with mobile eye tracking glasses worn by the consumer (or more usually, a market research participant).

Radio-frequency identification (RFID) technology can be used to track every move of a garment in-store from a distance by using tiny microchips hooked up to miniature antennas. RFID tags, composed of a chip and antenna, contain an ID number identifying the item to which it is attached, which can then be tracked by RFID reading devices. Retailers may use RFID to locate store inventory, keep track of inventory and ensure that shelves stay stocked (Bandinelli et al., 2012; Fernie & Grant, 2015; McCormick et al., 2014; Hinkka et al., 2015). In the luxury fashion sector, RFID is used with supply chain certification to track items through supply networks in order to guarantee their provenance (Macchion et al., 2014). By keeping track of products, RFID systems make it possible to track consumers (using tagged items such as shoes or bags) long after purchase and anywhere in the world (Albrecht & McIntyre, 2015). However, this may be perceived as an invasion of privacy by consumers (Lee et al., 2012).

Beacon technology, a location-based marketing technology, is used by retailers such as Macy's, Zara and H&M for communications purposes with consumers (Moody, 2015; Fernie & Grant, 2015). This technology allows retailers to send messages or notifications to consumers who approach the beacon's zone in order to promote specific products or give recommendations, based on the information gathered, to engage with the consumer and enhance their shopping experience (Maycotte, 2015; Verhoef et al., 2015; Rigby, 2011; Haslehurst & McKone, 2015; Fernie & Grant, 2015).

Rebecca Minkoff's flagship store in New York makes extended use of technology to gather data and track customer behavior in-store. The retailer can find out which items are taken into the fitting rooms and which have been purchased or left behind, in order to understand how consumers are responding to certain products (Milnes, 2015). Consumer-facing technology is extensively used in-store to engage with consumers: interactive screens allow shoppers to browse through the brand's look-books or order a drink. RFID tags on items brought into the fitting rooms trigger the mirror, which shows the item styled with different looks and colors (Greenwald, 2015; McCormick et al., 2014). These enhanced fitting rooms improve the in-store shopping experience (McCormick et al., 2014) and positively impact on sales (Rigby, 2011).

Tracking technology allows retailers to gather valuable data about consumers to inform future strategy, in terms of what they buy, whether visual merchandising display and store layout plays an important role influencing purchase behavior, or if store layout needs to be changed, who in the shopping group is the decider (e.g. group leader or spouse), as well as consumer waiting time and in-store congestion points (Henry, 2013). However, privacy may be a source of consumer concern (Henry, 2013; Maycotte, 2015; Moody, 2015; Fernie et al., 2015). Consumers may lack clear understanding of how retailers can track their location and collect data about them, thus perceiving it as an invasion of privacy (Lee et al., 2012). Retailers must be aware of privacy issues, seek to comply with guidelines on the ethical use of tracking technology and inform consumers about the type of information collected and its purpose.

DIFFERENT TYPES OF STORE FORMATS

Continually evolving and demanding markets coupled with the continuous growth of retailer digitalization have contributed towards the increase of new and hybrid store formats, where boundaries between store formats are becoming more and more blurred and new format types arise (Davis, 2014; Fernie & Grant, 2015). The role of the concept store is important, as it gathers together the value of personal service, great product display, interactivity, digital technology and great shopping experience (Davis, 2014). Based on Davis (2014), four main types of fashion retail store format stand out:

1. **Online Stores:** Including pure players such as ASOS or Net-A-Porter, as well as m-commerce (Fernie et al., 2015; Fernie & Grant, 2015; Rigby, 2011; Pantano, 2015; Marti, 2015; Stephen, 2016; Zaryouni, 2015; Burke, 2016).
2. **Digitally Enhanced Stores:** Including mature click-and-bricks retailers such as Paul Smith, Zara and Nike which offer click-and-collect services (Davis, 2014; Fernie et al., 2015; Fernie & Grant, 2015; Ingham, 2015).
3. **Brand Stores:** Including the concept of flagship brand stores, are characterized by the growing use of in-store technology (Davis, 2014; Kozinets et al., 2002; Moore et al., 2010; Bonetti, 2014; Kent, 2009; Pantano, 2015).
4. **Pop-Up Stores:** Or temporary outlets for brands (Warnaby et al., 2015; Charlton 2013; Davis, 2014; Kim et al., 2010; Niehm et al., 2007; Russo Spena et al., 2012).

The four types of store format outlined above will now be analyzed, with particular focus on the role of the shopping experience and store environment through the use of consumer-facing technology.

Online Stores

Online stores represent a type of store format with the use of technology, comprising the sale and distribution of products and services via electronic channels (Fernie et al., 2015; Pantano, 2015). As traditional retail channels were transformed by the internet and new players entered the market with online offers, including pure players such as Amazon, Net-A-Porter and ASOS, traditional bricks-and-mortar retailers had to develop their online presence too, whether via their own website or third-party partners' websites (Fernie et al., 2015; Pantano, 2015; Zaryouni, 2015; Verhoef et al., 2009; Burke, 2016). Online, different virtual stores formats and designs exist. Fernie et al (2015) outlined five key types:

1. **Price Formats:** Sell overstocks or products from previous seasons, such as ASOS Outlet and Tesco Outlet; auction sites such as eBay provide platforms where buyers and sellers negotiate the selling price.
2. **Experiential Formats:** Confer an enjoyable online shopping experience, as in the case of ASOS and Net-A-Porter, which have developed editorial content and ways to communicate between the consumer and retailer.
3. **Community-Based Formats:** Are characterized by a virtual social community and customer reviews at the heart of the shopping experience, such as Amazon and Etsy.
4. **Mass-Customization Formats:** Provide merchandise tailored to the individual consumer; customers can customize items such as shoes on NIKEiD or Jimmychoo.com.

5. **Merchandise-Oriented Formats:** Offer a wide product mix to attract consumers. These include department stores' websites such as Selfridges.com or Houseoffraser.com, while Liberty.com specialises in a niche product range.

Services traditionally provided by employees in store have become available outside the retail store to shoppers (Pantano, 2015). Some fashion retailers offer 24/7 customer service via dedicated accounts on social media platform Twitter, including Boohoo (@boohoo_cshelp), Next (@NextHelp), Burberry (@BurberryService) and Tesco (@tesco). Others such as House of Fraser (@HouseofHelpers) and John Lewis (@JLcustserv) offer extended hours for customer service; however, some still largely follow the operating hours of their physical counterparts (e.g. TK Maxx (@TKMaxxHelp), Schuh @schuhHELP and Office @OFFICEShoesHelp). H&M offers customer service in 15 languages via its dedicated Twitter account (@hm_custserv).

M-commerce offers several service options, such as searching for specific products, scanning barcodes with a mobile device to check prices, matching consumer measurements with clothing from different brands to find items, personalise items, adding merchandise to a personalised shopping list, processing the list at the online store, choosing delivery time and finally paying for goods (Fernie et al., 2015; Fernie & Grant, 2015; Pantano, 2015; Marti, 2015; Rigby, 2011; Zaryouni, 2015). Although m-commerce has become more important in many purchasing decisions, for fashion purchases, the smaller screen size and resolution make smartphones a second-best choice compared to tablets and desktop or laptop computers (Fernie & Grant, 2015; McCormick et al., 2014). However, mobile apps are constantly emerging (Pantano, 2015; Marti, 2015; Rigby, 2011; McCormick et al., 2014; Zaryouni, 2015). Apps (short for application software) are available through Apple's App Store, Google Play or Windows and offer online visual merchandising through virtual catalogues in the case of fashion retailers such as Zara, Amazon and ASOS, or the possibility to compare prices, so that consumers can shop by phone (Fernie et al., 2015; Zaryouni, 2015; Pantano, 2015). Others have introduced applications for supporting customers to find stores through location-based services, items, creating a wishlist (Pantano, 2015). Magrath and McCormick (2013) identified four key elements of the marketing and visual design in fashion retailer mobile apps: multimedia product viewing, informative content, product promotions and consumer-led interactions. Burberry excels at prioritizing its mobile and social media presence, with the brand's website, mobile site and social platforms at the centre of its activities (Zaryouni, 2015). The brand pioneered in joining Periscope, a live video streaming app to transmit events, Apple Music and Snapchat, a social media platform used to show live the photoshoot for its advertising campaign, and to sell via Twitter to bring excitement and newness to their experience, as well as integrating digital and physical worlds (Zaryouni, 2015; Felsted, 2015).

As younger generations were 'born digital', they tend to spend more time on mobile apps, and they get stimulated by social media and mobile apps to buy fashion and search for information on social media (Pike, 2016b). However, a broader demographic range of consumers uses several channels during the buying process, both online and offline, such as websites, physical stores, social media, mobile apps, catalogues and more; hence retailers are becoming more proactive in communicating and interacting with their customers across all age groups (Pantano, 2015; Rigby, 2011; Marti, 2015).

Store environment and the importance of shopping environment and atmosphere are fundamental for online retailers, who must try to compensate for the lack of physical design and tactile elements that influence consumer decision-making (Underhill, 2009; Moye & Kincade, 2002) and create an attractive store environment online (Antéblian et al., 2014; Solca, 2016; Stephen, 2016). However, advances in

digital technologies have significantly changed the online shopping experience, increasing the hedonic value of the online shopping process (Pantano, 2015). This is made possible through the use of technologies such as augmented reality, 3D body scanners, virtual fitting rooms or 3D virtual models to help consumers evaluate products online in terms of product characteristics, size and fit, hence facilitating online behaviors and buying intentions by stimulating mental imagery (Moles, 2013; McCormick et al., 2014) and even impulse-buying behavior (Pantano, 2015). Virtual product experiences that provide visual, functional, tactile and/or behavioral simulation of product attributes reduce consumers' perception of risk in the online shopping process (McCormick et al., 2014). Consumers can use their computer webcam or smartphone camera to virtually see how a dress would fit on them, or create an avatar of themselves by providing some basic measures and personal details (Glamstorm, 2015; Rigby, 2011; McCormick et al., 2014). Fits.me offers a virtual fitting room for online retailers suggesting the garment size that is the closest match to the shopper's measurements, and enables the user to 'try on' several sizes to identify the preferred size and fit (McCormick et al., 2014; Fits.me, 2016). Fits.me technology is used by a number of fashion brands such as Hugo Boss, Twin-Set and Thomas Pink. The touchscreen functionality of mobile devices can also be exploited as a means of reducing the physical-digital divide between the in-store and online fashion shopping experience (McCormick et al., 2014). Several online retailers such as ASOS, COS, Amazon and Zalando allow online shoppers to return products for free and receive new deliveries quickly.

These technologies have also contributed to another very important aspect: conferring an interactive online shopping experience accompanied by atmospheric cues through which consumers can increase their involvement level and develop relationships with companies, expressing themselves, giving and viewing opinions and comments posted on brands' and retailers' websites (Antéblian et al., 2014; Verhoef et al., 2009; McCormick et al., 2014). The big challenge for e-commerce is how to create an emotional connection with consumers which leads them to engage with the online retailer beyond the transactional requirements of shopping (Felsted, 2015). E-commerce is a key driver for brands to create community-focused retail spaces (Kurutz, 2015), which can lead to a more enriched customer experience that in turns generates customer loyalty (Verhoef et al., 2009; Mittal & Tsiros, 2007). This is achieved through the use of social networks, discussion forums, blogging, chats, editorial content and virtual social communities offering a two-way or multi-way communication between the consumer and the retailer, and between consumers (Fernie et al., 2015; Pantano, 2015; Solca, 2016; Antéblian et al., 2014; Verhoef et al., 2009; Fujitsu, 2016; McCormick et al., 2014; Stephen, 2016). Examples include Amazon and ASOS which allow consumers to post and read reviews on their website (Fernie et al., 2015; Antéblian et al., 2014). Featuring unbiased consumer reviews and ratings can be beneficial for retailers, as people trust consumer reviews more than expert analyses because they offer more experiential comments (Puccinelli et al., 2009). Retailers should therefore provide simple and easy routes for consumers to give advice and feedback to others, and gain information about products (Fernie et al., 2015).

Digitally Enhanced Stores

Digitally enhanced stores are physical spaces featuring a strong digital technology element. Technology is widely used in-store to help logistics and supply chain-related operations. To this end, electronic points-of-sale (EPoS) are assist the logistics function by real-time recording of sales information and rapid flow of stock information for better stock control and to collect consumer data for CRM and loyalty

programmes, which forms the basis of many relationship marketing activities (Goworek & McGoldrick, 2015; Fernie & Grant, 2015; Marti, 2015).

Another manifestation of the use of technology in-store is the click-and-collect concept, which combines an online and an in-store experience (Retail Week, 2014b). This recent trend has been enabled by the development of the omnichannel supply chain and multichannel retailing, whereby consumers shop online and collect their purchases in-store (Fernie et al., 2015; Marti, 2015; Davis, 2014; Berman & Thelen, 2004; Breidbach et al., 2014). Click-and-collect overcomes the last-mile problem of failed delivery for consumers and retailers, thus increasing convenience for the consumer, and may also contribute to extra 'halo' sales in-store when the consumer comes to collect their items (Fernie & Grant, 2015). For example, department store retailer House of Fraser locates its click-and-collect counter deep within the store, thus enabling the consumer to see other products on their way to pick up their order, which could result in an extra impulse purchase. Changing rooms are provided nearby so that the consumer can try on their order, and return or exchange the item there and then if it is not suitable.

Initially, multichannel strategies mainly involved traditional retailers adding new virtual channels to the existing ones (Verhoef et al., 2015), thus allowing consumers to purchase whenever and wherever, across different retail channels (Goworek & McGoldrick, 2015; Dugal et al., 2012; Fernie et al., 2015; Fernie & Grant, 2015; Pantano, 2015; Berman & Thelen, 2004; Rigby, 2011). Multichannel marketing refers to the practice of simultaneously offering consumers information, goods, services and support through two or more synchronized channels (Rangaswamy & Van Bruggen, 2005; Kushwaha & Shankar, 2013). Multichannel consumers do not separate channels when they shop from more than one channel for items in a particular category and expect a consistent experience between channels (Blázquez, 2014; Moye & Kincade, 2002), such as the opportunity to return goods to their nearest store in the case of clothing (Fernie et al., 2015). Multichannel shoppers are more profitable than those who use single channels (Retail Week, 2014b; Fujitsu, 2016; Berman & Thelen, 2004). However, whilst a multichannel retailer may use several channels, full connection between them may not exist, and there may be interruptions and barriers between the physical and online channels (Piotrowicz & Cuthbertson, 2014). This is the case, for instance, of more traditional retailers offering their consumers the possibility to shop through different channels (e.g. online or in their physical stores or through third party retailers) and providing support through them, but not allowing click-and-collect or online returns to store, for example.

With the continuous development of new digital technologies and the increasing integration of online and offline channels, the retail landscape is moving from a multichannel to an omnichannel experience (Verhoef et al., 2015; Rigby, 2011). Omnichannel retailing similarly involves multiple channels (Fernie & Grant, 2015), where different activities such as search, display and purchase take place through many different platforms (Li & Kannan, 2014). Omnichannel retailing focuses on the interplay between channels and brands, where the borders between the different channels are interchangeable, integrate with each other and begin to disappear in the delivery of consistent, holistic and seamless consumer journeys, regardless of channel, time or device (Verhoef et al., 2015; Antéblian, 2014; McCormick et al., 2014). This has important consequences for retailers and their supply chain partners, as consumers have very high expectations for fulfilment and returns (Verhoef et al., 2015; Fernie & Grant, 2015; Antéblian, 2014; Fujitsu, 2016; Dörner & Edelman, 2015; Rigby, 2011; Marti, 2015; McCormick et al., 2014). Because the channels are managed together, the perceived interaction is no longer with the channel, but solely with the brand. Thus, consumers switching freely across channels and devices such as desktop computers, laptops, tablets and smartphones, all within a single transaction process, are part of the omnichannel experience (Verhoef et al., 2015; Piotrowicz & Cuthbertson, 2014). For US depart-

ment store retailer Macy's, the ultimate aim is to have visitors shop with them, no matter whether this happens in-store or online.

Retailers frequently integrate the physical store with the online one through the installation of new and interactive forms of consumer-facing in-store technology, creating digitally enhanced stores to improve their offer and differentiate themselves among digitally savvy target audiences (Greenwald, 2015). Technology is used for entertainment and to provide information through personalised recommendation, reviews, price transparency and videos (Pantano, 2015; Rigby, 2011). The digital element is integrated by retailers in-store through the use of interactive touchpoints, in-store digital screens and the possibility to access information through computers and tablets in-store (Roggeveen et al., 2015; Kilcourse & Rosenblum, 2009; Karr, 2014). This is the case, for instance, of Nike offering the possibility for consumers to create and customise their own Nike shoes with NIKEiD in Nike Towns, located in key stores in prime cities (e.g. London, Berlin, New York) through the use of interactive screens. Nike has offered its NIKEiD service, allowing users to personalize their sport shoes, since 1999 through the nikeid.com website and then permanently introduced it into Nike Town in London in 2007 (Creative Review, 2016).

Overall, the omnipresence of digital signage screens within all types of stores is notable (Pantano, 2015; Karr, 2015). It consists of screens in public places such as in-store displays showing video, illuminated light boxes, extending from small to large and single to multiple screens. On a large scale, Louis Vuitton uses digital screens in-store and in shop windows in Mayfair, London, whilst multiple screens are used to create digital retail theatre in Burberry's flagship store in Regent Street, London (Pantano, 2015; Karr, 2015). Digital signage is also used for aisle-signage in-store, way-finding signage and event signage, allowing businesses to use video instead of static images (Karr, 2015). The aim of using display technologies is to enable communication with shoppers while they are in the mood to buy, for example by showing video or images of the retailer's latest catwalk show, behind the scenes of the seasonal advertising campaign or by using single images to promote specific products, and to promote a modern retail brand image and demonstrate the retailer's commitment to the digital element, whilst providing useful information such as stock location, product features and styling options (Pantano, 2015; Dennis et al., 2010; Rigby, 2011).

In-store technology is also manifested in the use of self-service i-Kiosks using touchscreen technology that offer a variety of functions, from product customization in-store, checking availability or location, to style advice and the possibility of ordering products (Charlton, 2012; Karr, 2015). Shoppers can independently acquire information about the product range and promotions, thus reducing the need for store staff. A similar function is accomplished in some cases by the use of tablets or screens in-store, where consumers can seek information about products and order them directly, as used by Burberry, Emilio Pucci, Marks & Spencer and Topshop (Verhoef et al., 2015; Davis, 2014; McCormick et al., 2014). Retailers also provide tablets to inform and empower store employees. Providing sales staff with tablets allows them to have immediate access to the latest store and product information (as well as that of competitors) through mobile apps and websites to assist shoppers in-store from the very beginning of the purchase process, thus increasing efficiency for the retailer (Marti, 2015; Rigby, 2011). Burberry was amongst the first fashion retailers to use iPads on the sales floor to efficiently spread information amongst sales associates. Retailers can also use retailer-specific mobile apps to ask for consumer feedback on their in-store experience and rate their interactions with sales associates and use the results to assess employees' performance (Haslehurst & McKone, 2015). This data can then be used by retailers to optimize customer service, and hence performance (Marti, 2015).

Some retailers have adopted virtual reality headsets for consumers, in order to immerse shoppers in virtual 3-D videos of the retailer (Tabuchi, 2015). Tommy Hilfiger was the first major fashion retailer to use virtual reality within its stores, offering shoppers a three-dimensional virtual trip of the brand's fashion show with front-row view to inspire consumers with the items of the collection that they would see in the runaway show, and to entertain them (Tabuchi, 2015). In 2015, Dior created its own VR headset with cutting edge-technology, Dior Eyes, for consumers to use within its boutiques and immerse themselves in a 3D backstage world of a Paris catwalk show.

Since fashion shopping is not just about obtaining tangible products but also experience and enjoyment (Retail Week, 2014b), it is important that retailers create a suitable and consistent store environment and shopping experience across the different types of store formats through which they operate (Kotler, 1973; Fernie et al., 2015; Ingham, 2015). In the case of digitally enhanced stores, technologies are increasingly integrated with products in modern and appealing store environments to improve the traditional point-of-sale, increase footfall to the store, confer added value and enhance the customer shopping experience (Pantano, 2015; Breidbach et al., 2014; Poncin & Mimoun, 2014; Charlton, 2012; Davis, 2014; Haslehurst & McKone, 2015; Karr, 2015; Greenwald, 2015; Ingham, 2015; Verhoef et al., 2009; McCormick et al., 2014). The aim is to use technology to improve the in-store experience, making the shopping experience pleasurable, engaging, entertaining and memorable (Kumar & Venkatesan, 2005). Retailers use interactive digital screens capable of generating recommendations, taking orders and allowing consumers to design products or assemble outfits, and creating engaging games that encourage consumers to stay longer (Pantano, 2015; Rigby, 2011; Antéblian et al., 2014). This is the case, for instance, of Sephora and of US virtual technologist ModiFace who created, respectively, a Nail Play station combined with a Virtual Make Up Wall and an augmented reality mirror simulating the effects of makeup, skincare and teeth whitening products to offer consumers a more realistic try-before-you-buy shopping experience (BLOGO, 2014; Podeszwa & Baron, 2016). Burberry enriched its London flagship store, which replicates the brand's digital experience into a physical space, with magic mirrors in its changing rooms and in some common areas (MICROS, 2012). This technology consists of interactive devices enriching the retail experience by providing detailed product information such as material characteristics, product craftsmanship, and showing making-of videos and runway videos of selected products (Zagel, 2016). Resembling ordinary mirrors from the outside, they are triggered by RFID tags on items placed close to them (McCormick et al., 2014). Furthermore, an enormous video display unit at the center of the store represents a strong digital element to reinforce the unique experiential scope of the store, where digital rain showers fall on the many digital screens to recreate the effect of the typical British weather (Vogue, 2012; Fashion United, 2012).

Sports fashion retailers Adidas, Nike and Converse offer customization and sports coaching areas in their flagship stores, conferring an experience built around the interaction between the consumer and the retailer through the use of in-store technology (Antéblian et al., 2014). US fashion retailers such as Rebecca Minkoff and Kate Spade have also infused their stores with technology such as magic mirrors and interactive screens to engage with shoppers and improve in-store customer experience (Milnes, 2015).

Brand Stores and Flagship Brand Stores

Brand stores do not focus primarily on the digital element, as in the case of digitally enhanced stores, but on showcasing the product more generally (Davis, 2014). This is achieved through the use of in-store technology to enhance product display, interactivity and overall shopping experience. The 'store as brand' is used to relate appearance and identity to core brand values, as consumers' experiences and emotions reflect retail branding and store design (Kent, 2009). This is the case for Nike Town and Adidas flagship stores for sports fashion brands and Apple stores for technology, where it essential to uniquely position the brand experience on the high street (Davis, 2014).

Flagship brand stores consist of single branded, directly-owned stores characterized by architectural uniqueness and innovative store design which transmit the correct and purest expression of the brand image and values to internal and external stakeholders, and to interact and build relationships with consumers (Bonetti, 2014; Brun & Castelli, 2008; Solca, 2016; Kozinets et al., 2002; Kent, 2009; Liu et al., 2016; Moore et al., 2010). Their role thus contributes more to marketing communication and brand awareness building, rather than making profit.

Since the experiential side of shopping is becoming more important and a form of competitive advantage for retailers, with consumers increasingly demanding entertaining experiences, flagship brand stores are increasingly moving towards new forms such as themed flagship brand stores (Kozinets et al., 2002). These consist of a more engaging and holistic experience of the brand's essence and values, also satisfying consumers looking for the entertaining and theatrical aspect of retailing, branded services and environment alongside their shopping activity to create a more memorable and attractive branded experience (Kozinets et al., 2002; Solca, 2016; Bonetti, 2014; Kent, 2009; Liu et al., 2016; Moye & Kincade, 2002; Gilmore & Pine, 2002; Pantano, 2015). Flagship brand stores aim to engage with consumers' emotions to attract new consumers and retain the loyalty of existing ones, through memorable experiences and cultural sensitivity to local needs (Kent, 2009; Kozinets et al., 2002). The retailer's experiential process has moved from a product focus to individualized experiences, enabling consumers to be creative (Kent, 2009; Antéblian et al., 2014). To this end, fashion retailers offer consumers the opportunity to create unique identities by personalizing their items (Kent, 2009).

Flagship brand stores define their positioning around the shopping experience, innovation and entertainment, and they constitute the main vehicles through which the brand expresses itself to consumers through an ad-hoc and controlled store environment appealing to all senses (Antéblian et al., 2014; Kozinets et al., 2002; Solca, 2016; Moore et al., 2010; Fernie & Grant, 2015). As Davis (2014) pointed out, consumers must be motivated to go into a flagship brand store. If the journey of finding a product is not entertaining and does not provide a unique experience and advantages, consumers may opt for online retailers (Moye & Kincade, 2002). Experiential offerings – where the consumer is totally immersed in a fantasy world and undergoes an extraordinary experience through service value, great store interiors and product display (Antéblian et al., 2014) – are witnessing increasing use of consumer-facing in-store technology and innovations (Davis, 2014). Digital technology is used to enhance flagship brand stores' shopping experience and store environment, through the stimulation of consumers' interaction to confer a pleasant and entertaining experience.

Themed flagship brand store retail environments blend virtual and real worlds, fantasy and reality, thus providing diversion from the routines of everyday life, sensory stimulation and social experiences (Kozinets et al., 2002; Moye & Kincade, 2002). This type of store is a hybrid combining the physical and online shopping experience within a physical store environment. The retail selling space is used as

a theatre to display, entertain and delight consumers through the increasing use of innovative in-store technology (Kozinets et al., 2002; Kent, 2009). Engaging forms of digital technology evoke emotions and other sensations that make consumers' experiences unique and individual (Kozinets et al., 2002; Pantano, 2015). One of the most successful examples of the use of in-store technology in a flagship store is the digital theatre in Burberry's global flagship store on Regent Street in London (Vogue, 2012; Fashion United, 2012).

Pop-Up Stores

Pop-up stores are temporary outlets, often using consumer-facing in-store technology, that allow online fashion retailers to have a presence on the high street, thus allowing them to put a face to the online brand name and get closer to consumers to reinforce brand loyalty and facilitate engagement with the brand (Russo Spena et al., 2012; Davis, 2014; Charlton, 2013; McCormick et al., 2014). They are located in a specific but temporary territory and used to extend brands' existing physical presence into new areas for a short time, to test how the new store would be perceived and increase brand awareness and experience (Russo Spena et al., 2012; Niehm et al., 2007; Warnaby et al., 2015). Pop-ups are often a trial, especially for pure-players, to ascertain how the physical store concept and type of engagement would be perceived by consumers and if it could be viable in the longer term (Davis, 2014; Walsh, 2016) and to test specific products or brands by eliciting feedback from target consumers in person (Charlton, 2013; Warnaby et al., 2015; De Lisle, 2014). A high level of originality in terms of design and location characterizes these store formats; they are typically located in highly representative locations of a large city, usually where the brand's target consumers would be, to quickly draw crowds around before disappearing (Russo Spena et al., 2012; Castaldo & Mauri, 2008). They are sometimes used as a direct sales channel (Warnaby et al., 2015) as they encourage impulse purchasing (Kim et al., 2010; Niehm et al., 2007).

Net-A-Porter created a pop-up window shop to enter the physical space in London and New York, coinciding with the launch of Vogue's Fashion Night Out in 2012, where visitors could download a mobile app in advance and use them to scan the digital images of the items displayed on the windows and make a purchase (Charlton, 2013; McCormick et al., 2014), thus exploiting m-commerce (Fernie et al., 2015). The brand image and positioning benefit from these activities makes the brand more appealing to niche consumers. Japanese fashion designer Kenzo used a pop-up store experience to promote its women's fragrance products at the entrance to an upscale mall in Shanghai (Niehm et al., 2007). Debenhams launched the UK's first virtual pop-up stores in different locations around the country in 2011, encouraging people to visit them by locating them using their iPad or iPhone. Shoppers could then view several party dressers that were only available at specific locations, virtually try them on with augmented reality technology, purchase the item (with an exclusive 20% discount) and have it delivered to their chosen location. Furthermore, the virtual pop-up store offered shoppers the possibility to upload pictures of the virtual outfits they tried on and share them on social media to generate buzz and increase brand awareness (Charlton, 2013). Pure-player Finery London ran a pop-up shop in London's Covent Garden in 2015 to celebrate its online launch, giving consumers the chance to familiarize themselves with the collection, design and craftsmanship, and obtain styling advice (Culture Whisper, 2015).

Warnaby et al. (2015) conducted a case study on plus-size womenswear brand Marisota, which planned to raise the brand profile through pop-up shops across four UK cities in 2014. Chosen locations were based on geographical concentrations of existing online consumers, with a team of stylists on-hand to create wearable outfit ideas to increase the confidence of the target consumers. The design of the stores

followed the same notion, using round shapes to confer the same brand positioning and be as experiential and enjoyable as possible for the target audience. Digital in-store technology took the form of a magic mirror, which encouraged consumers to share their experiences via social media to help increase brand awareness. Two key objectives were to increase brand awareness through PR coverage with press events at all pop-up locations, and secondly to confer an experiential environment to encourage consumers to touch and feel products, try on garments, speak with stylists and have dedicated styling sessions (Warnaby et al., 2015). In 2014, Italian fashion house Fendi operated a pop-up shop at Harrods using bright neon colours and vending machines to sell ready-to-wear pieces and accessories from its latest collections, as well as unique products, in a childhood setting to add fun to shopping. Fendi offered personalized monogramming on site to make the shopping experience unique and memorable. The initiative was first previewed on the brand's social media to generate maximum visibility and encourage consumers and the media talk about it (Fashion Times, 2014).

Such unique marketing environments and strategies offered by pop-up stores and their temporary nature may appeal to, and consequently influence, behavioral intentions of consumers seeking innovative experiences (Kim et al., 2010). Consumer innovativeness, or the predisposition to search for, try and interact with new and different products, brands and unique experiences (Venkatraman, 1991; Niehm et al., 2007), may be influenced by several factors, such as marketing efforts, consumers' demographics and psychographics, and characteristics of the innovation itself (Midgley & Dowling, 1993). Socio-demographic factors such as age, gender, geographic region and community size influence consumer perceptions of pop-up store benefits, and hence their engagement levels. Niehm et al. (2007) found age had a significant impact on consumers' awareness of and engagement with pop-up retail, with young consumers the most aware and experienced with pop-ups. However, it also emerged that pop-up stores are potentially appealing and interesting to technology savvy older consumers too; hence this type of store format could be used as an experiential marketing tool to attract and engage a wide range of consumer age groups (Niehm et al., 2007).

Pop-ups can also be incorporated into new product or campaign launches, to create brand awareness about a new product or brand, and into experiential marketing campaigns, aiming to create a closer emotional bond between the consumer and the brand by conferring fun and memorable unique experiences through retail atmospherics, which include the use of consumer-facing in-store technology (Moth, 2014; Davis, 2014; Niehm et al., 2007; Kim et al., 2010; Charlton, 2013; Russo Spena et al., 2012; Warnaby et al., 2015). Experiential marketing tactics, combined with different atmospheric cues and consumer-facing in-store technologies, converge towards the development of an in-store experience, which can influence the consumer's sensory, emotional and cognitive perceptions of the brand image and values as well as creating a more impactful contact (Warnaby et al., 2015). Pop-ups also aim to strengthen the sense of belonging to a community around a brand, consolidating the affective bonds by linking individual members to the brand itself, where sociality and entertainment within the store is crucial (Warnaby et al., 2015; Kim et al., 2010).

Large and small firms have embraced pop-up retail to provide an experiential environment desired by consumers, build brand image, and attract attention and new consumers (Kim et al., 2010; Niehm et al., 2007). A manifestation of retail temporality, pop-up retail is particularly relevant for fashion brands and luxury brands' contexts where brand experience is particularly important and must be transmitted through all operating channels (Warnaby et al., 2015; De Lassus & Freire, 2014). To this end, pop-up activities may occur within flagship stores, which are used to create memorable, and sometimes spectacular, branded experiences (Kent, 2009).

ENHANCING FASHION RETAIL STORE ENVIRONMENT THROUGH THE USE OF TECHNOLOGY

The increasing use of technology-based in-store innovations by fashion retailers strongly contributes to improving the store environment by communicating and interacting with consumers during their shopping experience (McCormick et al., 2014). Fashion retailers can stimulate the in-store consumer experience by installing of new and interactive technologies in-store, such as digital signage, magic mirrors, iKiosks and interactive screens that provide opportunities to browse online within the store and create new personalized products (e.g. NIKEiD), as well as offering personalized recommendations, price transparency, reviews, and showing videos of the collection, catwalk shows and extra products (Pantano, 2015; McCormick et al., 2014; Greenwald, 2015; Roggeveen et al., 2015). In fashion retail, sensory elements are particularly important as consumers look to touch and try on clothes (Workman, 2010; Underhill, 2009). They also seek entertainment and enjoyment when they buy clothes; hence, conferring a pleasant, enjoyable and entertaining experience through the use of in-store technology can positively influence the consumer decision-making process (Pantano, 2015).

The importance for fashion brands to create an appropriate shopping experience and forge one-to-one, personal interactions and relationships with consumers has led various pure-players such as Net-A-Porter, eBay, Warby Parker and Bonobos to enter the physical space through virtual shopping walls, pop-up shops and physical stores, respectively (McCormick et al., 2014; Walsh, 2016; Felsted, 2015).

The entire shopping experience must be a seamless journey in which consumers may experience the brand via the different channels throughout the purchase process, from swiping products on their iPad to unboxing their purchases (Pike, 2016a; Solca, 2016; Fernie et al., 2015; McCormick et al., 2014; Fujitsu, 2016; Fernie & Grant, 2015). Consequently, it is important for fashion brands to position themselves correctly and consistently across all channels, translating the in-store experience into the online environment and vice-versa, to confer an exciting, personal and memorable shopping experience which is integrated across all the different channels through the use of different consumer-facing technologies (McCormick et al., 2014; Fujitsu, 2016; Minjung & Sharron, 2009; Blázquez, 2014; McKinsey & Co., 2015).

However, the use of consumer-facing technology is not always successful and IT may at times not work properly or as expected. This is the case of e-commerce service failure leading to e-tail consumers' frustration (Forbes et al., 2005). Moreover, consumer-facing in-store technology which does not perform as expected or which consumers do not understand how to use, may require assistance from the retailer's side to avoid causing frustration and dissatisfaction to consumers (Lee et al., 2012). For example, All Saints removed iPads from its stores in 2013, after realizing that such unassisted in-store technology was of little interest to consumers (Ryan, 2013). Jones (2015) reported how the success of engaging consumers with US department store retailer Nieman Marcus' newly installed magic mirrors would depend on their speed, simplicity and ease of use.

OBSERVATIONS ON STORE FORMATS: PROMOTIONAL VS. TRANSACTIONAL AIMS

The previously examined types of store format all aim to create a pleasant environment offering unique and memorable experiences to engage with the consumer (Davis, 2014; Niehm et al., 2007; Kim et al., 2010; Warnaby et al., 2015; Kent, 2009). The combination of consumer-facing digital technologies

(product information and showcase, storytelling, conferring added value and communicating brand identity), the merge of the digital element with the brand (overall atmosphere, engaging and memorable in-store experience), increased convenience (click-and-collect, iKiosks and digital screens to view and order products and services) and customer service (efficient, always available, online and face-to-face) is incredibly powerful (Davis, 2014). However, the interweaving of these key elements leads to a question – are the objectives of the use of consumer-facing in-store technology in the identified store formats to interact with consumers and increase brand awareness (promotional aims) and image, or to generate sales (transactional aims)?

As Kent (2009) noted, concept stores use multi-sensory experiences, with an emphasis on design and consumer-facing in-store technology, to create store environments for interactivity, socialization and communication. Retail design of digitally-enhanced stores, brand stores and pop-up stores must link art, instinct and business in the problem solving and planning process of the consumer decision-making process. Above all, these spaces must be creative to find or invent new environments in which space, cost and flexibility are matched with the effective communication of the retailer's brand values and image to stimulate consumer purchasing activity, providing rich shopping experiences to consumers within concept stores to market experiences (not only products) and thus create additional revenue (Gilmore & Pine, 2002).

Kozinets et al. (2002) explained that themed flagship brand stores promote existing brands in a variety of outlets, where the retail brand is used to entertain and confer the best possible brand-related experiences over functional efficiency, with entertainment as a source of revenue. Physical flagship brand stores are fundamental in conferring an experience which cannot be replicated online and are built around the idea of purchase experience generation (Antéblian et al., 2014), regardless of through which of the multiple channels available they will occur (Stephens, 2015).

Pop-ups are sometimes used as a direct sales channel (Charlton, 2013). Although this is not their main aim, some pop-ups are used to drive offline sales in the store itself or online sales, and benefit from scarcity (of time or products) to maximize demand (Charlton, 2013; Warnaby et al., 2015), as in the case of UK department store Debenhams, which encouraged sales through their virtual pop-up stores (Charlton, 2013). Digital technology can therefore be used by retailers to improve the in-store customer experience and increase footfall to their stores (Charlton, 2012). Other examples include Christmas or Halloween stores, or temporary stores used to clear past seasons' stock at discounted prices, where the investment in a permanent store network may not be justified (Warnaby et al., 2015). In 2014, it was estimated that pop-up retailing contributed £2.1 billion to the UK economy (Warnaby et al., 2015).

Overall, the objectives of concept stores, as a result of their substantial investment in consumer-facing digital technology, are both to interact and engage with consumers (hence to communicate and promote a coherent and consistent message about brand values to consumers in an integrated way) and to generate sales. Digital technology is now part of the shopping process; consumers are used to it and they would not do without it (VanScoyoc et al., 2015), for tasks such as product reservation and in-store collection, online product research and comparison, or the use of mobile devices during stages of the purchase decision-making process. However, the financial benefit of investing in such technology remains unclear, as no retailer has yet released information on the return on investment (ROI) of their digital commitment (Pantano, 2015).

CONCLUSION

Allowing consumers to buy anytime and anywhere is not the only way to succeed in an increasingly competitive retail environment. Constantly finding innovative ways to connect with fashion consumers (Blázquez, 2014), as well as anticipating consumers' future needs and behaviors within the new retail settings, in order to keep ahead of the market, is fundamental (Drapers, 2014; Pike, 2016b; Fujitsu, 2016). The key lies in understanding exactly who are the retailer's consumers in the digital age, then connecting with them (Blázquez, 2014), tracking their actions across multiple channels and developing more channels they might shop in, thus anticipating (and setting) trends (Davis, 2014; Pike, 2016b; Fujitsu, 2016; Drapers, 2014). The physical retail environment will remain critical in future fashion retailer strategy, with the creation of innovative spaces to "amaze and amuse" consumers key to success (Retail Week, 2014b, p. 29). The successful retail approach is consumer-centric, putting the consumer at the heart of what the retailer does, both online and offline, in a long-term vision (Fujitsu, 2016) and adopting consumer-facing digital technology that integrates physical and digital channels according to the retailer's positioning strategy.

Marketers and retailers should therefore engage with their consumers, both online and offline and through the use of consumer-facing digital technology, to gain an in-depth knowledge of their consumers – their values, how they shop, which communication channels they use, the situations and changes they are going through. Identifying and foreseeing market trends, thus being ahead of what competitors do, and being ready and flexible to respond quickly to the changing consumers' needs and wants, will determine who the future leading fashion retailers are.

FUTURE RESEARCH DIRECTIONS

In terms of future research directions, the use of technology and the digital element by fashion retailers as a competitive element to engage and interact with the consumer is still relatively nascent. Hence, particular attention should be focused on the ever-changing nature of the digital/social media/mobile environments via which consumers interact with brands and each other online (Stephen, 2016). Similarly, types of consumer-facing technology adopted by fashion retailers in their physical stores and their degree of acceptance and use by consumers should receive attention, as new forms of digital technology are constantly emerging and consumers may perceive these differently. Comparative research could be conducted to assess which retailers are adopting which types of technology, both online and offline, depending on their positioning strategy. Lastly, consumers could be studied to examine their motivation, behavior, attitudes and opinions towards shopping experience and in-store digital technology. In particular, how might consumers' self-image or level of fashion leadership affect their motivation to use various forms of in-store digital technology? The development of new technologies for research, such as mobile eye tracking glasses, allows the collection of real-time naturalistic data (Harwood & Jones, 2014), which could then be triangulated with traditional self-reported forms of data from surveys or interviews.

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