EXTENDED STORE

How digitalization effects the retail space design

拓展的商店

数字化如何影响零售空间设计

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DESIGN INTERNATIONAL

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Preface

by *Silvia Piardi*

Contemporary society has been described by many authors as the society of goods, among them Rich Gold, in a text published in 2007, defines our society with the term "Plenitude": "The mall is a dense jungle of every kind of product and species of products...Not only are there fifty kinds of clothes (shoes, socks, shirts, pants) and new ones being added each day, but there are thousands of variations of each. The shelves of the markets are laden with hundreds of kinds of food and thousands of variations of each kind. And new categories of stuff are added all the time...". (Gold, 2007)

Our society is deeply characterized by goods that are continually invented, produced, sold, bought and consumed... in an incessant ritual that wants us to forget the times of scarcity and famine.

The flow of goods gives shape to the territory and to the cities.

Stores are the spaces where exchanges take place and they are changing and evolving with the evolution of sales and consumption processes, integrating different ways of exchange.

Very useful so to focus on the processes, as in this book the authors did.

With the increasingly urgent need to rethink our way of life and the models on which society is based, with the push towards policies that are less impactful on the environment, the world of commerce is undergoing a critical review.

The book by Anna Barbara and Yuemei Ma organizes an incandescent matter, vast and little studied in such a systematic and in-depth way, it describes the different typologies of the present and it observes with a critical eye the mutations under the push of the continuous digitalization.

The working hypothesis is that the spaces of commerce are in transition to answer to new questions, they tend to lose place and materiality, and at the same time they are becoming increasingly important for brands and tend to follow entirely new settlement and design models. In the competition between offline and online, or in the cooperation, not only goods, but also

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our bodies tend to become virtual, more and more projected towards our avatars.

A rich and complete text, with the exposition of case studies and best practices, useful for designers and for a collective reflection on the future trends.

Thanks to the authors for such a rich, accurate and interesting text, that adds to the titles of our Series.

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PART I

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1. Stores

The Oxford Dictionaries define the store as “a place where things are kept for future use or sale”. The store has two initial goals: inventory and shop, but the role of the store goes beyond, as the store provides the customer with a complete shopping experience that influences directly the shopper's attitude. (Brun & Castelli, 2008)

The store is the contact point between the consumer and the brand. It works as a shopping window over the company and influences the way the shopper perceives the brand and its role in the consumer’s life. For this reason, the store is aligned to the brand personality and positioning and it is used by the company to achieve brand awareness. (Brun & Castelli, 2008)

Companies may choose between a large variety of stores to establish the contacts between the brand and the consumers. The type of store determines the quality of experience designed for the customer, that changes according to the specific strategies of the shopping. Different types of stores may target different customer segments and are consequently characterized by different requirements in terms of image and operations. For example, flagship stores are usually designed to promote brand awareness, while specialized stores are more focused on generating revenues. (Brun & Castelli, 2008) The success of the store depends on the capability of the company to design the operations, the vision and the image of the store, following the brand characteristics, the product type and the targeted customer segment. Both choosing the right type of store and designing it effectively have a relevant impact on revenues, build customer loyalty and become a source of competitive advantage. (Brun & Castelli, 2008)

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1.1. Extended locations

The definition of the location variables is fundamental for both the retailer and the consumer, it includes a wide set of decisions. The most important variables to take into account are the geographical location and the type of structure. The choice of the venue includes the decision about the urban location of the retail point: city center or outskirt, commercial or residential district, etc. The typology can be: stand-alone store, shop within a commercial center, and so on. Every decision involves many trades off, such as the size of the location, the occupancy cost, the customer traffic (pedestrian and vehicular) and the consequent convenience for customers, the potential restrictions placed on the location, etc. Other influential factors, that should be considered, are the product characteristics and the shopping occasion. Indeed, a retailer can sell different types of products, such as convenience goods, shopping goods, specialty goods; and it has to take into account factors such as the density and distribution of the target market, and the uniqueness of the offering.

Stores and all different types of retail spaces are not only places of trade. There is a different aspect to them, which is even more important to the society. People use shopping places as gathering places. Places where they can spend some time in.

Today we're facing with many different types of shopping spaces that are shifting from the traditional retail system to others, like temporary stores, pop-up stores, guerrilla stores, shop in shop, shop on wheel, road show, concept stores, flagship stores. The main factor, that is mutual in these new forms of shopping spaces, is "time" which is the driver that has made them so popular. These almost new forms of shopping are a response to a new society of consumers, with their modern socio-economic conditions. The consumers of the last decade are not as naive as before anymore. They are not easily fooled by the brands and basically, they think more about the products that they may purchase. So, it's not the brand anymore that insist to the consumer to buy it, but it's the consumer that gets curious about an item, follows it and eventually buys it, or if he doesn't make a purchase, he will at least get to experience it.

Also, the financial crisis, the competitive pressure of the society and the social media, which is the fruit of the new technologies of our new era, and surely the pandemic have varied the scale of priorities and values. The act of shopping in the new society is moving on a time-space axis with a somewhat easily trustable in the future. The retail system could be considered as a faithful mirror of the society. By analyzing it, it can see that they have both been in a process of slow, but continuous, transformation.

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As the society more and more tends to like and be interested in new, unique and special design objects, it is crucial for the firms and designers to have the opportunity to launch and show their novelty in the market. It is true that the Internet and the media offers endless possibilities for advertisement and transparency, but physical presence and contact and overall, the experience of the product still makes a stronger impact on a person. Also, although these days there are some new typologies of retail systems and spaces that are taking their place in the industry, but maybe overall, it is rather in a monotone and uniform stage at the moment, and I believe that they can have a more inspiring effect on their users if some creativity and experimentation would be added to their design.

1.2. Customer journey evolution

The customer journey, defined so far, is a linear process, easy to illustrate through a visual map. The development of either new IT technologies and new customers' needs, which increased the process complexity, has made more difficult for companies to identify the relevant phases of the process and the links between them. (Richardson, 2010)

This grown complexity derives especially from the proliferation of devices, and in particular of mobile and smart devices, which have increased the number of possible channels through which companies can reach customers and collect data. In particular, the development of connected devices, due to the IoT technology, has increased the volume of data accessible to the companies. These data, combined with other data, coming from social networks and online tracking behavior tools, enable both to better target the customers in terms of message and channel, and to provide a more personalized experience, thanks to the generation of tailored customers' profile. The drawbacks of having access to such a big amount of data are both the lack of specific skills to manage all these data and the added complexity of the customer journey to be described and managed.

The increased number of channels and touchpoints generates also another relevant issue: the multichannel phenomenon. The multichannel phenomenon effects the customer journey by changing the rules of interaction between the company and the customers. The reshaped communication between the company and the customers occurs through several channels at the same time and requires the messages to be coherent and consistent between each other and throughout the customer lifecycle.

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The key factor are the data, since being able to perform a good customer experience analytics has become a key capability for companies to understand and improve the customer journey. Originally the customer journey mapping process was designed to track and describe precisely the purchase and consumption process. Nowadays it is not realistic to consider it, as the entire process is not controlled anymore by companies. However, being able to devise the journey, even if it is not a simple linear path anymore, enables companies to map consumer behaviors and develop connective strategies balancing the full ecosystem of owned, earned and paid media. (Du Boff, 2014)

The traditional storefront, as a familiar space associated with trust, physical experience and personalized service, is clearly holding its ground. However, the habits of browsing, convenient delivery, quick customization and easy payment methods are changing consumer demands.

1.3. Advanced capabilities

Companies can further benefit from the customer journey by becoming the active drivers, who shape that journey instead of passively reacting to the path traced by customers. (Edelman & Singer, 2015)
This is the key step to develop a sustainable competitive advantage based on journeys that create new values for the customers. To build effective journeys, companies should master four capabilities: automation, proactive personalization, contextual interaction, journey innovation.

1.3.1. Automation

By optimizing, and digitalizing where possible, the phases of the journey that were performed manually before, companies can simplify complex processes, and can move from complex back-end operations to simple and engaging front-end experiences.

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1.3.2. Proactive personalization

By automating the journey, companies can use customers' data to customize proactively the shoppers' experience. This is the case of companies who customize the journey by tailoring the interaction with the customer's behavior, starting from the first engagement of the customer with the company. Or companies offering applications that track the customer across different channels, blending data from multiple sources to create a single view of the customer's thoughts and behaviors, thus providing the selling company with real-time insights that can be used to influence the journey and customize the message.

1.3.3. Contextual interaction

The new technologies enable to use information about the physical and virtual position of the customers in the journey, to drive the customers to next interactions according to the strategy of the company. Companies can take advantage from the ability to drive the customer along the journey, to re-shape and strengthen the customer experience.

1.3.4. Customer journey innovation

It is fundamental to keep experimenting and analyzing customer needs, technologies and services to identify opportunities to improve the journey and the customer relationship. Companies should identify new sources of value both for them and the customers. Innovation should aim to improve both the operative aspects, such as the applications the customer interact with, and the services, to add useful steps and features.

Innovation should be both radical and incremental, enabling the company to offer cutting-the-edge processes and experiences. (Edelman & Singer, 2015)

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2. Digital Transformation

The theme of digital transformation is, in this historical context, strategic not only in commerce, but in all sectors. This book is not intended to develop theoretical thinking about technological and commercial advantages and/or social and political disadvantages, but to investigate what digital transformations are reshaping retail spaces, stores, their design and the experiences of consumers and others.

The digital transformation goes beyond the simple development of new products; it impacts on the overall value chain of the companies and can be either radical or incremental. It can be driven by changes in consumer demand, technologies or competition, or in any combination of these aspects, as they are all interconnected in a unique ecosystem. For some companies, digital transformation is the only solution to survive in a world that is constantly reshaping its own rules.

The term digital transformation suggests any restructuring process derived from changes caused by digital technologies and downstream market effects. (King, 2013)

Digital transformation goes beyond the optimization of existing processes through the implementation of new technologies. Indeed, this phenomenon is the key factor to upset the value chains, enter new sectors and create innovative business models.

Digital transformation may involve people, products and processes. It involves people through the spread of platforms such as social networks, forums and blogs, that are revolutionizing the way people exchange information about a brand or products and the way companies advertise products and services; but it includes also new business ways of performing process such as co-creation and crowd funding. Digital transformation involves products through the opportunities that derive from new technologies, such as wearable computing, augmented reality, open source, and so on. Digital transformation involves processes, through the impact

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of new technologies, such as cloud tools, mobile Internet, sensors, big data or robots. (King, 2013)

The technological trends change from country to country and spread with different speed depending on various economic, political, legal and social factors. Anyway, due to the popularization of digitalization and mobile devices, consumers' shopping behaviors and preferences of shopping are converted into data.

An important role, in this scenario, is played by big data in their ability to profile clients and their desires and transmit them to the stores almost in real time.

According to the development of big data, companies are developing even ethnographical research called "user portrait".

From data studies and user portrait, retailers can more accurately position their marketing strategies based on consumer behavior to provide better experiences for consumers. This approach creates the "intelligence brick-and-mortar store", known as i-store. Compared to the traditional retail stores, which waiting for new consumers to step in, the intelligent stores have pre-locked their target consumers. Through multiple touch points they divert the traffic from online to offline. Nowadays more and more consumers are getting used to leverage APPs to check the brand activities nearby, while they go shopping. By the marketing approach of launching coupons through LBS (Location Based Service), i-store could first draw the attention of this part of random consumers, attracting instant consumers from business district within 5 km for the store. Meanwhile, i-store can continuously publish the marketing contents prior to the new product launch. It could catch consumer attention and attract the potential consumers to visit the stores, it merges the online and offline shopping experience to increase the traffic rate and affiliated sales. Consumers can leverage their app, to scan the product barcode directly and view the product digital contents and review. They could feel the goods while know more information of the items at the same time. They can also quickly find their satisfied goods, through the smart shopping guide equipment RFID dressing mirror. It makes the purchase decision easier, at the same time, provides more fun in shopping. In i-store, consumers could even put their favorite products into a e-shopping basket for later decision at home, probably the brand can push a discount coupon to those consumers for online conversion. On the other hand, the consumers can purchase online and pick-up goods and experience the nearest store. This new shopping experience, combining both online and offline, not only breaks the limitations of traditional store in space and time, but also more likely stimulate the purchase desire of consumers to brings more turnover for i-store. To realize the uni-operation

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through consumer behavior data, inshore transaction or consumer reengagement later on i-store could rely on data to manage the end-to-end sales, gain a full range of competitive advantages. The whole consumer journey will be digitalized and put into the databank, as new data, in order to improve the accuracy and effectiveness of uni-operation. The brand can leverage the data to improve their in-store assortment, achieving more accurate matching of people and goods. (Liu, 2019)

The relationship between consumers and Apps allows consumers to access information instantly, irrespective of place and time, a change in consumer expectations of retailers. The ability to explore options and choose the best deal quickly, and real-time interaction are a few factors that drive the increasing use of mobile devices. Today's mobile consumers need to be able to choose the time, place, product and mode of payment while shopping.

2.1. Smart technologies in stores

The most important activities in the interaction with the physical store are actually the following:

- ***Scan to get information***

Consumers can scan any product barcode from the app on their mobile phones, to pull up online and store inventory and to learn more about the product while shopping in store. this changes the need for space and the circulation and timing within stores. Some practices concern the selection of products, some concern payment methods, others the experiences and personalization of purchases.

- ***Reserve online, pick-up in store***

Thanks to the omni-channel, many retailers provide the reserve online and pick-up in store service. Consumers can shop for 24 hours, check the availability in the stores and get the products in the most convenient store around them to make the shopping process more efficient. It transforms the shop into a place to collect goods already purchased and reduces its function as a place to choose products.

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- ***Smart check-out***

Technologies for new payment methods improve the check-out process making it faster and easier. Consumers can check out by downloading mobile apps on their phones, thus reducing the abandoned rate due to queue phenomenon. It radically changes the organization of the spaces - above all the positioning of the cahiers - and the consequent circulation of consumers' journey.

- ***Mobile remote payment system***

The customers use mobile payment systems to pay remotely through their mobile devices, using either a wireless (GSM network, UMTS...) or a Bluetooth connection. These payment systems can be completed through applications installed on the personal cellphone. in the future, cash payments will probably be abolished in favor of an immediate and personal mode of payment.

- ***Mobile proximity payment systems***

The customers use mobile proximity payment systems to pay through their mobile devices by simply putting the device near the payment station. The system is based on near field communication technology designed to exchange information securely within few centimeters without any physical contact. One of the technology major advantages is that the radio connection is fast and intuitively operated. This technology is actually adopted for the payment phase using a smartphone equipped with a Near Field Communication (NFC) chip.

- ***Instant check-out***

Instant check-out[1] is a combination of a new automated invoicing option and on-site payment methods. With automated invoicing, buyers can view the final order price during checkout and make direct payment using on-site payment methods.

[1] For an example of instant check-out, Nike House of Innovation 000, Manhattan, US, 2018. See the link: https://d1tm14lrsghf7q.cloudfront.net/media/files/rtf/2018_12_FRAME/Nike_House_of_Innovation_000_Instant_Checkout-01.jpg

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- ***Personalization***

Customer expectations are deeply changing. Shoppers are creating their own omni-channel experiences: going online, using mobile apps, visiting stores in their path to purchase. Increasingly, they expect their experiences to be personalized and relevant to them. Mobile personalization is a trend to pay attention. With the right mobile app strategy, retailers can connect with their customers on a personalized level across web, mobile, and in-store, not only to enhance the shopping experience, but also to encourage loyalty, increase engagement and ultimately to drive sales.

- ***Event organization***[2]

It is a way for retailers to establish more contact with consumers through their own Apps. Based on mobile apps, retailers can release some brand activities, and consumers can choose to participate or not, just taking their decision based on their location and time, or according to their interests. This is a very important phenomenon because it makes it possible to think of the store as a performative place and not only linked to sales, whose life is linked to the creation of content and consensus.

- ***Shop the look***

In retail stores the display is a useful tool for visual merchandise. For apparel retailers, Apps can allow a store to offer visual search, which allows people to choose by taking photos of clothing they like to get suggestions for similar items.

Visual search has some key benefits for retailers and customers alike:

- ***It offers precise product search.*** It's great for shoppers who need a specific item, as it reduces the number of steps the customer would otherwise have to go through. Rather than typing in keywords and browsing results, visual search can find the product they want immediately.
- ***Cross-selling opportunities.*** If the product is not in stock, visual search can quickly offer suggestions for similar or lookalike products.
- ***A better user experience.*** It's faster and easier to find the right product through visual search, and results should be more relevant to the shopper.

[2] For an example of event organization in mobile app, see the link: www.behance.net/gallery/127903157/smart-retail-app-functions/modules/725324345
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• ***It can improve merchandising.*** Using visual attributes of products that shoppers have searched for, retailers can recommend products and contents that match or complement these attributes.
• ***Integrating offline and online.*** Visual search is one way to link stores and websites together. For example, customers can take photos of clothes they see in store to find online stock.

• *Find in-store*[3]

When consumers use a retail App, the find in-store function provides two kinds of convenience to consumers: item availability and geolocation, based on omni-channel retailing. Item availabilities inform the App users about the available items for purchase and their numbers. Meanwhile, if items are sold out, it informs customers when those will be available and the quantities. Geolocation leads customers to stores and informs them about your deals and events if they are walking nearby. Finally, support them with an in-store map. This function enables consumers to establish the connection between Internet information and their surrounding communities and physical stores. Consumers can check their requirements in advance without wasting a lot of time blindly searching in many physical stores, thus saving time and improving shopping efficiency. However, these kinds of apps violate the privacy of citizens, as they provide personal data to private brands about activities that are not strictly commercial. This is one of the most debated topics at this precise moment in history, which this book does not go into, but it is important to underline the importance and the innovative nature of the relationship between consumers and stores.

Both start-ups and well-established brands need to abandon the false choice between offline and online shopping, to go beyond mere omni-channel commerce, and question creatively as to how to tend to both the digital and brick-and-mortar aspects of retail in an integrated, holistic and innovative way.

[3] For an example of find in-store in mobile app, see the link: www.behance.net/gallery/127903157/smart-retail-app-functions/modules/725324349
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2.2. Anywhere, anytime: showrooming versus webrooming

The retail industry has undergone changes in the last century. In the emerging scenario, bricks-and-mortar retail designers continuously face the challenge to deal with digital and mobile technologies, which also push toward an omni-channel retail marketplace (Ieva & Ziliani, 2018), while consumers' experience might change over time due to the introduction of multiple mobile channels, which modify their shopping behavior. (Pantano & Priporas, 2016)

Thus, retail designers are forced to develop an integrated approach of diverse retail channels (Omni-channel retail), which ensure that all channels are consistent (in terms of content and process of interactions across the different channels), thematically coherent and connected to offer a seamless and unique customer experience (Blom et al., 2017; Shen et al., 2018). Therefore, attention shifts from the multichannel concept considering the different channels as independent entities toward an integrated channels ecosystem. (Shen et al., 2018)

Moreover, Omni-channel strategies merge the different abilities to deliver products information and execute product fulfillment of online and offline channels, to provide advantages to retailers. (Bell et al., 2018)

In particular, Omni-channel consumers simultaneously use all the channels, including the traditional ones (i.e. brick-and-mortar stores, internet and e-commerce websites) and the new ones (i.e. mobile channel, social media, etc.). Omni-channel allows consumers to shop across different channels anywhere and anytime. (Rodriguez-Torrico et al., 2017)

The preference of a certain channel is largely influenced by the personal traits, including especially impulsiveness (occurring when a consumer experiences a sudden-unexpected, persistent, powerful urgency to buy something) and need for touch (preference of evaluating the information achieved through the haptic system before buying something). (Rodriguez-Torrico et al., 2017)

In this scenario, new shopping behaviors further emerge based on the different usage of the available channels: showrooming and webrooming. The first consists of the practice of researching products in a brick-and-mortar store, to physically evaluate the good and then making the purchase online; while the second is based on evaluating the product online and making the purchase in the brick-and-mortar store. (Bell et al., 2018; Rapp et al., 2015; Verhoef et al., 2015)

In omni-channel settings, showrooming and webrooming behaviors combine online, mobile, and brick-and-mortar retail opportunities. (Kang, 2018)

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Finally, the emerging retail scenario seems to shift toward the focus on the holistic consumer experience rather than individual products, by soliciting designers to manage and sustain a consistently high quality of interactions across all the interactive touchpoints and other devices. This process increases the complexity of the competitive scenario, since the touchpoints are advancing in the technology toward a scenario where all the touchpoints will be ubiquitous. (von Briel et al., 2018)

As a consequence, for omni-channel retail, to be sustainable, will require new human capabilities, to recognize and accept the changeable nature of retail settings as prompted by the new technologies. Similarly, designers will need to reinvent stores to deliver the new sensory shopping experiences that are emerging from the interaction of innovative technologies, that might represent a disruptive change. (von Briel et al., 2018)

2.3. Front-end in-store applications

The many digital innovation solutions are divided into two categories of innovation: in *back-end* processes, which concern retailer-supplier interaction processes or internal retailer processes; in *front-end* processes at the point of sale, retailer-consumer interaction processes at the point of sale. Among the most adopted back-end innovations are those aimed at improving the relationship with suppliers, business intelligence, storage management in store are aimed at improving the customer experience and maximizing consumer engagement performance.

The specific functionalities of in-store applications are:

- Advice and suggestions to support the customer during shopping, provide advice on possible complementary or compatible products with selected ones or with products purchased in the past. In fact, the 64% of customers (Capgemini (b), 2017) perceived the lack of help and suggestion as one of the main frustrations within the store.

- Customer tracking and guide to identify the position of the customer inside the store, to give information about the position of the products and to guide inside the store. The 65% of customers said they have big troubles to locate products (Capgemini (b), 2017) and thus this feature can bring huge benefits.

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• Need recognition to interpret customer behaviors and expressions in orderto identify their needs in real time. In this way the information obtained can be used to improve the customer experience and send customized offers to each customer.

• Send promotion and discount on the basis of the client's position or based on past purchases. Messages are sent on devices provided by the retailer, such as smart-cart with a screen or tablet, or via Apps installed on the customer's smartphone. The 65% of customers (Capgemini (b), 2017) consider the lack of personalized promo as a big weakness of physical stores. Moreover the 60% of the retailers (Timetrade, 2015) confirm that they are not able to deliver personalized offers.

• Provide information about products to provide additional information about the products, such as technical features or ingredients and allergens. It can also provide information about the stock availability of the products. The 71% of customers (Capgemini (b), 2017) are not able to get information about products and compare different options among them.

• Save time for the customer, reducing waiting times and time needed to complete purchases.

• Enrich perception through information: Augmented Reality integrates with applications such as smart mirrors, smart fitting rooms and interactive walls.

• Create more comfortable atmosphere to improve customer experience inside the store in order to push the customer to purchase.

The specific front-end applications are:

Smart Mirrors and Smart Fitting Rooms

Some companies investigate the impact of augmented reality on smart retail settings in creating additional value to customers and producing benefits for retailers. The findings indicate that Augmented Reality (AR) add much experiential value to retail settings.

Benefits are related to efficiency and better shopping value and entertainment. AR shopping systems can improve the user's certainty that, what is bought is what was wanted and thus should improve the customer

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satisfaction. The main retail applications that exploit Augmented Reality functionalities are smart mirrors[4] and smart fitting rooms[5].

Smart mirrors, through the use of IoT technologies such as RFID readers, proximity sensors and 3D smart cameras, allow to implement Augmented Reality functionality within the store.

The smart mirrors are able to recognize the products that are approached through RFID reader, and therefore can provide additional information about the product or show how this may result, when worn or used, such as clothes or makeup products. To customize this functionality, it is necessary to use 3D smart cameras, that scan the client's body and show how the selected product appears on the identified customer. It can also show how similar products or other colors can appear. This is done using a specially designed augmented reality application that fits the garments to the body shape[6].

These AR features can also be implemented inside the dressing rooms in order to create smart fitting ones. Shoppers who use these rooms are almost seven times more likely to make a purchase, than those who simply browse the sales floor. (Alert Tech, 2016)

Inside the dressing room, the mirror can show the availability of size and color of the articles and suggests products to complete the look that, once selected, will be brought directly into the dressing room by a store attendant. This can give the shopper even a better idea of how clothing might look in different scenarios such as at nighttime. In some cases, smart fitting rooms even allow payments via NFC technology to prevent customers from queuing at the cash desk. In addition to these features, the smart fitting room makes it possible to identify the movement of products between the sales floor and the fitting rooms. In this way it is possible to obtain additional insights about customers' needs, satisfaction and preferences. The smart mirrors in the dressing rooms allow the retailer to know the conversion rate of each product, and to have a constant and immediate feedback on which items are purchased after being selected. This makes the design of the dressing rooms a high-stakes operation, in which the backdrops use sometimes sensory tools to provide immersive experiences.

[4] For an example of smart mirror, see the link: www.thejakartapost.com/life/2017/02/17/smart-mirrors-come-to-the-fitting-room.html

[5] For an example of smart fitting room, see the link: www.engadget.com/2014-11-27-nordstrom-smart-fitting-room.html

[6] For an example of smart mirror which can detect body shape, see the link: https://observer.com/2020/02/augmented-reality-retailers-asos-gap-smart-mirrors-mobile-apps/

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Smart Windows

The windows are the physical connection between the store and the city outside. Their main task is to attract the attention of passersby in order to get them into the store and push them towards the purchase. In recent years, the IoT technologies have allowed to increase the involvement of passers-by in order to transmit personalized and more impressive information contents.

Smart windows[7] are able to recognize the passage of people in front of the store and to project specific messages, advertisements and information content to push passers-by to enter. Using interactive window display and AR engagement, with motion-sensor cameras, the main window display, at the store entrance, can identify the gender and approximate age of a passerby and intuitively recommend appropriate products. The interface also displays a QR code that the customer can scan to order the recommended products on the spot from their phone. Customers can also collect coupon by completing a fun AR game in the store. This provides entertainment to passersby and performs an interactive marketing function.

Smart Shelves[8]

The retailers enrich the stores with screens that work as video labels. Apart from their possible use in the back-end, can be used in front-end activities. The screens work continuously. They are based on RFID technologies, Wi-Fi connection and in some case BLE beacons. They can provide information about products and implement marketing actions, such as cross-selling and up-selling.

This virtual space expands the available product assortment four times more than in the store. (Shao & Shi, 2018)

Indoor localization and message notification system

It includes a set of different technologies such as Smart Cameras, BLE beacons, Wi-Fi and Li-Fi (Visible Light Communication) that allow to identify the location of a specific customer in order to implement location-

[7] For an example of smart window, see the link: https://technode.com/wp-content/uploads/2018/05/2113869223-e1527649138599.jpg

[8] For an example of smart shelf, see the link: www.researchgate.net/profile/Robert-Rooderkerk/publication/336574245/figure/fig11/AS:816808277856272@1571753677957/Cloud-Shelf-in-Tmall-Intersport-store-in-Beijing-Notes-Click-or-scan-the-QR-code-to.jpg

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based proximity, advertising and track the path to guide it in the store. It is possible to localize customers, retailer's devices used by customers, customers' devices such as smartphones. The goal is to localize the position of each customer within the store and track the movements in order to guide inside the store, offer customized location-based promotions and monitor the purchasing behavior. Moreover, through back-end analysis of the data received from indoor positioning systems, it is possible to reconstruct heat maps to visualize flows and movements of in-store customers.

Smart Checkout

According to numerous surveys, check-out operations and waiting time in the queue are considered the first causes of consumer dissatisfaction, together with the out-of-stock. Capgemini in its "Future of Retail Store Survey" (Capgemini (a), 2017) found that for the 66% of customers checkout queues are one of the major frustrations. The global report Think smaller to big grow (Nielsen, 2016), found that 41% of respondents identify fast checkout as highly influential in their decision to shop at a particular retailer. This is why new smart technologies have increasingly focused on solving the problems. The smart check-out solutions are basically based on two different technologies: RFID technology and the use of smart cameras that exploit Artificial Intelligence algorithms.

Digital Kiosk[9]

The retailers install kiosks in its stores to support regular, pre- and post-purchase activities. Kiosks are terminals that the customers use directly for different activities, by browsing the catalogue or looking for specific services and tailored offers; by allowing the customers to search the products by themselves, without help from the store assistants. At the end of the browsing activity, customers can pay by credit card, cash or mobile payment solutions.

Personalization

In retail is the process of using personal data to provide tailored experiences to shoppers in a retail environment. Every path to purchase is

[9] For an example of digital kiosk, see the link: www.retail-innovation.com/index.php/pro-direct-create-a-digital-store-in-london

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different, and personalization aims to serve each individual based on their needs and behaviors.

In brick-and-mortal stores it is the combination of the physical and virtual devices, according to the brands' strategies. One example is body metric scanner[10], used especially in the clothing industry. The retailer provides customers with body scan locations. When the scan session is completed, the store associate supports the customers with the help of a tablet.

Game experience

Gamified experiences[11] are a useful way to connect with customers, encourage exploration and promote brands or products.

Gamification relies on our natural human compulsion to play, rather than trying to coerce people to engage with our content. Instead of resisting our content, customers are more likely to willingly choose to engage and spend far longer with our content, than they would otherwise. As Jane McGonigal said "Games give us unnecessary obstacles that we volunteer to tackle". (Kumar & Herger, 2013) Gamification is not about manipulating customers, it's a way to motivate customers by giving them a positive experience.

Retailers would adopt new technologies so they can enhance the power of gamification and engage users in novel ways. Emerging technologies, that are likely to change the nature of gamified experiences, include voice user interfaces (VUI), artificial intelligence (AI) and augmented reality (AR).

[10] For an example of body scanning area, see the link: www.reuters.com/article/us-adidas-manufacturing-idUSKBN16R1TO

[11] For an example of game experience, see the link: https://retaildesignblog.net/wp-content/uploads/2016/03/Decathlon-Connect-store-by-kplus-konzept-Munich-Germany-04.jpg

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2.4. Back-end in-store applications

Technological progress, with the introduction of more efficient and less expensive innovations, has allowed the spread of IoT solutions within the back-end activities in the retail world. The focus of these operations is to guarantee products and services that customers receive at the store.

Smart Cameras

It is a compact vision system that integrates a camera and a system of digitization and image processing, as well as accessory devices for connection. This architecture allows to realize more compact applications compared to traditional solutions, that use external computers to process the images taken by the camera. These devices can connect via wi-fi directly to the management system, which will then manage the information received. (Axis Communication, 2008)

These systems allow determining the effectiveness of store layout, display design and employee behavior.

Loitering[12]

This is a specific feature within the most generic class of applications, called Intelligent Video Motion Detection. It conducts analysis of significant movements occurring within a scene in real time. The system identifies movements of people, animals or objects. It is used to track customer routes and create heat maps, in order to understand their preferences and optimize store layouts.

Facial recognition[13]

The algorithm captures people's faces, storing the images. Apart from security issue, this system is used in the most modern checkout- less stores systems. The application also helps to improve the efficiency of shopping. ectiveness of store layout, display design, and employee behavior.

[12] For an example of smart camera loitering application, see the link: www.researchgate.net/profile/Stephen-Ohara/publication/45930590/figure/fig10/AS:307399979225097@1450301274971/Loitering-Detection-on-Shopping-Corridor-2.png

[13] For an example of smart samera face recognition application, see the link: https://d1sr9z1pdl3mb7.cloudfront.net/wp-content/uploads/2018/04/16130235/Retail-by-DeepCam-1024x655.jpg

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Video counter[14]

It indicates a video application that provides a counting, in real time, of the number of people who are framed in a scene or in a specified area. The algorithm generally also provides comprehensive reports of how much people are counted in the frame. This can be very useful in the retail sector for the calculation of conversion rate and customers' flow.

Intrusion detection[15]

It provides automatic video control of a perimeter or specific areas allowing to monitor, in a continuous way, to check the entry of people in specific areas delimited by virtual lines. This application is used to identify customers' access to certain areas of the store, such as aisles or sectors, or even to report access by unauthorized persons to prohibited areas.

Direction detection[16]

It is able to identify the direction of a movement and report any behavior or the direction of flows of people. In retail, this application is used to analyze customer flows at the store and predict customers peaks at the checkout desk, in order to optimize products and staff management.

Smart Supervision

More and more retailers have adopted IoT solutions that take advantage of technologies, often already present in stores: such as CCTV used for security, for further operational purposes; such as optimizing store layout and product placement or customer flows at checkouts. The purpose of smart supervision system is to analyze the behavior of customers within the store.

[14] For an example of smart camera video counter application, see the link: www.innuvo.com/wp-content/uploads/retail-video-analytics.png

[15] For an example of smart camera intrusion detection application, see the link: www.ifsecglobal.com/global/the-future-of-analytics-lies-in-a-combination-of-deep-learning-and-investment-in-the-right-technology/

[16] For an example of smart camera direction detection, see the link: *www.behance.net/gallery/127903157/smart-retail-app-functions/modules/725324347*

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Heat map and store layout

It is possible to track what a customer looks at, what to touch, where to walk and what path to follow. Retailers can create real heat maps and know the number of people entering the store, optimizing the layout of the store, managing traffic flow trying to guide them towards high-value items, positioning the promotional displays. It is estimated that an optimized store layout can translate into a 5% profit increase. (IHL Group, 2017)

The colors on the floor show the foot traffic[17] during a particular time interval. The red areas indicate a frequent passage of people, the green ones a minor passage and the blue ones indicate that almost no one has passed by. This information can clearly help retailers to change layout store and strategize about where to place popular vs. unpopular and expensive vs. cheap merchandise.

Another possible type of heat map[18] does not focus on the areas most crossed by customers, but on products with which customers have interacted more, looking at them or touching them. The realization of heat maps[19] to optimize the store layout can also be obtained by analyzing data coming from front-end technologies that interface directly with the devices used by customers.

It should also be added that after the pandemic, the use of thermal imaging cameras also makes it possible to detect the body temperature of those present and any febrile states.

Planogram[20]

It is the diagram that represents the arrangement of the products on the shelves and on the exhibitors; it is elaborated and used by producers, distributors and retailers in order to describe the assortments, the categories of products and their positioning on the shelves, the occupation of the spaces and the layout of the exhibition structures. In retail stores, a planogram can concern the entire store, some aisles, some shelves or a

[17] For an example of foot traffic heat map, see the link: https://i.insider.com/52e6e0fe69bedd96559b1efc?width=1000&format=jpeg&auto=webp

[18] For an example of product interaction heat map, see the link: https://i.insider.com/52e6e560ecad0400599b1efb?width=700&format=jpeg&auto=webp

[19] For an example of combined heat map, see the link: https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQgSqd06LGfZOFxNsGFAOYXux0ve-m50NYqfUtlf520EuXJZ4JAy7XwFW5q5H72Oy9HbDE&usqp=CAU

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specific category of products. The purpose to define and set up the best possible disposition, the one that optimizes the available space according to the established marketing plans. It is possible, thanks to smart cameras, to monitor the compliance in order to avoid out of stock or misplaced items. Estimate indicates that 10% of planogram errors leads to an increase of 1% in stock out and, consequently, decreases the sellout by 0.5% (Frontoni et al., 2015) Automatic planogram inspection is a relatively new application in the IoT scenario.

Eye detection[21]

The tracking provides insight, into shopper behavior, that is extremely valuable in determining how to most successfully position products, signage, marketing, displays and any other element of the store. Eye detection helps retailers to discover:

- the shoppers navigate through or browse the aisles of a store during authentic shopping tasks;
- what attracts shoppers' attention at the point of purchase;
- which visual elements are noticed;
- which visual elements are ignored;
- what elements help shoppers at different stages in the decision process;
- how shoppers interact with products on the shelf.

Beacon

A beacon is a location-based application which is designed to attract attention to a specific location.

The basic use of beacon in retail is to deliver place- and time-based messages to the owners of mobile devices who have relevant apps installed, to send digital coupons or invites to customers passing by. For example, a store can trigger advertising about a special discount if the client gets sufficiently close - so that customer can decide that the offer is good enough to drop in. A café or restaurant can trigger an advertising during a lunch break when the customer is nearby, making it more likely to be followed through.

[20] For an example of smart camera planogram management system, see the link: www.mdpi.com/sensors/sensors-15-21114/article_deploy/html/images/sensors-15-21114-g009.png

[21] For an example of eye detection application, see the link: https://martech.org/tobii-pro-releases-analytics-for-its-eye-tracking-vr/

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Beacons could also be used to collect analyze data. By tracking the movements of mobile devices beacons can provide you with all sorts of info: which parts of the store get the most and the least intensive traffic, how much time shoppers spend in areas dedicated to specific types of merchandise, the ratio between first-time and return customers, routes usually taken by employees and much more. The retailers can improve the shop layout, relocate merchandise, create shopper profiles, improve employee efficiency and so on.

Beacons can help the retailers to make the personalization readily available for brick-and-mortar shops, with special offers, coupons, discounts, product recommendations and more - can be customized based on a previous behavior of the customer, for example how much time the consumer spent in the store, how often the consumer bought a specific item, what the consumer bought and in what combinations, It will help the retailers in building up long-term customer loyalty by anticipating the consumer's needs and increasing customer engagement.

For consumers, this means a frictionless shopping experience, with fewer gaps between channels. For retail marketers, it means reaching the right client at the good moment with the correct message.

These beacon signals enhance how people connect to their surroundings by giving their phones a much better idea about where they are.

To sum up the four functions of beacon:

- push notifications,
- customized offers,
- indoor navigation,
- data generation.

which can help retailers to meet customer needs and create a more cohesive online-to-in-store experience.

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2.5. In-store apps conclusions

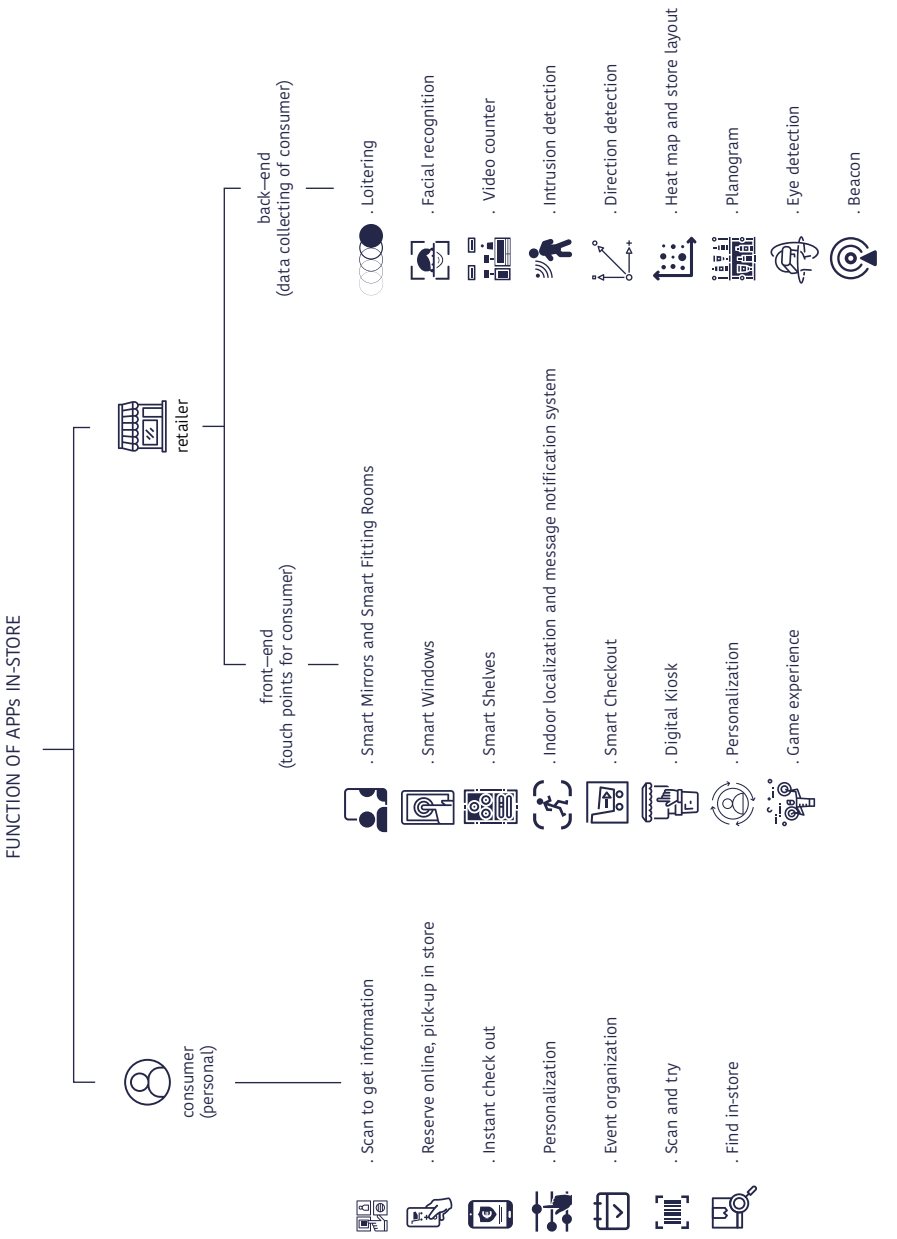

Fig. 1 - In-store apps function implementations

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To sum up, there are five macro categories of objectives and functionalities that can be implemented through the use of smart technologies and applications in front-end retail:

• ***Time saving*** refers to the possibility that smart applications give to customers. This can refer both to a shorter time necessary to complete processes such as checkout, or to a faster collection of information about the products, their characteristics and their position within the store.

• ***Need recognition*** refers to the interaction between customers and retailers that allows identifying customer needs and preferences, in order to provide increasingly customized products and services.

• ***Information, advices and promotions sending*** refers to the generic activity of sending information about products, advice based on previous purchases or specific needs or sending location based, customized or standard promotions.

• ***Augmented reality and store atmosphere enhancement*** refers to the processes that focus on improving the customer experience, acting on the shopping environment, in order to act on the emotions and feelings of customers, and increase the fun and engagement of customers during the shopping activity within the store.

• ***Multiple shopping experiences enhancement*** is a more flexible and diverse way to build more or unique experiences for consumers in physical stores to increase their memory and attention.

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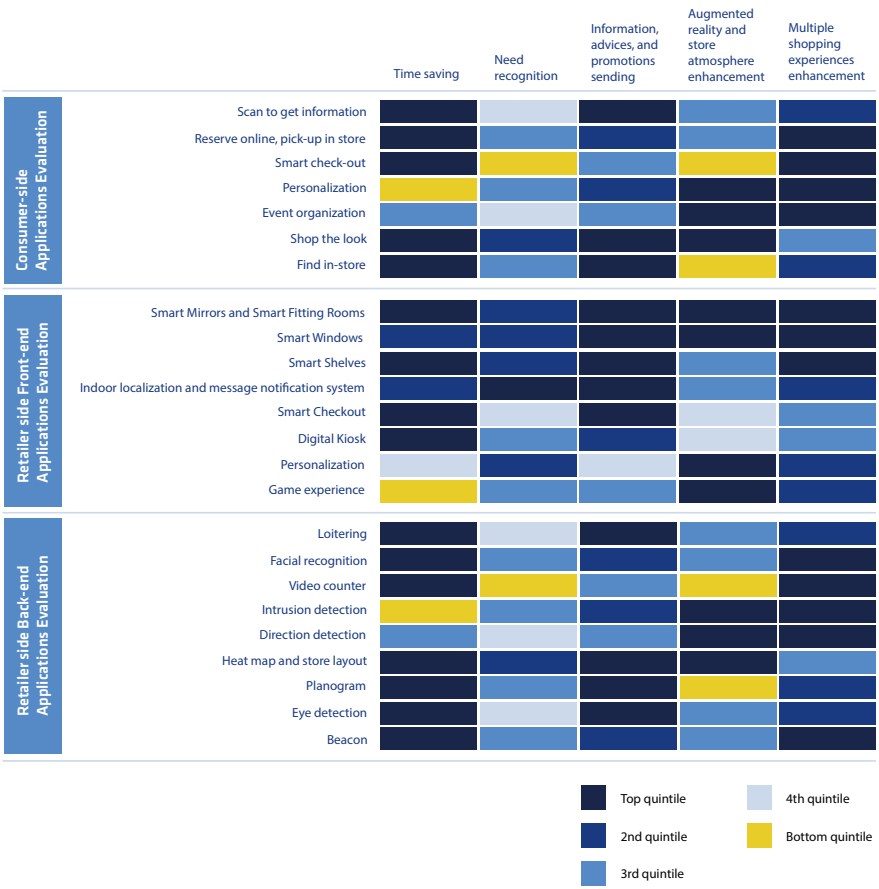

Fig. 2 - Heat map of the raletive ease of the functionalities and digital applications

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3. From physical to omni-channel retail

Retail is undergoing rapid transformation. This is most clear in the tension between offline and online shopping. At opposite ends, traditional retail stands for the physical experience of a product, personal service and trust, while digital shopping is about convenience, easy payment solutions and a widening range of options at a customer's fingertips. Offline and online shopping come with a different set of perks which can be enhanced by combining both avenues through smart innovation.

Utilizing mobile technology is not just beneficial to the consumer, it likewise provides retailers with instant data on consumer behavior which can optimize response, improve a store's catalogue and help shape better promotional activities.

In today's retail landscape, designers face extreme pressure to deliver an exceptional shopping experience for consumers across all channels. Consumer expectations for shopping have evolved drastically and it will continue. With these changes in shopping behaviors (and expectations), the importance of successful Omni-channel adoption becomes ever more critical for retailers to remain competitive.

While many retailers have recognized the need for Omni-channel investments, some brands have taken a more gradual, fragmented strategy by investing in a few features that enable specific functionalities, but do not transform the system as a whole. While this may work for certain, simple use cases, this quick-fix will not stand to last. Brands that do not go "all-in" on Omni-channel will be hard pressed to deliver new offerings, profitably, and will be unable to completely meet consumers' expectations. However, those who fully adapt their systems and processes to this new cross-channel business model, will be much more apt to find success in this age of Omni-channel.

For any brand interested in such endeavors, the pop-up store, which by nature opens the door to experimentation, provides a perfect space to

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develop creative solutions in this direction. Whether from the standpoint of a traditional retailer seeking to enhance the storefront or an e-commerce-based business wishing to venture into the physical world, the knowledge that more than half of consumers use multiple channels in search of their products should be reason enough to try out new models.

3.1. Retail Channels

The main difference, between the analyzed channels, regards the places where the interaction between buyer and seller occurs, real or virtual one. The environment afflicts the characteristic of the communication and therefore is able to influence decisions and impression of the customers. Jerome McCarthy in 1971 defined indeed the place as one of the key variables to structure a marketing campaign in the 4P model.

The first form of distinction is the degree of completeness of the interaction. Offline environments allow indeed the customer to interact via the five senses, while the online is more limited. Virtual environments build an interaction mainly in an audio and visual ways, while offline businesses can engage through a range of different artifacts both tangible, such as buildings, shop layout, and intangible, e.g. salespeople's attitude or atmosphere, that could be experienced through all the senses. This form of interaction enables the customer to get more involved in the process since it can impact at a subconscious level and effectively modify the level of service perceived. (Bitner, 1992)

As a consequence, another important difference relies on the degree of contact. When customers visit the shops can have a deeper relation with the sellers, by physically interacting with them at the point of sales. In electronic environment it could be non-existent, since customers are able to automatically purchase the product through the services, provided by the web page. This aspect is usually considered because, by direct contact, the buyer can provide more subjective responses or enhance negotiation possibilities. It is important to mention that a lot of virtual channels are now combining call-center and chat-system to satisfy these requests as well.

The other important part of direct contact is the sense of safety: direct interactions decrease the risk of the transaction, because the seller has fewer possibilities to cheat. To overcome these drawbacks, besides payment systems, online retailer's reputation and trust can be achieved by encouraging customers to share positive comments or ratings sellers after the purchase is completed. (Chang & Wu, 2012)

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The type of information available is different as well. Usually, websites provide more detailed and specific information, while face to face interactions might be more limited and unstructured. The web allows retrieving experience and feedbacks of other users and more technical datasheet of the product. On the contrary, point of sales usually provides summary information and suggestions from sales assistant and moreover it allows the customer to directly interact with products before purchase. The importance of specific type of information relies on characteristics of a product, that could be organized as extrinsic and intrinsic ones. (Agarwal & Teas, 2000)

The first one refers to the range of characteristics that are not bounded to the physical product, like price, brand or packaging, while intrinsic cues are attributes that belong to the specific product and can be fully experienced by direct interaction with it. Making an example, while purchasing a cloth, the physical customer and the virtual one, even more easily, can access to information of extrinsic cues about the product. On the other hand, just some intrinsic characteristics of the product could be experienced online, like color or design, but only in a physical environment the customer can touch or try it. Online retailer tries to develop a better product presentation, or warranties systems, to cope with the lack of physical interaction between customer and products. (Chen & Dubinsky, 2003)

Another distinction relies on timing. Customers are able to purchase online everywhere at in anytime while in physical contexts, customer interactions are defined and restricted by the opening hours of the shop. Mobile commerce is defined as "where commerce occurs on an anywhere, anytime basis". (Balasubramanian, Peterson, & Jarvenpaa, 2002)

On the other hand purchases in shops allow the customer to receive the product immediately if available, while e-commerce requires the shipment timing. (Rose, Hair, & Clark, 2011)

It is important to mention that online stores have usually a wider catalogue of products and better availability due to stock management organization. The customer can therefore enjoy a higher selection of products and have better chances to find the one more suitable to the requirements.

Within the context of online environment, other features of the channel are afflicted by the access point. Mobile Commerce is defined as "any transaction involving the transfer of ownership or rights to use goods and services, which is initiated and/or concluded through the use of mobile devices connected to a computer network". (Khalifa & Shen, 2008)

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The popularity of the channel has increased in the recent years, thanks to a breakthrough in mobile industry and an increased trust of users to perform payments via mobile. Mobile e-commerce is accessible: both via mobile sites, websites specifically designed for these devices, and mobile apps, software that are created to run on specific types of mobile phones. Many retailers have already developed a coexistent strategy, that makes indifferent the choice of users. On average mobile applications do not have the same capillarity of the sites but have the advantage of providing a much richer and engaging experience because take in consideration size screens or allows interactions with other applications. Mobile commerce gives the possibility to users to shop in every location and time, increasing purchases coming from impulsive desires of customers.

3.2. Combination of Channels

Buyers are able to move from one channel to another at different time during a single purchase according to their preferences. While moving, it is possible that users change their idea and retailers, especially if they do not provide an integrated channels strategy. (Steinfield, Bouwman, & Adelaar, 2002)

To analyze the possible interaction, a simplified customer purchase cycle, focusing on the interaction between the customer and the retailer, will be taken in account. After realizing a necessity, the customer starts a search activity to identify the product able to satisfy its needs. The activity could be influenced by previous experience or external evaluations and takes in account intrinsic and extrinsic cues of products in order to make the final selection. Once the product has been selected, the purchase activity starts, and this is when actually the transaction takes place. This activity can be influenced mainly by the retailer's reputation, payment method and time required to receive the good. Retailers can also interact with customers before they start search for a product, with different form of communication and marketing activities or strengthening the relation with them though after sales services. Along these activities, to complete a transaction, customers are able to switch channels and different models have been introduced by companies to follow their path and provide a better experience.

Additional application of mobile phones in retail shops relies on payment system or in store locators.

Many players, especially in clothing industry, provide in-store support, which consists of make available after sales services in shops for purchases

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done on the virtual channel. This path creates a sense of safety in online customers, because they know that for each virtual transaction, there will be a physical place to directly interact with the company in case some problems occur.

Book-and-pick model consists on create reservation online and then pay and withdrawal the product directly in the closer physical store. This system allows assuring the availability of products, especially in period with high demand of them and avoiding wrong orders since the payment is made once the product is visible. Through this system, users can also have a better control of time, they are able to decide when they pick up the goods avoiding problem related to wait the courier in a specific time slot at home. Anyway, this model is not particularly popular especially due to accountability problem and stock managements of different channels.

A similar model is the *pick-and-pay* one. As in the previous one the customer can select the product online and retrieve it without shipment. The real difference is the place where the product is collected, not only physical shops, but specifically designed collecting point, also provided by other companies that increase the capillarity of the distribution network and avoid stock management problems with other point of sales. On the other hand, by increasing the collecting point, more complexity and additional costs are faced by vendors that adopt this system.

All the activities done online can obviously be performed both by fixed and mobile devices. The advantages related to the use of smart phones or tablet relies mainly on the timing where the offers are accessible.

Model as *book-and-pay* can benefits from it since mobile users are always connected and therefore more reachable in case of limited offers. Other combination with the physical stores and offers are also available through electronic coupon in advertisements. These solutions allow the customer to start the search activity on the mobile and attract customer in real shops where purchase the goods with the special promotion.

3.3. Omnichannel cooperation and behaviors

Nowadays, people purchase from various channels, such as physical locations, e-commerce, mobile applications and social media. Rather than working in parallel, channels and their supporting resources are designed and orchestrated to cooperate in omnichannel way.

The main drivers of the consumer are different between online and offline consumption. According to preliminary studies, in the online context, consumer motivations rely on price, convenience, product availability

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and online shopping attitude, while in the offline context, consumers are more interested in the aesthetic appeal, shopping experience and consumer in-store service. (Liu et al., 2013) It is obvious that internet has strong advantages in taking charge of searching and reaching products, since it enables consumers to get information faster, further and deeper. While, increasingly, bricks-and-mortar stores tend to be places where consumers to touch, feel products and immerse themselves.

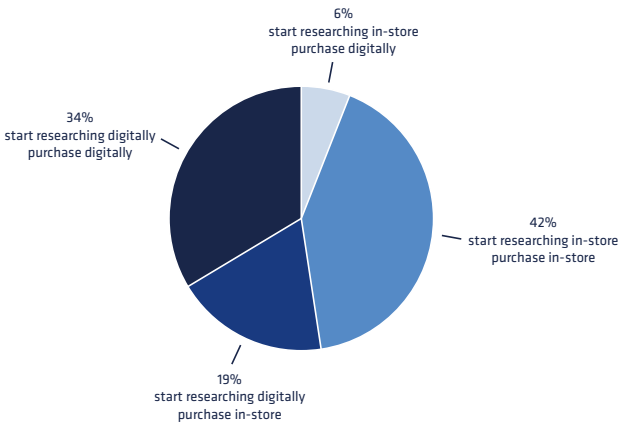

Fig. 3 - Purchase process among the internet users among US (Murphy Research, 2018)

The 4P model, called also marketing mix, is usually regarded as a basic tool to describe operational marketing and characterized by the series of choices regarding products, promotion, prices and places.

The 4E Model describes how in the past years: the *product* has become *experience*; the *price* has become *exchange*; the *place* has become *everyplace*; the *promotion* has become *evangelism*.

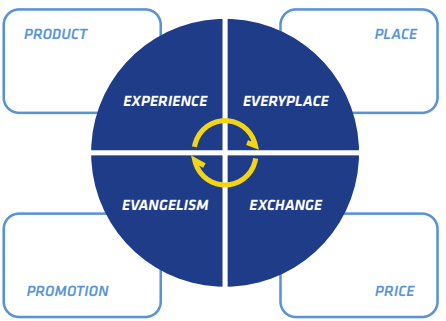

Fig. 4 - From 4 P's to 4 E's (Ivasciuc, Epuran, & Micu, 2015)

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From the product to the experience

For a company to survive in the highly competitive global economy nowadays, it should be flexible enough to transform its field of work. Rather than concentrate marketing efforts on the products supplied by organization, which for one reason or another change with increasing speed, the effort focuses on the experience of the end user, so retailers do not sell products/services anymore: they offer solutions that meet customer's needs.

The product has been put aside and the experience has entered the scene, since it can really engage potential customers and attract them to a brand. Creating emotions and positive feelings can create a link between brands and consumers. The product is an attribute of the company, the experience is lived by the consumer, or rather the conjunction of customer experiences in the relationship with a brand or a company.

From the price to the exchange

The evolution from the price to the exchange highlights the need to recognize the value. Price is still important, but there are many cases where customers do not follow the lowest price, but rather they choose the solution that offers the highest value. This is something that the customer gets, beside the product, after performing the purchase. Therefore, a company, that does not want to remain anchored to the strategies of the past, has to think about what it wants to truly offer its consumers, to have in concrete exchange for their attention and loyalty.

Since there was an evolution in the understanding of the exchange, that takes place between seller and buyer, between supply and demand, and it is no longer just taking the money to give a good in return, rather bringing a "value".

From place to everywhere

With the advent of digital commerce purchasing methods have changed a lot. If before it was necessary to get the products in physical stores, now with the e-commerce it is no longer necessary to have intermediaries.

Purchase can be made anywhere and anytime without constraints. This is why from place (distribution) pass to every place (everywhere). Consumers can buy a good, as well as a service, through the use of the mobile phone breaking down every physical boundary and speeding up the process.

The sense of everywhere, however, also translates into a solid presence on social media, as well as in the construction of a brand website. By doing this, potential customers can be more easily involved and then turned into consumers.

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Everywhere reflects the possibility and the ability of consumers to access the solutions as they like, business developers should learn to intercept their customers rather than interrupt them, customers must be involved when they are more likely to be receptive towards the product or service; knowing how it can be difficult, the marketing efforts should be designed so as to make sure that when the time is right, the products or brands are available. It is necessary to develop a strong presence both online and offline.

From promotion to evangelism

The promotion of a product is still essential now for a winning marketing strategy. Consumer involvement has become essential for a new way of marketing.

It is not only important to promote the products retailers are selling. Retailers have to learn how to make a step forward in turning their customers into evangelists of the brand. If retailers are promoting a technical solution, push it beyond instructing and training the potential customers about the technical aspects of their solution, offer useful information about the solution and educate the guests.

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PART II

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4. Design Paradigms in stores

The modern repurposing of *brick-and-mortar* stores marks the biggest transformation of the *big box* store in the last 30 years. It is a clear departure from the one-size-fits-all traditional retail, enabling brands and retailers to serve their customers in a nimble way in their physical locations. They are opening more of these specific customer targeted stores, in an attempt to be present at each step of the customers' purchasing journey, with updated value propositions. Their end goal is to deliver engaging, frictionless experience rather than increase conversion. With in-store sales happening through the mobile App, the financial impact of these new store formats is difficult to measure as they affect both physical and online sales. However, the most important win of this repurposing strategy is ensuring the relevance of visiting *brick-and-mortar* stores as part of the customer journey. This would place physical retail as a complement of e-commerce and mark a new era of Brick & Mortar stores, focusing on selling experiences.

Retail space is constantly iterated and updated, presenting a rich diversity of the retail spectacle. The conventional functions of retail space, such as exhibiting and delivering products, are gradually taken over by online retail. It brings the biggest collection of products than ever before, total price transparency and visible customer reviews, the soaring number of online shops is changing the market. Offline retail has a tough time under the transformation, but try to trump in terms of the experience, temporary event, quality service, time and cost efficiency. The future retail space can be considered from the following aspects.

The writing of this book, which took place during the pandemic, notes that certain revolutions taking place in the shops will be accelerated by the new situation. The role of the stores will also be profoundly recast in terms of experience, presence and performance, in the services offered to a multitude who have definitively transferred their purchases online, by an emergence of new consumers and available technologies.

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Moreover, time will be one of the most strategic paradigms in the transformation of points of sale, as the hours, attendance, availability of goods and duration of purchases will change. Time and the digital technologies associated with it will significantly redesign the stores of the future.

4.1. Experiences

The interpretation of contemporary sale spaces coincides with the image of a place that tries to integrate partial and/or functional aspects in a complex process, affected by physical, biological, social, and cultural systems, that determine its character and nature.

Lately environments tend to create emotional experiences that involves the senses simultaneously. A new planning of retail is based on connection: from a space of supplying to a physical-psychic place of well-being, experience and entertainment.

People are increasingly interested in satisfying themselves by experiences rather than products. The retail space becomes the stage for experiences, where consumers play leading roles and products appear as props. It aims to generate attention, reputation and customer loyalty for the brand. In order to create special experiences, the retail space absorbs other elements to create its context or to enter into a totally new one. It melts with various activities, deeply integrates with public life.

With the application of psychology and behaviorism in marketing, retailers are using senses as media to engage consumers, thus space is decomposed as stimuli for each shopping stages. Retailers sponsor entirely artificial environments, where vision, sound, scent, light, material, nature, even the chemical composition of air, are all designed. Those cues are aimed to involve consumers into the space, comfort their sensations, relieve their fatigue and extend in-store time, therefore, producing desire responses and improving purchase probability.

4.2. Socialites

Depending on a product, peer validation is always an influential factor in the decision-making process. Customers can crowdsource ideas from peer-review websites and share their experiences via social platforms. For

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retailers, this social interaction has a direct impact on customer loyalty and means gaining a competitive advantage.

The threat of virtuality may in fact be an enormous opportunity for retailers who can use interactivity, connectedness, new forms of media and mobility in order to deepen their brand message and appeal to emergent audiences, who are alert and responsive to developments in both the on-line and off-line worlds of retailing.

The internet has enabled consumers to reach out into commodity worlds faster, further and deeper than ever before.

Retail culture cannot be reduced just to commodities, or to shops, or to consumers, but must be understood in terms of relationality, as a recursive loop. (Crewe, 2008)

Commercial areas do not only have to respond to the functional demands of trading, but also need to be able to combine more complex environment issues which positively respond to the reference context which, and thanks to the quality of retail spaces are transformed from goods containers into opportunities for socializing and communicating. The new retail and consumer places are becoming centers for socialize and develop interpersonal relations of great importance, but if on one hand the center role of consumption in modern society is more and more evident, on the other hand, there is still a refusal to accept that shopping has become a fundamental moment in everyone's.

With the reduction of the basic needs, desire has become the leading criterion for purchase decisions. Consumers are looking for solutions as close as possible to esthetic lifestyle. To fulfil a more superficial desire, Rem Koolhaas states "shopping is arguably the last remaining form of public activity". The kind of purchasing growing more and more over the last years contains a strong playful, evasive, experience approach. The typological hybridization of retail spaces should become an opportunity for the creation of a new functional identity that brings together, as it is more and more common today, entertainment, education, social relationships and commercial activities. (Gerosa, 2008)

4.3. Services

The proportion of in-store stock area is decreasing in most of the retail spaces. The space is no longer mainly occupied by products, instead, intangible interpersonal communication and professional services. With newer emerging forces in the transportation industry and express delivery

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industry, such as robots, drones, driverless vehicles, in-store inventory is not the essential anymore. The shopping journey is reshaped, the products can be ordered from internet, before consumers arriving the store, or delivered to their home after leaving the store. Therefore, experiencing the product in a comprehensive way is important, instead of gaining the product. Compared with the shrinking of storage place, service area is expanding.

4.4. Mass Customization

Consumer expectations of a personalized experience have reached new heights in retail. Regardless of whether the interaction is face-to-face or online, consumers expect the experience to allow them to express what they want, who they are and how they want to buy. Companies that can customize the experience in this way make the customer feel more engaged that it was possible before. The impact on the bottom line of the shifting point of customer engagement upstream and delivering an excellent experience in this personalized way is evident. If the in-store experience of the retailer is positive, the consumers tend to shop again from the same retailer. In these new sale spaces, consumers have a designer role, for space created and the products offered. This is a very interesting field since it demonstrates the validity of co-creation theories (Prahalad & Venkat Ramaswamy, 2004), arriving to think of future sale spaces really like places of in-store relation and experience. In a multi-channel concept of interaction between physical and virtual spaces, design can play an interesting role creating more complex formats. (Ianilli, 2008)

In order to define immersive experiences, we have to consider how to connect shoppers on an emotional level through personalized dialogues and give them control over the shopping experience. The retail experience is more about involving the customer than merchandise and merchandising. Technological solutions, which stimulate people's visual, auditory, olfactory and tactile senses, connected to an emotional intensity created by shopping experiences, can open up a whole new world. Moreover, customization and specialization of products have created a more personal experience together with new media, by giving consumers new choices that match their interests.

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4.5. No Consumers Anymore

The term *consumer* is perhaps the most inadequate to describe those who attend a shop nowadays. They are stakeholders, co-designers, influencers, experimenters and experts in both the products, marketing and communication that drive brands. They enter and influence choices according to the degree of engagement allowed by the brand. It is precisely participation that is the measure of success for some companies. Stores that activate co-design processes are proactive, they set challenges that go beyond the sale of the product, they exchange loyalty for brand credits and ensure an extremely innovative dimension. Consumers are actively and critically demanding greater involvement in social and environmental issues as well as in merchandise, and with unprecedented force they are able to reward or punish inexorably those who deny them this form of engagement.

4.6. Technologies

The global brands which cannot offer a human interface at all stages of the customer journey, are turning to digitalization. The tech-savvy millennials view the digital experience as a key brand indicator and expect an intuitive product to give them equally immediate retail experience.

Meditating on the role played by design in relation to the situation created by a global market, production models and consumption behaviours have changed so much to upset old strategies, forcing contractors and designers to rethink about their strategies. The reasons for this transformation are numerous, but technology is certainly the most important one, taking that role of leader that once belonged to science.

The creation of experiences begins with focusing on the meaning of human experiences. The relationship between the physical and mental aspect of the public interacts with the soul of the point of sale and with the meanings highlighted by using sensitive tools.

Internet and information technologies provide a new dimension to design retail space. It is equipped with digital system and touch points, purchase processes provide the retailer a multitude of disparate information, including transactional data, consumer data, and environmental data. Thus, smart space become a tool to understand the market and consumers, the same as other devices, such as phones or computers. Data mining helps retailer to make better predictions about consumer behavior, design more

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appealing products and provide more individualized services, moreover, it also gives feed-back for improving space design.

The worlds of online and offline are converging, the future retail space must respond and, more importantly, integrate a whole range of sales channels. Online and offline sales are complementary channels rather than rivals, which both contribute to the completing of consumer journey and expressing the brand image. The online shopping journey still involves physical space in many stages, the live streaming room at the beginning, experiencing hall for products in the middle or pick-up area at the end. Knowing the advantages and disadvantages in these two worlds, as well as new technologies are going to reshape them, is key for the future retail space.

4.7. Time-based Design

With the innovation of marketing events and activities, a lot of temporary stores have emerged. Temporality, compression and instability enable retail to exist in more creative, dynamic and experimental forms. Besides, the time consumer spent in space differs greatly due to their different shopping journeys, the space design should respond to the variety based on time.

In the future the important criterion to evaluate market participants, will be the proportion of its products and services in 24 hours a day of consumers. (Zhang, 2018). Due to the development of online shopping is that the consumer shopping behavior becomes more no time limit. So, the brick and mortar stores should consider consumers' shopping and the relations of time, such as entity retail shopping can get real advantage, self-service store provides 24-hours convenience service, flagship store to create more experience for consumers to spend more time in the store, temporary spaces like pop-up and mobile stores, and so on.

Retailers must consider what their target consumers are looking for through the experience. Thus, physical retail space should be defined by thinking about the relationship between people, products, places and time.

In fact, this book shows how the media revolution has changed the forms of time and consequently space for retail. The online availability of products 24/7 has forced retail spaces to redesign their time-based qualities. This is the dimension where most experimentation is taking place - pop-up; temporary, extended, blende, remote - shops and on which future store will take shape.

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The sectors that are most investigating the relationship between space and new digital technologies (excluding electronics stores) concern 3 sectors: fashion, sports and food. With regard to these, it has been tested the possibility that, on the basis of the use of the tools indicated, could be identified new typologies.

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5. Designing Innovative Tools

by Siyi Wang

5.1. Tool 1: Retail Space Indicator

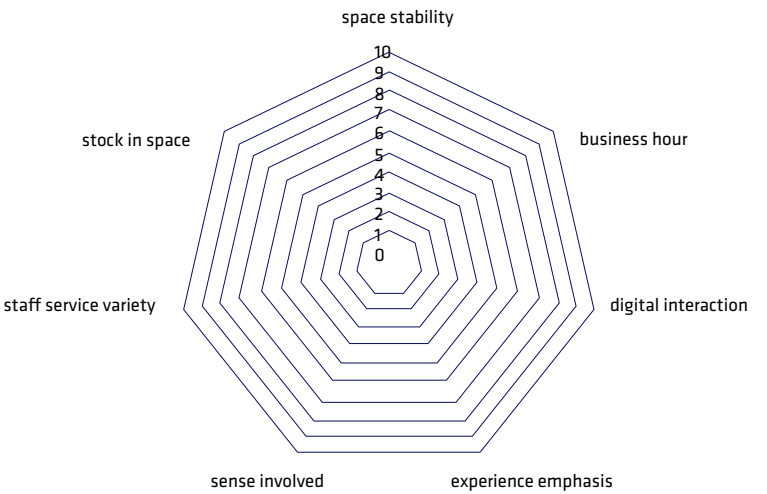

Fig. 5 - Retail Space Indicator. Designed by Siyi Wang, supervised by Anna Barbara

David R. Bell (2017) concluded that the retailer which sells products of third-party brand (not own by themselves), should focus on how to deliver products to consumer more quickly and economically.

In contrast, the vertical brand who does not sale through third parties, should control and pay attention to information, thus through pop-up stores, quality services and retail experiences. Different types of stores have different indications for the specific factors of their spatial composition, so it is necessary to design a tool to measure the characteristics of different

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types of stores. According to our research on the digitalization of retail space design, there are 7 important factors affecting retail space design, they are: space stability, business hour, digital interaction, experience emphasis, sense involved, staff service variety, stock in space.

- ***Space stability*** refers the diversity of retail, for example, in stores with larger venues, such as department stores, brands will choose to borrow part of the space to insert pop-up stores, or short-term exhibitions. This temporary event affects the original in the dimensions of time and space, thus, the spatial stability of the store;
- ***Business hour***, it has a certain decisive effect on the customer's lifestyle. Usually, customers can only visit the store at fixed time during the day. However, recently there have been more and more 24-hour self-service stores and mobile stores. These different types of stores have woven interactive networks. Gradually cover 24 hours of consumers in urban scenes;
- ***Digital interaction*** is also a key research factor of this book. In other chapters of this book, the application of different digital technology methods in the front-end of the store and their functions are introduced. This part is a summary of the level of digital interaction in different stores;
- ***Experience emphasis*** refers experience in the stores, such as some brands set up the experiential stores, brands or shop owners manipulate consumer emotions through the design of the store experience;
- ***Sense involved*** is another indication for the evaluation of experience. It enhances the multi-sensory experience of customers in the store through the design of vision, hearing, taste, smell and touch in the space;
- ***Staff service variety***, when omni-channel cooperation is implemented, customers will have more diverse ways to obtain product information, which means they can get information without the explanation and guidance of store staff. Therefore, the functions of staff in different types of stores will also change;
- ***Stock in space***, due to the intervention of digital technology and channel cooperation, the space of the store can be used as both an offline shopping display and an online retail warehouse. In the omni-channel urban scene, when online and offline are linked, the storage space in the store will also be affected.

We classify these seven factors into 10 levels, and we will use this model to illustrate the characteristics of different type of stores in the comparison and analysis of spatial prototypes in three specific retail domains in the following chapters.

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5.2. Tool 2 : Retail Experience Structure

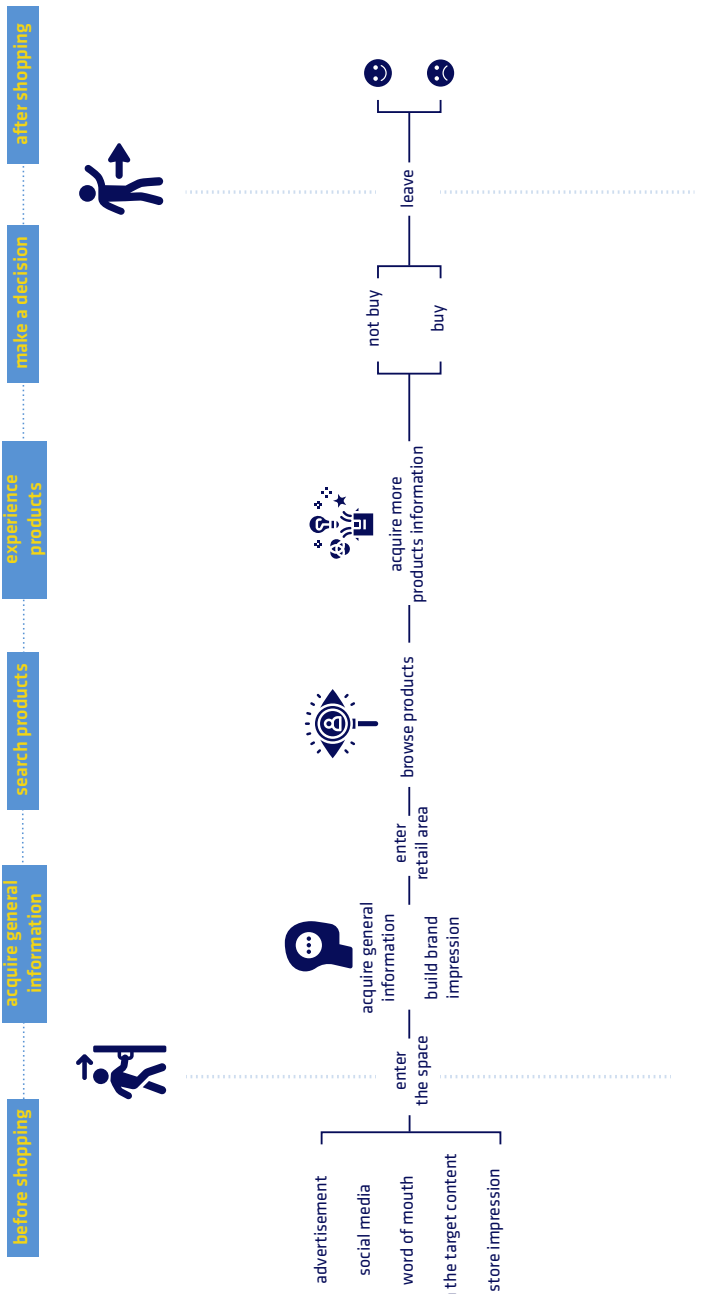

Fig. 6 - Retail Experience Structure. Designed by Siyi Wang, supervised by Anna Barbara

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Over several decades, marketing and consumer behavior research has investigated how consumers undergo decision processes. Lemon and Verhoef (2016) introduced a model of customer experience journey from the marketing point of view in 3 stages which are prepurchase stage, purchase stage and postpurchase stage. Based on this model we investigated the 6 stages user experience journey in spatial design of the stores:

- ***Before shopping*** refers why people enter the space;
- ***Acquire general information*** refers elements that are important for building brand recognition;
- ***Search products*** describes searching process under guide or randomly;
- ***Experience product*** refers how consumer get further information of products;
- ***Make decision*** is the stage that the consumers decide to make the purchase or not;
- ***After shopping***, consumers may share the information with friends or on social media.

This model aims to reveal the user journey in different prototype of the stores which is also used as the measurement and guideline for the spatial design of different type of stores in the urban scenario.

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6. Fashion stores

by Siyi Wang

Undoubtedly, the fashion industry has been the one that has been quickest to grasp the potential of digitization in production, sales and logistics. There have been many experiments in recent years, and many have had a significant impact in stores. The pandemic has thus accelerated processes already underway, radicalizing the absence of physical presence, but not excluding the body.

In the fashion industry, the most significant digital innovations that have reshaped the retail space are *interactive screen, body sensor cloud shelves, digital fitting mirrors, face identifiable vending machines, 3D scanners*, etc. It is reported that 80% of consumers will use cloud shelves and magic fitting mirrors[1] at the store, cloud shelves[2] enable consumers to acquire the product information quickly, such as the price, style and stock. The display and layout are adjusted and changed periodically, 3 months in average.

After customers use the smart devices, their record of touching, saving and sharing will help stores to recognize the products selected by customers and to change the layout[3] of space. In addition, online and offline member data systems are connected, to achieve performance overlay increase. All

[1] For an example of magic fitting mirror at Kerr&Kroes, see the link: https://lh3.googleusercontent.com/proxy/DzFoFsIm_qfeqbbGNeHPB0xUAD01KQ0fiaR2Pj0AQ1txO-q-rDAKVDGFiPcP7x991aUJ2CaTyX9HGtETG-9vajYIl4VbYlXd0Pcg7Fvhk1yK11c

[2] For an example of cloud shelves at Kerr&Kroes, see the link: https://mmbiz.qpic.cn/mmbiz_gif/ic3wSQSIKLjCACQBiax5cibceIzqlnueo0xrfBloMEibVG0DgQQo87DJ6olDl6pGREm5cYhfOztrt0RDI06OlmvqhA/640?wx_fmt=gif

[3] For an example of shopping guide map at Kerr&Kroes, see the link: https://img.itw01.com/images/2018/05/11/16/1547_z4uJP9_GQAO9EX.jpg!r800x0.jpg

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these devices and spaces not only improve the indoor consumer experience, encourage[4] them to share messages on social media as well.

Some brands have radicalized the integration of digital and analogue to increase customer engagement and in-store sales digitally. Walking through the doors is just like walking into their websites. The CEO of one famous brand, referring to their *world life store* explained that "it brings our digital world to life in a physical space for the first time, where customers can experience every facet of the brand through immersive multimedia content exactly as they do online".

Some stores are equipped with speakers concealed around the main room, a hydraulic stage for live music[5] or digital screens[6], responding the plan to host live stream catwalk shows and music talent performance in the store. Besides, visual and audio systems are used to create extraordinary effects, such as the "weather moments"[7], a digital rain showers accompanied by the sounds of a thunderstorm.

Some other brands also embed microchips into products, through radio-frequency identification technology (RFID) in order to let the consumers, once they take one product and approach the screens in the common area or a mirror in the fitting room, to instantly access to relevant information ranging: from craftsmanship to catwalk looks.

[4] By setting up photo booth and game area to improve store experience, an example at Kerr&Kroes. Photo booth see the link: https://wx3.sinaimg.cn/mw690/6ef98b7cgy1fu18wujmaxj20m80etjsl.jpg, game area see the link: https://wx2.sinaimg.cn/mw690/006ORDM1gy1fu04n6z8cdj318k0qon1z.jpg

About the project: name of project: Kerr&Kroes, format: hybrid fashion store, first opening: 2018, location: Shanghai, China , store category: Smart retail store, size of the store: 1,600m^2, average visit time: 30 minutes, designer: Istore, Alibaba.

[5] For an example of live music event in store, Burberry Acoustic event, Jake Bugg show, London, 2013, see the link: http://ella-lapetiteanglaise.com/wp-content/uploads/2013/02/burberry-acoustic-presents-jake-bugg-live-at-121-regent-street-london.jpg

[6] For an example of digital screen in store, giant screen in the centre of atrium, Burberry, 2012, see the link: https://ramboll.com/-/media/images/ruk/3_projects/abc/burberry-regent-street/image-viewer/1280-x-720-burberry-regent-street-1.jpg?mw=640

[7] For an example of weather moment, digital rain showers, Burberry, 2012, see the link: https://cdn.wallpaper.com/main/styles/fp_922x565/s3/legacy/gallery/17053421/03-burberry-store.jpg

About the project: name of project: Burberry Flagship Store, format: Monobrand fashion store, first Opening: 2012, location: London, UK, store category: Experiential store, size of the store: 4,080m^2, average visit time: 30 minutes, designer: Team led by Christopher Bailey.

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There are even stores that stocks no clothes, instead they provide many customer amenities, *buy online & pick-up in store*, *curb side pickup*, *tailoring*, and *drop-off returns* are the most popular services, also including clothing donation drop-off, personal styling[8], complimentary refreshment, trunk club service, nail service. It functions as a local service hub[9], an essential complement to e-commerce. This strategic choice considerably reduces the size of the shop itself.

Another interesting phenomenon from the point of view of the hybridization of spaces consists in promoting products with assistance from online influencers that have emerged amid the social media boom in recent years. (Peng & Yao, 2018)

According to official reports, more than 80 live streamers' sales reached more than 100 million yuan in 2018, covering clothing, jewelries, bags, cosmetics and other categories. The introduction of Live Platforms[10] has changed the retail model of physical stores.

From an interview of chinadaily.com, consumer suggested that watching live streaming is like hanging out in a mall, the way they change channels is similar to browsing through different stores in the mall. During the process, the live streamers serve as the shopping guide, model and after-sales customer service agent, which makes consumers feel more connected.

The phenomenon of shop's relocation also presents cases where the shop hybridizes with hospitality, as in the case of mini fashion shops bar in hotel

[8] For an example of personal styling, dressing rooms surround the meeting space, Nordstrom Local, see the link: https://fashionista.com/.image/c_fit%2Ccs_srgb%2Cfl_progressive%2Cq_auto:good%2Cw_620/MTUwNDUxNTM5OTA2MjA5NDUx/084_10-3-17-nordstrom-local.jpg

[9] For an example of local service hub, overall view from the entrance, Nordstrom Local, see the link: https://media.bizj.us/view/img/10922525/nordstrom-local-23*1200xx5456-3069-0-284.jpg

About the project: name of project: Nordstrom Local, format: Local service hubs, first opening: 2017, location: Los Angeles, US, store category: Bespoke suit store, size of the store: 330m^2, average visit time: 45 minutes, designer: Hoshide Wanzer Architects.

[10] For an example of live stream shopping, a live streamer is introducing the products via Taobao Live app, see the link: https://cdn.i.haymarketmedia.asia/?n=campaign-asia%2Fcontent%2Fviya_taobao.jpg

About the project: platform: Taobao Live, format: E-commerce, project time: 2016, location: unlimited, store category: live-streaming space, size of the store: 2-10m^2, average visit time: unlimited

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room. There is a brand that started to stock clothes[11] in boutique hotel rooms in Europe. The project is based on the insight that packing the right clothes for vacation can be difficult, due to unforeseen weather or travel plans. The agency filled a hotel closet[12] with an assortment of hand-selected, fashion-forward clothing carefully curated by stylists and fashion bloggers based on the weather, location and nearby attractions. When guests realize they do not have the right outfit for a given occasion, they can simply take something from the mini fashion bar, try it at room and pay for it upon checkout. If the products are not the right size, guests can contact the fashion concierge to change it.

[11] For an example, sign on the hotel door, Pimkie International, see the link: www.the-spin-off.com/news/media/3/Door-sign-at-Pimkie-Mini-Fashion-Bar-22928-detailp.jpeg

[12] For an example, wardrobe in hotel, Pimkie International, 2015, Milan, Italy, see the link: www.the-spin-off.com/news/media/3/A-regular-minibar-but-with-clothes-and-accessories-22926-detailp.jpeg, and www2.eurobest.com/winners/2015/media/entry.cfm?entryid=3642&award=3

About the project: name of the project: Pimkie International, format: Mini fashion bar, first opening: 2015, location: Palazzo Segreti Hotel, Milan, Italy, store category: Wardrobe in context, size of the store: 0.5m^2, average visit time: 5 minutes, designer: Happiness Brussels.

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6.1. Prototypes_fashion

The challenge for retail space is to re-create innovative, affective and evocative retail space. “So even if shopping is constantly facing crisis and decline, it is also being constantly (and artificially) reinvented, reinterpreted, refashioned, reborn, rechanneled, and repackaged. What allows this is an apparatus—a survival mechanism—that can seize on any technique for squeezing out a pathway toward life: modulation, constant change, camouflage, mutation, predation, sabotage, parasitism, surveillance”. (Leong, 2002)

6.1.1 Experiential space_fashion

Area: 2,000-7,000 m^2
Business hours: 9:00-21:30

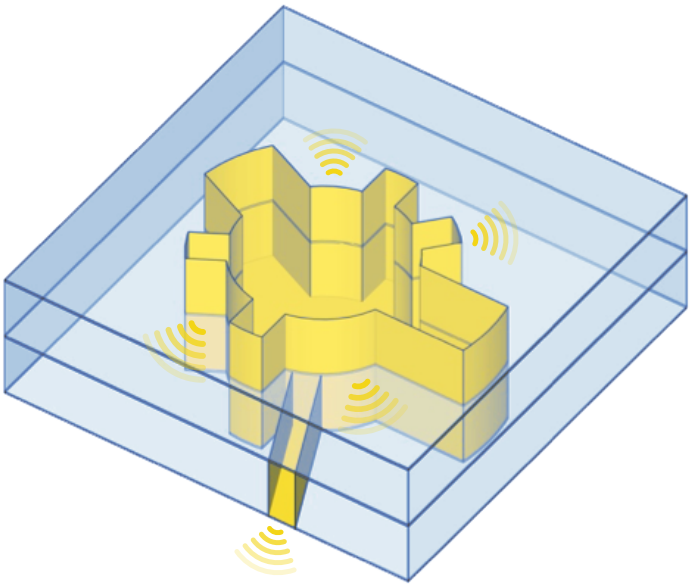

Fig. 7 - Space prototype of Experiential space_fashion

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Experience retail space are characterized by offering experience which aligns with the brand, the value and image of the brand emerges are expressed in the process of the customer's interactions. It is also highlighted as a strategy for increasing consumers dwell time in-store.

An experience occurs when a retailer intentionally uses services as the stage, and goods as props, engage individual customers in a way that involves multiple senses and creates a memorable event. Base on the degree of customers' participation and connection between customer and environment, there are four type of experience, entertainment, educational, aesthetic and escapist (Pine & Gilmore, 1998), which can happen in the space such as a gallery, a café, a restaurant, game areas, photo scenario areas and so on.

The majority of these stores are large scale, between 2,000 to 7,000 square meters and they have at least two floors of selling space, which usually exceeds sale functional need. In general, the experience spectacle is located around the center of atriums, in order to catch the consumer's attention once they enter the space. Besides, similar as a stage, except the consumer who are participating, the rest can get the message during the shopping process from all perspective, and therefore the sale space and experience space interlock with each other.

This type is frequently used among flagship stores, which not only function as the sale place but also aim to allow consumers to gain brand experiences and strengthen brand loyalty. Since the heightened accessibility, some stores even become tourist destinations and are often visited by non-traditional customers of the brand.

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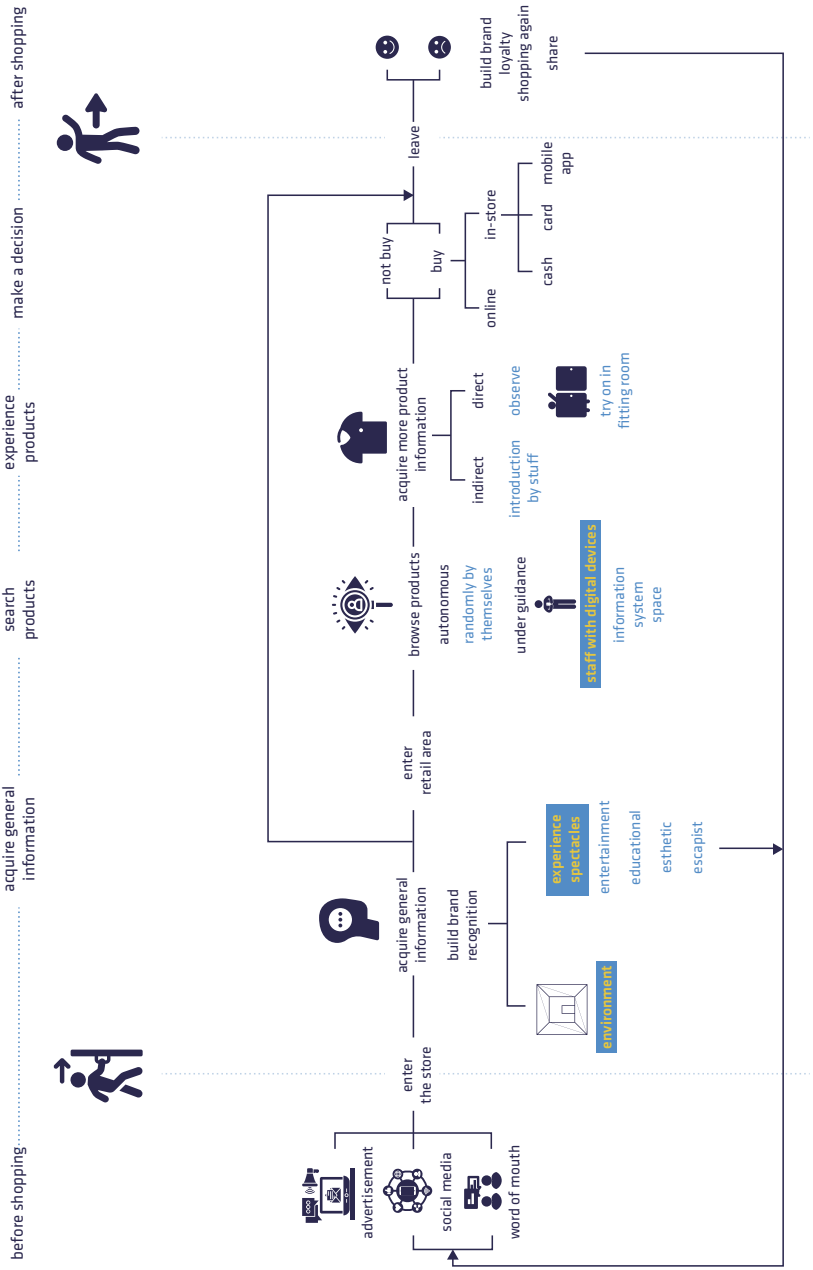

Fig. 8 - User experience journey of Experiential space_fashion

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6.1.2. Smart retail store_fashion

Area: 500-3,000 m^2
Business hours: 9:00-21:30

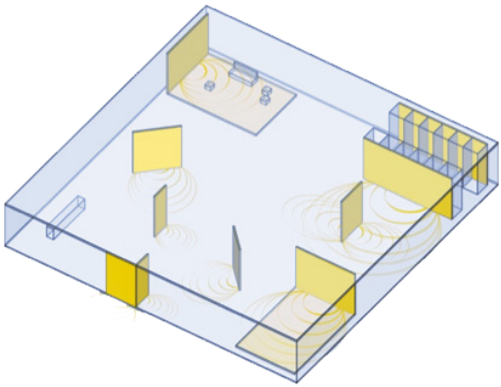

Fig. 9 - Space prototype of Smart retail store_fashion

Smart retail space enables the retail process to be available through the integration of digital technologies, mobile technologies, and immersive in-store, which would simultaneously enhance organizational process and the selling activities.

The space is leaded by different digital devices and systems, such as the facial recognition devices, interactive display (cloud shelf), smart mirror, RFID system, indoor positioning system, augmented reality environment. Through those digital devices, the data of customers and products is captured, analyzed, and reshuffled to help retailers and researchers understand customer behavior and provide better consumer experience. For example, the in-store display and layout are adjusted and changed periodically according to the data of customer behavior, opening up new perspective for design.

Smart technology improves the consumption process. Consumers might access all the product information through the new technologies without the direct assistance of an employee, by consulting the new collections, the information about material and product availability, prices, etc. Employees are provided with iPads to support their tasks and provide personalized information for clients.

Smart retail space can achieve its greatest potential with the retailer who utilizes omnichannel-based synergies. In this way, allowing customers to access the business in both real-world and virtual-world contexts in one seamless and natural experience.

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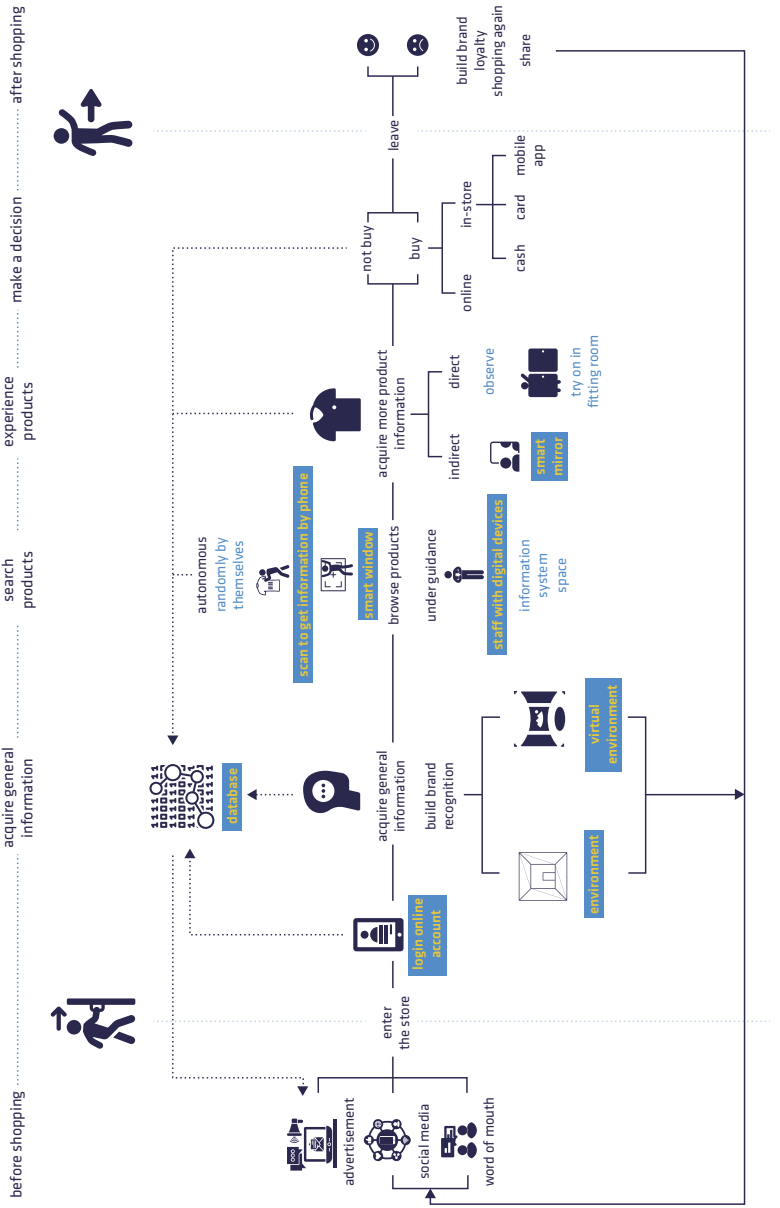

Fig. 10 - User experience journey of Smart retail store_fashion

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6.1.3. Shop the show (See Now, Buy Now)_fashion

Area: 1,000-2,000 m^2
Business hours: 1st day certain time of the show, 2nd-7th days 10:00-19:00

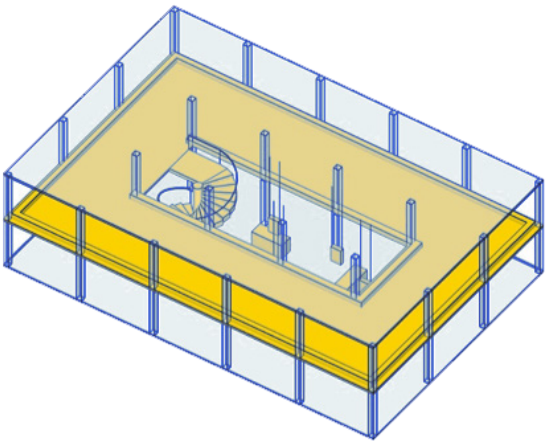

Fig. 11 - Space prototype of Shop the show_fashion

Shop the Show is spring up along the phenomenon SNBN (See Now, Buy Now). It is a space that showcases the brand's meaning in combination with show, entertainment, catering service, information display, typical methods used to create brand experiences but in an ephemeral form. It generates the intensified consumer-brand relationships, improved brand cognitions, and brand loyalty.

This type requires a large volume, normally including a loop space, for organizing catwalk. The function of the space is time based: at the first day, part of the space will be used for the fashion show, while it will turn into the display space for products in other days.

Shop the show is mainly applied by some high fashion brands, who would like to compress the process of fashion business and build direct connection between brands and consumers, rather than only passing through buyers and the traditional media.

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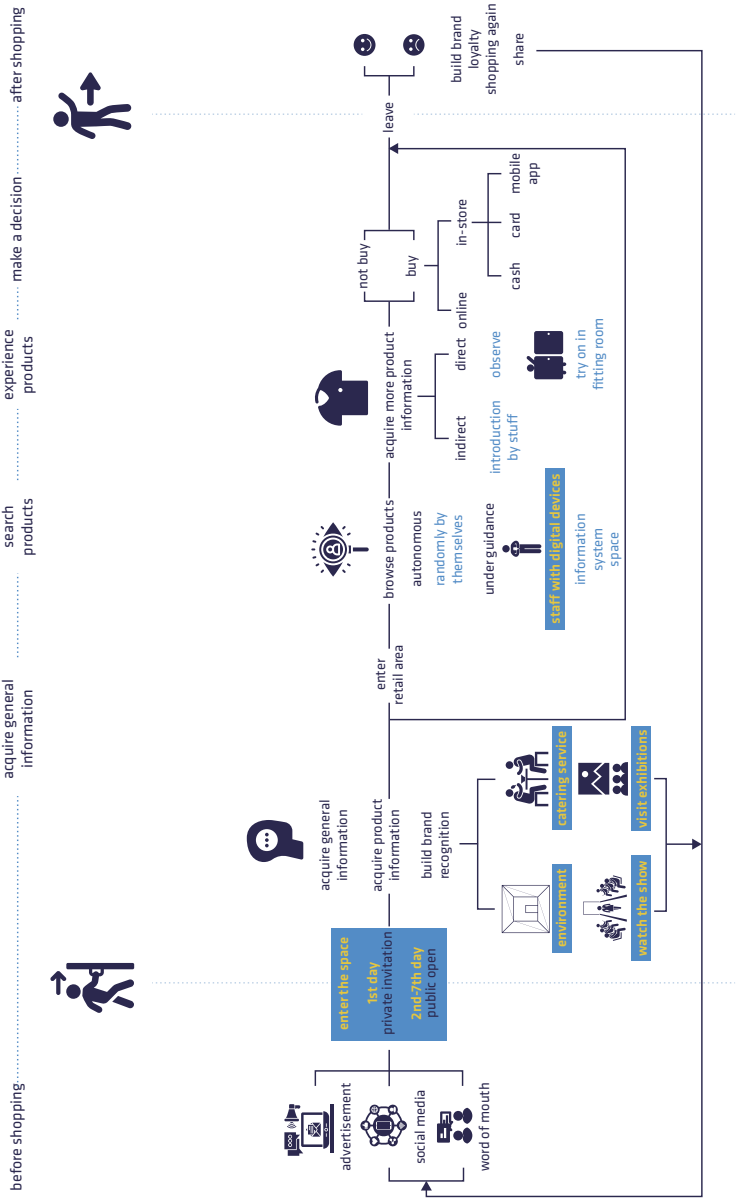

Fig. 12 - User experience journey of Shop the show_fashion

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6.1.4. Exhibition for Sale (Curated store) _fashion

Area: 100-200 m^2
Business hours: 9:00-21:30

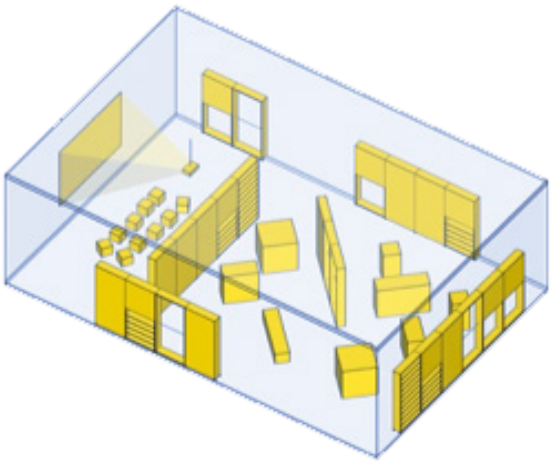

Fig. 13 - Space prototype of Exhibition for sale_fashion

Exhibition for sale is a retail space that takes the viewpoint of magazine and gallery. The type uses store as media, brands as sponsors, products as part of the curated content, a central theme that changes periodically.

Iteratively in-store exhibition is a way of generating and communicating differentiation and to satisfy consumers' interest in newness and excitement, thereby elevating their brand through merchandising and experiences, attracting consumers back to the store repeatedly.

Simulating an exhibition hall, the retail space full of movable walls, display racks and digital media devices, the layout changes periodically. It juxtaposes both culture contents and products, showing the mix of information through different media, including physical objects, texts, images and videos.

Exhibition for sale is used by some established brands or third-party brands (not own by themselves), who keep a flexible retail strategy and plan to continually generate creative narrative.

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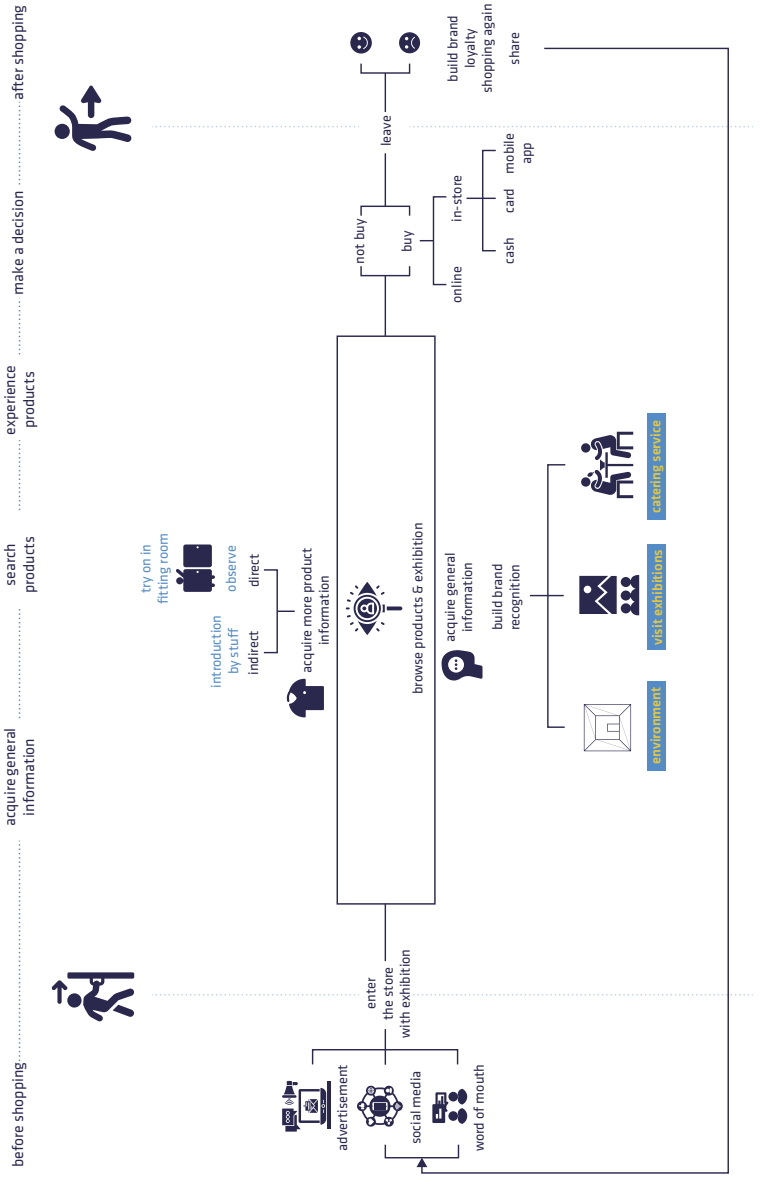

Fig. 14 - User experience journey of Exhibition for sale_fashion

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6.1.5. Pop-up store_fashion

Area: 20-100 m^2
Business hours: 9:00-21:30

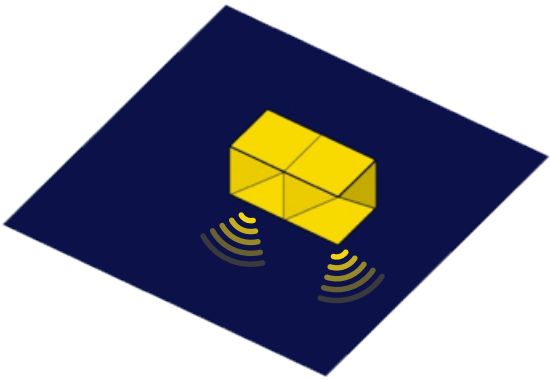

Fig. 15 - Space prototype of Pop-up store_fashion

In traditional fashion retail process, the consumer finds what they want. In contrast, through these new retail space type, the product finds the consumer.

These temporary space functions as ice-breaking showrooms where people can engage the brand or try out its products for the first time. In the new context, people are not pressured to spend money and thus visit more easily. If consumers decide to purchase the product next time, they will buy it from other shopping venues, such as local stores, discount stores, or internet shopping.

The ephemeral and moveable spaces are able to achieve high impact and seen by a large audience with low costs. The relationship between the retail space and context is the key. The context should be a place where the retail can meet their target audience. As the same time, there should be contrasts between them, in order to attract people's attention and offer memorable shopping experiences. Furthermore, the outside appearance is often an eye-catching and semi-enclosed structure, since unlike other type with strong motivation to enter, this type needs to stimulate people's curiosity to enter. In addition, the space is usually designed to be easily assembled or disassembled with light materials.

These are the suitable types for new brands and startups to test the market, established brands to do new products promotion, experimental events and explore new market, or e-commerce retailers to elevate the brand credibility.

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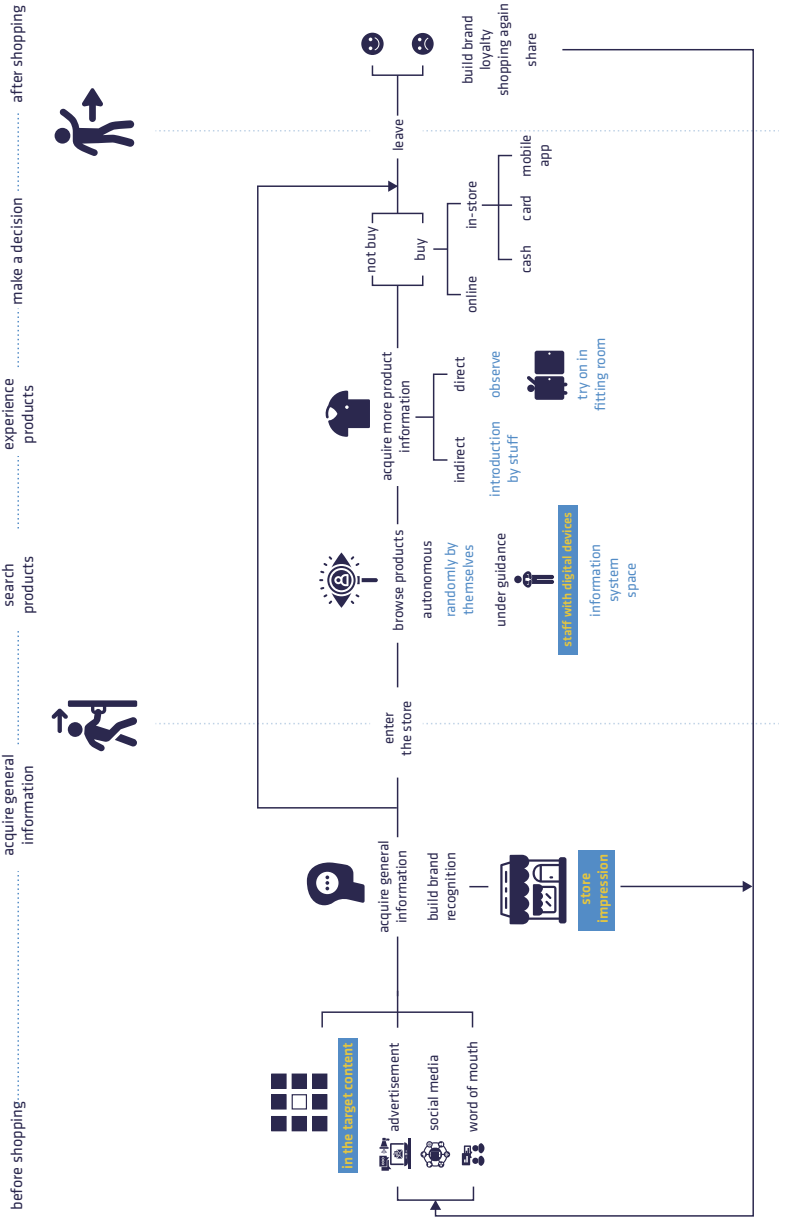

Fig. 16 - User experience journey of Pop-up store_fashion

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6.1.6. Dressing room_fashion

Area: 200-350 m^2
Business hours: 9:00-21:30

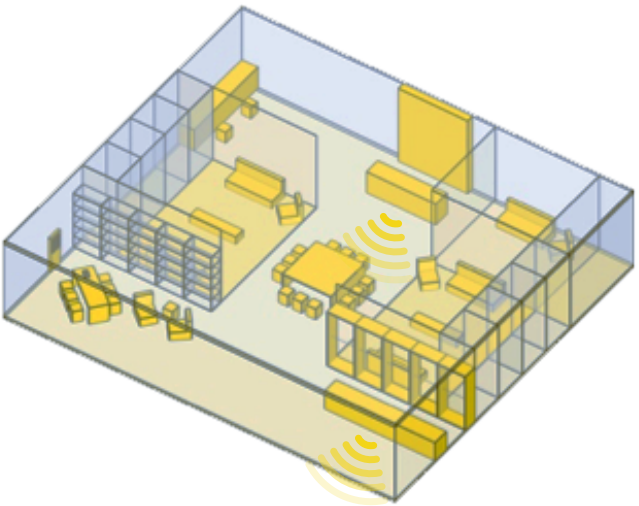

Fig. 17 - Space prototype of Dressing room_fashion

Dressing room is clothing store that stocks no clothes, instead they provide many customer amenities, such as buy online & pick-up in store, curbside pickup, tailoring, and drop-off returns, also including clothing donation drop-off, personal stylist, complimentary refreshment, trunk club service, nail service. It functions as a one-stop local service hub, increasing the consumer's reliance on it.

This type is utterly different from the conventional stores, because of the absence of inventory. The space is composed mainly two parts: a flowing public space seems like a club, several service spaces leaded by a bar with wide communication areas; dressing rooms around the open space, doubling or tripling the size of normal one.

It works as an essential complement to e-commerce, releasing the product searching and buying process from the in-store space, emphasizing the irreplaceable part compared with online retail, in terms of product experience, services and interpersonal communication.

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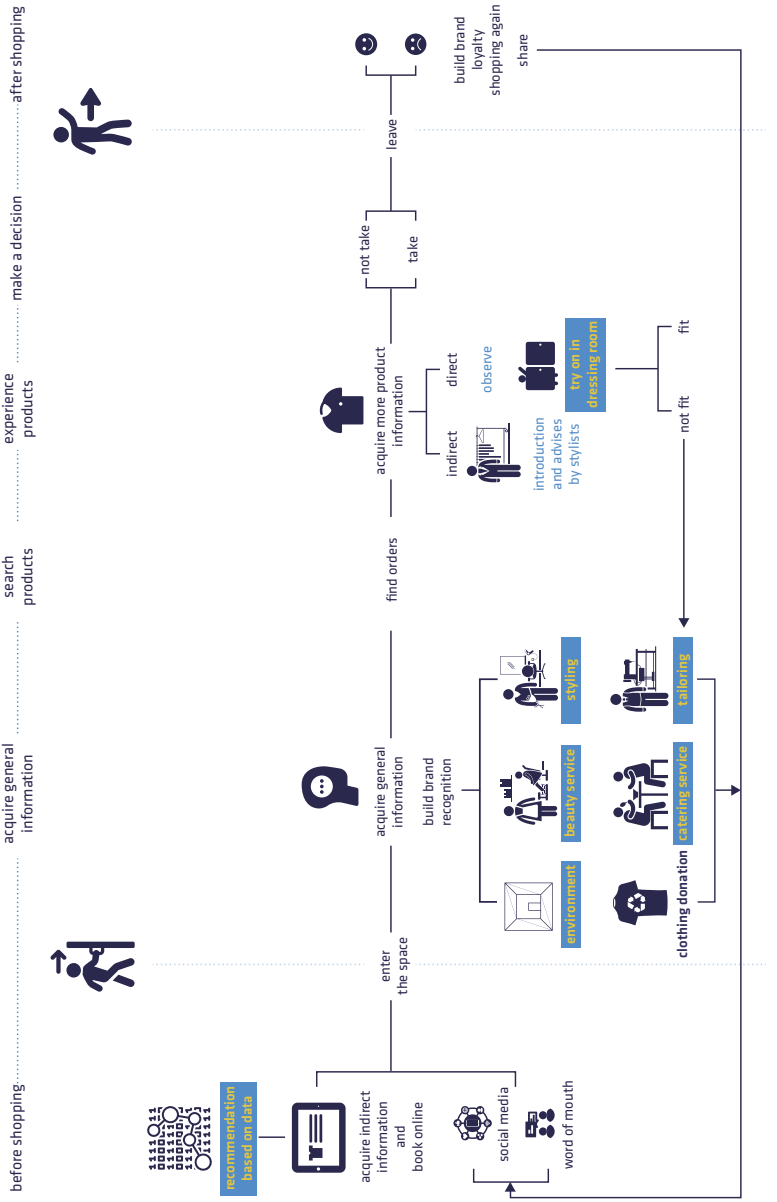

Fig. 18 - User experience journey of Dressing room_fashion

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6.1.7. Bespoke suit shop (Tailor shop) _fashion

Area: 180-300 m^2
Business hours: 9:00-21:30

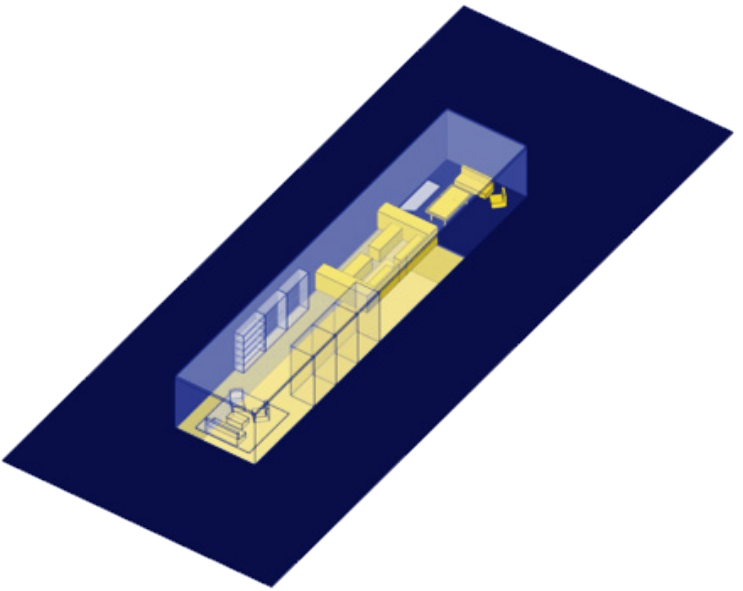

Fig. 19 - Space prototype of Bespoke suit shop_fashion

Bespoke suit shop is one of the most traditional clothing store type, which has achieved its survival, by highly personalized services.

Unlike other types with randomness in the consumer path, especially in the product searching stage, in a bespoke suit shop, almost all consumption experiences under the guide of staff, and thus the space is organized with strong orders suggesting the process of customization.

Front of the space is entry hall for reception and display, followed by the dressing rooms for measurement. The main workshop is at downstairs or upstairs in general. However, in order to emphasize that customization remains the core of the store, the cutting tables is located in the center of the ground floor, therefore cutters and coat makers work in full view of clients. In the rear of the store usually incorporates a private club with classic furnishings for relaxation and communication, such as snooker table or fireplace, creating a sense of belonging for consumers.

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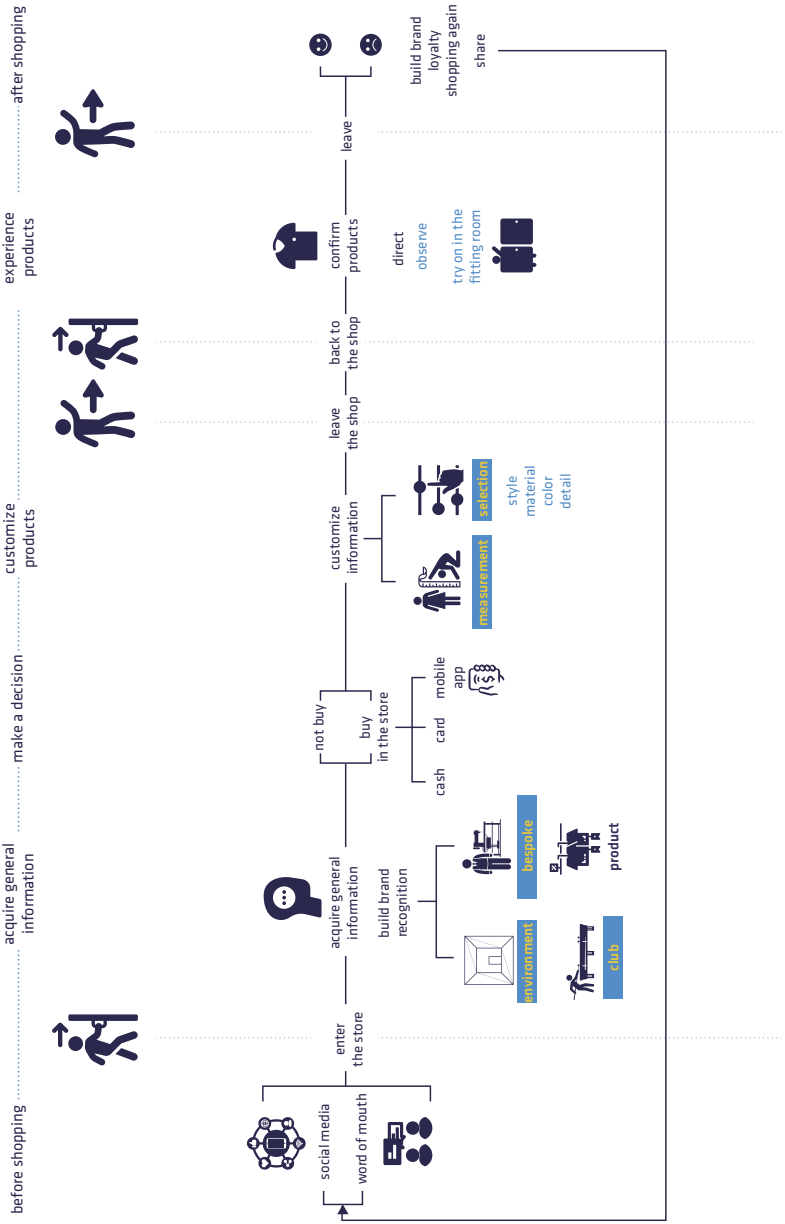

Fig. 20 - User experience journey of Bespoke suit shop_fashion

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6.1.8. Treasure hunt (Outlet) _fashion

Area: 3,000-8,000 m^2
Business hours: 9:00-21:30

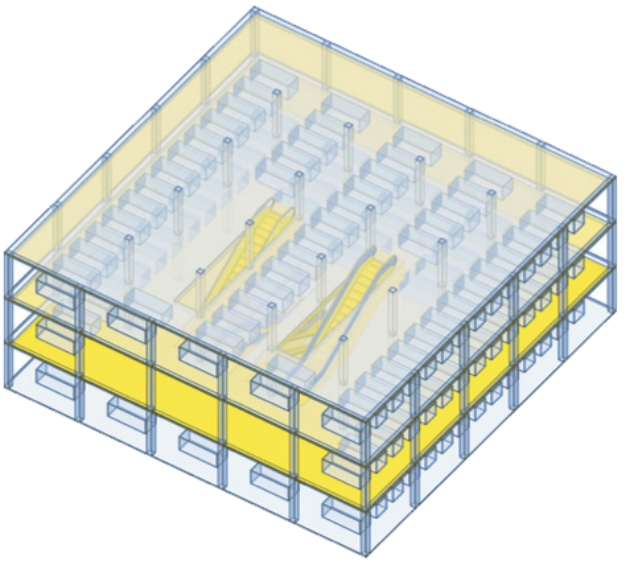

Fig. 21 - Space prototype of Treasure hunt_fashion

Treasure hunt is a common type for off-price retailers, who focus on delivering abundant products to consumers at bargain prices efficiently.

Selling products of third-party brand, the brand advertising is not part the marketing strategy of treasure hunt, since the suppliers want to protect their brand value, do not want to propagate those products are available at low prices, which is also the reason why many brands refuse to sell their glut of merchandise online.

The majority of these stores were large scale, a multistory building equipped with escalators and elevators. In order to help the consumer finds what they need from the huge quantities of products, the spatial logic and information system should be easily comprehensible. The typical shopping mall or department store is locked into a floor plan dominated by big brands, while treasure hunt mixes brands on the same rack, giving it more flexibility.

For releasing stress and fatigue of searching products, the strategy based on senses is also used. The enriched supply of oxygen, faint clouds of ozone molecules, relaxing scent, or music are pumped through the technical systems.

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These stores are interesting because they live a very active digital life on social media. They are linked to a very structured logistics and communication networks for both products and bargains that is often so extensive that it is part of the outlet tourism phenomenon that moves yearly hundreds of thousands of consumers.

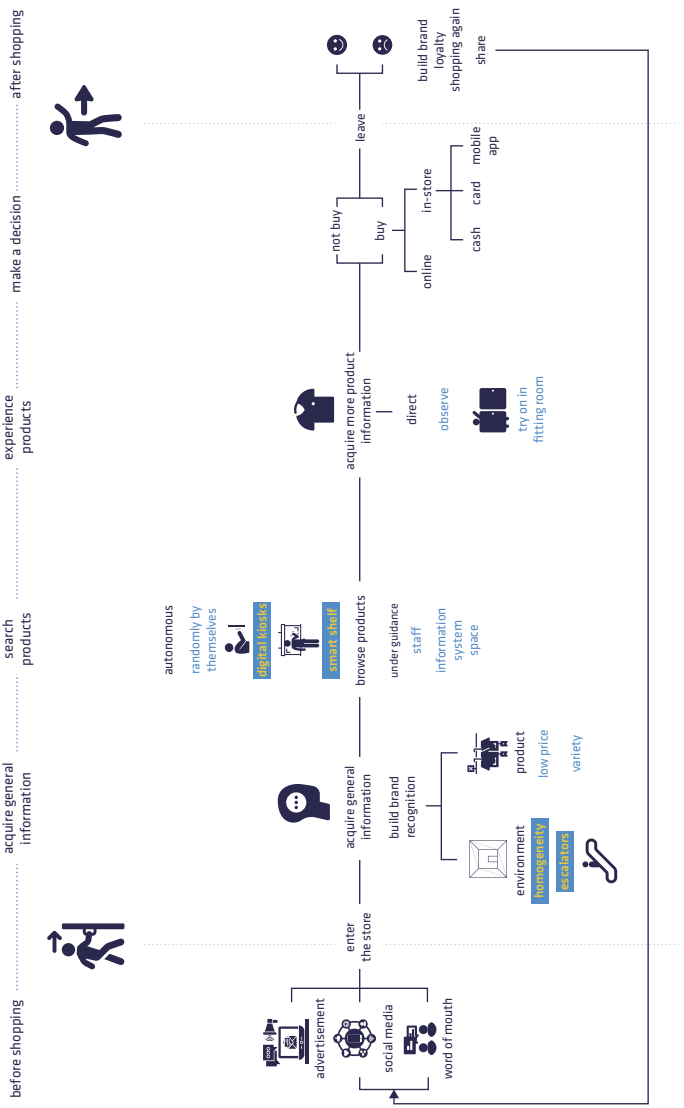

Fig. 22 - User experience journey of Treasure hunt_fashion

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6.1.9. Live-streaming space _fashion

Area: 4-12 m^2
Business hours: 24/7

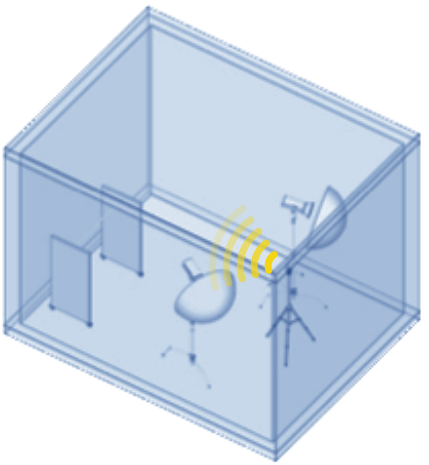

Fig. 23 - Space prototype of Live-streaming space_fashion

Live-streaming space exists on the basis of the mobile application platform. The platform combines e-commerce with live broadcasting and aims to directly convert viewing to purchasing.

The mobile application platform is intangible space for consumers to complete the selection process. Watching product broadcasting is like hanging out in a mall, the way they change channels is similar to browsing through different stores in the mall. During the process, virtually face-to-face communication between live streamers and consumers, makes consumers feel more connected.

Live-streaming space seems like a makeshift studio, including grey walls in simulation materials, a blackboard with some basic information, a rack full of clothes, low quality decorations, lights and equipment for live streaming. Even for the top live streamer, the situation is similar, a raw space to meet the basic needs for live streaming. Instead of space or environment information perceived from the small phone screen in 2D, audiences focus on the introduction of products and communication with live streamer.

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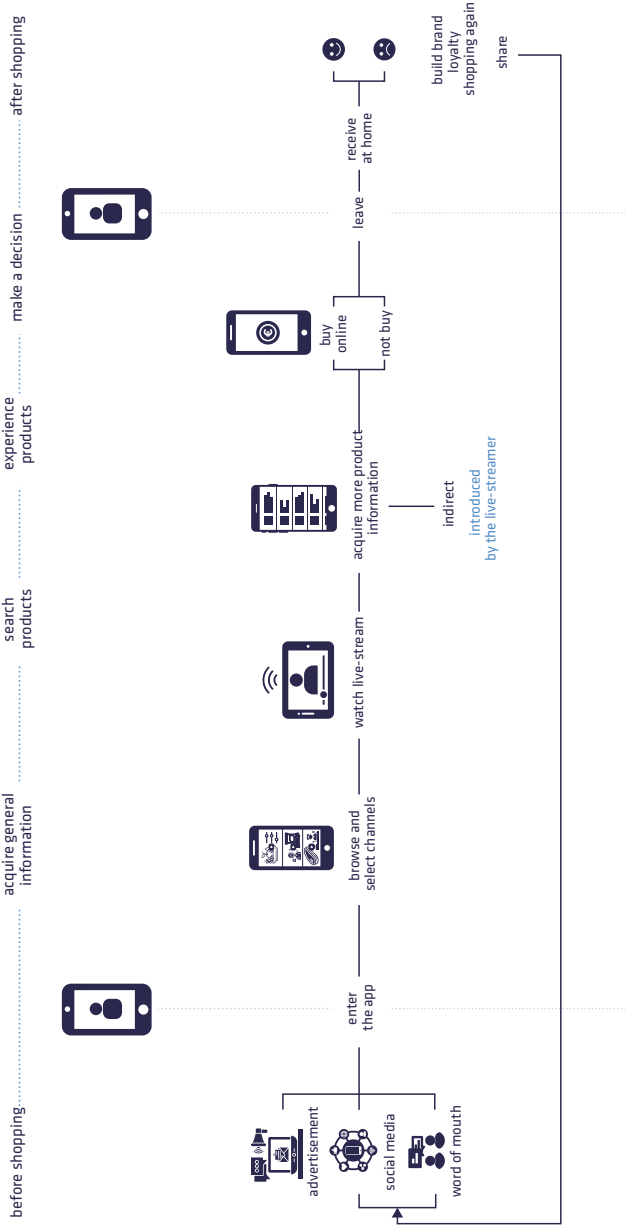

Fig. 24 - User experience journey of Live-streaming space_fashion

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6.1.10. Wardrobe in Context _fashion

Area: 1-2 m^2
Business hours: 24/7

Fig. 25 - Space prototype of Wardrobe in context_fashion

Wardrobe in context is based on the immediate needs for clothes in certain occasion, due to unforeseen weathers or plans. The retailer pre-fill the wardrobe with products which suits the context.

The wardrobe is often semi-opened, without door, or with doors in eye-catching colors, for attracting the attention of potential consumers.

It mainly runs without staff, thus it usually cooperates with the third party, like hotels or gyms, for a few steps such as checking out, checking the inventory and size exchanging.

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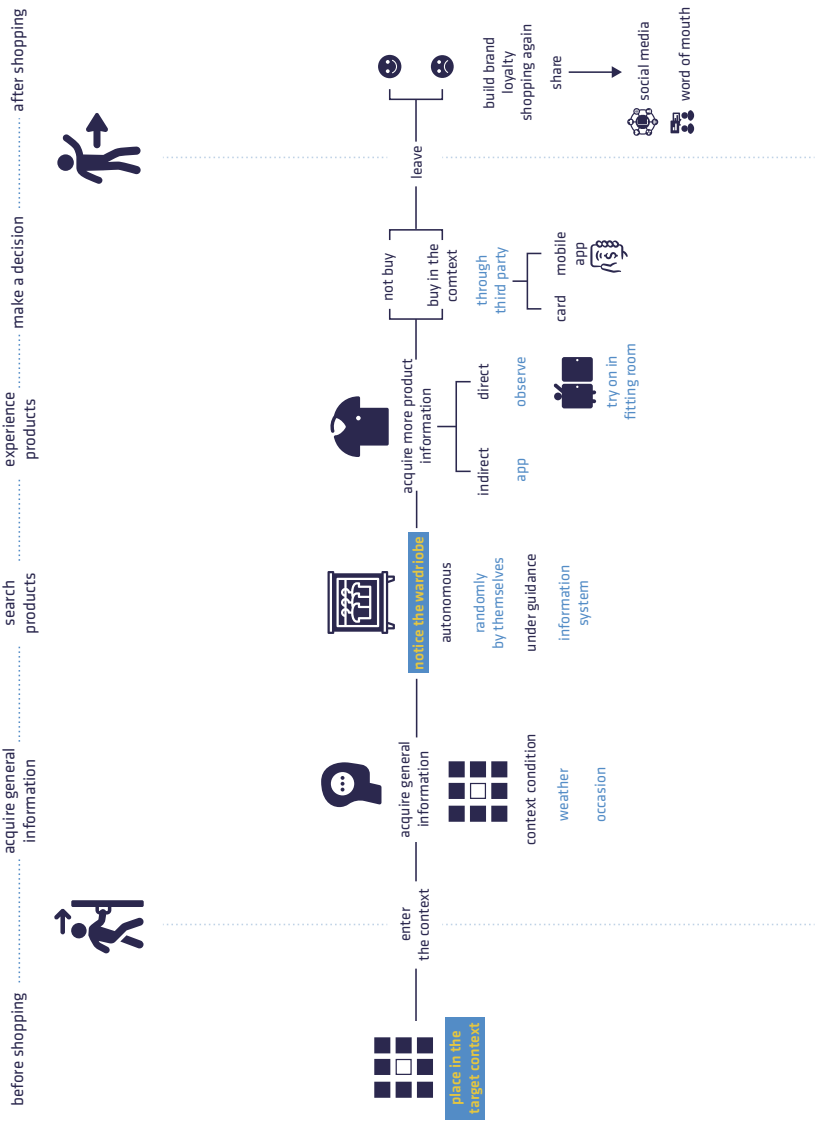

Fig. 26 - User experience journey of Wardrobe in context_fashion

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6.1.11.Self-service space (Fast) _fashion

Area: 2-6 m^2
business hours: 9:00-21:30

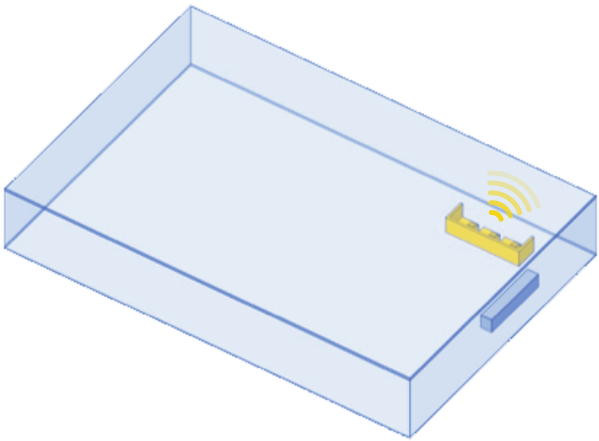

Fig. 27 - Space prototype of Self-service space_fashion

Self-service space is a new added space type in some stores of fast fashion brand. Self-check-out space enable consumers to scan, bag, and pay for products without any need to interact with a cashier. Customers thus gain control, released from long queue; retailers enjoy reduced labor costs from the fewer number of cashiers required.

In general, it is an open or semi-enclosed space located near the traditional counter for being noticed easily.

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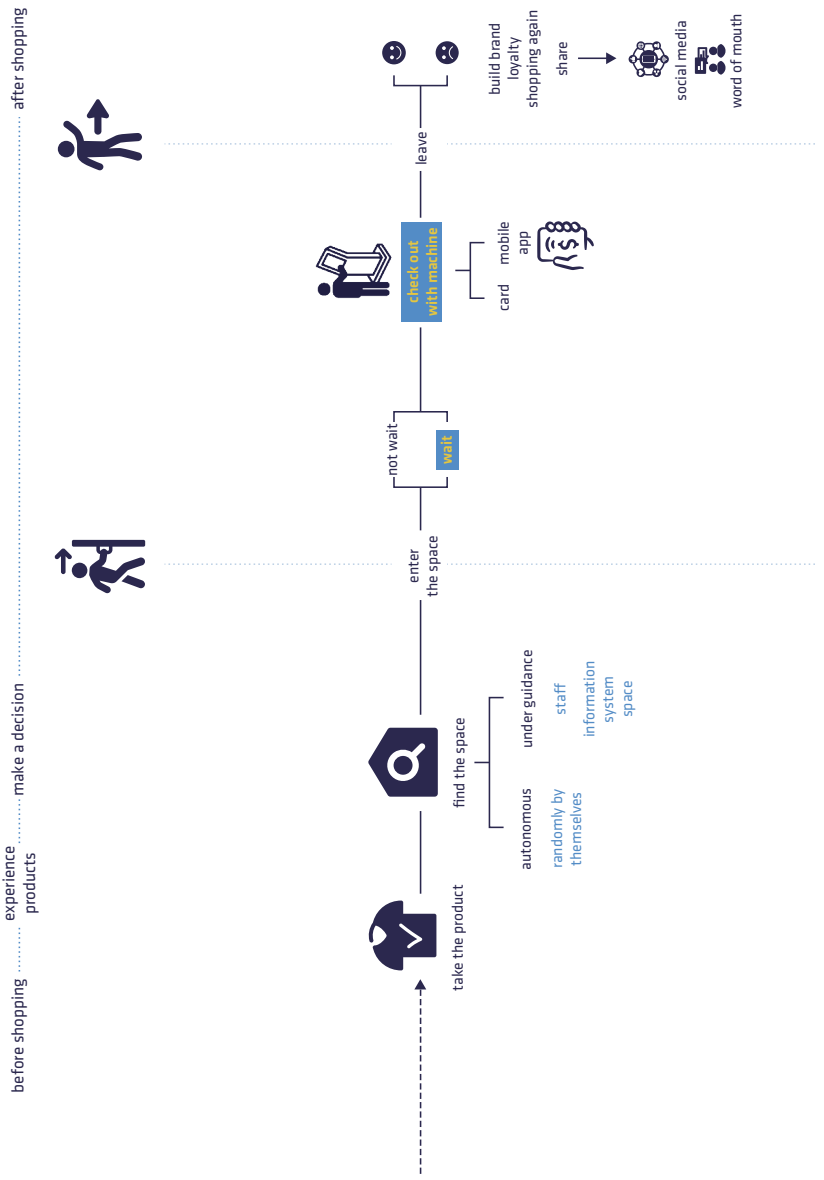

Fig. 28 - User experience journey of Self-service space_fashion

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6.1.12. e-commerce kiosk _fashion

Area: 8-30 m^2
Business hours: 9:00-21:30

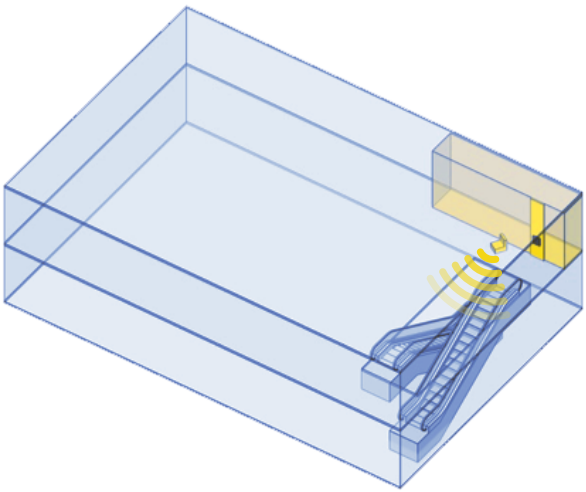

Fig. 29 - Space prototype of e-commerce kiosk_fashion

e-commerce kiosk is an automated *click-and-collect* system, as a strategy of integrating offline stores with the online world. Customers shop online and will receive a notification about its arriving, then they can proceed to the location to pick up products at leisure.

It occupies a small volume in the store, ranging from 8 to 30 square meters, with the capability of containing 266 to 4.000 packages. It is located at the rear or top floor of the store, to seize the possibility of making customers browse more products and spend more money. Besides, there is usually a display area of new series next to it. As the same time, for not becoming an annoying strategy, it is next to the elevator or escalator which helps consumers found it easily.

e-commerce kiosks suits the retailer who are developing omnichannel-based synergies.

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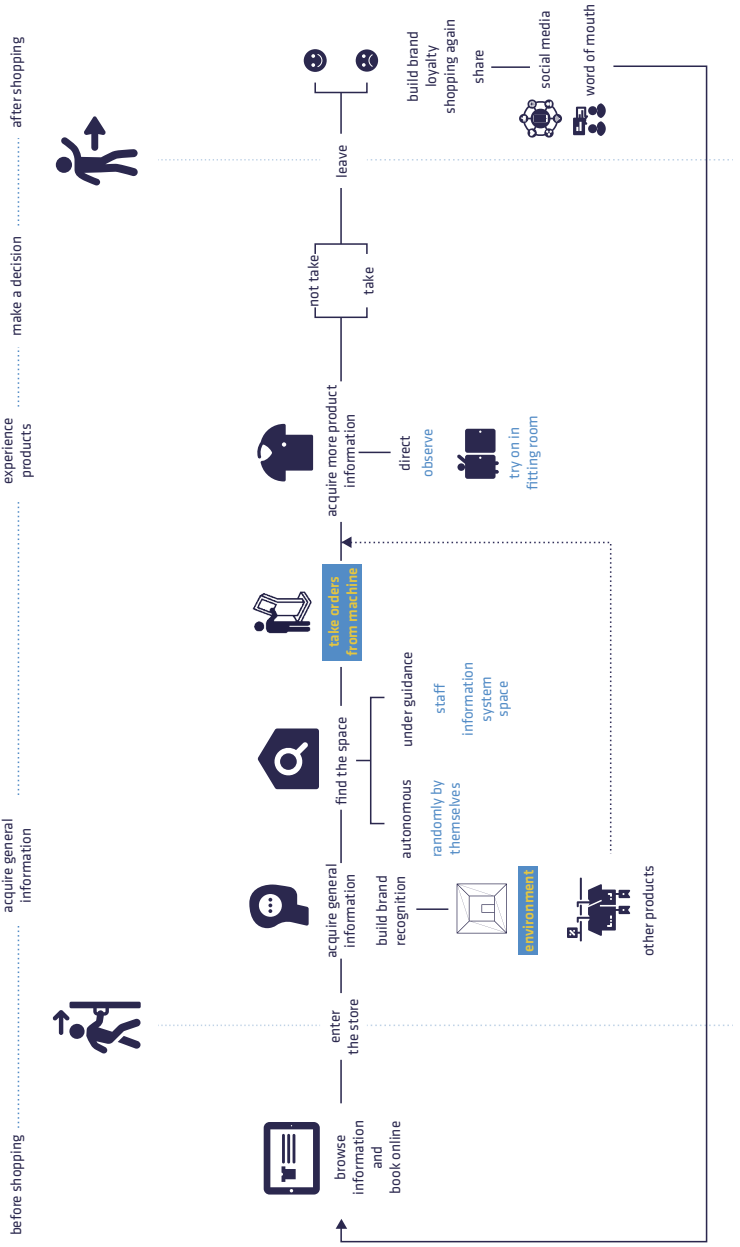

Fig. 30 - User experience journey of e-commerce kiosk_fashion

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6.2. Comparison between fashion stores

type	store type	exsist store	space stability permanent-temporary ○●	business hour short-long ○●
Experience	Experience retail space	10 Corso Como (Milan)	○○○○○○○○●●	○○○○○○●●●●
		Globetrotter (Cologne)	○○○○○○○○○○	○○○○○●●●●●
	Smart retail space	Kerr&Kroes (Shanghai)	○○○○○●●●●●	○○○○●●●●●●
		Burberry (London)	○○○○○○○●●●	○○○○○●●●●●
Temporary event	Shop the show	Burberry (London)	○○○●●●●●●●	○○○○○○●●●●
	Exhibition for sale	Deuxieme Classe (Tokyo)	○○●●●●●●●●	○○○○○●●●●●
		Story (US)	○○○○●●●●●●	○○○○●●●●●●
	Pop-up store	Louis Vuitton (Los Angeles)	○○○○●●●●●●	○○○○○○○●●●
		H&M (The Hague)	○○●●●●●●●●	○○○○○○●●●●
Quality service	Dressing room	Nordstrom Local (Los Angeles)	○○○○○○○○○○	○○○○○○●●●●
	Bespoke suit store	H. Huntsman & Sons (London)	○○○○○○○○○○	○○○○○○●●●●
Time and cost efficiency	Treasure hunt	TJX (US)	○○○○○○○○○○	○○○●●●●●●●
	Live-streaming space	Taobao Live (China)	○○○○○○○○○○	●●●●●●●●●●
	Wardrobe in context	Pimkie International (Milan)	○○○○○○○○●●	●●●●●●●●●●
	Self-service space	Zara (UK/ Spain)	○○○○○○○○○○	○○○○○●●●●●
	E-commerce kiosk	Zara (La Coruna/ London/ Milan)	○○○○○○○○○○	○○○○○●●●●●

interaction real-digital ○●	space funtion sale-experience ○●	sense involed single-multiple ○●	staff service sale-various ○●	storage space abundant-scarce ○●
○○○○○○○○○●	○○○●●●●●●●	●●●●●●●●●●	○○●●●●●●●●	○○○○○●●●●●
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Fig. 31 - Comparison between fashion stores

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6.3. Analysis_fashion stores

Characteristic analysis of fashion retail types

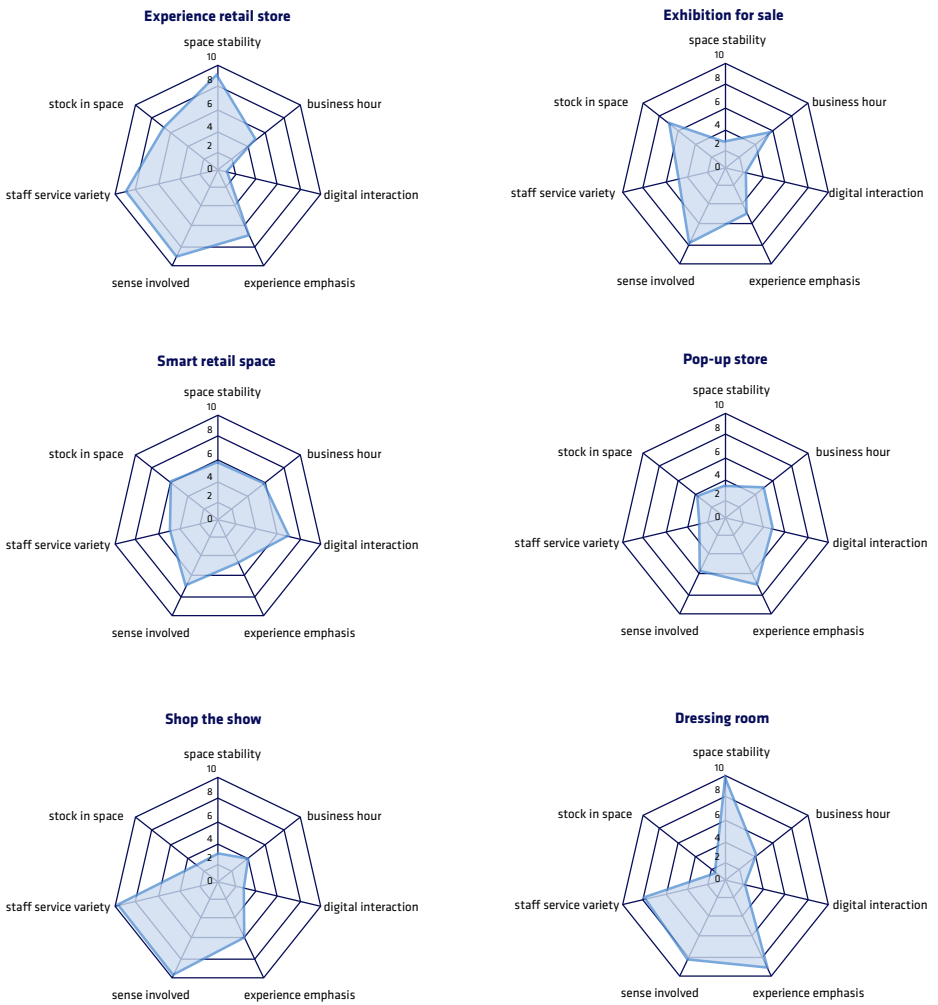

Fig. 32 - Characteristic analysis of fashion retail types, part1

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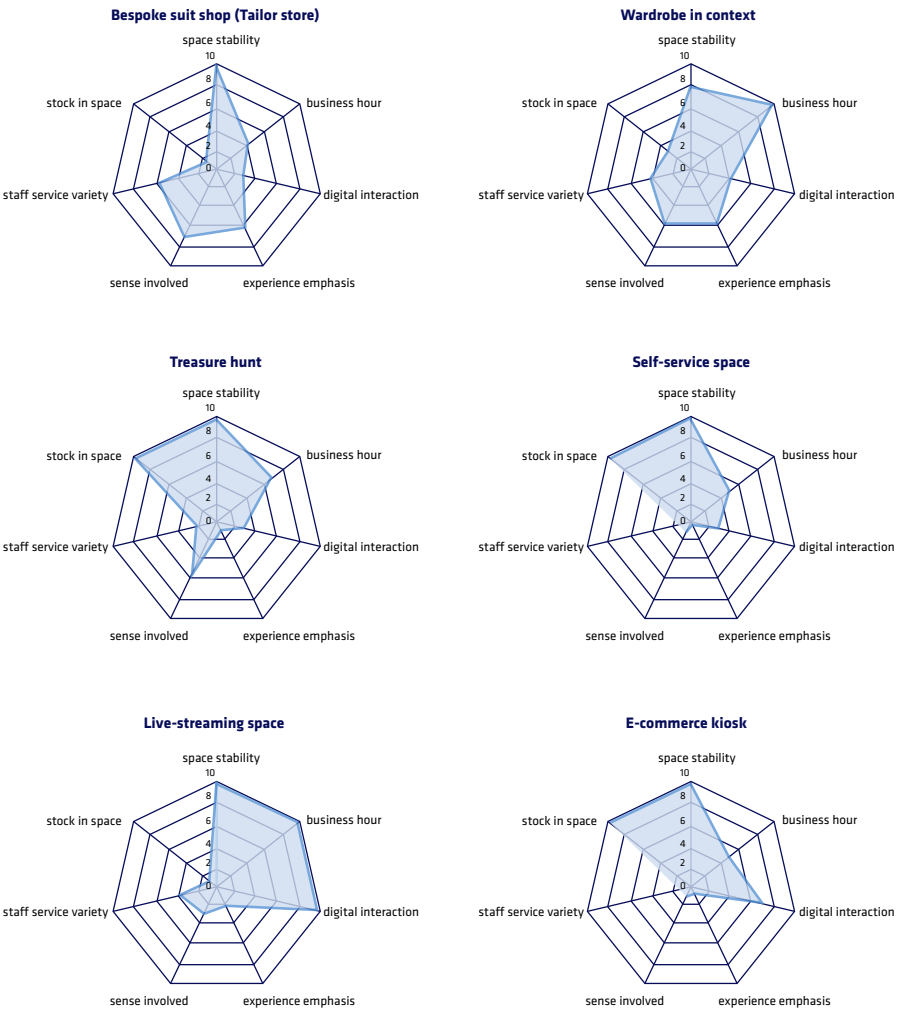

Fig. 33 - Characteristic analysis of fashion retail types, part2

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7. Sport stores

A term coined by Norbert Elias to describe the process whereby popular cultural activities, or folk games, were changed by the development of codes of conduct and rules, and by changing conceptions of the acceptable limits of violence. Elias referred to the "sportization" of past times as a shorthand for their transformation in English society into sports and the export of some of them on an almost global scale. (Dunning, 1986)

Physical education and fitness have been described as "induced sports". (van Hilvoorde, 2008) In other words, they are generally organized by state organizations and are intended to reinforce the strength and health of the state's population. Health policies are being developed to reduce diseases such as high blood pressure, coronary artery disease, and diabetes.

The ideology of "healthism" also places heavy emphasis on personal responsibility. Fitness is not just a matter of individual health choices; it has become a matter of social status. It is a tool for distinction and individual comparison. Fitness helps to construct an identity. Fitness represents a dream of absolute health. "The body has become a system of differentiation. The body has become its own garment. The fashion is called fitness". (de Wachter, 1984)

The fitness industry has been successful in combining elements of traditional sport and cosmetic industries; it successfully blends the pursuit of flexibility and good health with moral, aesthetic, and commercial imperatives.

There are four categories that encapsulate the typical demands of a sports shop: body building, nutrition, education and fashion.

Sport and health retail combined fashion could be explained as Athleisure. Athleisure is a trend in fashion, in simple summation = Athletic + Leisure, in which clothing designed for workouts and other athletic activities is worn in other settings, according to Merriam-Webster, the

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definition of athleisure is casual clothing designed to be worn both for exercising and for general use. Such as at the workplace, at school, or at other casual or social occasions. Athleisure outfit, that "look like athletic wear", is characterized as "fashionable, dressed up sweats and exercise clothing". (Di Blasio, 2015)

The idea is that gym clothes are supposedly making their way out of the gym and becoming a larger part of people's everyday wardrobes. A new market began to emerge where active clothing can swiftly be turned into casual and leisurewear clothing.

The rise of athleisure is more than a fashion trend, more than the sum of the parts: sports, urban, and fashion trends. It has become more than a trend because it is a complete lifestyle.

In this context, increasing digitalization plays a key role. In fact, many brands have decided that instead of seeing digital as a challenge to be resisted, it would be more interesting to gamble on this integration that would give stores new dimensions, shapes and mandates.

The big sport retailers are in fact leaving the traditional design, which are similar to sporting goods supermarkets, for a store's strategy that does not include to display as many products as possible on a large scale, but to display products on shelves in part[1], while combining digital applications, online and offline stores to provide consumers with a variety of in-store experiences[2].

A digital area is mainly reserved for action games[3] and making online order[4], focus on providing more digital interactive experiences for the consumers.

[1] For an example, store layout, Decathlon Connect, see the link: https://retaildesignblog.net/wp-content/uploads/2016/03/Decathlon-Connect-store-by-kplus-konzept-Munich-Germany.jpg, and https://d1tm14lrsghf7q.cloudfront.net/public/media/16264/conversions/14082-thumb.jpg

[2] For an example of Decathlon Connect, the store installed digital game feature inside, see the link: https://kplus-konzept.de/wp-content/uploads/2017/09/kplus-konzept-m%C3%BCnchen-decathlon-connect-web-3.jpg

[3] For an example of action games, see the link: https://retaildesignblog.net/wp-content/uploads/2016/03/Decathlon-Connect-store-by-kplus-konzept-Munich-Germany-04.jpg

[4] For an example of digital tablet offering product information and odering service in the store, Decathlon Connect, see the link: https://d1tm14lrsghf7q.cloudfront.net/public/media/16275/conversions/14088-thumb.jpg

About the project: name of project: Decathlon Connect, format: Sporting goods store, location: München,Germany, store category: Urban store, size of store: 220m^2, first opening: 2016, average visit time: 30 minutes, designer: Kplus Konzept.

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Even the traditional retail areas, which is the biggest zone usually in the store, displayed sporting apparel and accessories, in addition to the traditional island and wall shelf display, also set up the digital display wall and touchscreens for hero-products. Due to the limitation of the space size, the displayed product selection is usually based on the purchase data of customers, which provide the convenience for most of the customers to find their expected products.

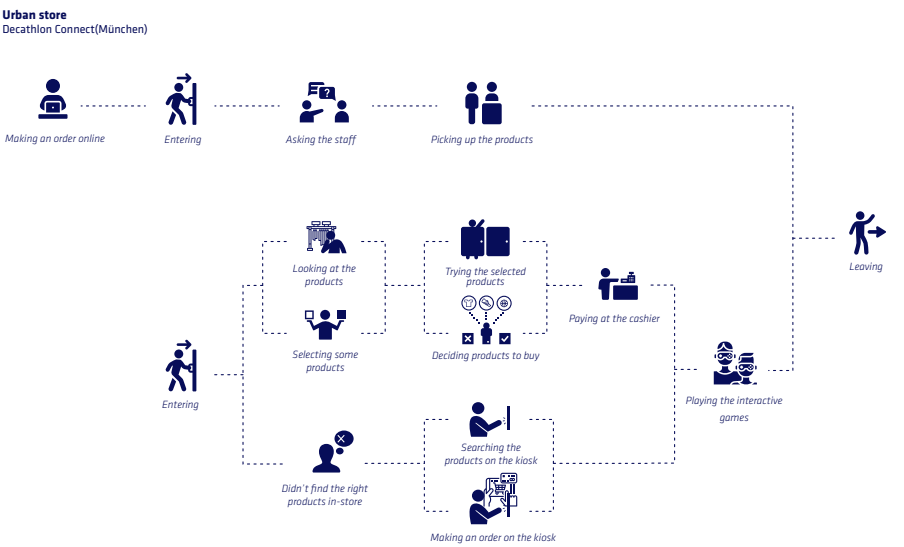

Fig. 34 - User journey of Decathlon Connect

The immersive dimension becomes more and more present with additional brand experiences, where consumers could experience the popular sports disciplines, using the in-store products.

The checkout procedure of this kind of store is still based on the traditional manual checkout. As for the pick-up area, although the store adapted omni- channel retail, the function implementation of click & collect is still based on the stuff's service.

Digital use in physical spaces can be traced back to various activities: search for products and make orders on the tablets in the store; take online orders in the store; shopping and experience whole the stories in the store and different kind of path/user journey: reserve in store to deliver; shopping in store; only pick up the online order[5].

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A significant relationship between digital and space is the one introduced by the interaction with APPs that allow you to buy the product before and have them held in one of the lockers in-store to pick them at a later time, or to scan-to-try allowing customers to scan items as they visit the store for having delivered in a fitting room waiting or more specifically, customers can arrive in this floor to find a locker with their name on, which can then be unlocked via their smartphone. This is designed for local consumers to get what they want to improve the shopping efficiency and saving time.

Digitized payment systems certainly also reshape the spaces of check-out offering customers the option to pay through their mobile phone, while in-store, rather than wait in cashier lines. App users can schedule appointments with in-store specialist to receive product recommendations and advice. Furthermore, through the in-store Labs, customers could design their own products while receiving recommendations from designers.

The core of this kind of concept store is to bring digital driven sports retail innovation, design and personalized service, integrating digital and offline services through experiential environment design.

In-store applications are:

- Digital display screen
- Personalization
- Instant check out
- Scan to get information
- Reserve online, pick up in store
- Event organization
- Scan and try
- Find in store

Sports shops are focusing on the emerging trend of retailers who are attempting to attract more customers to their stores as more and more sales continue to happen online.

[5] For an example of pick-up lockers, Nike House of Innovation 000, see the link: https://static.dezeen.com/uploads/2018/11/nike-house-of-innovation-000-new-york-flagship-store_dezeen_2364_col_15-852x568.jpg

About the project: name of project: Nike House of Innovation 000, format: Sport and apparel store, location: New York, US, store category: Flagship store, size of store: 6,400m^2, first opening: 2018, average visit time: 60 minutes, designer: Nike design team

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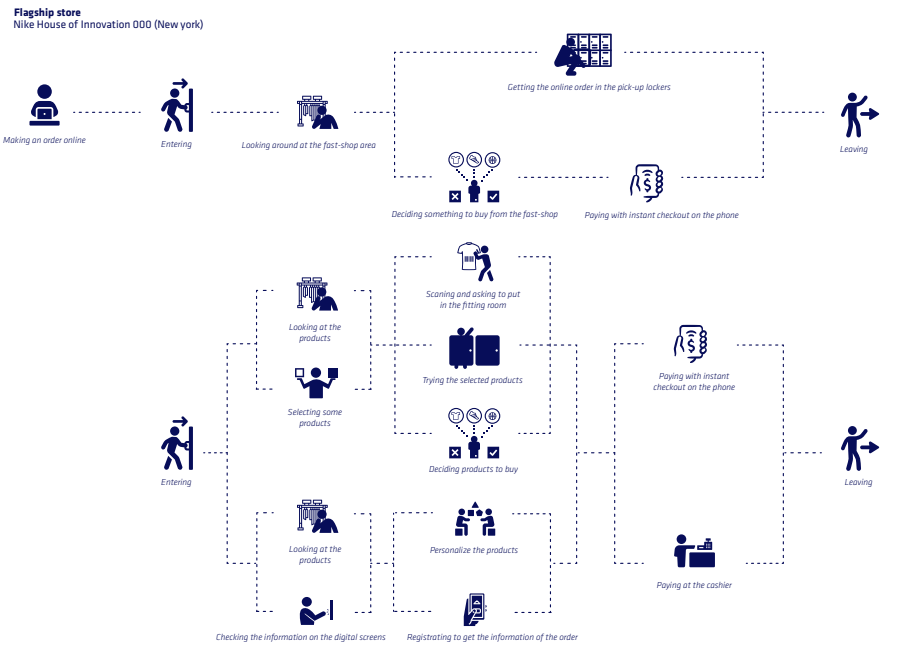

Fig. 35 - User journey of Nike House of Innovation 000

The experiential model has increasingly been considered in the digital age, when companies are throwing more money behind a fusion of retail and entertainment offerings[6] instead of just selling products and building community[7] through connection, both online and offline.

Some formulas radicalize the relationship between analogue and digital space, such as the digital kiosks whose experience and potential are still at the beginning, but which may represent a frontier in the evolving relationship between point of sale and brand. These are vending machines

[6] For an example, Lululemon Chicago flagship store featured a meditation room to provide more sporting activities, see the link: https://images.lululemon.com/is/image/lululemon/gbl_july19_ExpStores_LincolnPark_Meditation_Hero_FINAL

[7] For an example, Lululemon Chicago flagship store featured a dining area with digital kiosks, considered the user to recover and have a socail area after work-out, see the link: https://cdn.vox-cdn.com/thumbor/dT1i8oCiC5F2ZZgPhntDppp9h34=/1400x0/filters:no_upscale()/cdn.vox-cdn.com/uploads/chorus_asset/file/18301914/blb14635_48248969896_o.jpg
About the project: name of project: Lululemon Chicago flagship store, format: Sporting goods and lifestyle store, first opening: 2019, location: Chicago,US, size of store: 1,860m^2, average visit time: 60 minutes, store category: flagship store, designers: 555 International

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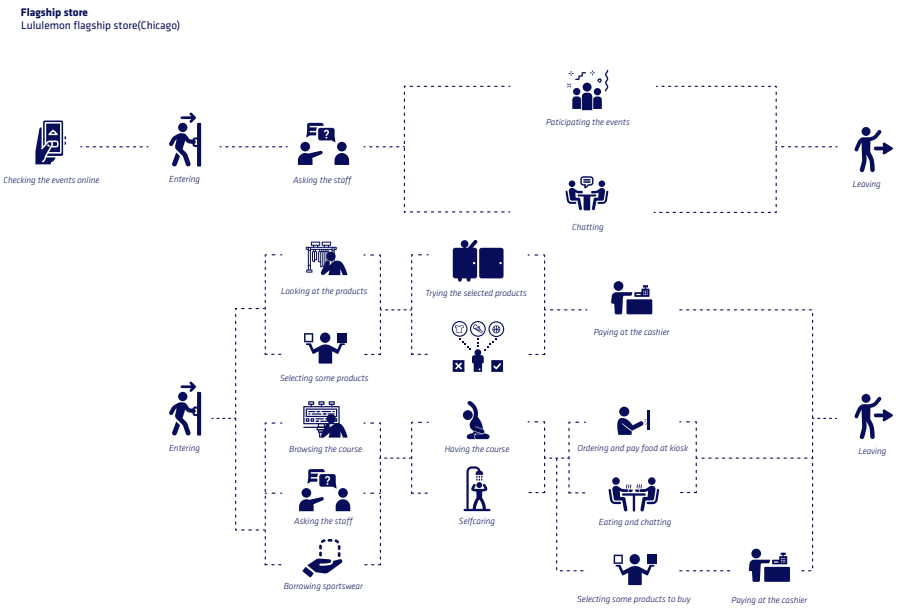

Fig. 36 - User journey of Lululemon Chicago flagship store

located in urban contexts that are used for limited edition or exclusive products that can only be found through the brands' social media and word of mouth. In the most extreme cases of some brands, these are distributors that work by using the loyalty points, that customers collect by doing sports or other activities.

If the customers have earned points, they can trade them in at the vending machine[8] for gear such as socks and T shirts, or even a SportWatch. The characteristic of kiosks is that they often are not fixed in one place, in the traditional sense of the vending machine of self-service mode, it is in random streets, temporary and movable, it is more of incentives and create diversified shopping experience, in the meanwhile encourage users to create better sport habits, it is a combination of mobile technology, self-service and settlement of short-term flexible retail units.

[8] For an example of Nike Fuelbox vending machine, see the link: https://images.fastcompany.net/image/upload/w_1280,f_auto,q_auto,fl_lossy/fc/3033577-poster-p-1-nike-fuel-currency.jpg
About the project: name of project: Nike Fuelbox vending machine, format: Sporting goods vending machine, location: New York, USA, store category: Self-service vending machine, size of store:1m^2, first opening: 2014, average visit time: 5 minutes, designers:Huge (Brooklyn) and Nike design team

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Digital experiences also involve the experience of entering shops, which in some using motion sensor cameras, the main window display at the store entrance can identify the gender and approximate age of a passerby and intuitively recommend appropriate products. The interface also can display a QR code that the customer can scan to order the recommended products from their phone. Upon entry, customers experience their first interaction with the store through the main window display, which identifies basic physical indexes and subsequently recommends products for the customer. The window is as a 24-hour fad machine which actively engages with passersby. QR codes are also available for customers to make purchases and acquire coupons.

This also involves technology AI based for cloud shelf[9], an interactive digital wall that stores information on a large amount of goods for consumers to select from. Once a customer takes a product off a smart shelf, information about sizes, colors and function will pop up on an interactive wall screen. Through a cloud shelf, customers can also see and learn about products that are not on display. This virtual space expands the available product assortment by four times that which is in the store. With the cloud shelf, this huge number of products are presented to consumers at once, greatly extending the effective display space.

The data intelligence collected in the store will also help the brands to gain valuable consumer insights and continuously enhance its product range and services. This is a revolutionary concept, which merges the best offerings from both online and offline and supports retailers to accelerate their digitalization process. It envisages retailers of the future using consumer insights generated on different platforms to develop informative and entertaining content for Omni-channel delivery.

AI shopping assistants and smart mirrors, all equipped with built-in 3D sensing cameras can recommend fashion advice to complete a customer's look.

Interactive screens are installed in the midst of walls, providing abundant information once a customer takes a bluetooth-connected product off the smart shelf. More importantly, the additional virtual storage of cloud shelves

[9] For an example of AR engagement and smart shelf at Intersport Beijing, see the link: https://jefftowson.com/wp-content/uploads/2019/03/Photo-Sep-21-2-56-50-PM.jpg, and https://osssource.alizila.com/uploads/2018/05/intersports-smart-sneaker-wall-2.png
About the project: name of project: Intersport Beijing, format: Sporting goods store, location: Beijing, China, store category: megastore, size of store: 1,300m^2, first opening: 2018, average visit time: 30 minutes, designers: Tmall new retail team

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can provide customers with products not present in-house and thus expand the physical store space by four times. So far, the main screen can simultaneously accommodate many customers.

It is a virtual shopping bag. By scanning QR code, customers can place the item in their virtual shopping bag and make purchase decisions later, even after they have left the store. Customers can also shop in the store and request to deliver their goods to a designated address if they don't want to carry them. A benefit of digitization is it facilitates delivery of goods. With big data, the store may adjust its stocks according to sales. In addition, goods distribution and adjustment with other store branches becomes easier.

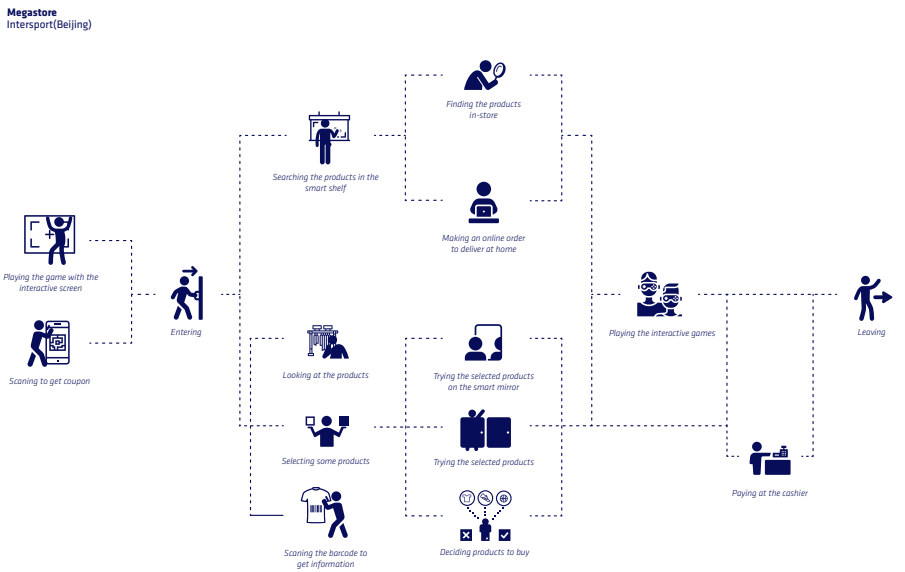

Fig. 37 - User journey of Intersport Beijing

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Bringing together the company's experience and forward-thinking technology applications in O2O (Online to Offline) retail, some store concept driven by big-data and powered by facial recognition and radio frequency identification (RFID) have created the first intelligent self-service sportswear store[10].

Before entering the store for the first time, users need to registrate the face on APP. After the facial recognition[11] is completed, they can enter the store each time through the in-store camera of face recognizing.

Using this technology as long as the customer walks to the front of the screen, it identifies the customer and recommend suitable or possibly favorite products based on relevant data; also, back-end applications since it is possible to calculate the number of customers entering and leaving the store every day, how much sales are finally generated, and quickly calculate the sales conversion rate. It can be accurate to the whole activity track of the consumer, which counter the user stays in the longest time, which goods are picked up the most times. Based on this, the heat map of the counter/area and the heat map of the user's in-store activity can be plotted. When an item is picked up, the background will count its picking up action, so as to analyze the attention data of each item and moving the item to the most convenient place according to the user's preference.

Most of the spaces, so technologically equipped with facial recognition, have direct access to an electronic payment system. This leads to a simplification of the space, the shopping experience and the absence of sales staff. All the goods in the store use electronic labels to display the price. If you choose the goods, you can just take them away and settle the

[10] For an example of intelligent self-service sportswear store, store layout see the link: https://lh3.googleusercontent.com/proxy/K_2QN7thhR1PieVlHPx3_vaei6qnU02TCi0Oo8DYOX3yBU-QcI6ykEWf2ixmfdho-g2OU5MCLlBqwH-zfB2d88Tn9_JEOKKqPBmgYomjX87pMmgzAKK604tkl-yJ4w and http://5b0988e595225.cdn.sohucs.com/images/20170922/d41d418ede5d43669fbd304adb357871.jpeg, smart window to check the information of products see the link: https://st4.depositphotos.com/21607914/23648/i/450/depositphotos_236485348-stock-photo-a-customer-looks-at-the.jpg

[11] For an example of facial recognition system and the entrance, see the link: http://img.chinatimes.com/newsphoto/2017-09-29/656/a16a00_p_03_02.jpg

About the project: name of project: Suning Biu Nanjing, format: Sporting goods store, location: Nanjing, China, store category: Self-service store and neighbourhood store, size of store: 40m^2, first opening: 2017, average visit time: 10 minutes, designers: Suning project team

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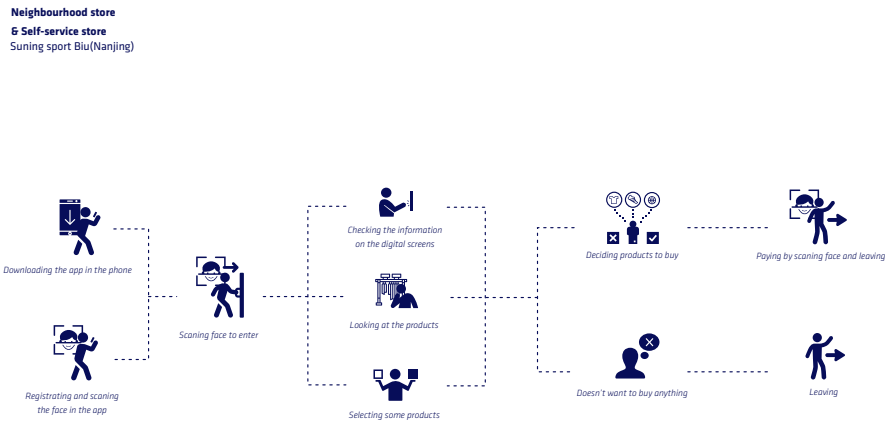

Fig. 38 - User journey of Suning Biu Nanjing

price. There is also a face recognition device above the checkout area, where the customer holds the goods, stands for a moment, checks out and waits for the rolling mill door to open and then walks out. This separate layout of the entrance and exit can improve the efficiency of shopping and checkout.

The site selection of such small-scale unmanned stores is mainly for the convenience of surrounding consumers in the community. The display of products is based on the data of users' preferences, as well as the application of facial recognition and automatic checkout technology, which is intended to provide more convenient and fast shopping experience for surrounding communities. The goal of the unmanned store is to reduce the cost of traditional stores with less labor costs, and the goal of the unmanned store project is not to completely replace or replace traditional physical stores, but to improve them.

An interesting example concerns pop-ups as places of open innovation not only in the smallness of the space, but also in time. In this sense, the technologies typical of the world of makers has entered retail with experimental projects where they were offered live production stations[12] and a very high level of customization. The innovative digital in-store architecture

[12] For an example of producing area, Knit for you Adidas, see the link: https://csga.ca/wp-content/uploads/2017/03/adidas-knit-for-you-3-data-750x467.jpg

[13] For an example of body scaning area, Knit for you Adidas, see the link: https://thehimalayantimes.com/uploads/imported_images/wp-content/uploads/2017/03/Adidas-in-store-machines.jpg

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allows customers to design and make their own personalized products. To ensure the perfect fit of the garment, is often integrated with the body scanner[13] technology. In a dedicated area there are dynamic projections of drawings, responsive to the movement of the customers, to inspire the compositions to choose. Customers are guided through every single phase of design and production of the garment, making the process simple, engaging and fast.

Buyers first entered a dark room, where patterns are projected onto their chests. The room is filled with sensors that detect hand gestures, allowing the buyer to create their preferred design. The software records dozens of solutions from which the buyer can later choose their favorite when displayed on a computer screen.

Then, customers could select[14] a standard size or chose to determine an exacting fit with the laser body scan technology, enabled by in-store digital architecture - a staff member at the story uses a laser body scanner to measure a customer's size before the individual knitting of a sweater.

Once the design and size are finished, they send the pattern for the custom to a row of industrial machines for production.

The nature of these spaces is therefore the result of an integration between a production site and a sales site, experimenting with a formula for sustainability. The environmental advantages of this process are different: less pollution due to logistics and transport and less waste caused by excess production and stocks.

The store space is divided into three main areas: display area[15], customization area and production area[16]. Near the entrance is the display area which using the hanging display and a variety of ways to make the customer to understand customized and various possibilities, this is an open

[14] For an example, a consumer making the design of the sweater under the help of the stuff, Knit for you Adidas, see the link: www.engadget.com/2017-03-21-adidas-will-knit-you-a-200-sweater-while-you-wait.html

[15] For an example, dispaly area at the entrance of the store, Knit for you Adidas, see the link: https://images.wired.it/wp-content/uploads/2017/03/27154759/1490615278_Pop-up-store-adidas-knit-for-you.jpg

[16] For an example, customation and producing area in the store, Knit for you, Adidas, see the link: www.kikilab.it/wp-content/uploads/2018/09/Knit-for-You_6-x.jpg
About the project: name of project: Knit for you Adidas, format: Sporting goods store, location: Berlin, Germany, store category: Pop up store, size of store: 260m^2, first opening: 2016-2017, average visit time: 1.5 hours, designers: Adidas team, THE BAKERY, collaborated with academic and industrial partners

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area. Behind it is the production space, a relatively closed space, separated with a glass wall, to allow the customers to see the production process. The innermost area is a custom space with body scanners and custom worktops, which is a relatively private space.

This particular production innovation is customer-facing and customer-driven. It's very much about letting customers take part in the personalization and production of their own shopping experience.

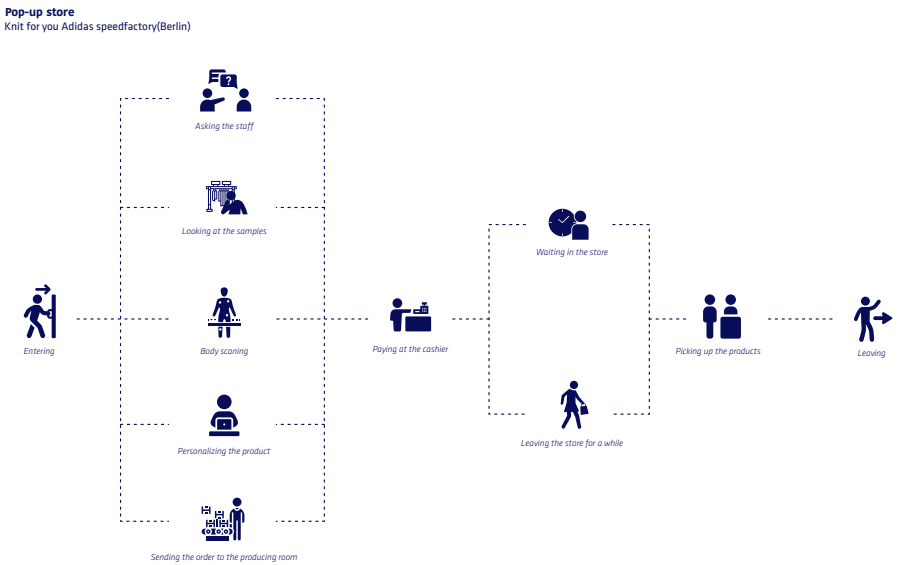

Fig. 39 - User journey of Knit for you Adidas

The contamination between offline and online is so radical that there are examples where the store itself is a perfect transposition of the relevant App[17]. The space[18] is divided into functional areas by different colors, with the exit separated from the entrance. In general, there are multiple entrances

[17] For an example of mobile app that synchronizes with spatial activities, Keep calorie store, see the link: https://socialbeta.oss-cn-hangzhou.aliyuncs.com/upload/15345-1560837236.png

[18] For an example of store front, Keep calorie store, see the link: https://socialbeta.oss-cn-hangzhou.aliyuncs.com/upload/15345-1560836833.png

[19] For an example of store layout, Keep calorie store, see the link: https://socialbeta.oss-cn-hangzhou.aliyuncs.com/upload/15345-1560836872.png

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with an open plan[19], it would increase the transparency of the space and allows customers to understand what is happening in other areas to arrange the sequence of visits and reduce waiting time. In addition to the public area, there is a small, enclosed space as the backstage space and warehouse for the staff.

The experience in the space becomes a gaming[20] operation that serves to increase engagement. These are shops, whose function is not directly to sell the product, but to build loyalty, to involve through one or more challenges. The store is more of a space to learn about products and experience them. The purpose of the store is not to sell goods in the store, so it doesn't need a lot of inventory space. After in-store experience, the purchase can take place online and be delivered to the customer's home or where they need it. The store also establishes the social attributes of online and offline retail for the brand.

Fig. 40 - Digital applications which were adopted by different sprot stores

[20] For an example of game area in the store, Keep calorie store, see the link: https://socialbeta.oss-cn-hangzhou.aliyuncs.com/upload/15345-1560846867.jpg
About the project: name of project: Keep calorie store, format: Sporting goods store, location: Beijing, China, store category: Pop up store, size of store: 210m2, first opening: 2019, average visit time: 50 minutes, designers:ALINE STUDIO, Beijing.

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Developing customer loyalty has always been top of mind for retailers and shopping center owners, but in today's on-demand economy, it's becoming even harder to secure. Possibly the best way that brands can still resonate with shoppers is through the in-store experience. That is of course a double-edged sword, as shoppers are now beginning to expect unique and better experiences from in-store shopping; compared to online which is more about speed and convenience. In a new report, JLL Retail unveiled the Six Dimensions of Retail Experience, a universal set of benchmarks that define how well retailers are meeting shoppers' expectations.

Six Dimensions of Retail Experience:

- ***Intuitive***: It is simple and easy for shoppers to find what they're looking for, including quality products and new items.
- ***Human:*** Shoppers have quality interactions with knowledgeable, reliable associates who treat them fairly.
- ***Meaningful***: The retailer makes a difference in the lives of shoppers, who feel a sense of pride when shopping there.
- ***Immersive***: The exterior and interior of the store are appealing and captivating. Shoppers enjoy spending time there.
- ***Accessible***: Shoppers can shop where and when they want, (store, mobile, or website), and the retailer knows their preferences.
- ***Personalized***: The experience is how shoppers want it, with associates who understand their unique needs, recommendations based on past behavior and rewards based on loyalty.

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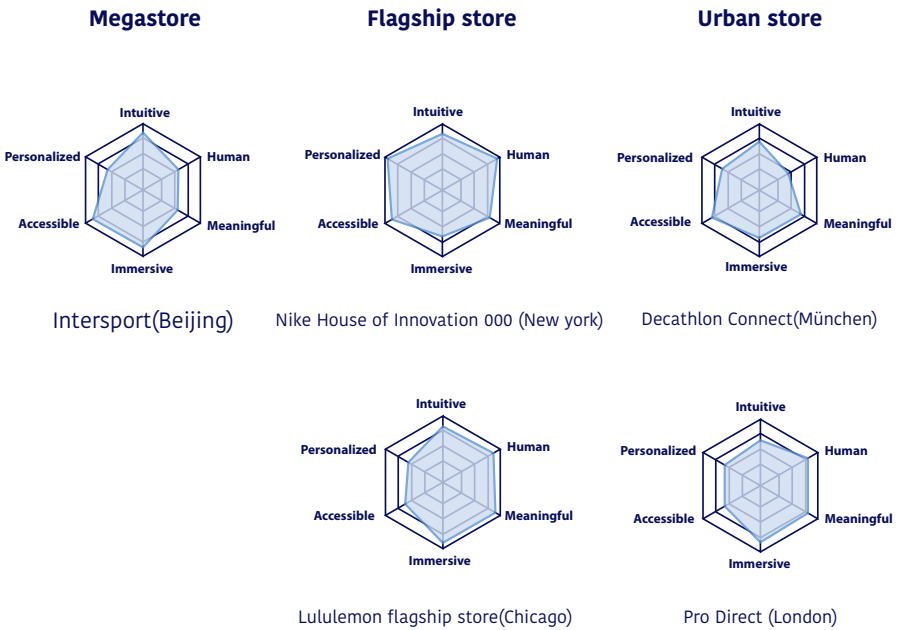

Fig. 41 - Comparing the cases of sport stores

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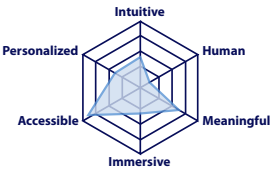
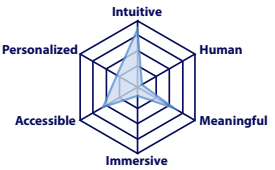
Neighbourhood store & Self-service store



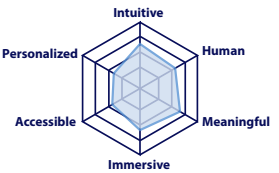
Suning sport Biu(Nanjing)

Self-service store

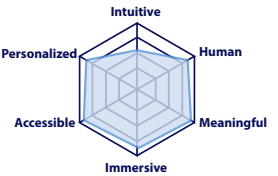


Nike Fuelbox vending machine(New york)

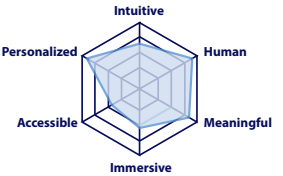
Pop-up store



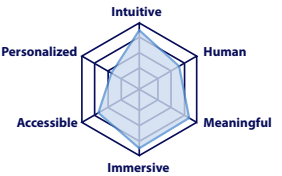
Adidas Originals bus customization(Shanghai)



Nike+ FuelStation(London)



Knit for you Adidas speedfactory(Berlin)



Keep - Calories Department Store(Beijing)

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7.1. Diagrams

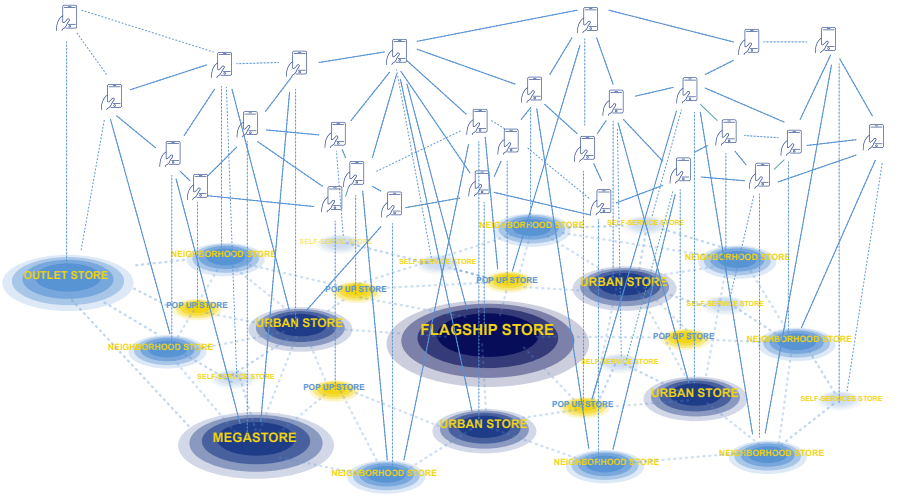

Fig. 42 - A vision of different type of stores in the urban scenario

Regarding the classification of store types, this part is based on the urbanism. Different store types affect the location, size and functions of stores in the urban environment. The communication and service network woven by mobile applications based on smart devices, will help consumers to choose which store to visit according to the time and purpose of contact.

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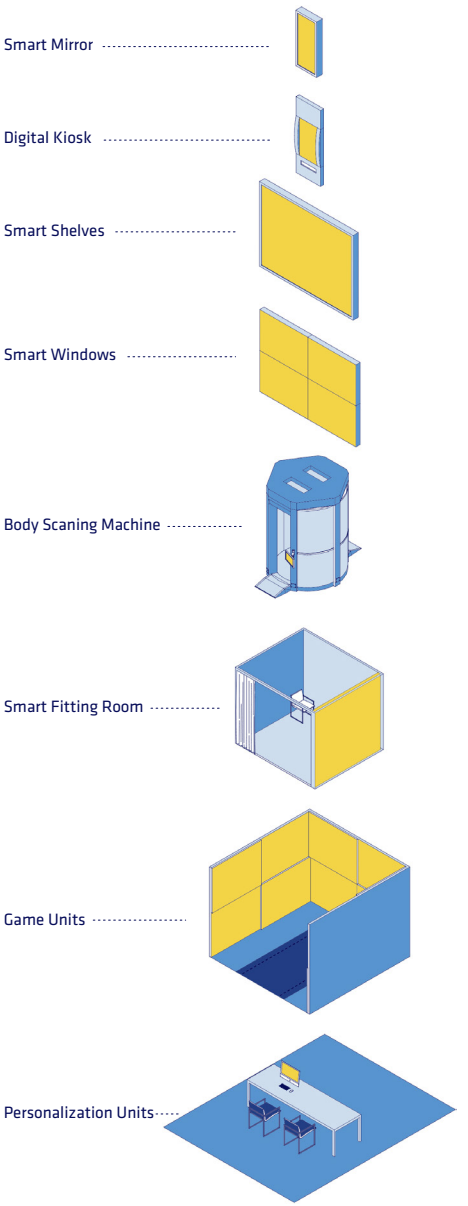
Physical touch points in-store

Digitalized touch points for consumers in-store



Personal touch point of consumers in-store

Mobile phone / Functions in-store

Scan to get information

Reserve online, pick-up in store

Instant check out

Event registration

Scan and try

Find in-store

Indoor localization and message notification system

Fig. 43 - Digitalized phygital touchpoints of sprot stores

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7.2. Prototypes_sport

7.2.1. Megastore _sport

Area: 1,500-12,000 m^2
Business hours: 10:00-22:00

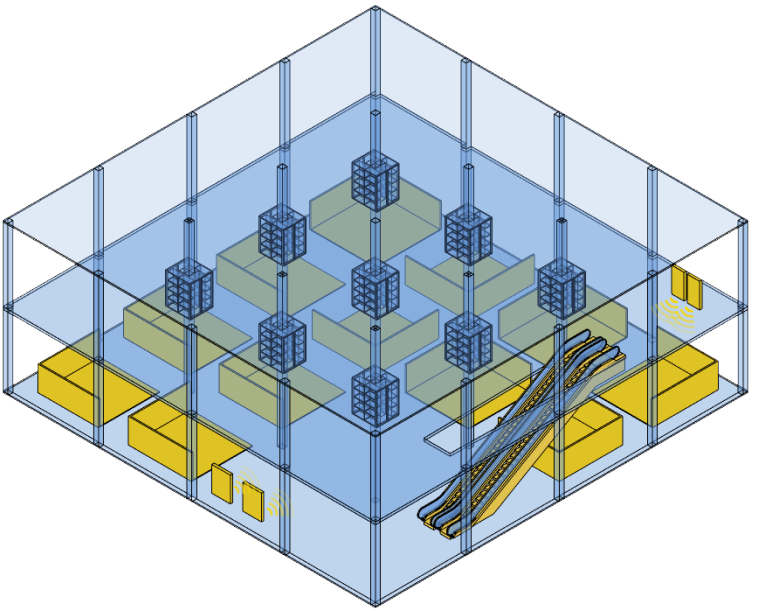

Fig. 44 - Space prototype of Megastore_sport

Megastore is usually a large space with more than one floor, usually with escalators in obvious locations in the store for consumers to easily communicate between different floors. In order to show more products and more efficient use of space, after combining the App, more real experience space can be created in an area, and then products can be found in the product intensive display area. Particular interesting in this sense is the connection inside the new points of sale.

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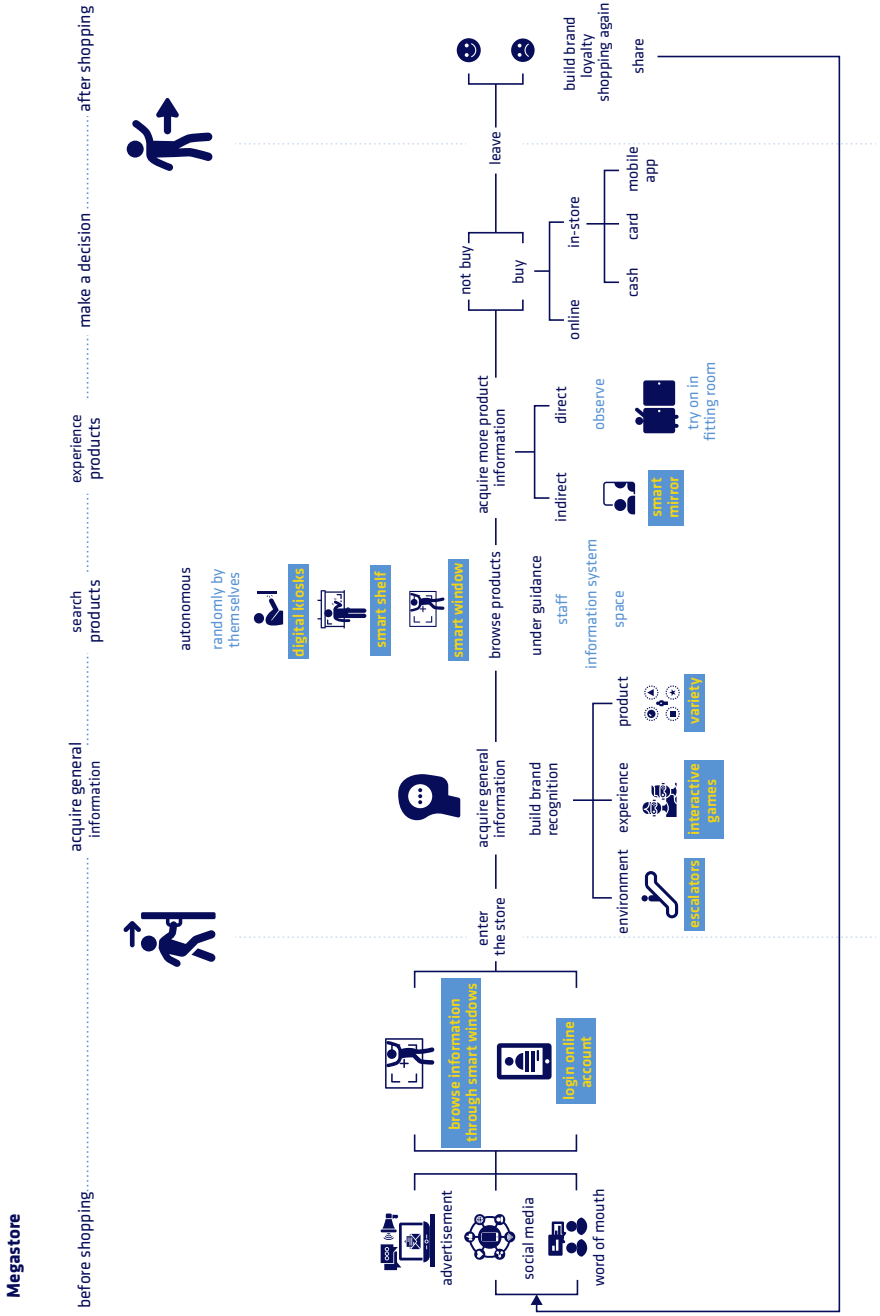

Fig. 45 - User experience journey of Megastore_sport

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7.2.2. Flagship store _sport

Area: 1,000-7,000 m^2
Business hours: 10:00-21:00

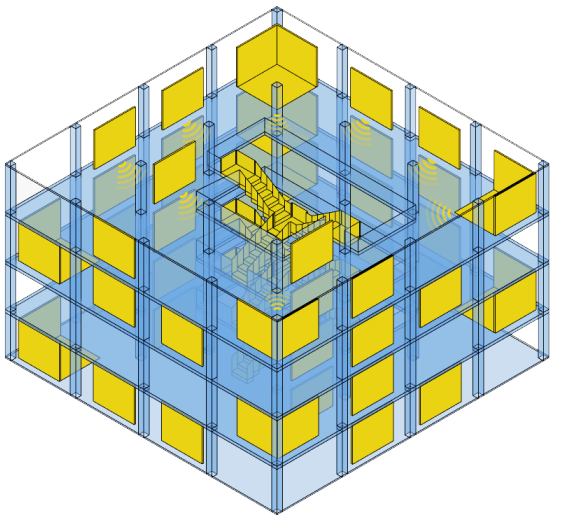

Fig. 46 - Space prototype of Flagship store_sport

The flagship store is more than a showroom, a stage than a store per-se. It offers an immersive and seamless experience powered by the latest technology, the highest level of product customization and boutique customer services. It can offer multiple experience.

Multi-sensorial, pluri-sensorial, taste, touch, smell and sound and their archetypical: the sensoria sphere as a continuous whole and interrelated entity, in which the senses interact in synergy, changing functions and duties, replacing each other according to the context.

The sensorial sphere is deeply and dynamically interrelated and bound. Every sense has the ability or capability of extracting specific information from the environment. The senses operate in synergy and the main activators of the emotional system. (Iannilli, 2008)

It is usually a large store with more than one floor, 1,000-7,000 square meters, usually only one flagship store for a brand in a city or region.

It is more significance for consumers to create a more impressive experience, like a museum, or experience landscape, usually they have a fully atrium center, the wide view allows customers entering the store to notice what is happening throughout the space. Flagship stores can use all types of retail digital touchpoints to create different units to stimulate consumption and diversify demand.

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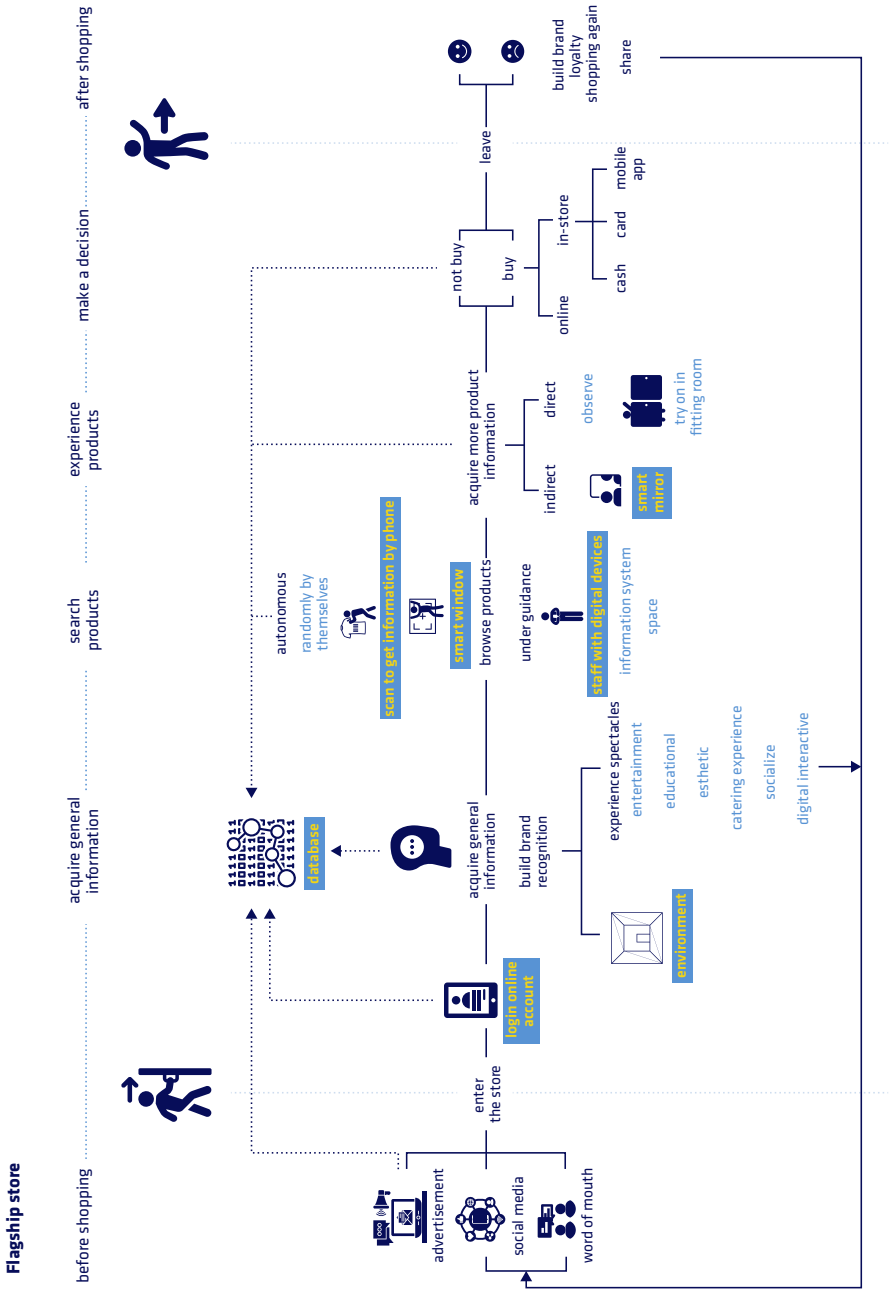

Fig. 47 - User experience journey of Flagship store_sport

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Retailers can use the flagship stores to attract customers by inviting them to be part of the production process, offering them personalized assistance and an exclusive community.

7.2.3. Urban store _sport

Area: 100-700 m^2
Business hours: 10:00-21:00

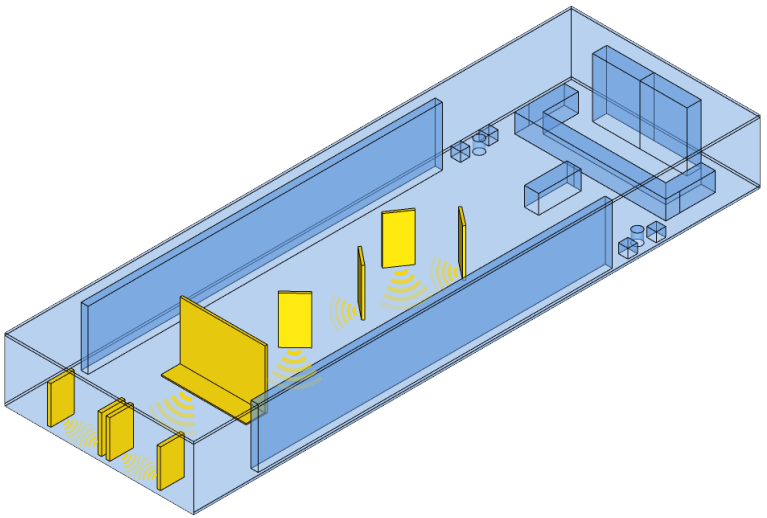

Fig. 48 - Space prototype of Urban store_sport

The urban store is the revitalized version of traditional brick-and-mortar stores powered by the implementation of technologies aimed to provide a better, more convenient, shopping experience for customers. They are expected to integrate technologies, like smart checkout, to solve long waiting lines, smart shelves to help customers identify the location of items, integration with the online App to offer personalized recommendations, etc.

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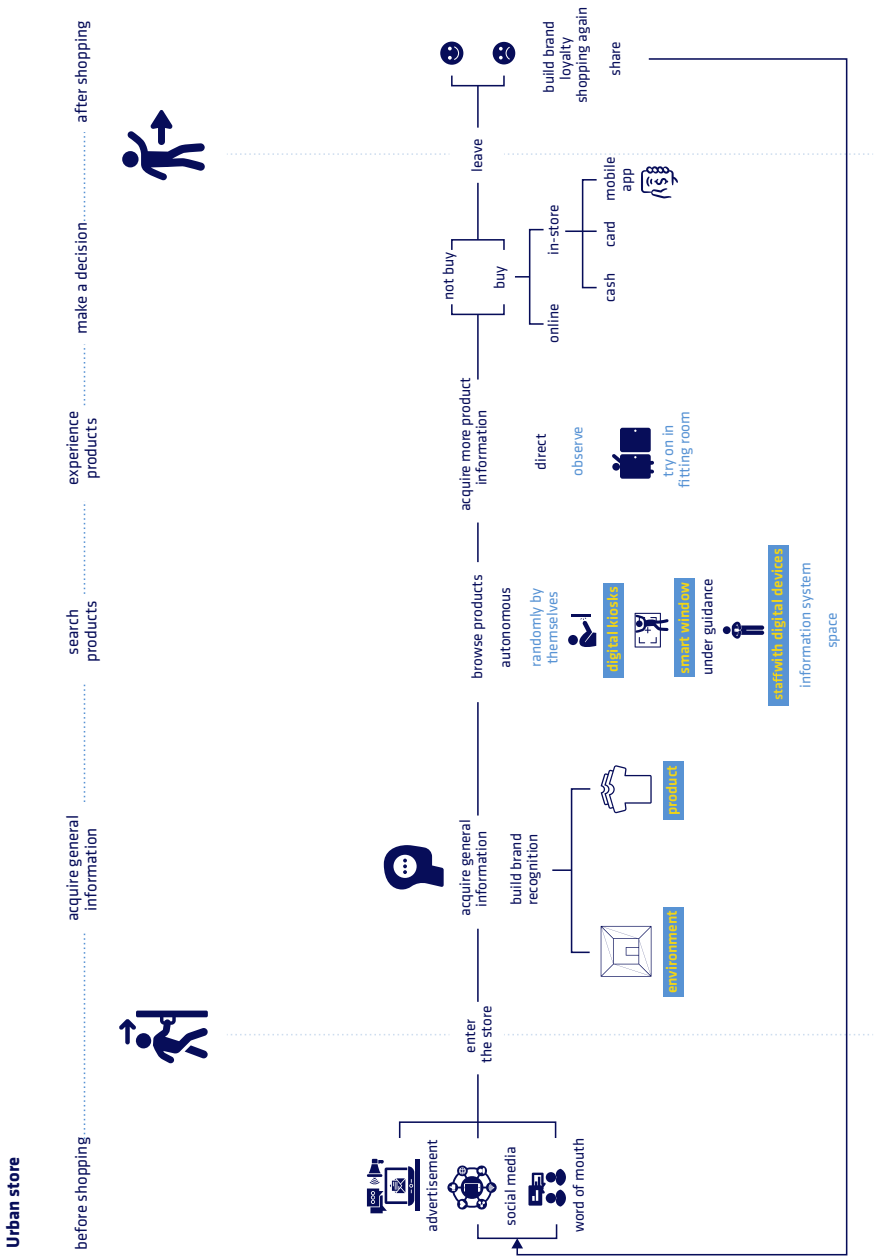

Fig. 49 - User experience journey of Urban store_sport

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7.2.4. Neighborhood store _sport

Area: 50-200 m^2
Business hours: 9:00-20:00

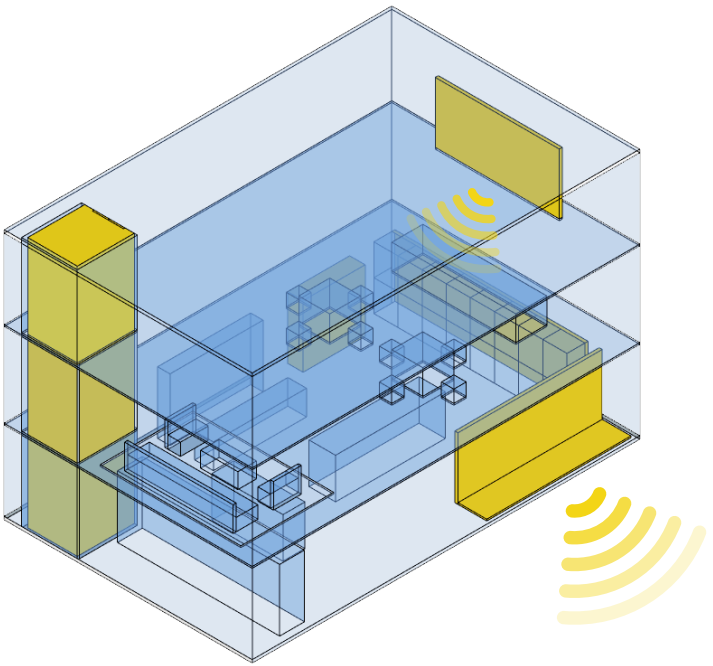

Fig. 50 - Space prototype of Neighborhood store_sport

The neighborhood store, which is a smaller store format, caters to the specific needs of local customers and serves as a drop-in hub, to pick-up the online orders and it doesn't need much storage space.

In the case that traditional neighborhood stores are on the verge of closure, new neighborhood stores can provide more diversified and localized services for consumers in the surrounding communities. For example, in sports and health retail, in addition to the sale of sports equipment, they can provide healthy food services and sports classes. It could be transformed into a small community complex, to provide more diverse and welcoming services for nearby residents.

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Fig. 51 - User experience journey of Urban store_sport

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7.2.5. Customization store _sport

Area: 100-300 m^2
Business hours: 9:00-21:00

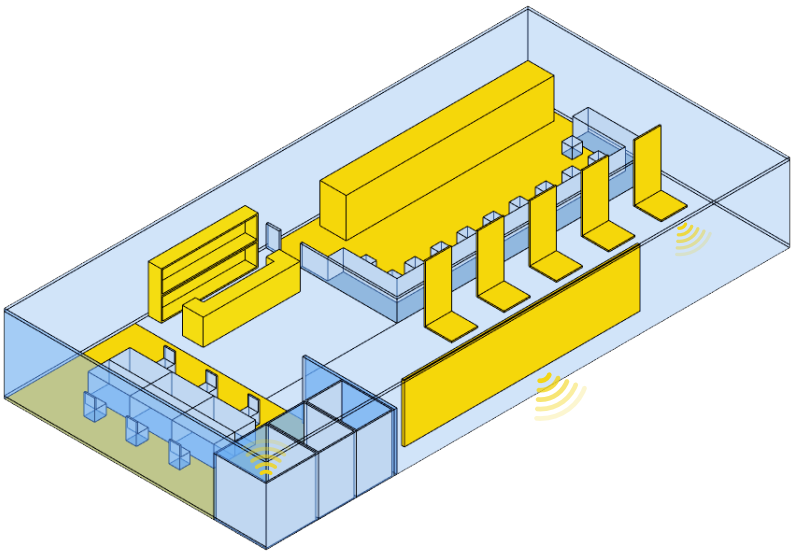

Fig. 52 - Space prototype of Customazation store_sport

The customization store is a new type of retail in sports and health retailing, providing personalized services. Due to the development of technology, rapid production has become a possibility. Because customization services are not mass-produced and may only be used in individual commodity types, the retail space is not very large.

Different from the randomness of consumers' path in other types of stores, especially in the product searching stage, in customization stores, almost all consumption experiences are conducted under the guidance of the staff, so the organization of space has a strong logic, indicating the process of customization.

The entrance of the space is the display area, adjacent to the reception area, possibly close to the production area, which is a novel experience for consumers to see the production process. The more internal area is the selection and customization area, where technology applications such as body scans can be used. It changes the traditional production process and it is a more efficient and modern way of production, since it creates a more diverse experience for consumers.

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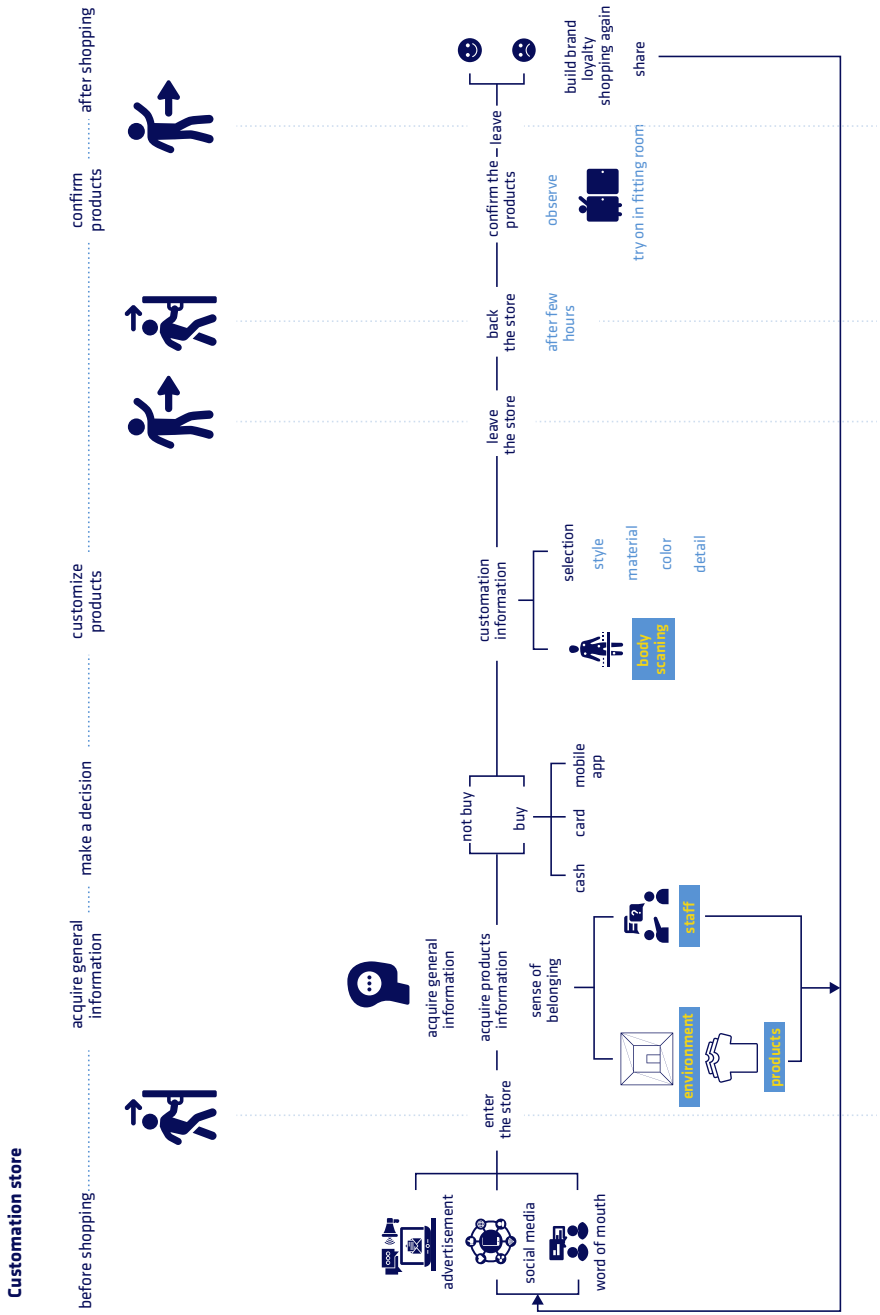

Fig. 53 - User experience journey of Customazation store_sport

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7.2.6. Self-service store _sport

Area: 50-100 m^2
Business hours: 6:00-2:00

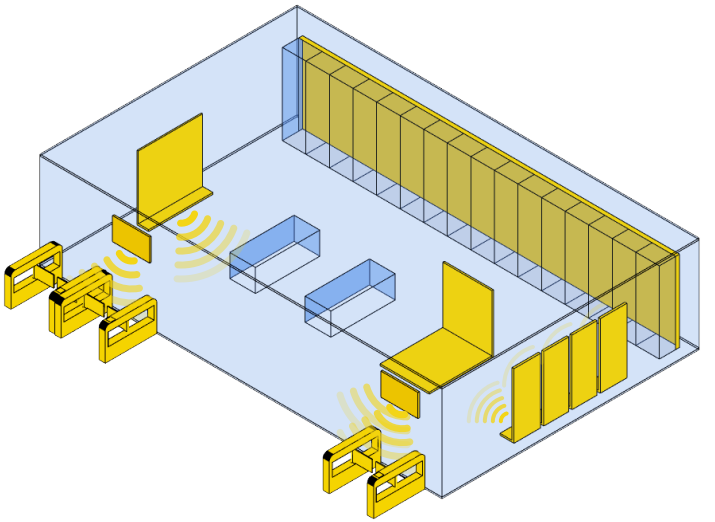

Fig. 54 - Space prototype of Self-service store_sport

Self-service store is a new type of retail store in sports and health retailing, which depends on the support of self-service settlement technology. This type of store is not usually large scale, about 50-100 square meters. The biggest advantage of this type of store is that it solves the time limit of shopping, can provide nearly 24 hours of service, as well as reduce the waiting time in the checkout line, providing a fast shopping possibility. This type of store may be located closer to a living area to serve nearby residents.

Due to the technical space requirements of self-service stores, the entrance and exit are usually separated, the exit is usually divided into two channels, shopping channel and no shopping channel, which optimizes the flow of people in the store. Due to the feature of self-service, stores do not have service personnel, so it is difficult to implement the fitting requirements for sports apparel. Therefore, stores can use smart mirror to simulate fitting, so they do not set up independent fitting rooms. Due to the self-service nature of stores, there are special requirements for the characteristics of storage space, which must be able to be found in stores by consumers themselves.

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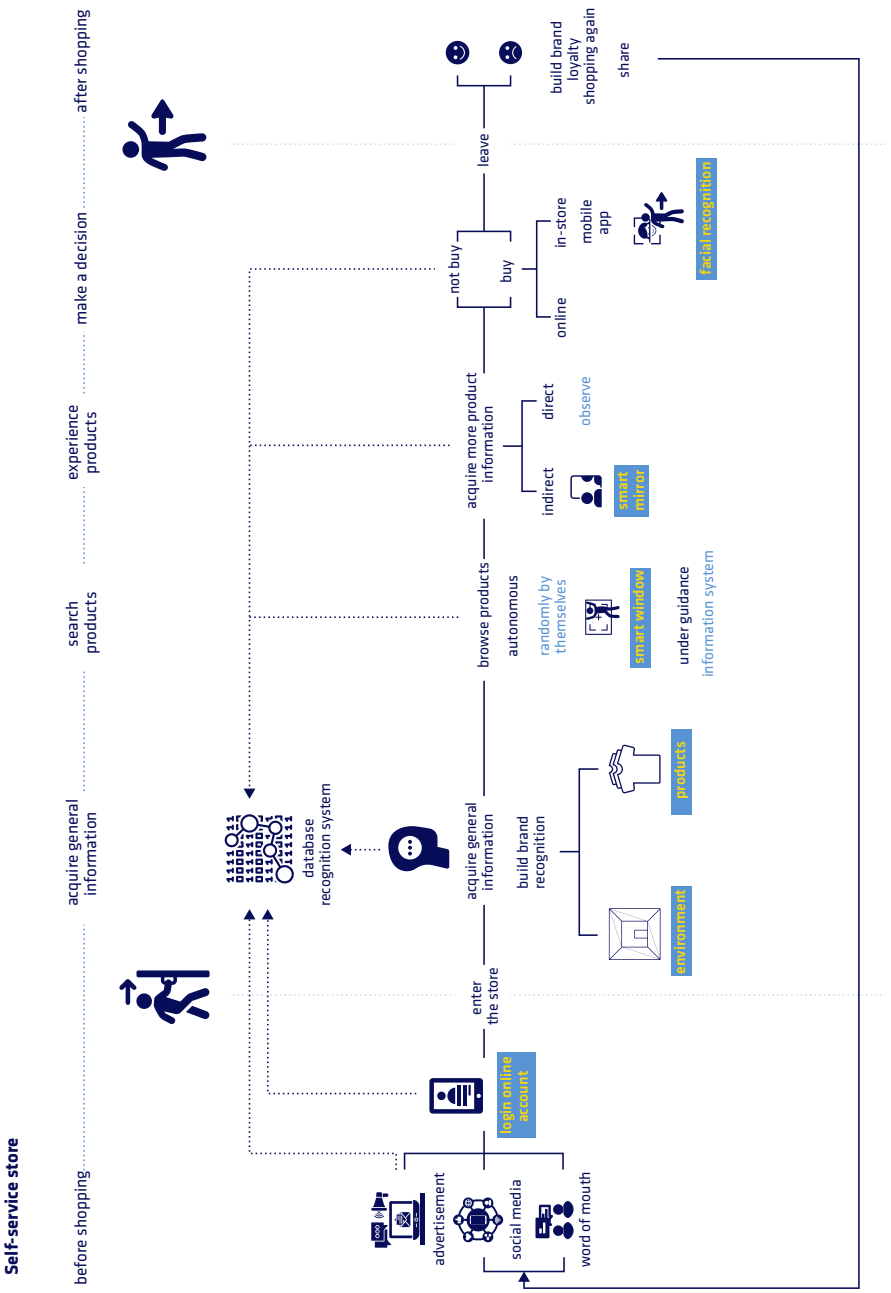

Fig. 55 - User experience journey of Self-service store_sport

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7.2.7. Micro self-service shopping space_sport

Area: 1-5 m^2
Business hours: 0:00-24:00

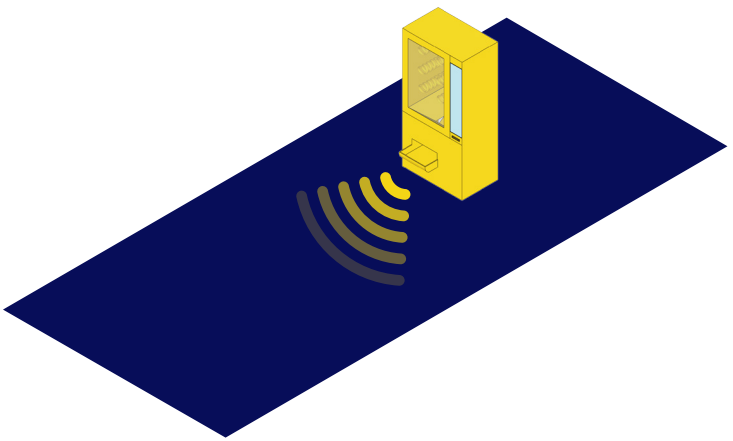

Fig. 56 - Space prototype of Micro self-service shopping space_sport

This is a small, unmanned retail unit that uses to be thought as a vending machine, sports and health retailing is often found in pharmacies. Its feature is a combination of the 24-hour service of self-service stores and the flexibility of pop-up stores. Although it can only provide a limited number of products, it can flexibly intervene in consumers' living communities and provide convenient services.

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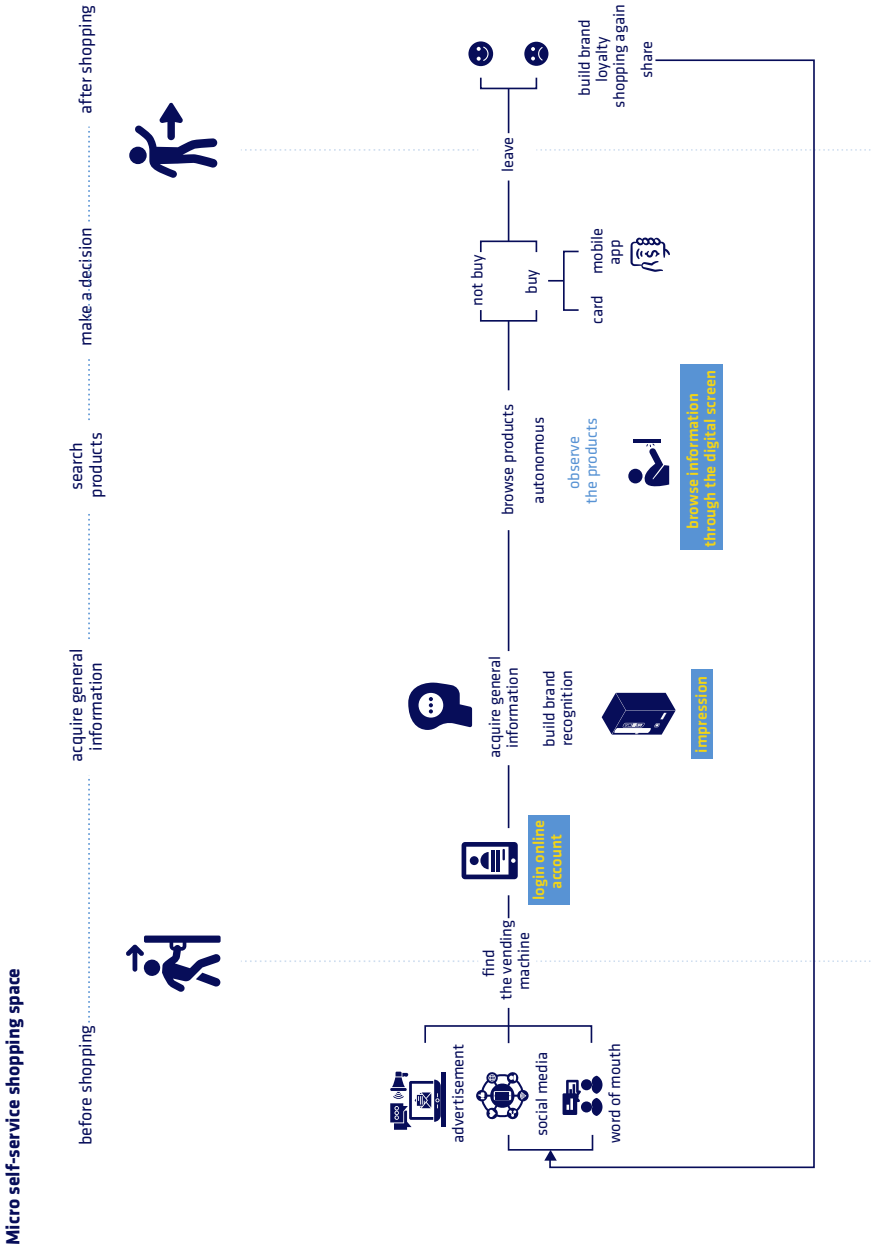

Fig. 57 - User experience journey of Micro self-service shopping space_sport

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7.2.8. Pop-up store

Area: 20-300 m^2
Business hours: 9:00-21:00

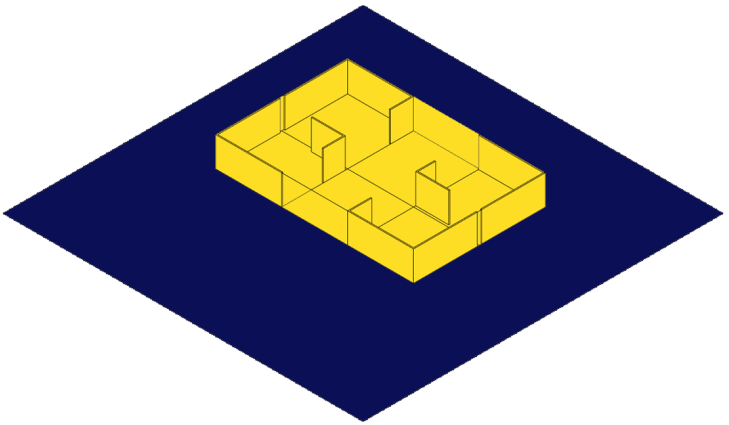

Fig. 58 - Space prototype of Pop-up store_sport

In a traditional retail process, consumers want to find what they need.

Instead, through these new types of retail space, products find consumers. These temporary spaces act as ice-breaking showrooms where people can get in touch with the brand or try out its products for the first time. In the new situation, people are not forced to spend money, so it is easier to access. They can choose to buy from other channels, such as online shopping. A short space can achieve high impact and be seen by a large audience at low cost. The relationship between retail space and environment is key. The environment should be a place where retail can meet their target audience. At the same time, there should be contrast between them to attract people's attention and provide an unforgettable shopping experience. In addition, the appearance is often a striking semi-closed structure, because unlike other types with strong motivation to enter, this type needs to stimulate people's curiosity to enter. In addition, the Spaces are often designed to be easy to assemble or to disassemble with light materials.

These are types suitable for new brands and start-ups to test the market, old brands to promote new products, experiment activities and explore new markets, and e-commerce retailers to enhance brand credibility.

Today, the various facts of the fabric of society have the characteristics of new subcultures, social areas where there are similar social behaviors that become lifestyle generations themselves. Attempting to appreciate these trends and lifestyle: continually more fluid spaces where traditional solution

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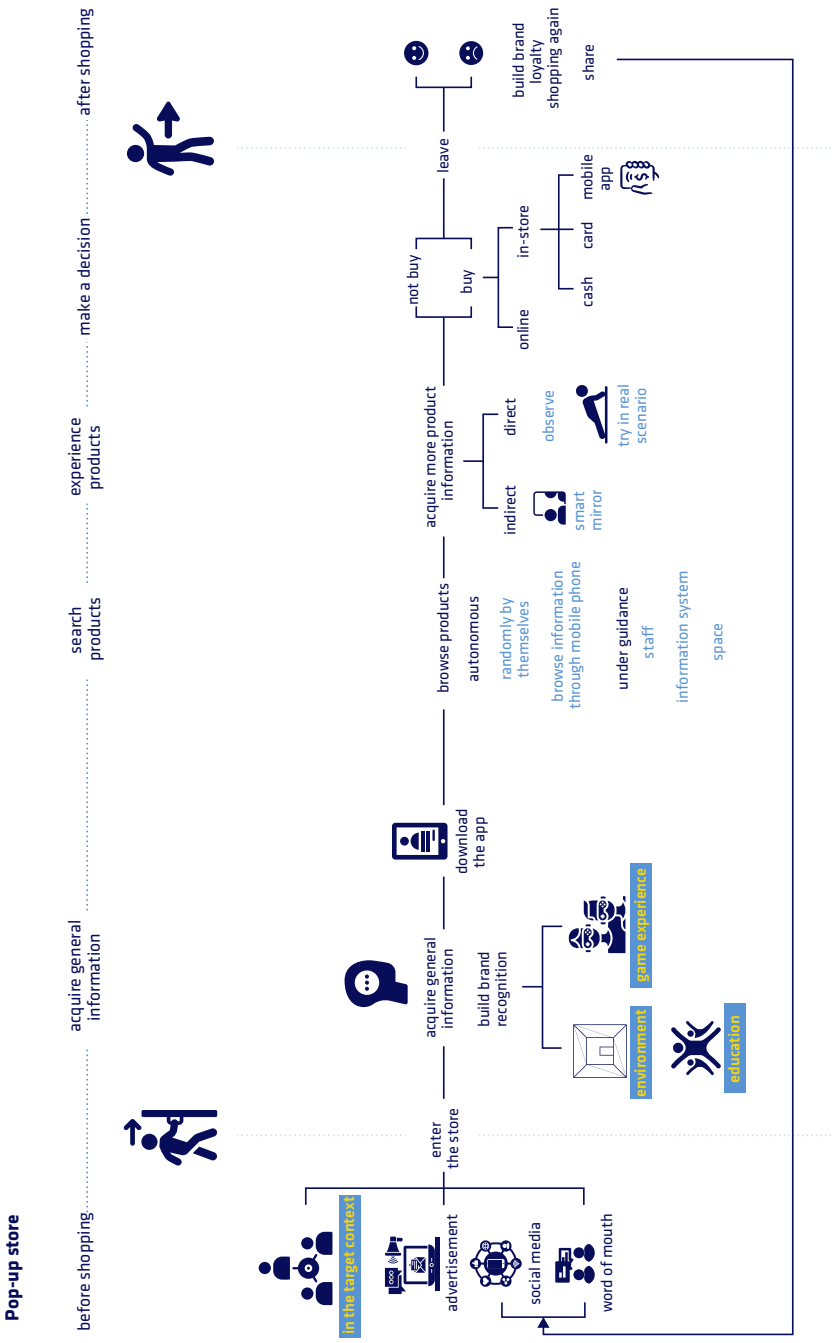

Fig. 59 - User experience journey of Pop-up store_sport

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make way for less conventional attitudes towards new habits and identity. Therefore, we observe new retail spaces becoming more expressive and defined in a more flexible way, also able to serve related activities. (Iannilli, 2008)

7.2.9. Mobile store _sport

Area: 50-100 m^2
Business hours: 6:00-2:00

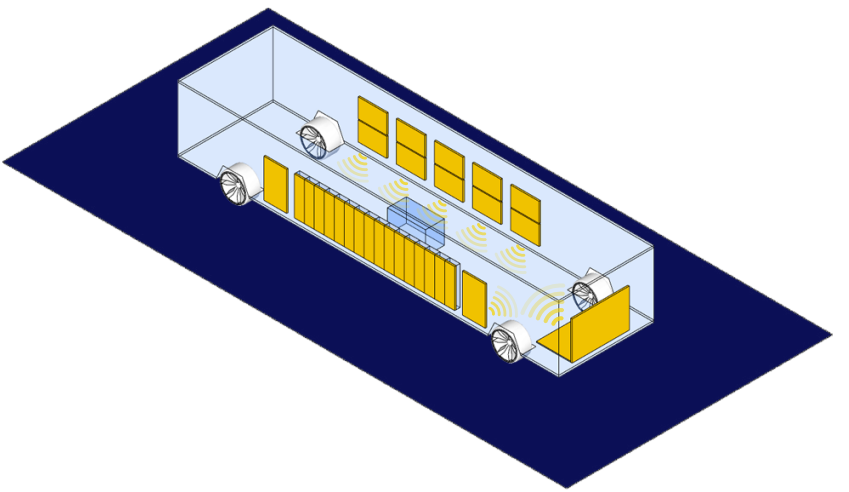

Fig. 60 - Space prototype of Mobile store_sport

A mobile store is a type of pop-up store, but the difference is that it's not fixed in one location.

Mobile stores allow retailers to connect with new audiences in different markets. They also allow retailers to build relationships with face-to-face interactions and test new markets. It can reach more consumers in different areas more easily, and it can act as a store for special sports events.

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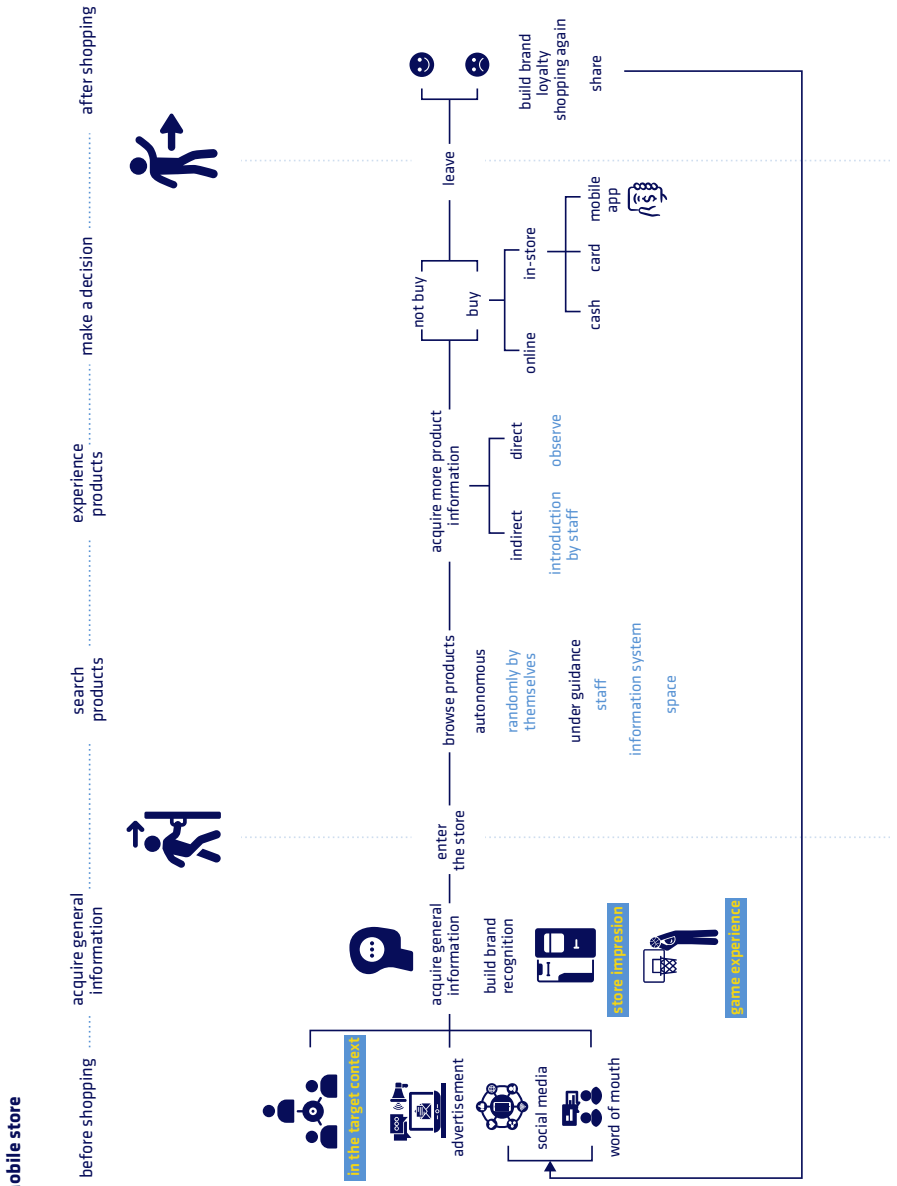

Fig. 61 - User experience journey of Mobile store_sport

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7.3. Comparison between sport stores

type	store type	exsist store	space stability permanent-temporary ○●	business hour short-long ○●
Experience	Flagship store	Nike House of Innovation 000 (New york)	○○○○○●●●●●	○○○●●●●●●●
		Lululemon flagship store(Chicago)	○○○○○○○●●●	○○○●●●●●●●
	Urban store	Decathlon Connect(München)	○○○○○○○○●●	○○○○●●●●●●
		Pro Direct (London)	○○○○○○○○●●	○○○○○●●●●●
Temporary event	Pop-up store	Nike Fuelbox vending machine(New york)	○●●●●●●●●●	●●●●●●●●●●
		Nike+ FuelStation(London)	○○○●●●●●●●	○○●●●●●●●●
		Keep - Calories Department Store(Beijing)	○●●●●●●●●●	○○○●●●●●●●
		Adidas Originals bus customization(Shanghai)	○○●●●●●●●●	○○○○○●●●●●
	Mobile store	Adidas Originals bus customization(Shanghai)	○○●●●●●●●●	○○○○○●●●●●
Quality service	Customization store	Knit for you Adidas speedfactory(Berlin)	○○●●●●●●●●	○○○●●●●●●●
	Neighbourhood store	Suning sport Biu(Nanjing)	○○○○○○○○○●	●●●●●●●●●●
Time and cost efficiency	Megastore	Intersport(Beijing)	○○○○○○○○○●	○○○●●●●●●●
	Micro self-service shopping space	Nike Fuelbox vending machine(New york)	○●●●●●●●●●	●●●●●●●●●●
	Self-service store	Suning sport Biu(Nanjing)	○○○○○○○○○●	●●●●●●●●●●

interaction real-digital ○●	space funtion sale-experience ○●	sense involed single-multiple ○●	staff service sale-various ○●	storage space abundant-scarce ○●
○○○●●●●●●●	○○●●●●●●●●	●●●●●●●●●●	○●●●●●●●●●	○○○○○○○○○○
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Fig. 62 - Comparison between sport stores

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7.4. Analysis_sport stores

Characteristic analysis of sport and health retail types

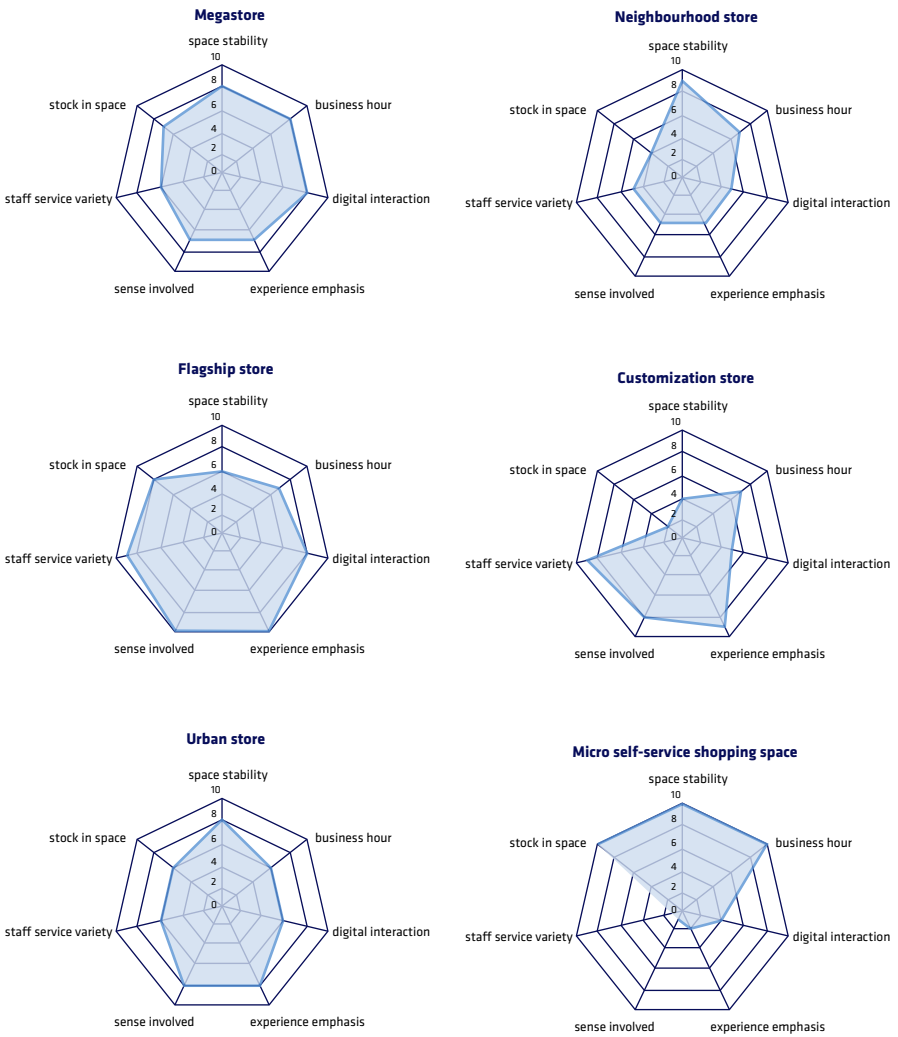

Fig. 63 - Characteristic analysis of sport and health retail types, part1

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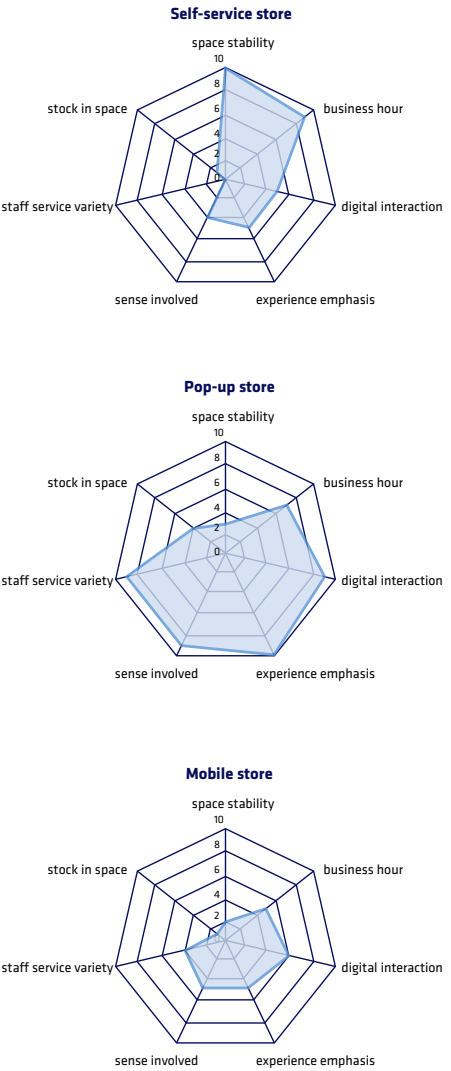

Fig. 64 - Characteristic analysis of sport and health retail types, part2

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8. Food stores

Technology has become key and central to supermarket activities. The list of in-store and logistical technologies that make all retailer channels of distribution more efficient and effective are being developed. However, all of the various food retail channels are capable of developing new ways of satisfying the customer. Already in the US "no checkout stores" are being developed using RFID and other methods to allow consumers to simply pick up their products and walk out the door. New alternative methods of supply chain capabilities are appearing every day, but these technologies don't give any single retail channel an advantage as any format could adopt this technology.

However, a new channel of distribution has emerged out of the online technology explosion. The most obvious example is food companies giving consumers the ability to order foods online in your own home and either have them delivered or pick them up at either the store or a designated pickup location. The two alternatives that exist are adoption of this method by traditional grocery stores or by separate businesses that simply deliver groceries to the home.

There is also an incredible shrinking retail channel in terms of market share for Europe's traditional hypermarkets, supermarkets as their sales could plummet to less than 50 percent by 2025 as consumers flock to value and smaller stores and online. (Bain, 2016)

There are companies that offer home delivery. What makes some of them really special, is that you can actually order based on billboards placed in various areas with electronic codes, to simply scan the desired items and then they will appear at your home. There is also a "lick and collect" which allows you to order online and then go to a specific location (not necessarily a supermarket) to pick up your items. Companies are expanding its concept of home delivery to go wherever the shopper is. They are planning to build

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a national network of online-only stores called “Dark Stores” as it looks to cash in on the surge in popularity of internet grocery shopping: some have driven-through markets and some have their own home delivery trucks.

Supermarkets are quick to figure out how to get their traditional products in the consumer's home more conveniently through online shopping, while other totally new food retail channels of distribution are being developed. These online businesses, generally subscription services, send everything that is needed to make a single meal. At whatever frequency the consumer requests, a box containing all of the ingredients to make a meal is delivered to the house at the appointed time.

There are also various online subscription services that send specific types of ingredients directly to the home. In Europe, one can get a box of healthy, nutritious fresh foods sent from a company with any desired frequency. They deliver a box of nutritious snacks on a regular basis. The choices for what food can be delivered is appearing to be endless.

Ironically, as the traditional food retailing industry becomes more technologically advanced, the resurgence of farmer's markets and street markets are similarly increasing. One of the developing consumer segments is the one who believe local, fresh food is tastier, is fresher and thus healthier.

The future of the retail industry in one regard is clear: there will be food retail stores. The nature of these stores is likely to be significantly different than the corner store of the urban areas in the past. The industry has been dramatically matching the changes in the consumer population to the advancement of technology.

The street markets and wet markets still not only exist but are a major type of food retail outlet. In underdeveloped and even some developing countries, wet markets are the primary retail food sources. In countries like India modern food retailing is just developing. The developed markets of the US and Europe are not the only way to look at food retailing.

There is also no doubt that as the retail industry changes, there will again the voids to fill in just like in the past some business will jump in and fill the vacuum.

There are some stores where customers save time by not waiting in a cashier line. The closest precedent may be the self-checkout system in some large-scale supermarkets or drugstores. This system introduced the contactless payment system which is the closest solution to allow customer to shop cashless. However, identifying and counting items still relies on human staff. To address this, it has been explored the technology to detect what items each customer has picked. For example, has been created a hanger that reacts as a customer pick it up. Similarly, tagging items had

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been the mainstream solution, but this solution does not connect the product with the customer's identity.

The steps in these stores are:

- Registration of a customer, so the store can link their account. Customers have to download an App to their phone. At the store entrance[1], they have to scan the QR code on their App to the gate, which almost looks like some sort of a subway entrance.
- Track the customer's location, so the system can correlate the customer data and the actions taken place. Usually there are a lot of RGB cameras for tracking individual customers. They do not need facial recognition technology. Instead, these cameras detect each customer's general profile and track individuals with motion detection. The camera correlates a customer leaving Camera A and picks up the same customer entering. Camera B, the accuracy of tracking is augmented by the use of separate depth-sensing cameras.
- Detect an item that was picked up, so the system can add items to the virtual shopping cart of the customer who was at the location.
- Detect an item if it was put back onto the shelf, so the system can remove items from the customer's virtual shopping cart.

Each shelf has a weight sensor that knows the exact weight of each item. When an item is picked up, the sensor can tell exactly which shelf the item is from. Similarly, the sensor detects when the object with the same weight is put back.

The central processing unit relates the information about each customer's location and the actions taken place on each shelf. Because of this system design, each shelf has clear guides separating each row, and they are more spacious compared to regular grocery stores. The store always looks tidy and well organized, because items need to be placed precisely and space helps accurately detect customers.

It detects when the customer leaves the store, so the customer's online transaction can be completed. Customers don't have to scan the QR code to

[1] For an example of store gate, entering the store by scaning the code on the phone, based on"Just Walk Out Technology". Amazon go, see the link: https://i.guim.co.uk/img/media/4145219fa6a0ee1d4c53cb60fa3f99faaf611dc1/0_335_2644_1586/master/2644.jpg?width=1020&quality=85&auto=format&fit=max&s=21713757881f120c41dd2eb8d4fd97a1, and https://ichef.bbci.co.uk/news/1024/cpsprodpb/D9B1/production/_99692755_hi044242322_crop.jpg About the project: name of project: Amazon go, format: food store, location: Seattle, US, store category: self-service store, size of store: 167m^2, first opening: 2016, average visit time: 10 minutes, designers: Amazon team.

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exit, like they do when they enter. In-store tracking detects when they leave the store.

These stores are still early initiatives, and they need people to help operate it. For example, detecting the right item for the right customer's virtual shopping cart is still assisted by human staff, when the processing's confidence score is low. Human staff is an inevitable workforce flexible enough to adjust the mix-operations.

Other experiments are related to the high-tech supermarket that is designed around people's smartphone[2]. It is used for everything in the store, from placing items in a digital shopping cart while you shop for groceries, to getting product nutritional information, to paying for goods. This typology of New Retail, according to Jack Ma (founder of Alibaba), is "the integration of online, offline, logistics and data across a single value chain". It is an initiative aimed at connecting online and offline retail and digitizing stores in order to provide a better customer experience.

Typical features are:

- ***Scan and go.*** To shop, customers have to download the mobile app. They shop by scanning QR codes on each item they wish to purchase, then the item is added to their digital shopping cart. Scanning a product's QR code also provides the customer with information about the product including how fresh it is (by looking at when it was delivered to the store). Other data that is available includes nutritional information, customer reviews, recipes the customer can make using the product as well as delivery options if the customer wants the item delivered to their home.
- ***Personalized shopping*** recommendations using AI. The App also remembers shopper of buying behavior and leverages machine learning to make personalized product recommendations for customers.

[2] For an example of entrance and retail area of Alibaba Hema NECC robot restaurant, see the link: https://area-17.com/sites/default/files/styles/node-project/public/project/image/10-Hema-NECC-Photo%20%2810%29.jpg?itok=qrh8G778, and https://area-17.com/sites/default/files/styles/node-project/public/project/image/13-Hema-NECC-Photo%20%2813%29.jpg?itok=m1ePAAms. The layout of the project, see the link: https://m.designverse.com.cn/view/upload/material/upload_d4807b5ac0d7f183b9ff4581b7348ca3.jpg and www.wowowfaucet.com/wp-content/uploads/2020/08/640-2-30.jpeg
About the project: name of project: Alibaba Hema NECC robot restaurant, format: food store and restaurant, location: Shanghai, China, store category: self-service store, size of store: 2,700 m^2, first opening: 2018, average visit time: 15 minutes, designers: Area – 17 architecture & interiors.

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• ***Digital price tags.*** Products have digital price tags that can be updated in real time. They can be particularly useful if the store wants to, say for example, update the price of seafood based on market rates. It also allows the retailer to ensure that prices online match in-store when necessary.
• ***Stores as fulfillment centers.*** Employees pick online orders in store and once they have been picked, they are placed on a conveyor belt that carriers the order to the back of the store to get it ready for delivery.
• ***Digital payments including facial recognition***. When customers are finished shopping, they pay using mobile app.
• ***Super-fast delivery.*** This applies to customers that shop in store and want their orders delivered to their homes or if they made the purchase online.
• ***Stores as delivery hubs.*** To improve its delivery capabilities.
• ***Experiential retail.*** Supermarkets are essentially grocery store/restaurant hybrids where customers can shop for groceries as well as sit down and have dinner with their family if they choose to. Customers like the fact that they can easily choose a fresh piece of seafood and then it is cooked fresh for the customer to eat while they are at the restaurant.
• ***Automated service using robots****,* where the majority of food dishes are delivered to customers using robots. The restaurant isn't fully automated, employees are available to answer questions and also to do something they haven't gotten the robots to do yet, and then to cook the food. If you want a seat at the robotic restaurant you have to check-in at a kiosk using the app. When customers arrive at their table, they simply scan a QR code at the table and order food using, the app.

The main and defining feature of the restaurant is the automated process by which meals are delivered from the kitchen to the final client. A number of custom-designed robots[3] run along tracks that span from operational spaces to the dining area, reaching each table with its tailored order ready to eat. Central to the project is the variety of delivery methods offered that follows an order placed through the App: from the restaurant accommodation to the pick-up, from the storage in a locker[4] to the delivery. This is an answer to the challenges rising New Retail model of integrating the online, offline, logistics and data across a single value chain to create up-sale opportunities.

[3] For an example of dining area and robot delivering at Alibaba Hema NECC robot restaurant, see the link: https://m.designverse.com.cn/view/upload/material/upload_b1bb345959a87190ba9f4f07a47bd4bf.jpg, and https://area-17.com/sites/default/files/styles/node-project/public/project/image/03-Hema-NECC-Photo%20%283%29.jpg?itok=B9btmIQn

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The whole space could be connected to a convenience store, whose layout is designed for transit spaces aiming to maximize the efficiency[5] of the shopping experience.

Speed and efficiency descend from the hectic rhythm of working hours and blend into a layout that forster the movement around three central isaland towards the focal points where food is prepared. Facial recgnition and self-checkout stations are installed around the store to guarantee a smooth flow of coustomers.

In the direction of digitalization there are some interesting case studies, not so much for their success, which they have not had, but for the fact that they have opened up new visions. Some of these have tried to incorporate facilities such as interactive food tables, smart shelves and real-time data visualizations[6], in order to inform shoppers about the origins and characteristics of particular foodstuffs, promoting more informed consumption habits. Thousands of products are displayed on large interactive tables. As a shopper puts the hand close to a product, extra information about the food appears on a suspended digital mirror above – as in seamless augmented reality, without any extra cumbersome device or interface. Through these augmented labels, each product can communicate

[4] For an example of locker in a convenient food store, see the link: https://area-17.com/sites/default/files/styles/node-project/public/project/image/03-Alibaba-Hema-F2%20%283%29.jpg?itok=9mP1GKNQ

About the project: name of project: Hema f2, format: Automated and technology supermarket, loop of online-offline supermarket, location: Shanghai, China, store category: self-service store, size of store: 400m^2, first opening: 2019, average visit time: 5 minutes, designers: Area – 17 architecture & interiors.

[5] For an example, to improve efficiency, the store of Alibaba Hema NECC robot restaurant adapted digital kiosk for self-checking out, see the link: https://lh3.googleusercontent.com/proxy/FX00zM3G_BmmPG5vmQB-sg41HGBy1pwilwq1qlEeBUDrIhBlURP-Ys2sODj7clMa8SvWuLOFy0scn-zPOIz9vjLh2O_ho9U5J6IQhrgVomaKZrg

[6] For an example, smart shelves with changing data allows customers to know more information of the products while shopping, COOP Supermarket, see the link: https://static.dezeen.com/uploads/2015/05/Future-Food-District-at-Milan-Expo-2015-by-MIT-and-Carlo-Ratti-bb_dezeen_468_8-e1430481398573.jpg, and https://carloratti.com/wp-content/uploads/2015/05/D_SL_8497-scaled.jpg

About the project: name of project: COOP Supermarket - World Expo 2015, format: supermarket, location: Milan, Italy, store category: concept urban food store, size of store: 7,000m2, first opening: 2015, average visit time: 30 minutes, designers: Carlo Ratti Associates.

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its nutritional properties, its origin, the presence of allergens, waste disposal instructions, correlated products and promotions and other data. This experience is made possible by sensors that use body detection to interpret the customer's gestures. Inside this store, the storytelling element is reinforced by a long live data visualization wall, composed of monitors, where customers can view information about store merchandise, including special offers, cooking suggestions, social media posts, and daily top-selling products. This supermarket represents a further step in the exploration of how data can promote more informed – and hopefully more sustainable – consumption patterns. Shoppers interacting with a fully transparent supply chain can come to a better awareness of the limits and availability of natural resources. This, in turn, can potentially encourage a stronger use of fresh, local products and even new social links among people. In the future, we may think about leveraging the sharing economy and peer-to-peer dynamics to create a free exchange area where everyone can be both a producer and a consumer.

Other New Retail Format is an online and offline integrated supermarket, offline experience, and online transactions. It mainly solves the problem of lack of high quality, safe and fresh food in the fresh food industry. It is a series of chain stores, based on a unique spatial prototype[7]. The main function of the store covers the dining area, the market and the supermarket. Most of the stores set in residential areas. The consumers need to download the App to make the orders for both online and offline scenarios and to wait for the delivery.

The use of internet technologies, such as big data, the Internet, the Internet of Things and automation technologies, to achieve the best match between people, goods, and markets, and to achieve automatic integration of warehouse and distribution to greatly improve logistics efficiency.

[7] For an example of store layout for the kind of prototype, Hema Xiansheng, see the link: http://5b0988e595225.cdn.sohucs.com/images/20181023/fc93bb22f8294a03977621b468b7a25a.jpeg, a ceiling layout shows there is a automatic conveyor system for collecting products in the store for the online orders, see the link: http://5b0988e595225.cdn.sohucs.com/images/20181023/9f6c1cb98a784ad583d311032e2ffd49.jpeg, the automatic conveyor belt to collect the items for order online, see the link: http://5b0988e595225.cdn.sohucs.com/images/20181023/37ece843264a40278191dee52f39948e.gif. Self-checkout combined consumer-side online App, see the link: http://5b0988e595225.cdn.sohucs.com/images/20181023/dc60bcbe605d44ae889ed09ea9d9f9ee.gif

About the project: Name of project: Hema Xiansheng, format: supermarket, location: China, store category: urban store, size of store: 7,000m^2, first opening: 2017, average visit time: 40 minutes, designer: Hema fresh team.

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It is based on five criteria:

- Online and offline unified members
- Unified inventory
- Uniform price
- Unified marketing
- Unified settlement

The supply chain involves the entire business chain from commodity procurement to warehousing and logistics to distribution to consumers.

Another category of food store is focusing on the offer to consumers the set-up food kit which can make the cooking process more efficient. So, from the point of the backstage, it is a data-driven platform that collects all of the subscriber preferences. These customer insights allow the company to constantly improve their value proposition. By leveraging the power of data, it is in a great position to optimize their own supply chain. The companies are also able to directly improve customer experience by being able to make accurate predictions of what recipes customers want next. Taking advantages from their main service, the companies develop an offline shopping unit[8], its goal is revolutionizing lunchtime in the workplace and to make every day work easier and more efficient with a wide range of products on offer. The vending unit allows the consumers to use the touch screen to order and to use the membership card or fingerprint to finish the payment after the first registration. At the backstage, the real-time sales data allow flawless control of the assortment and enable quick and flexible changes for each individual location. Furthermore, it allows for continuous development of the product portfolio.

[8] For an example of Hellofresh Go fridges, see the link: https://industrieanzeiger.industrie.de/wp-content/uploads/H/e/HelloFreshGO_K%C3%BChlschrank_1-990x1483.jpg, and http://ir.hellofreshgroup.com/download/companies/hellofresh/pics/HelloFreshGO.jpg
About the project: name of project: Hellofresh Go, format: food fridge, location: Europe, store category: micro vending space, size of store: 1-2m^2, first opening: 2017, average visit time: 3 minutes, designers: Hellofresh team.

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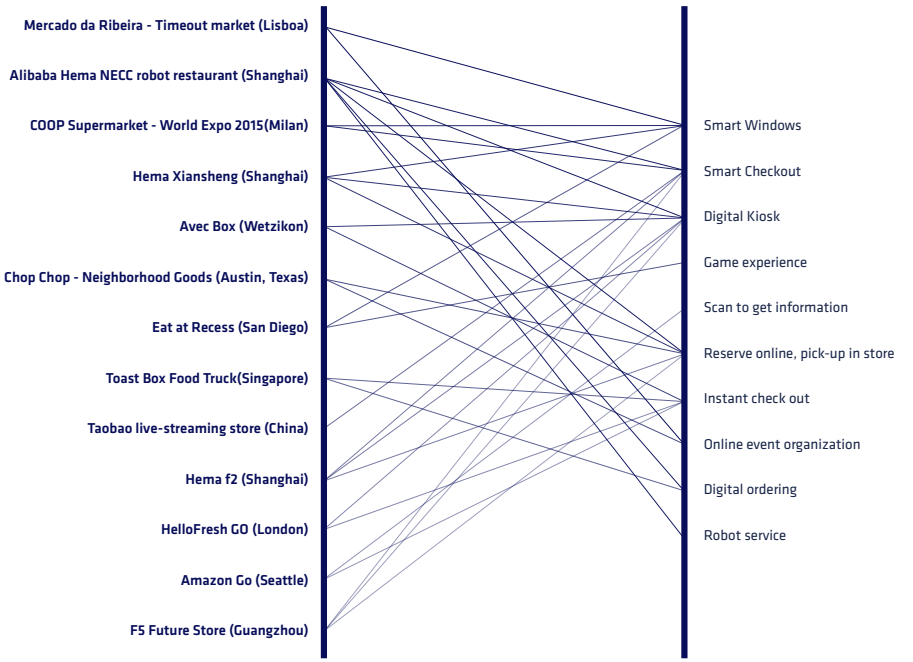

Fig. 65 - Digital applications which were adopted by different food stores

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8.1. Prototypes_food

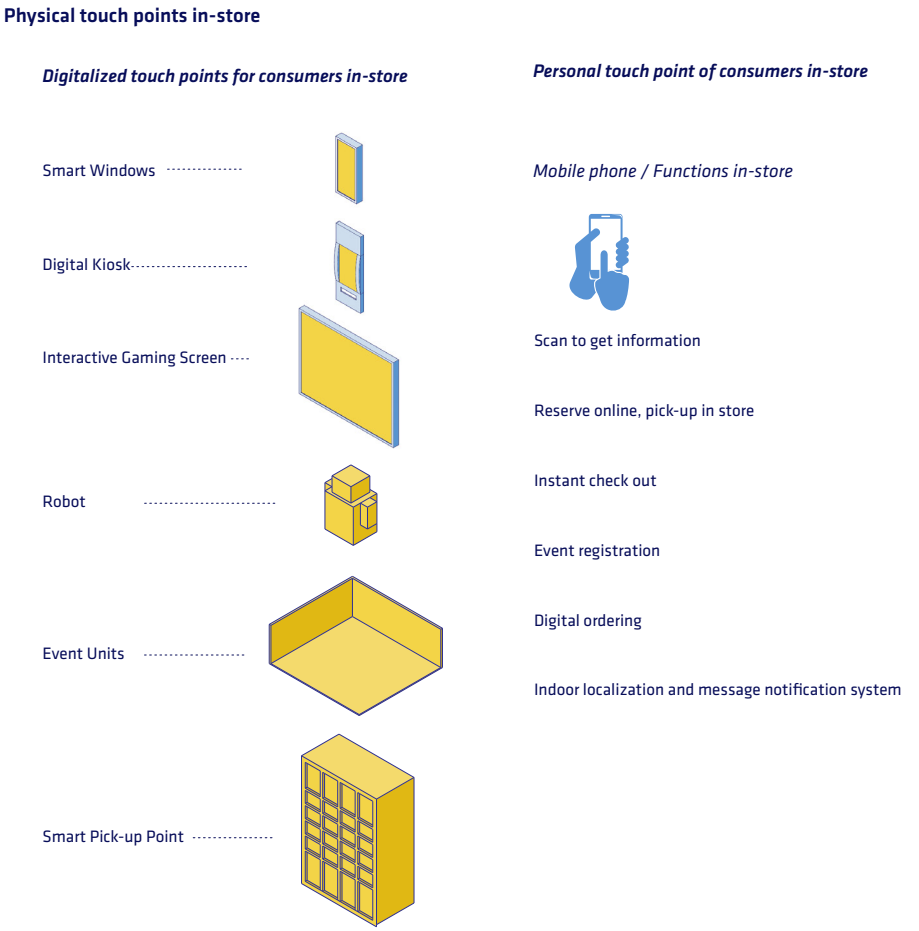

Fig. 66 - Digitalized phygital touchpoints of food stores

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8.1.1. Holistic store_food

Area: 1,500-12,000 m^2
Business hours: 9:00-22:00

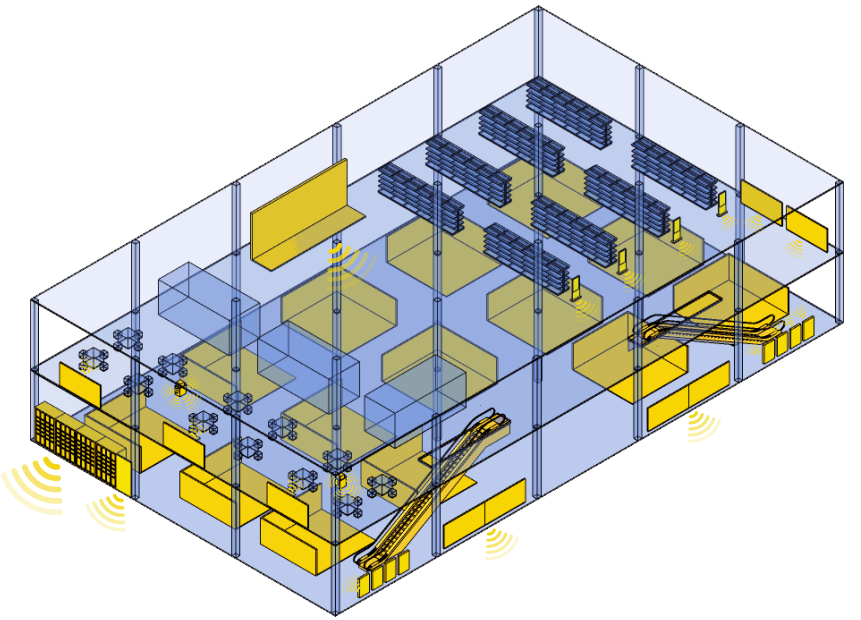

Fig. 67 - Space prototype of Holistic store_food

Holistic store can be considered as hybrid food retail. This type of store emerges must-have aspects of in-person shopping, means to bolster the experiential component in store, for example a sommelier to guide customers down the wine aisle, a deli assistant to offer insights about meats and cheeses, tasting and sampling opportunities, and the like. Food is a culture and lifestyle, the holistic store contains multiple activities about food, shopping, learning cooking, eating and social activities. So holistic store usually has large scale with more than one floor. To show more products and more efficient use of space, after combining the App, real experience space is in a dedicated area, even if products can be found in the display area. Interesting in this sense is the connection inside the new points of sale.

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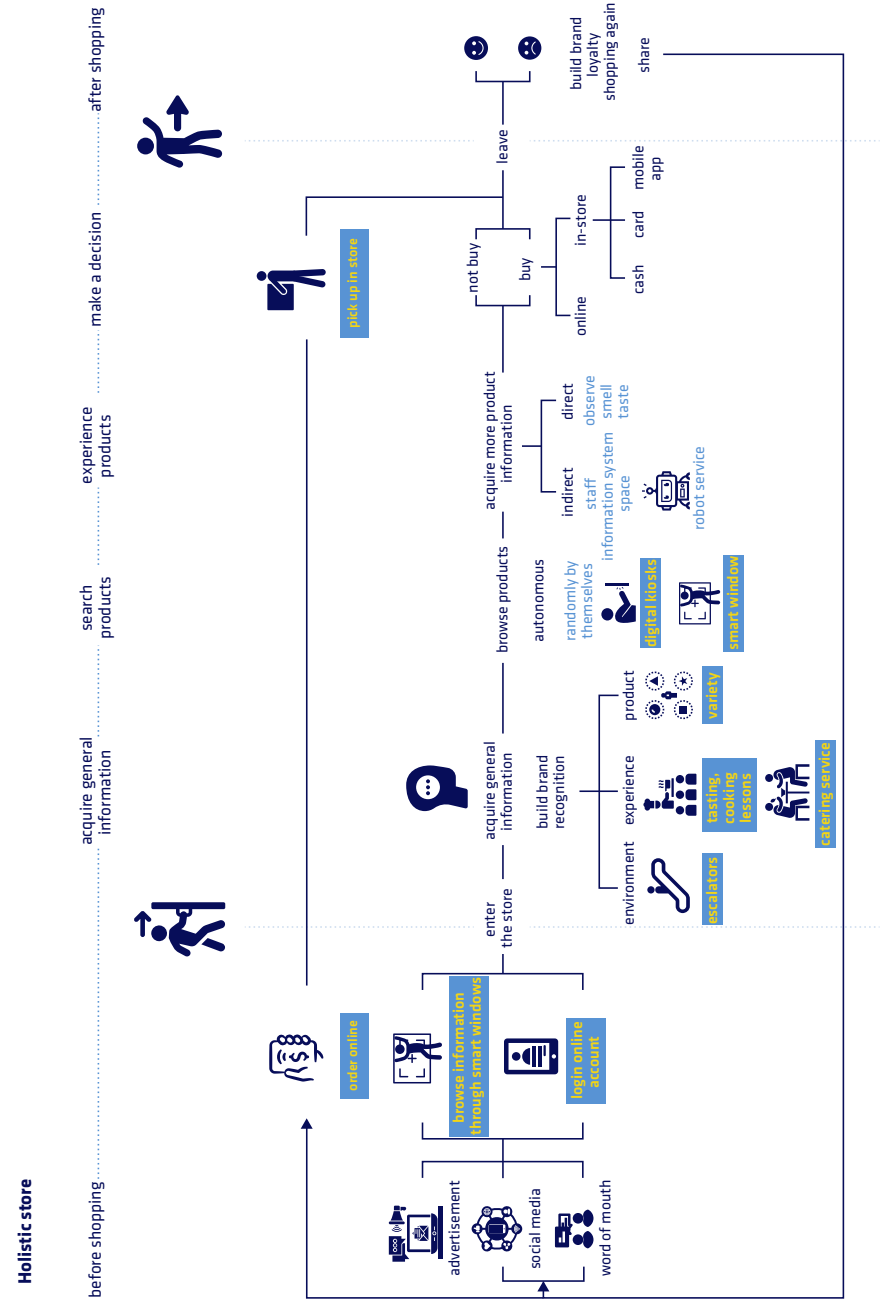

Fig. 68 - User experience journey of Holistic store_food

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8.1.2. Urban store_food

Area: 1,000-8,000 m^2
Business hours: 8:00-20:00

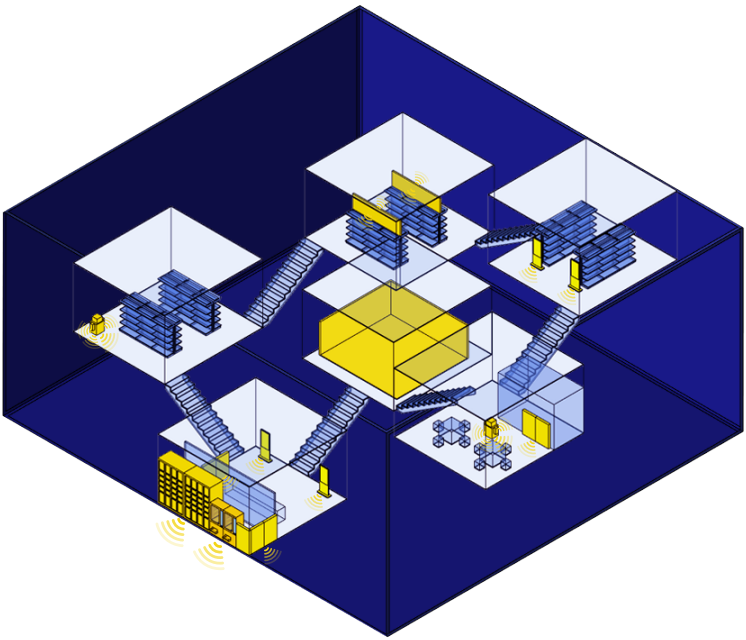

Fig. 69 - Space prototype of Urban store_food

The urban store is the revitalized version of traditional brick-and-mortar stores powered by the implementation of technologies aimed to provide a better, more convenient, shopping experience for customers. They are expected to integrate technologies, like smart checkout, to solve long waiting lines, smart shelves to help customers identify the location of items, integration with the online App to offer personalized recommendations, Robot assistants provide customers with product information consultation and other services. With event space, it can be used as a venue for event announcements or pop-up stores, etc. Urban stores usually have a larger scale, and their shopping units can be planned and combined based on actual site conditions.

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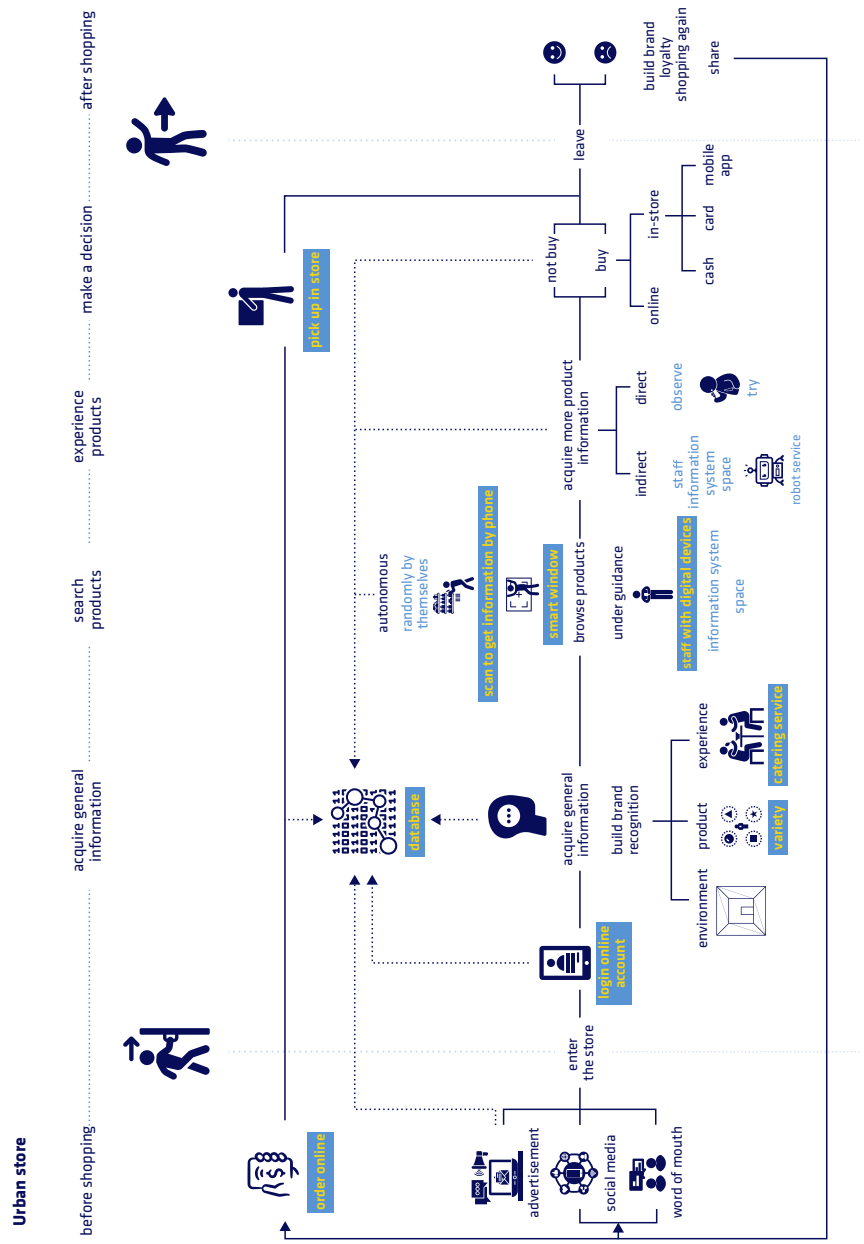

Fig. 70 - User experience journey of Urban store_food

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8.1.3 Neighborhood store_food

Area: 30-500 m^2
Business hours: 8:00-22:00

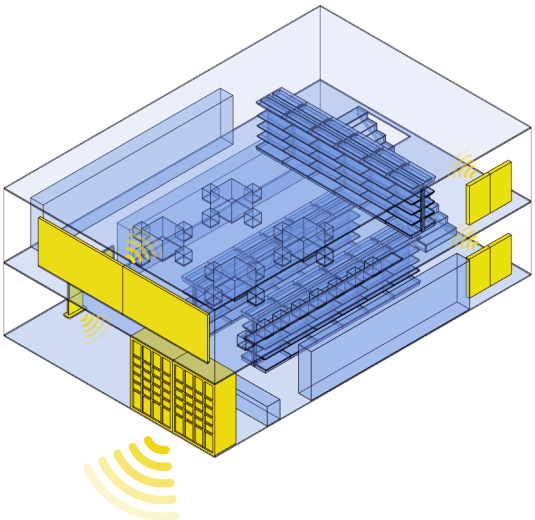

Fig. 71 - Space prototype of Neighborhood store_food

Retailing has mainly been conceived of as a local business focused on neighborhoods. As consumers and consumer behaviors have changed, so too the concept of locale has altered. Neighborhood retailing is now seen as local retailing, but the sense of locality and actions vary amongst consumers and retailers. Multiple retailers have emerged strongly in the convenience market. The concept of convenience has perhaps now been viewed as the 'new' neighborhoods retailing. Nonetheless, independent retailers can help develop a 'sense of place' for a locality and its consumers and thus generate a neighborhood in the classic sense.

With the development of digitalization, neighborhood stores can increase their convenience and attractiveness in local communities by establishing small-scale hybrid retail methods. This type of retail space can be mainly divided into 2 paths. One is for convenient services. The smart shopping is completed through the development of online ordering, the way of picking up the goods in the store, or the way of self-service shopping in the store, and the shopping space in the store is set in the first floor or the area near the entrance and exit. The other path is to set up social activities area and dining areas on the second floor or far away from the entrance and exit, this allows the store to help increase the vitality of the community, on the other hand, it also helps to attract more local consumers.

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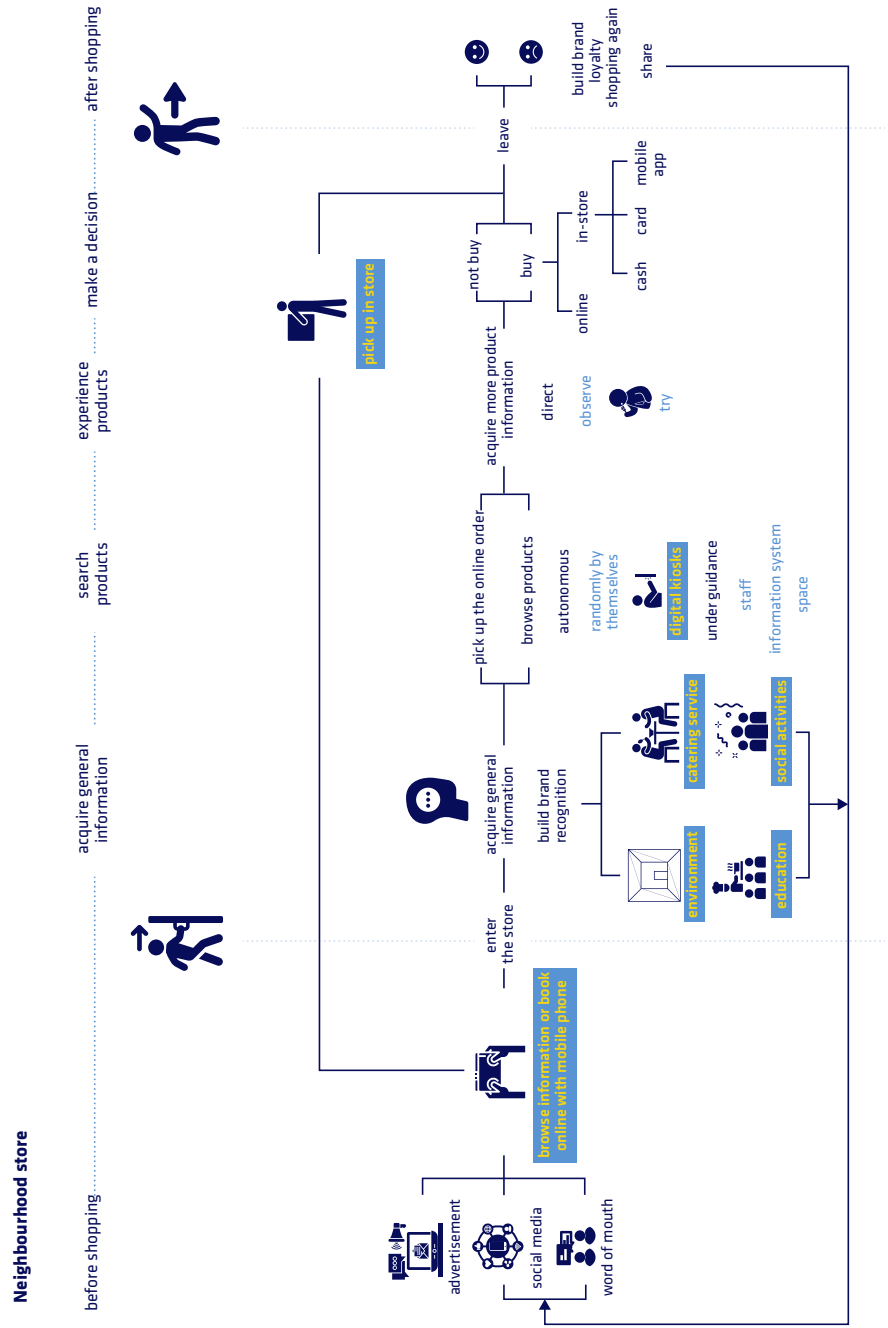

Fig. 72 - User experience journey of Neighborhood store_food

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8.1.4. Live-streaming space_food

Area: 5-20 m^2
Business hours: 0:00-24:00

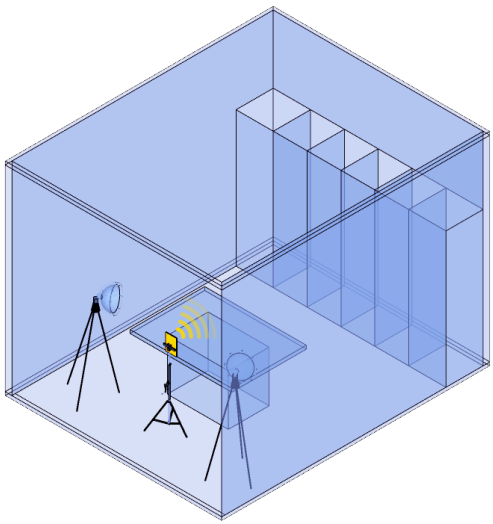

Fig. 73 - Space prototype of Live-streaming space_food

Selling food and drink via livestreams is big business, with brands shifting thousands of products in a matter of seconds. The phenomenon is express in different shapes. There are interactive festive shopping experiences, or one-day branded events, using the platform to integrate live broadcasts with e-commerce site, featuring product demonstrations and allowing the viewers to ask real-time questions and get instant answers. Time-limited special offers for those that bought directly via the livestream. The events recruit influencers to help during livestreams, while also using it as an opportunity to launch exclusive flavors.

The most advanced experimentation is about a new live shopping function, 'Holiday Shop-along Spectacular' teamed up with high-profile creators on the app to hold living room runway shows and dance-offs, all while touting brands sold at stores.

Usually there is a kitchen, or a table set with a series of products that are displayed either in packaging or ready-made and the use of writing and tags, as if it were augmented reality, to get the information needed to be enticed to buy the product. This phenomenon was really started in the world of cooking and is a direct descendant of the infomercials of the 1980s.

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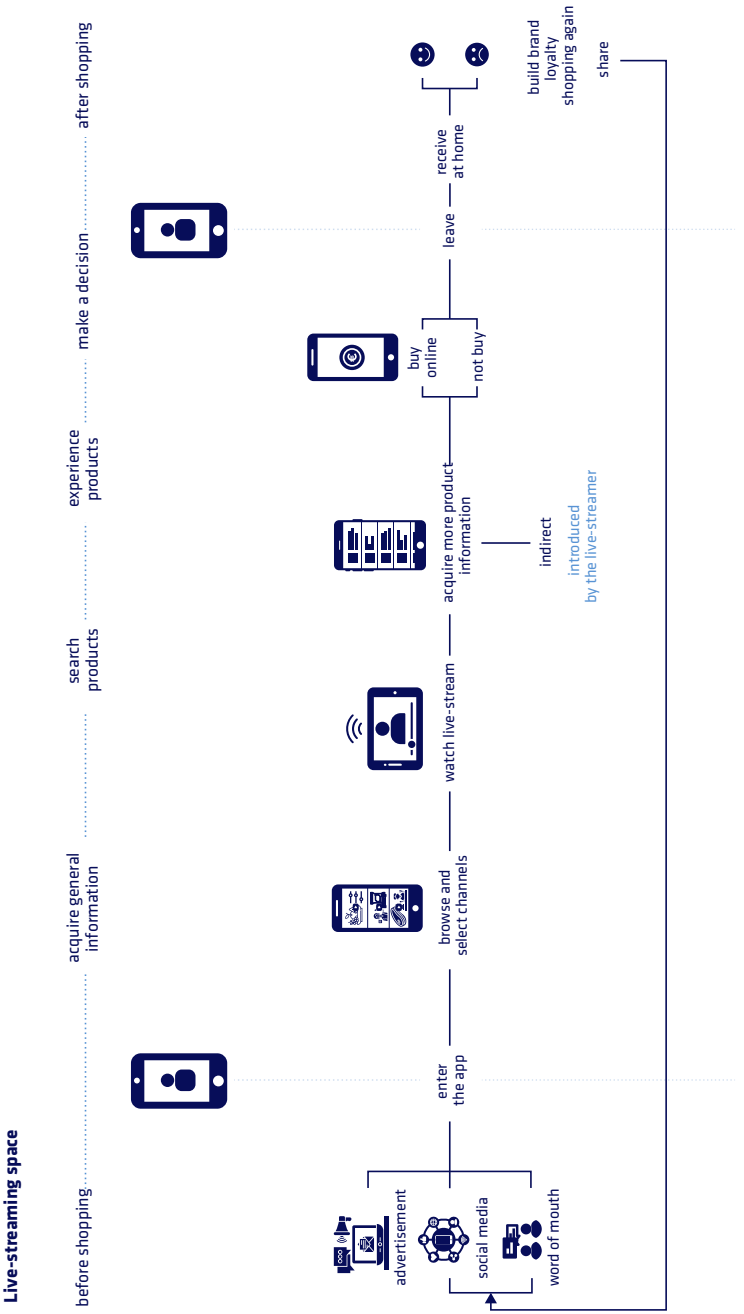

Fig. 74 - User experience journey of Live-streaming space_food

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8.1.5. Pop-up store_food

Area: 10-150 m^2
Business hours: 8:00-22:00

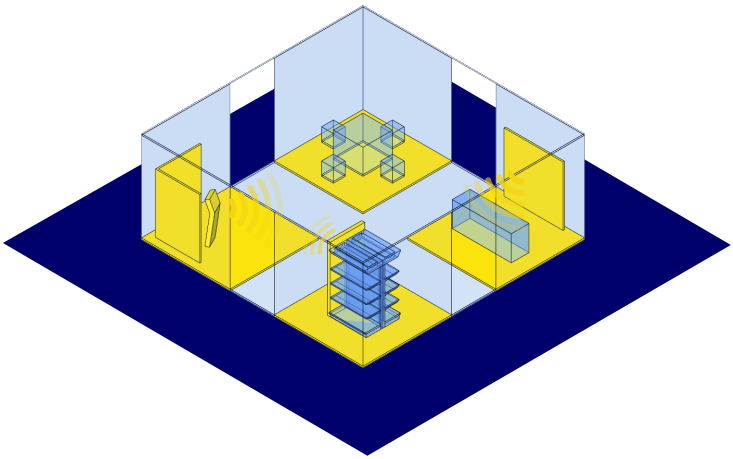

Fig. 75 - Space prototype of Pop-up store_food

The pop-up store is temporary retail space and it iss ice-breaking showrooms where people can engage the brand or try out its products for the first time. This type of store has become a go-to marketing strategy for retailers looking to extend the brand and introduce new products. Pop-up shops are being developed in a variety of shapes and sizes, as well as locations. They can be found in a traditional brick-and-mortar store — as a store-within-a-store - as a standalone kiosk or even via a motorized vehicle, taking the lead from the food truck craze.

Consumers expect that the pop-up shopping experience will be unique-different from the average brick-and-mortar visit. These experiences include unique services/products, localized assortments, optimal pricing, convenience, a fun experience.

The ephemeral and moveable spaces are able to achieve high impact and seen by a large audience with low costs. The relationship between the retail space and context is the key. At the same time, there should be contrasts between them, in order to attract people's attention and offer memorable shopping experiences. Furthermore, the outside appearance is often an eye-catching and semi-enclosed structure, since unlike other type with strong motivation to enter, this type needs to stimulate people's curiosity to enter. In addition, the space has flexible and changeable attributes and it's usually designed to be easily assembled or disassembled with light materials.

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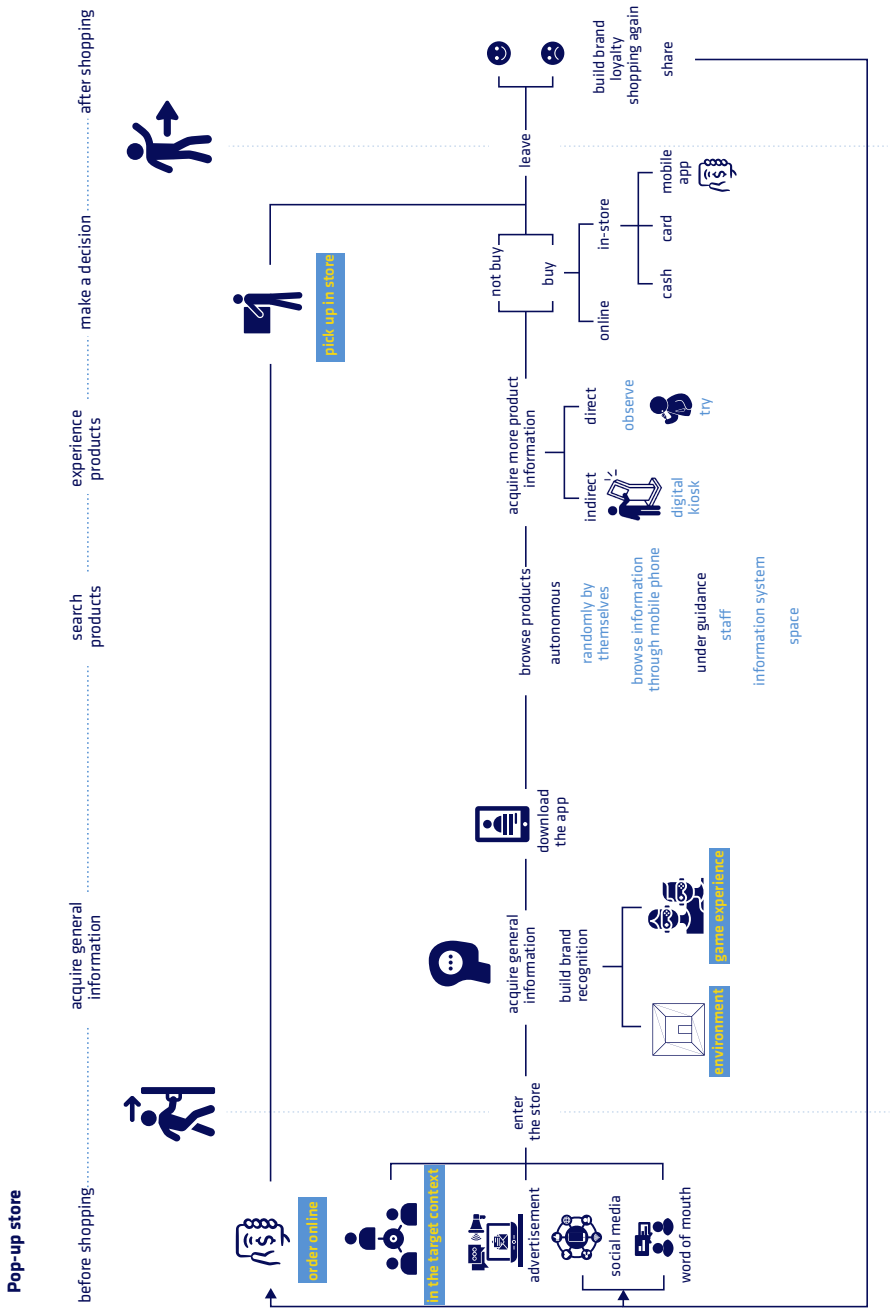

Fig. 76 - User experience journey of Pop-up store_food

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8.1.6. Mobile store_food

Area: 5-30 m^2
Business hours: 6:00-3:00

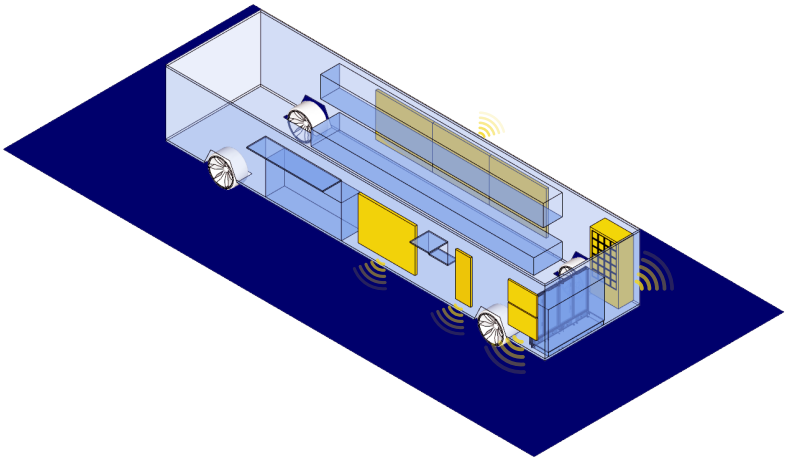

Fig. 77 - Space prototype of Mobile store_food

Food mobile store can be considered as the upgraded food store type - food truck. Food stores on wheels are staying competitive with the latest apps and technology.
Food truck growth is outpacing traditional food service options by 1.1 percent, according to Intuit. As more and more food trucks hit the road, standing out through technology is one way to stay ahead of the competition.

New software and hardware are allowing food trucks to become more efficient and convenient for customers. For instance, there are hundreds of POS systems which optimized or specifically designed for food truck use. To get the word out or draw in hungry customers come lunchtime, invest in marketing apps that can geo-track the location of the mobile store and let users know where the food truck is and where the store will be throughout the day. Other technology can make the truck's presentation more impressive to the customers, like digital menus and food safety software. In addition, some interactive games through the digital screen on the side of the truck will create better experience for customers to kill time while waiting for the food preparation, as well as building a good image of the store.

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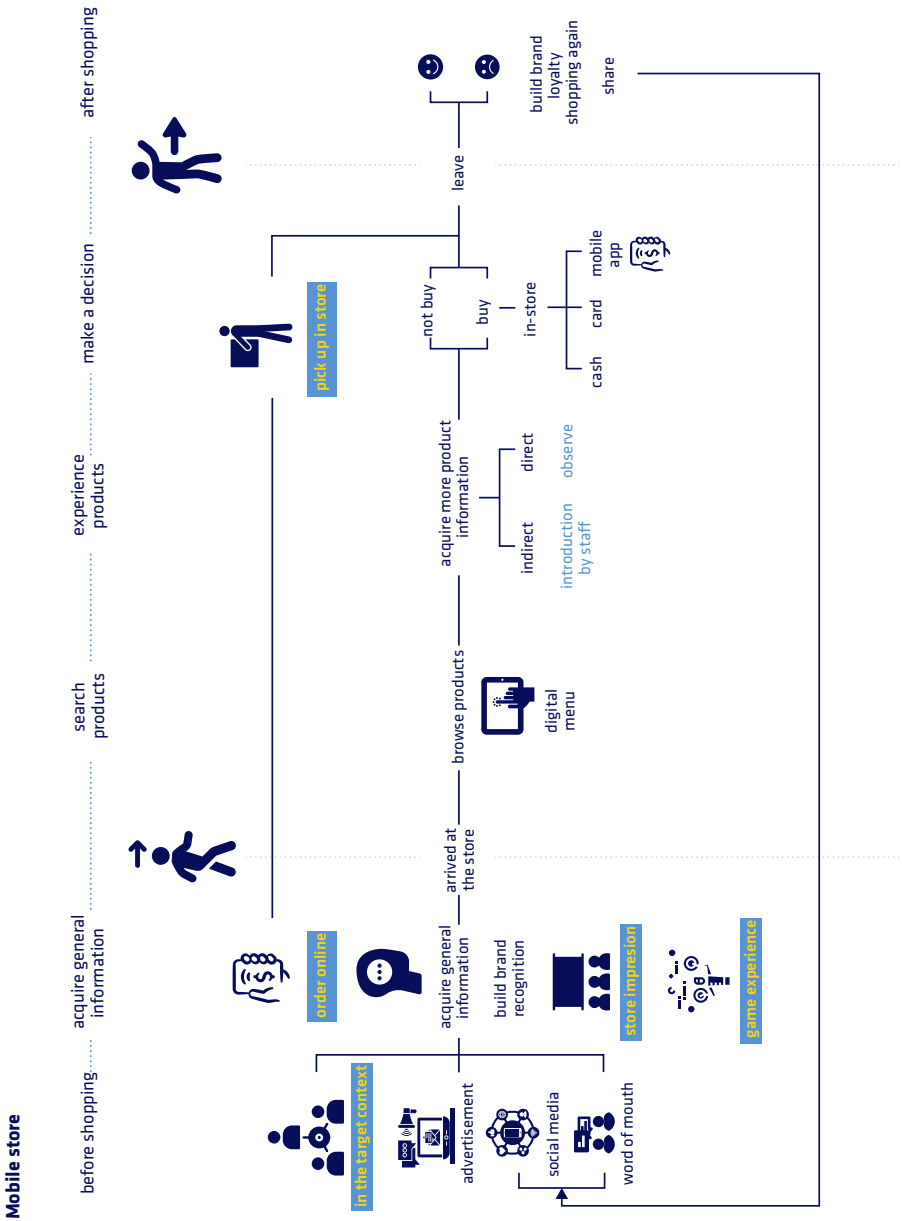

Fig. 78 - User experience journey of Mobile store_food

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Especially during a pandemic or post-pandemic period, mobile stores can play an important role because their mobility can provide flexible and relatively low-touch services. Mobile stores can be loaded with contact-free pickup machines, where customers can place orders via mobile apps and come to the store nearby for contact-free pickup, reducing the risk of the spread of the disease while obtaining essential services.

8.1.7. Self-service store_food

Area: 50-100 m^2
Business hours: 6:00-2:00

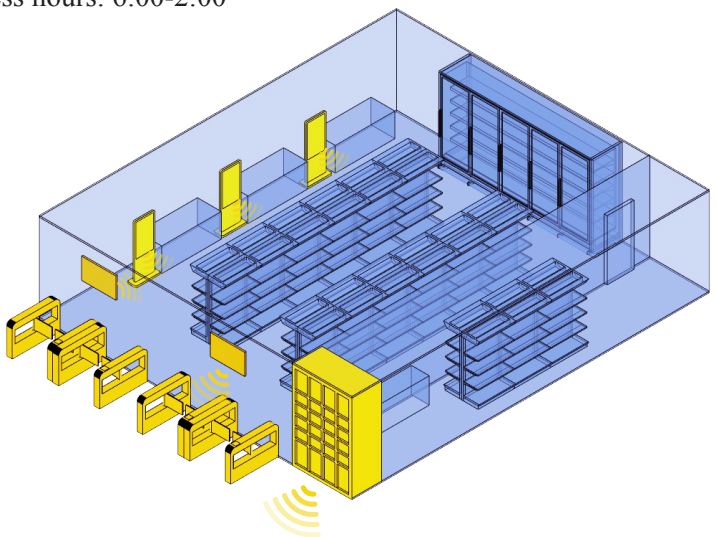

Fig. 79 - Space prototype of Self-service store_food

The digitalized self-service store is convenience retail, its key characteristics are location, speed and food.

The drivers for this enormous growth in convenience retail are the ongoing urbanization (both in developed and developing countries), declining household sizes and overall, consumers' preferences for smaller and more frequent shopping missions. Moreover, their proximity to urban areas makes c-stores the perfect candidates for offering new services like picking up "click & collect" items - driving more traffic to the stores and increasing impulse purchases - or offering a quick-service restaurant inside. Convenient store (C-store) retailers must evolve with consumer demands

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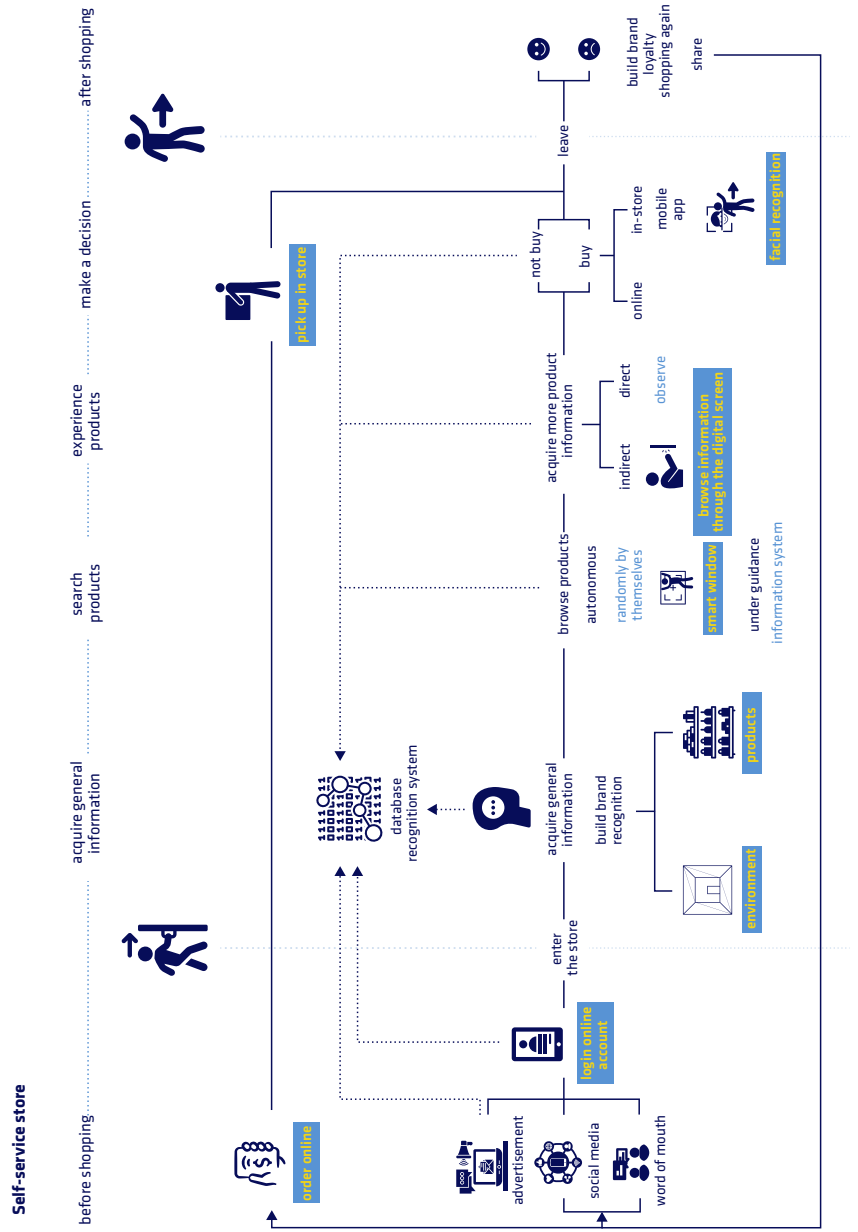

Fig. 80 - User experience journey of Self-service store_food

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to grow market share and to deliver on the promise of convenience, yet c-store retailers cannot do this alone. They need the right store automation technology - and business partners - to continue to meet consumer needs and keep their competitive advantage.

Modern consumers crave personal, convenient and fast service. Innovations like self-service food ordering kiosks, self-checkout counters, mobile payments and real-time personalized offers all contribute to a great in-store experience. Convenience is the king for the c-store shopper.

A study carried out by NACS (Holterman,2019) found that it boils down to location and speed of service is considered 'convenient' by today's consumers. Sixty-three percent of consumers indicate they visit a c-store because it is either close-by or offers much faster service than a traditional grocery store – or both. Ninety-three percent say they live within a 10-minute range of a c-store, while 45% indicated they spend less than three minutes inside a c-store.

8.1.8. Micro self-service shopping space_food

Area: 2-8 m^2
Business hours: 0:00-24:00

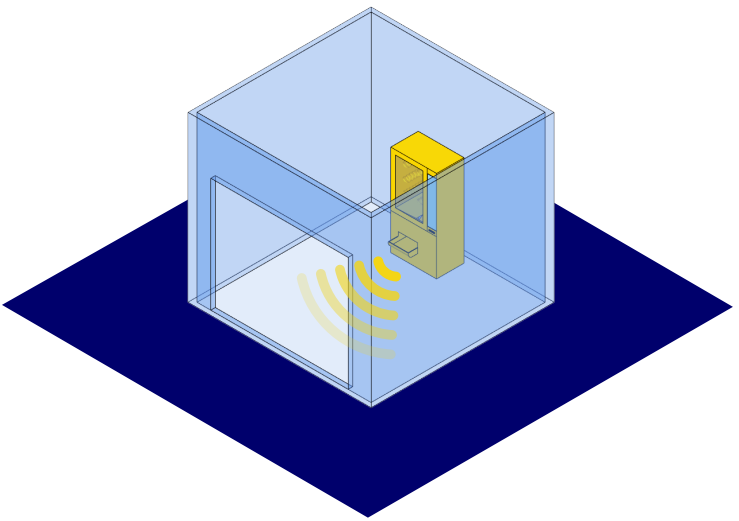

Fig. 81 - Space prototype of Micro self-service shopping spcae_food

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The micro self-service shopping space could be considered as vending machine. Vending machines at first only provides limited variety of snack foods and canned beverages, with the progress of technology, this micro shopping unit developed more possibilities. It can be placed in the office in order to provide more fresh meals, digital screens allow the consumer can understand food source and nutrients through the screen before ordering which can create a better shopping experience. The payment process can be simplified by using membership cards, fingerprint identification or scanning QR codes. Its behind-the-scenes data collection and statistics system can optimize product profiles based on customers' food preferences to provide more diverse and personalized products to suit consumer needs.

This micro retail unit is characterized by its flexibility and can provide 24-hour service all the time. It can be used as a means of events or close to the consumer's activity area to provide convenient services.

The vending machines, which are the ATMs of food, have their own literature as spaces capable of generating socialisation and aggregation. the design aspect of the space in front of this sales device should therefore not be overlooked. The most evolved form is the automatic shops 24 hours open. In recent years, these businesses have expanded rapidly, accentuated during the lockdown period when Italians rediscovered neighbourhood shops integrated with technological services such as e-commerce and delivery.

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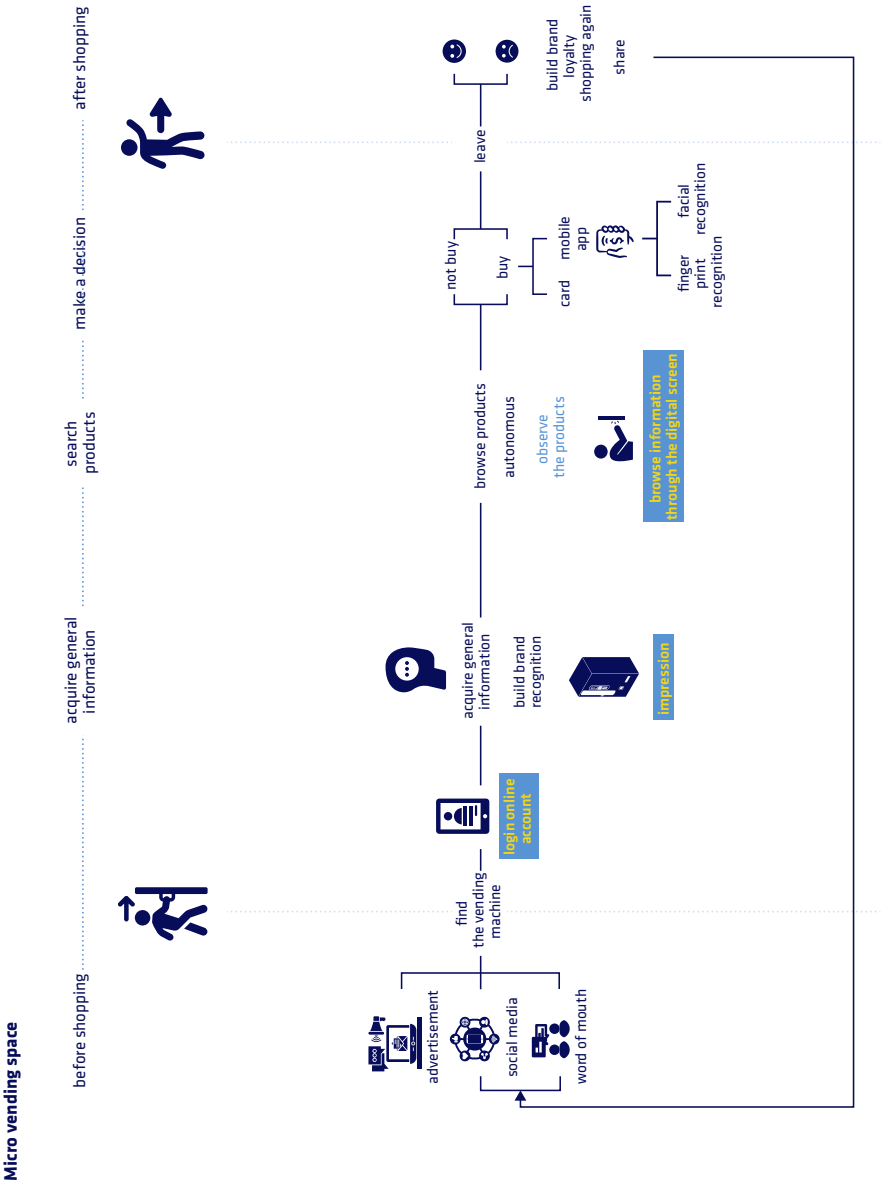

Fig. 82 - User experience journey of Micro self-service shopping space_food

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8.2. Comparison between food stores

type	store type	exsist store	space stability permanent-temporary ○●	business hour short-long ○●
Experience	Holistic store	Timeout market Lisboa – Mercado da Ribeira	○○○○○●●●●●	○○○●●●●●●●
		Alibaba Hema NECC robot restaurant	○○○○●●●●●●	○○○●●●●●●●
	Urban store	COOP Supermarket - World Expo 2015	○○●●●●●●●●	○○○○○●●●●●
		Hema Xiansheng	○○○○○○○●●●	○○○●●●●●●●
Temporary event	Pop-up store	Avec Box	○●●●●●●●●●	●●●●●●●●●●
		Chop Chop - Neighborhood Goods	○●●●●●●●●●	○○○○●●●●●●
	Mobile store	Eat at Recess, San Diego	○○○○○○●●●●	○○○○○○●●●●
		Toast Box Food Truck	○○○○●●●●●●	○○○○○○●●●●
Quality service	Live-streaming space	Taobao live-streaming store	○○●●●●●●●●	○○○○○●●●●●
	Neighborhood store	Hema f2	○○○○○○○○●●	○●●●●●●●●●
Time and cost efficiency	Micro self-service shopping space	HelloFresh GO	○○●●●●●●●●	●●●●●●●●●●
	Self-service store	Amazon Go	○○○○○○○○○●	○○○●●●●●●●
		F5 Future Store	○○○○○○○●●●	●●●●●●●●●●

interaction real-digital ○●	space funtion sale-experience ○●	sense involed single-multiple ○●	staff service sale-various ○●	storage space abundant-scarce ○●
○○○○○○●●●●	○○○○○●●●●●	●●●●●●●●●●	○●●●●●●●●●	○○○○○○●●●●
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Fig. 83 - Comparison between food stores

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8.3. Analysis_food stores

Characteristic analysis of sport and health retail types

Fig. 84 - Characteristic analysis of sport and health retail types, part1

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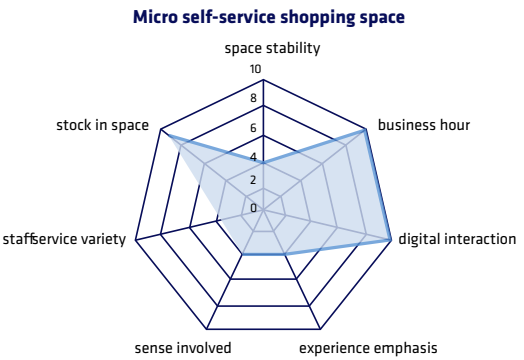

Fig. 85 - Characteristic analysis of sport and health retail types, part2

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Conclusions

This book has been a work of mapping the phenomena of digitalization that effects spaces and above all the world of retail.

Some of these phenomena concern the services made possible by Apps, which allow interaction between users and brands, but we have chosen those which are in every way redesign spaces, changing their forms, hierarchies, flow systems, arrangement of goods, experiences, and dimensions.

Apps are in fact the most important tool in the game between digital and physical, or in the *phygital* world as it is now defined. They are real lures, both in the function of solicitation, through notifications linked to geo-location, and as highly responsive systems with respect to engagement and requests. There are brands that place advertisements of their products in waiting areas (bus stops, trains, etc.), with the relative QR codes, to be purchased by simply taking a photo with your mobile phone using the App. These are interesting phenomena because they are still evolving, where we can glimpse very advanced innovations but with evidently little impact and a short future, while others -that are still premature- are proving capable of indicating radical turning points for prefiguring the scenarios of the near future in retail.

The first revolution concerns the very idea of the consumer, who never as much as today wants to interact with decisions, indeed often influences them, directs them. Those who enter a shop already know what they want to buy, but they want to understand if it is the right choice, or they want to understand in person what features the product has, or they simply want to get in tune with the brand or play, to be entertained in an optimal context for what they want to buy. Research on the subject shows that three quarters of consumers search for product information before arriving in the shop, but also during, using the network (and communities) as an advisor accompanying product choices.

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There are extreme cases in which the point of sale becomes merely a place of storage from which to collect what has already been purchased online, but there are also places where the product is a unique piece, and the context is its perfect setting. Purchasing is therefore a part of the experience in the shop, which provides expertise, which stages people's desires, which also becomes a social point of attraction for groups or small communities with the same interests and passions.

The space thus takes on completely new dimensions and characteristics, in addition to sales, that of exhibition, performance, entertainment, engagement and sensory immersion. The store is a place tailored to the desires and sensory, psychological, and temporal needs of those who want to encounter the brand.

Digital interfaces, be they mobile, screens, Apps, VR, AR or other, serve to activate a relationship between the brand and the customer that expands the spaces, and distributes various forms of store in a wider territory, sometimes beyond the physical space of the shop, a network on an urban scale that triangulates between physical points and digital nodes.

In this sense, the relationship between customer-shop-brand is participatory, often based on immersive, interactive, and gaming experiences, to confirm a proactive and not purely passive mode.

The game can start before arriving in the shop through purchasing methods via streaming platforms, but it can also involve an attraction mechanism, through Apps that detect presence around the shop and send engagement notifications, or in the store in mixed forms.

These transform the store into a place with areas for playing, meeting, performing, learning, testing products, etc. as well as selling.

The retail designer must therefore consider all these aspects of mixing real and digital together, to make each of the two experiences integrated, functional to the engagement and memorability of the experience and consequently of the brand. The attention threshold has now plummeted to 8 seconds (Andreula, 2020) and we need to design customer journeys that compete in engagement with those digital platforms cannot offer.

The pandemic, which has accelerated some digitization processes, has also introduced other practices more quickly than in the past.

This is the case, for example, of micro-automated stores, which underwent exponential growth and spread during the pandemic, with the need to increase product and space volumes compared to those already existing.

With the pandemic, many shops, especially neighborhood ones, could not withstand the impact and competitiveness of the home services of large

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online shopping platforms and reopened (those that could) inventing new functions and new services for the nearest area.

Social distancing due to the pandemic has also introduced the theme of reduced presence and compulsiveness in favor of more programmed behavior, the need for access by reservation and the continuous sanitization of surfaces and products.

We are therefore at the end of many of the paradigms that have guided in-store retailing for centuries and a new era has begun, that of the extended store, which will be driven by digital transformation. The extended store will have an analogue, physical and a digital dimension, all coexisting and sharing the same success. It will also be a shop spread throughout the territory, with points of contact between customer and brand spread throughout the territory. By its very nature, the extended store will be more connected, more available, more open and at the same time closer, mass-customized, but above all it will be more digitalized and able to fulfil and modify itself more quickly and faithfully to needs and desires.

Shops will not disappear in the 21st century, but they will have to change (if they have not already done so) to survive. They will have to evolve by integrating technological solutions that are not only back-end (as they have done so far), but front-end, and therefore available to customers in the shop as in the cases reported in the book.

For this reason, many examples in this book refer to countries where this transition is already advanced and assimilated in the various forms of everyday life.

This phase will have to look at design as a tool and method for designing greater sustainability, for increasing awareness in consumption, for promoting circularity in transactions, for achieving better sharing of goods and exchange processes. Design will have to regain a central role in the design of retail spaces, whose fundamental characteristics are authenticity, multisensory and co-creative storytelling, able to integrate physical and digital experiences and design spaces that can accommodate bodies and their humanity and explore a future in which algorithms and heuristics are both a balanced part of our experiences.

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引言

Silvia Piardi

许多学者将当代社会描述为商品社会，其中里奇（Rich Gold）在2007 年发表的一篇文章中用“饱和（Plenitude）”一词定义了我们的社会:“商场是每种和各种产品的茂密丛林 ..... 不仅每天有五十种衣服（鞋子，袜子，衬衫，裤子）和新产品，而且每种都有数千种变化。商场的货架上摆满了数百种食物，而且每种食品又有数千种变化。 并且一直在添加新类别的商品 .....”（Gold. R. 2007）。

我们的社会以不断发明、生产、销售、购买和消费的商品为特征……在不断的仪式中，希望我们忘记稀缺和饥荒的时代。

货物的流动塑造了领土和城市。

门店是交流发生的空间，随着销售和消费流程的演进而不断变化和进化，融合了不同的交流方式。因此关注过程是十分有意义的，正如作者在本书中所做的那样。

随着越来越迫切的需要，我们的生活方式和社会所基于的模式被重新思考，并且政策也在向对环境影响较小的方向推动，因此商业世界正在被批判性的看待。

安娜 · 芭芭拉（Anna Barbara）和马悦梅合著的这本书，以系统而深入的方式组织了一个前沿的、庞大的而又缺乏研究的问题，描述了当下的不同类型学，用批判的眼光观察了在不断数字化推动下的突变。

本书研究的假设是商业空间正在转变以应对新的问题，它们往往失去位置和物质性，与此同时，它们变得对品牌越来越重要并倾向于遵循全新的方向和设计模式。在线上与线下的竞争中，或者说合作中，不仅仅是商品，我们的身体也趋向于虚拟，越来越多地投射到我们的化身上。

本书包含丰富而完整的文本、案例研究和最佳实践的阐述，这对设计师和与之相关的未来趋势及利益相关者很有参考与启发作用。

感谢作者提供了如此丰富、准确和有趣的文本，这为我们的书籍系列增添了更多主题。

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第一部分

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1. 商店

牛津词典将商店定义为“存放物品以备将来使用或出售的地方”。商店有两个初始目标：库存和商店，但商店的作用不止于此，因为商店为顾客提供了直接影响购物者态度的完整购物体验 (Brun & Castelli, 2008)。

商店是消费者与品牌之间的接触点。它充当公司的购物窗口，影响购物者对品牌的看法及其在消费者生活中的作用。出于这个原因，商店与品牌个性和定位保持一致，公司使用它来实现品牌知名度（Brun & Castelli，2008）。

公司可能会在种类繁多的商店之间进行选择，以建立品牌与消费者之间的联系。商店的类型决定了为顾客设计的体验的质量，这根据购物的具体策略而变化。不同类型的门店可能针对不同的客户群，因此对形象和运营的要求也不同。例如，旗舰店通常旨在提升品牌知名度，而专卖店则更注重创收（Brun & Castelli，2008）。店铺的成功取决于公司设计运营能力、店铺愿景和形象，遵循品牌特征、产品类型和目标客户群。选择正确的商店类型并有效地设计它都会对收入产生相关影响，建立客户忠诚度并成为竞争优势的来源（Brun & Castelli，2008）。

1.1. 扩展的位置

位置变量的定义对于零售商和消费者都是基础因素，它包括一系列广泛的决策。要考虑的最重要的变量是地理位置和结构类型。场地的选择包括零售点在城市中的位置：市中心或郊区，商业或住宅区等。类型可以是：独立商店，商业中心内的商店等。每一个决定都涉及许多权衡，例如位置的大小、占用成本、客户流量（行人和车辆）以及随之而来的客户便利性、对位置的潜在限制等。 其他影响因素，应该需要考虑的，是产品特性和购物场合。事实上，零售商可以销售不同类型的产品，例如便利商品、购物商品、特色商品；它必须考虑目标市场的密度和分布以及产品的独特性等因素。

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商店和所有不同类型的零售空间不仅仅是交易场所。他们有不同的作用，这对社会更为重要。人们也把购物场所作为聚会的场所，他们可以花一些时间的地方。

今天，我们面临着许多不同类型的购物空间正在从传统零售系统转变为其他类型，例如临时店、快闪店、游击店、店中店、轮上商店、路演、概念店、旗舰店。在这些新形式的购物空间中相互影响的主要因素是"时间"，这是使它们受欢迎的驱动因素。这些几乎全新的购物方式是对具有现代社会经济条件的新消费者社会的回应。过去十年的消费者不再像以前那样天真，他们不容易被品牌愚弄，基本上，他们更多地考虑他们可能购买的产品。所以，坚持让消费者购买的不再是品牌，而是消费者对一件商品产生好奇、关注并最终购买，或者如果他不购买，他至少会得到体验。

此外，金融危机，社会和社交媒体的竞争压力，这是我们新时代新技术的成果，当然，近来的新冠大流行也改变了优先事项和价值观的规模。可以预见的是，在未来社会中的购物行为正在一个时空轴上移动。零售系统可以被视为社会的忠实镜子，通过分析，可以看出他们都处于缓慢但持续的转变过程中。

随着社会对新颖、独特、特殊的设计对象越来越感兴趣，企业和设计师有机会在市场上推出和展示自己的新颖性是至关重要的。的确，互联网和媒体为广告和透明性提供了无尽的可能，但总体而言实体的存在和接触、产品的体验仍然对人有更强的影响。此外，尽管现在有一些新的零售系统和空间类型正在取代它们在行业中的位置，但也许总体上，目前它还处于单调和统一的阶段，我相信如果在他们的设计中加入一些创造性和实验性，他们会对用户产生更鼓舞人心的影响。

1.2. 客户旅程演变

到目前为止定义的客户旅程是一个线性过程，很容易通过可视化地图来说明。新 IT 技术和新客户需求的开发增加了过程的复杂性，使得公司更难识别过程的相关阶段以及它们之间的联系。(Richardson, 2010)

这种日益增长的复杂性尤其源于设备的激增，尤其是移动和智能设备，这些设备增加了公司接触客户和收集数据的可能渠道的数量。特别是，由于物联网技术，连接设备的发展增加了企业可访问的数据量。这些数据与来自社交网络和在线行为跟踪工具的其他数据相结合，能够在信息和渠道方面更好地定位客户，并提供更个性化的体验，这要归功于定制客户档案的生成。访问如此大量的数据的缺点是，既缺乏管理所有这些数据的特定技能，又增加了描述和管理客户旅程的复杂性。

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渠道和触点的增加也产生了另一个相关问题：多渠道现象。多渠道现象通过改变公司与客户之间的互动规则来影响客户旅程。重塑的公司与客户之间的沟通通过几个渠道同时发生，并要求信息在彼此之间和整个客户生命周期中保持连贯和一致。

关键因素是数据，因为能够进行良好的客户体验分析已经成为企业理解和改善客户旅程的关键能力。最初设计客户旅程映射过程是为了跟踪和精确描述购买和消费过程。现在考虑它是不现实的，因为整个过程不再由公司控制。然而，能够设计旅程，即使它不再是一条简单的线性路径，也能让公司绘制消费者行为，并制定连接策略，平衡自有、赚取和付费媒体的完整生态系统。(Du Boff, 2014)

传统的店面，作为一个与信任、物理体验和个性化服务相关联的熟悉空间，显然占据了一席之地。然而，人们的浏览习惯、便捷的配送、快速定制和便捷的支付方式正在改变着消费者的需求。

1.3. 进步的功能

公司可以通过成为主动驱动者来进一步从客户旅程中受益，他们塑造旅程，而不是被动地对客户追踪的路径做出反应。(Edelman & Singer, 2015) 这是基于为客户创造新价值的旅程来发展可持续竞争优势的关键步骤。为了构建有效的旅程，公司应掌握四种能力：自动化、主动个性化、情境互动、旅程创新。

1.3.1. 自动化

通过在可能的情况下优化和数字化之前手动执行的旅程阶段，公司可以简化复杂的流程，并可以从复杂的后端操作转变为简单且引人入胜的前端体验。

1.3.2. 主动个性化

通过自动化购物过程，公司可以利用客户数据主动定制购物者的体验。这种情况下，公司通过定制与客户行为的互动来定制旅程，从客户与公司的第一次接触开始。或者一些公司提供应用程序，通过不同渠道跟踪客户，混合来自多个来源的数据，创建客户想法和行为的单一视图，从而为销售公司提供可用于影响旅程和定制信息的实时见解。

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1.3.3. 情境互动

新技术能够利用客户在旅途中的物理和虚拟位置信息，根据公司的战略驱动客户进行下一个互动。公司可以利用这一能力，推动客户一路前行，重塑并加强客户体验。

1.3.4. 客户旅程创新

不断试验和分析客户需求、技术和服务以发现改善旅程和客户关系的机会至关重要。 公司应该为他们和客户确定新的价值来源。 创新应该旨在改进操作方面，例如客户与之交互的应用程序和服务，以添加有用的步骤和功能。

创新应该既激进又渐进，使公司能够提供尖端的流程和体验。((Dorner & Edelman, 2015)

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2. 数字化转型

在当代的历史的背景下，数字转型的主题不仅对商业，而且对所有领域都具有战略意义。本书的目的不是要对技术和商业，和／或社会和政治的优劣势进行理论思考，而是调查数字转型正在重塑零售空间、商店、它们的设计以及消费者和其他关于人的体验。

数字化转型超越了简单的新产品开发，它对公司的整个价值链产生影响，这可以是根本性的，也可以是渐进性的。它可以由消费者需求、技术或竞争的变化，或这些方面的任何组合驱动，因为它们都是在一个独特的生态系统中相互关联的。对于一些公司来说，数字化转型是在一个不断重塑自身规则的世界中生存的唯一解决方案。

数字转型一词指的是由数字技术和下游市场效应引起的变化所衍生的任何重组过程。(King, 2013)

数字化转型超越了通过实施新技术对现有流程的优化。事实上，这一现象是打破价值链、进入新领域、创造创新商业模式的关键因素。

数字化转型可能涉及人员、产品和过程。它通过社交网络、论坛和博客等平台的传播让人们参与进来，这些平台正在彻底改变人们交换品牌或产品信息的方式，以及公司宣传产品和服务的方式；但它也包括新的商业方式来执行过程，如共同创造和众筹。数字转型通过新技术（如可穿戴计算、增强现实、开源等）带来的机遇来涉及产品。通过云工具、移动互联网、传感器、大数据或机器人等新技术的影响，数字化转型涉及过程。(King, 2013) 由于经济、政治、法律和社会因素的不同，技术趋势在不同国家之间变化，传播速度也不同。无论如何，由于数字化和移动设备的普及，消费者的购物行为和购物偏好被转化为数据。

在这种情况下，大数据扮演了一个重要的角色，它能够对客户及其需求进行分析，并几乎实时地将其传输到商店。

随着大数据的发展，一些公司甚至正在开发名为“用户画像”的族志学研究。

通过数据研究和用户画像，零售商可以根据消费者行为更准确地定位 营销策略，为消费者提供更好的体验。这种方法创造了“智慧实体

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商店”，即 i-store。与等待新消费者进入的传统零售商店相比，智慧商店提前锁定了目标消费者。通过多个接触点，他们将流量从在线转移到离线。现在越来越多的消费者习惯在购物时使用移动应用程序，即 app 来查看附近的品牌活动。i-store 通过 LBS (Location Based Service 基于位置的服务）推出优惠券的营销方式，首先吸引这部分随机消费者的注意，也吸引 5 公里范围内商务区的即时消费者。同时，i-store 可以在新产品上市前不断发布营销内容。可以吸引消费者的注意力，吸引潜在消费者到店，融合线上线下购物体验，增加流量和关联销售。消费者可以利用他们的应用程序，直接扫描产品条形码，查看产品的数字内容和评价。他们可以在感受商品的同时了解更多的商品信息。他们还可以通过智能导购设备 RFID 智能镜快速找到自己满意的商品。它使购买决定更容易，同时提供了更多购物的乐趣。在 i-store 中，消费者甚至可以将自己喜欢的商品放入电子购物篮中，以便日后在家时选择，或许品牌可以向这些消费者推送折扣券，以便进行向线上转换。另一方面，消费者可以在网上购买，并到附近的商店提货。这种线上线下结合的新型购物体验，不仅突破了传统商店在空间和时间上的限制，更有可能激发消费者的购买欲望，为智慧实体商店带来更多的营业额。通过消费者行为数据实现统一运营，在 i-store 进行岸上交易或消费者再参与，可以依靠数据管理端到端销售，获得全方位的竞争优势。将整个消费行程数字化，作为新的数据存入数据库，以提高统一操作的准确性和有效性。品牌可以利用这些数据来改善他们的店内分类，实现更准确的人和商品匹配 (Liu, 2019)。
消费者和应用程序之间的关系使消费者可以随时获取信息，而不受地点和时间因素约束，这改变了消费者对零售商的期望。探索选项和能快速选择最佳交易的能力，以及实时交互是推动移动设备使用增加的几个因素。今天的移动消费者在购物时需要能够选择时间、地点、产品和支付方式。

2.1. 店内的智能技术

在与实体店的智能互动中，最重要的活动实际上是以下几点：

- 扫描获取信息

消费者可以通过手机上的应用程序扫描任何产品条形码，查看网上和商店库存，并在商店购物时了解更多有关产品的信息。这改变了商店对空间、流通和时间的需求。有些做法涉及产品的选择，有些涉及支付方式，还有一些涉及购买体验和个性化。

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• 网上预订，店内提货

由于全渠道的发展，许多零售商提供网上预订和到店提货服务。消费者可以 24 小时购物，查看商店的可用性，并在他们周围最方便的商店购买产品，使购物过程更有效率。它把商店变成了一个收集已购买商品的地方，减少了它作为一个选择产品的地方的功能。

• 智能结账

新支付方式的技术改进了结账过程，使其更快更容易。消费者可以通过在手机上下载手机 app 进行结账，从而降低排队现象造成的弃置率。它从根本上改变了空间的组织——首先是收银台的位置——以及消费者旅程的后续循环。

• 移动远程支付系统

客户使用移动支付系统通过他们的移动设备远程支付，使用无线 (GSM 网络，UMTS…) 或蓝牙连接。这些支付系统可以通过安装在个人手机上的应用程序来完成。在将来，现金支付可能会被大范围的即时和个人的支付方式取代。

• 移动近距离支付系统

客户通过他们的移动设备使用移动近距离支付系统支付，只需把设备放在支付点附近。该系统基于近场通信技术，在没有任何身体接触的情况下，在几厘米内安全地交换信息。其中一个主要的技术优势是无线连接速度快，操作直观。这种技术实际上被用于使用配备近场通信 (NFC) 芯片的智能手机的支付阶段。

• 即时结账 [1]

即时结账是一个新的自动发票选项和现场支付方法的组合。通过自动发票，买家可以在结账时查看最终订单价格，并使用现场支付方式在自己的移动设备上直接付款并离店。

[1] 一个即时结账的例子，耐克 House of Innovation 000，曼哈顿，美国，2018。见链接：https://d1tm14lrsghf7q.cloudfront.net/media/files/rtf/2018_12_FRAME/ Nike_House_of_Innovation_000_Instant_Checkout-01.jpg

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• 个性化

顾客的期望正在发生深刻的变化。购物者正在创造他们自己的全渠道体验：上网、使用移动应用程序、在购物途中访问商店。越来越多的人希望他们的体验个性化并与自己相关。移动个性化是一个值得关注的趋势。通过正确的手机应用策略，零售商可以通过网页、手机和商店与客户进行个性化联系，不仅可以增强购物体验，还可以鼓励用户忠诚度，增加用户粘性，最终推动销售。

• 组织活动[2]

这是零售商通过自己的 app 与消费者建立更多联系的一种方式。通过移动应用，零售商可以发布一些品牌活动，消费者可以选择参与或不参与，只是根据他们的位置和时间，或者兴趣。这是一个非常重要的现象，因为它使人们有可能把商店看作是一个表演性的地方，而不仅仅是与销售联系在一起，后者的生活与内容的创造和共识联系在一起。

• 购买整套搭配

在零售商店，陈列是视觉营销的有效工具。对于服装零售商来说，应用程序可以让商店提供视觉搜索，人们可以通过拍摄自己喜欢的衣服来进行选择，以获得类似商品的建议。

视觉搜索对零售商和客户都有一些关键的好处：

a) 提供精确的产品搜索。对于那些需要特定商品的购物者来说，这是非常有效的，因为它减少了顾客需要经历的的步骤。视觉搜索可以立即找到他们想要的产品，而不是键入关键词和浏览结果。

b) 交叉销售机会。如果产品没有现货，可视化搜索可以快速提供类似或相似产品的建议。

c) 更好的用户体验。通过视觉搜索可以更快更容易地找到合适的产品，而且搜索结果应该与购物者更相关。

d) 可以提高商品销售。使用购物者搜索的产品的视觉属性，零售商可以推荐匹配或补充这些属性的产品和内容。

e) 线上线下融合。视觉搜索是将商店和网站链接在一起的一种方式。例如，顾客可以拍下他们在商店看到的衣服的照片来寻找网上库存。

[2] 一个移动应用程序中的活动组织的例子，耐克 app。见链接：www.behance.net/gallery/127903157/smart-retail-app-functions/modules/725324345 和 www.behance.net/gallery/127903157/smart-retail-app-functions/modules/725324351

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• 查看在商店内可用性 [3]

消费者在使用零售 App 时，查看在商店内可用性功能为消费者提供了基于全渠道零售的两种便利：商品可用性和地理定位。商品可用性应用程序告知用户可供购买的商品及其数量。与此同时，如果商品卖完了，它会通知顾客何时有货以及数量。如果顾客在商店附近走动，地理定位可以引导他们到达商店，系统会通知他们商店的促销和活动。最后，通过店内地图支持消费者的购物旅程。通过这种功能，消费者可以将互联网信息与周围的社区和实体店建立联系。消费者可以提前查看自己的需求，不用浪费大量的时间去很多实体店盲目搜索，从而节省时间，提高购物效率。然而，这类应用侵犯了公民的隐私，因为它们向私人品牌提供了有关非严格意义上的商业活动的个人数据。在这个历史时刻，这是最具争议的话题之一，这本书没有涉及，但强调消费者和商店之间关系的重要性和创新本质是很重要的。

无论是初创企业还是知名品牌，都需要放弃线下购物和线上购物之间的错误选择，超越纯粹的全渠道商业，创造性地思考如何以一种整合、整体和创新的方式兼顾零售的数字和实体两方面。

2.2. 随时随地：陈列室与网络房间

零售业在上个世纪发生了变化。 在新兴场景中，实体零售设计师不断面临着应对数字和移动技术的挑战，这也推动了全渠道零售市场的发展 (Ieva, Ziliani 2018)，而消费者的体验也可能由于多种移动渠道的引入而随着时间改变，这也改变了他们的购物行为 (Pantano, Priporas, 2016)。因此，零售设计师被迫开发多种零售渠道（全渠道零售）的综合方法，以确保所有渠道一致（在不同渠道的内容和交互过程方面）、主题一致并相互连接以提供无缝且独特的客户体验（Blom 等人 , 2017; Shen 等人 , 2018）。 因此，注意力从将不同渠道视为独立实体的多渠道概念转向综合渠道生态系统（Shen 等人 , 2018）。

除此之外，全渠道战略融合了线上和线下渠道提供产品信息和执行产品履行的不同能力，为零售商提供优势（Bell 等人 , 2018）。 特别是全渠道消费者同时使用所有渠道，包括传统渠道（即实体店、互联网和电子商务网站）和新渠道（即移动渠道、社交媒体等）。 全渠道允

[3] 一个移动应用程序中的查看商店可用性的例子，阿迪达斯 app。见链接： www.behance.net/ gallery/127903157/smart-retail-app-functions/modules/725324349 和 www.behance.net/gallery/127903157/smart-retail-app-functions/modules/725324353

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许消费者随时随地跨不同渠道购物（Rodriguez-Torrico 等人 , 2017）。某个渠道的偏好在很大程度上受个人特征的影响，特别是冲动性（当消费者突然感到意外、持久、强烈的购买欲望时发生）和触摸需求（在买东西之前评估通过触觉系统获得的信息的偏好）（Rodriguez-Torrico 等人，2017）。

在这种情况下，基于可用渠道的不同使用，新的购物行为会进一步出现：陈列室（showrooming）和网络房间 (webrooming)。 第一种是在实体店研究产品，对商品进行实物评估，然后在线购买； 第二种是基于在线评估产品并在实体店购买（Bell 等人，2018 ； Rapp 等人，2015 ； Verhoef 等人，2015 ）。 在全渠道环境中，陈列室和网络房间行为结合了在线、移动和实体零售机会（Kang, 2018）。

最后，通过邀请设计师管理和维持所有交互接触点和其他设备上始终如一的高质量交互，新兴零售场景似乎转向了关注整体消费者体验而不是单个产品。 这个过程增加了竞争场景的复杂性，因为接触点在技术中朝着所有接触点无处不在的场景发展（von Briel 等人，2018 ）。因此，全渠道零售要想可持续发展，就需要新的人力，以识别和接受新技术所推动的零售环境的变化性质。类似地，设计师将需要重新改造商店，以提供新的感官购物体验，这是在创新技术的交互作用下出现的，这可能代表一种颠覆性的变化（von Briel 等人，2018 ）。

2.3. 商店内的前端应用程序

众多的在商店内的数字创新解决方案大致可分为两类 : 一类是后端的流程创新 (涉及零售商与供应商的互动过程) 或零售商内部流程创新 ; 另一类是在零售店的前端流程中，零售商与消费在商店内的互动过程。最被采用的后端创新是那些旨在改善与供应商关系的创新，商业智能，店内存储管理旨在改善客户体验和最大限度地提高消费者参与绩效。店内应用程序的具体功能是 :

• 在购物过程中为客户提供建议和支持，就可能与选定产品或过去购买的产品互补或兼容提供建议。事实上，64% 的顾客 (Capgemini (b), 2017) 认为缺乏帮助和建议是商店的主要不足之一。

• 客户跟踪和引导，识别客户在店内的位置，提供产品的位置信息，并引导客户进入店内。65% 的客户表示他们在定位产品时遇到了很大的麻烦 (Capgemini (b)， 2017)，因此这个功能可以带来很大的好处。

• 需求识别可以用来解释客户的行为和表达，以便实时识别他们的需求。通过这种方式，获得的信息可以用来改善用户体验，并向每个客户发送定制的优惠。

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• 根据客户的情况或过去的购买情况发送促销和折扣。信息通过零售商提供的设备发送，比如带屏幕的智能购物车或平板电脑，或者通过安装在顾客智能手机上的应用程序发送。65% 的客户 (Capgemini (b)，2017) 认为缺少个性化的促销是实体店的一大弱点。此外，60% 的零售商 (Timetrade, 2015) 确认他们无法提供个性化的优惠。

• 提供有关产品的信息，以提供有关产品的附加信息，如技术特性或成分和过敏原。它还可以提供有关产品的库存可用性的信息。71% 的客户 (Capgemini (b)， 2017) 无法获得有关产品的信息，并在它们之间比较不同的选择。

• 为客户节省时间，减少等待时间和完成购买所需的时间。

• 通过信息丰富感知 : 增强现实与智能镜子、智能试衣间和互动墙等应用程序集成。

• 创造更舒适的氛围，改善店内的顾客体验，推动顾客购买。

具体的前端应用程序有 :

智能镜子 [4] 和智能试衣间 [5]

一些公司研究了增强现实对智能零售设置为客户创造额外价值并为零售商带来利益的影响。研究结果表明，增强现实 (AR) 增强了零售场景的体验价值。

好处与效率、更好的购物价值和娱乐有关。AR 购物系统可以提高用户的确定性，即所购买的就是想要的，从而提高客户满意度。 利用增强现实功能的主要零售应用是智能镜子和智能试衣间。

智能镜子，通过使用物联网技术，如 RFID 阅读器、近距离传感器和 3D 智能摄像头，允许在商店内实现增强现实功能。

智能镜子能够通过 RFID 阅读器识别靠近的产品，因此可以提供有关该产品的额外信息，或显示在佩戴或使用时可能产生的结果，如衣服或化妆品。为了定制这一功能，有必要使用 3D 智能摄像机，扫描

[4] 智能镜子案例，见链接：www.thejakartapost.com/life/2017/02/17/ smart-mirrors-come-to-the-fitting-room.html

[5] 智能试衣间案例，见链接：www.engadget.com/2014-11-27- nordstrom-smart-fitting-room.html

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客户的身体，并显示选定的产品如何出现在已识别的客户身上。它还可以显示相似产品或其他颜色的外观。一个特别设计的增强现实应用程序来实现的，它使衣服与身体形状相匹配[6]。

这些 AR 功能也可以在试衣间内实现，以创造智能试衣间。使用这些房间的购物者购物的可能性几乎是浏览销售楼层的人的 7 倍 (Alert Tech, 2016)。

在试衣间内，智能镜子可以显示物品的尺寸和颜色的可用性，并建议产品以完成整套服装搭配，完成选择后，商店服务员可以将选定商品直接带入试衣间。这可以让购物者更好地了解服装在不同场景（例如夜间）下的效果。在某些情况下，智能试衣间甚至允许通过 NFC 技术付款，以防止客户在收银台排队。除了这些功能外，智能试衣间还可以识别销售楼层和试衣间之间的产品移动。通过这种方式，零售商可以获得有关客户需求、满意度和偏好的更多信息。更衣室的智能镜子让零售商可以知道每件产品的转化率，并在选择后对购买的商品有持续和即时的反馈。这使得试衣间的设计成为一项高风险的操作，其中背景有时会使用感官工具来提供身临其境的体验。

智能橱窗[7]

橱窗是商店和外面城市之间的物理连接。他们的主要任务是吸引路人的注意，以便让他们进入商店，推动他们购买。近年来，物联网技术增加了路人的参与，以传输个性化和更令人印象深刻的信息和内容。

智能橱窗能够识别商店前的行人通道，并投射出特定的短信、广告和信息内容，吸引路人进入。商店入口处的主橱窗展示采用互动橱窗展示和 AR 互动，通过运动传感器摄像头，可以识别路人的性别和大致年龄，直观地推荐合适的产品。该界面还会显示二维码，顾客可以通过扫描二维码，当场从手机上订购推荐产品。顾客还可以通过在商店里完成一个有趣的增强现实游戏来获得优惠券。这为路人提供了娱乐，并起到了互动营销的作用。

[6] 智能镜子可以识别人体形状的案例，见链接：https:// observer.com/2020/02/augmented-reality-retailers-asos-gap-smart-mirrors-mobile-apps/

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智能货架[8]

零售商用屏幕作为视频标签来充实商店。除了可以在后端使用之外，还可以在前端活动中使用。屏幕持续工作，它们基于 RFID 技术、Wi-Fi 连接，在某些情况下还有 BLE 信标。它们可以提供有关产品的信息，并实施营销推广，如交叉销售和向上销售。
这个虚拟空间将可以将现有的产品种类扩展到商店的四倍多。(Shao & Shi, 2018)

室内定位和消息通知系统

它包括一组不同的技术，如智能相机、BLE 信标、Wi-Fi 和 Li-Fi(可见光通信)，允许识别特定客户的位置，以实现在商店中基于位置的推送，广告和跟踪路径，来为顾客提供引导。它可以定位顾客的位置，如使用供顾客使用的零售商设备和顾客的个人设备如智能手机。这种应用程序的目的是目标是定位每个顾客在店内的位置，并跟踪他们的活动，以指导店内活动，提供定制的基于位置的促销活动，并监控购买行为。此外，通过对室内定位系统接收到的数据进行后端分析，可以建立热力图，以可视化店内顾客的流动和活动。

智能结账

根据大量的调查，结账操作和排队等待时间被认为是消费者不满意的首要原因，此外还有缺货。凯捷（capgemini）在其“零售商店的未来调查”(capgemini (a)， 2017) 中发现，对 66% 的顾客来说，排队结账是最令人沮丧的事情之一。全球性报告《从小到大的增长》(Nielsen，2016) 发现，41% 的受访者认为快速结账在他们决定在特定零售商购物时具有很大的影响力。这就是为什么新的智能技术越来越专注于解决这些问题。智能结账的解决方案基本上基于两种不同的技术 :RFID 技术和利用人工智能算法的智能摄像头的使用。

[7] 智能橱窗的案例，见链接：https://technode.com/wp-content/uploads/2018/05/2113869223-e1527649138599.jpg

[8] 智能货架案例，见链接：www.researchgate.net/profile/Robert- Rooderkerk/publication/336574245/figure/fig11/AS:816808277856272@1571753677957/ Cloud-Shelf-in-Tmall-Intersport-store-in-Beijing-Notes-Click-or-scan-the-QR-code-to.jpg

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数字自助售货亭 [9]

零售商在商店里安装自助售货亭，以支持定期的、购买前和购买后的活动。自助售货亭是客户直接用于不同活动的终端，通过浏览目录或寻找特定的服务和定制的优惠；让顾客自己搜索产品，而不需要店员的帮助。在浏览活动结束时，客户可以通过信用卡、现金或移动支付解决方案进行支付。

个性化 [10]

个性化是在零售中，使用个人数据为零售环境中的购物者提供定制体验的过程。每一种购买途径都是不同的，个性化的目的是根据个人的需求和行为服务于每个人。
根据品牌战略，在实体店商店中这是实体设备和虚拟设备的结合。一个例子是人体测量扫描仪，尤其用于服装行业。这家零售商为顾客提供身体扫描位置。当扫描过程完成时，商店服务人员将在平板电脑的帮助下协助客户完成个性化定制。

游戏体验 [11]

游戏化体验是与用户建立联系、鼓励探索和推广品牌或产品的有效方式。

游戏化依赖于我们对游戏的本能冲动，而不是试图强迫人们参与我们的内容。比起抵制我们的内容，用户则更有可能愿意选择参与并在我们的内容上花费更长的时间。正如简·麦克贡尼高（Jane McGonigal）所言："游戏给了我们不必要的障碍，我们自愿去克服。"(Kumar & Herger, 2013) 游戏化不是操纵用户，而是通过提供积极体验来激励用户。

零售商将采用新技术，从而增强游戏化的力量，以新颖的方式吸引用户。语音用户界面 (VUI)、人工智能 (AI) 和增强现实 (AR) 等新兴技术有可能改变游戏化体验的性质。

[9] 数字智能售货亭案例，见链接：www.retail-innovation.com/index.php/pro- direct-create-a-digital-store-in-london

[10] 一个人体扫描区的案例，见链接：www.reuters.com/article/us-adidas-manufacturing-idUSKBN16R1TO

[11] 一个游戏体验的案例，见链接：https://retaildesignblog.net/wp- content/uploads/2016/03/Decathlon-Connect-store-by-kplus-konzept-Munich-Germany-04. jpg

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2.4. 商店内的后端应用程序

技术的进步，也随着更有效和成本更低的创新的引入，允许物联网解决方案在零售世界的后端活动中传播。这些业务的重点是保证顾客在商店获得的产品和服务。

智能相机

它是一个紧凑的视觉系统，集成了摄像机、数字和图像处理系统，以及用于连接的附属设备。与传统的解决方案相比，这种架构允许实现更紧凑的应用程序，使用外部计算机处理相机拍摄的图像。这些设备可以通过 wi-fi 直接连接到管理系统，然后管理接收到的信息 (Axis Communication, 2008)。
这些系统可以决定商店布局、陈列设计和员工行为的有效性。

巡游（Loitering）[12]

这是最通用的一类应用程序中的一个特定功能，称为智能视频运动检测。它可以实时分析场景中发生的重大动作。该系统识别人、动物或物体的运动。它被用来跟踪顾客路线和创建热力图，以了解他们的偏好和优化商店布局。

面部识别[13]

这是通过算法捕捉人们的脸，存储图像的一种技术。除了安全问题，这个系统被用于最现代的无收银台的商店系统。该应用还有助于提高购物效率、店铺布局、陈列设计和员工行为的有效性。

电子计数器[14]

它指的是一种视频应用程序，可以实时统计一个场景或特定区域内

[12] 智能相机的巡游应用程序案例，见链接：www.researchgate. net/profile/Stephen-Ohara/publication/45930590/figure/fig10/AS:307399979225097@14503 01274971/Loitering-Detection-on-Shopping-Corridor-2.png

[13] 智能相机的面部识别应用程序案例，见链接：https:// d1sr9z1pdl3mb7.cloudfront.net/wp-content/uploads/2018/04/16130235/Retail-by- DeepCam-1024x655.jpg

[14] 智能相机的电子计数器应用程序案例，见链接：www.innuvo. com/wp-content/uploads/retail-video-analytics.png

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被框住的人数。该算法通常还提供关于帧内被计数的人数的综合报告。这对于零售业计算转换率和顾客流量非常有用。

入侵检测 [15]

它提供了一个周边或特定区域的自动视频控制，允许以连续的方式监控，以检查在虚拟线划定的特定区域的人的进入。该应用程序用于识别顾客进入商店的某些区域，如通道或区域，甚至报告未经授权的人进入禁止区域。

方向识别 [16]

它能够识别运动的方向，并报告任何行为或人员流动的方向。在零售领域，此应用程序用于分析商店的客流，并预测收银台的客流高峰，以优化产品和员工管理。

智能监控

越来越多的零售商采用了利用现有技术的物联网解决方案：例如用于进一步的运营目的的用于安全的闭路电视；比如优化商店布局、产品布局或结账处的客流。智能监控系统的目的是分析店内顾客的行为。

热力图和店面布局

它可以跟踪顾客看什么，触摸什么，走在哪里，走哪条路。零售商可以以之创建真实的热力图，从而知道进入商店的人数，优化商店的布局，管理流量，也可以试图引导他们购买高价值的商品，为促销展示找到更合适的位置。据调查，优化的门店布局可以转化为 5% 的利润增长 (IHL Group, 2017)。

[15] 智能相机的入侵检测应用程序案例，见链接：www. ifsecglobal.com/global/the-future-of-analytics-lies-in-a-combination-of-deep-learning-and- investment-in-the-right-technology/

[16] 智能相机的方向识别应用程序案例，见链接：www.behance.net/gallery/127903157/smart-retail-app-functions/modules/725324347

[17] 足迹热力图应用程序案例，见链接：https://i.insider.com/52e6e0fe69be dd96559b1efc?width=1000&format=jpeg&auto=webp

[18] 产品交互热力图应用程序案例，见链接：https://i.insider.com/52e6 e560ecad0400599b1efb?width=700&format=jpeg&auto=webp

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地板上的颜色显示了特定时间间隔内的客流量[17]。红色区域表示频繁有人经过，绿色区域表示次要通道，蓝色区域表示几乎没有人经过。这些信息可以帮助零售商改变商店的布局，并制定策略，在哪里放置受欢迎的商品和不受欢迎的商品，昂贵的商品和便宜的商品。

另一种可能的热力图类型[18]不是关注客户最常接触的领域，而是关注与客户互动更多、关注或接触更多的商品。热力图的实现[19]也可以通过分析来自前端技术的数据，即直接被客户使用的设备接口，可以用以优化商店布局。

还应补充的是，在疫情大流行之后，使用热成像摄像机也可以检测在场人员的体温和任何发热状态。

货架图[20]

它是代表产品在货架或展示架上排列的图表；它是生产者、分销商和零售商为了描述产品的分类、类别及其在货架上的定位、空间的占用和展览结构的布局而精心设计和使用的。在零售店中，货架图可以涉及整个商店、一些过道、一些货架或特定类别的产品。目的是确定并设置最佳配置，即根据既定的营销计划优化可用空间。由于有了智能摄像头，我们可以监控产品是否符合要求，以避免缺货或物品放错地方。据估计，10% 的平面规划误差会导致库存增加 1%，从而减少 0.5% 的销售 (Frontoni 等人，2015)。自动货架规划检查是物联网场景中相对较新的应用。

视线识别[21]

这种跟踪提供了对购物者行为的洞察，这对于决定如何最成功地定位产品、标识、营销、展示和商店的任何其他元素是极有价值的。视线识别帮助零售商发现：

- 购物者在真实的购物任务中是如何导航或浏览商店中的排列；
- 是什么在购买时吸引了购物者的注意；
- 哪些视觉元素被注意到了；

[19] 混合热力图应用程序案例，见链接：https://encrypted-tbn0.gstatic.com/ images?q=tbn:ANd9GcQgSqd06LGfZOFxNsGFAOYXux0ve-m50NYqfUtlf520EuXJZ4JAy7XwFW5q5H72Oy9HbDE&usqp=CAU

[20] 混智能相机的货架规划管理系统案例，见链接：www. mdpi.com/sensors/sensors-15-21114/article_deploy/html/images/sensors-15-21114-g009.png

[21] 视线识别应用程序案例，见链接：https://martech.org/tobii-pro-releases-analytics-for-its-eye-tracking-vr/

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• 哪些视觉元素被忽略了；
• 在决策的不同阶段，哪些元素可以帮助购物者；
• 购物者如何与货架上的产品互动。

信标

信标是一种基于位置的应用程序，其目的是将顾客的注意力吸引到特定的位置。

信标在零售业的基本用途是向安装了相关应用程序的移动设备所有者发送基于地点和时间的信息，向路过的顾客发送数字优惠券或邀请。例如，如果顾客离得足够近，可以触发商店关于特价折扣的广告——这样顾客如果认为折扣足够好，就增加了光顾商店的可能性。当顾客在附近时，咖啡馆或餐厅可以在午休时间触发广告，可以使其更容易被光顾。

信标也可以用来收集和分析数据。通过跟踪移动设备的移动信标可以为零售商提供各种各样的信息：商店的哪些部分客流最密集或最稀少，消费者会在特殊品类的产品区域停留多长时间，新顾客和回头客的比率，员工选择更多的路线等等。零售商可以因此改进店铺布局，重新定位商品，创建购物者档案，提高员工效率等等。

信标可以帮助零售商为实体店提供个性化服务，包括特别优惠、优惠券、折扣、产品推荐等——可以根据客户以前的行为进行定制，例如消费者在商店内停留的时间、消费者购买特定商品的频率、消费者购买的商品以及购买的商品组合，这将有助于零售商通过预测消费者的需求和增加客户参与度来建立长期的客户忠诚度。

对消费者来说，这意味着无障碍的购物体验，渠道之间的差距更小。对于零售营销人员来说，这意味着在合适的时间用正确的信息接触到正确的客户。

这些信号增强了人们与周围环境的联系，通过他们的手机更好地了解他们所在的位置。

综上所述，信标有四种功能：1) 推送通知，2) 定制优惠，3) 室内导航，4) 数据生成，这些功能可以帮助零售商满足客户需求，创造更具凝聚力的从线上到商店的体验。

2.5. 店内的应用程序功能总结

插图 1. 店内的应用程序功能总结。见英文原文

总结起来，在前端零售中，可以通过使用智能技术和应用程序来实现五个宏观类别的目标和功能：

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节省时间是智能应用程序为客户提供的可能性。这既可以是指完成结账等流程所需的更短时间，也可以是指更快地收集有关产品、其特征及其在商店中的位置的信息。

需求识别是客户和零售商之间的互动，允许识别客户的需求和偏好，以提供越来越定制化的产品和服务。

信息、建议和促销发送是指发送有关产品的信息、基于先前购买或特定需求的建议或发送基于位置的、定制的或标准的促销的一般活动。

增强现实和商店氛围增强是指注重改善顾客体验，用于购物环境，为了增强顾客的情绪和感受，和增加顾客在店内购物活动中的乐趣和参与度的过程。

多重购物体验增强是一种更灵活和多样化的方式，可以为实体店的消费者建立更多或独特的体验，以增加他们的记忆力和注意力。

插图 2. 不同功能和数字应用程序的相关性热力图。见英文原文

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3. 从实体零售到全渠道零售

零售业正在经历快速转型。这一点在线下购物和网上购物之间的紧张关系中表现得最为明显。与之相对的是，传统零售代表的是产品的实体体验、个人服务和信任，而数字购物则代表的是方便、便捷的支付解决方案和客户指尖上更广泛的选择。线下购物和线上购物有着不同的优势，通过巧妙的创新将这两种途径结合起来，可以增强这种优势。

利用移动技术不仅对消费者有益，它同样为零售商提供了关于消费者行为的即时数据，可以优化反馈，改进商店的目录，有助于创造更好的促销活动。

在当今的零售环境中，设计师面临着巨大的压力，需要通过各种渠道为消费者提供卓越的购物体验。消费者对购物的预期已经发生了巨大变化，这并将持续下去。随着购物行为（和期望）的变化，成功的全渠道采用的重要性对零售商保持竞争力变得越来越重要。

虽然许多零售商已经认识到全渠道投入的必要性，但一些品牌采取了一种更加渐进、分散的策略，只投入于少数功能，或实现特定功能，但不改变整个系统。虽然这对某些简单的案例可能有效，但这种快速修复不会持久。没有在全渠道上"全力以赴"的品牌将难以提供新的产品，并将无法完全满足消费者的期望。然而，那些完全适应这种新的跨渠道商业模式的系统和流程的人，将更容易在这个全渠道时代取得成功。

对于任何对这类尝试感兴趣的品牌来说，快闪店，从本质上为零售实验打开了一扇门，为在这一方向上开发创造性解决方案提供了一个完美的空间。无论是从寻求加强店面的传统零售商的角度，还是从希望进入实体世界的电子商务企业的角度，超过一半的消费者使用多种渠道来寻找他们的产品，都应该有足够的理由去尝试新的模式。

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3.1. 零售渠道

所分析的渠道之间的主要区别在于买卖双方发生互动的地方，真实的还是虚拟的。环境影响着沟通的特点，因此能够影响顾客的决定和印象。杰罗姆 · 麦卡锡（Jerome McCarthy）在 1971 年将地点定义为 4P 模型中构建营销活动的关键变量之一。

第一种区分形式是交互的完整程度。线下环境确实允许客户通过五种感官进行互动，而线上环境则较为有限。虚拟环境主要通过音频和视觉方式建立互动，而线下业务可以通过一系列不同的人工制品进行互动，这些人工制品既有有形的，如建筑、商店布局，也有无形的，如销售人员的态度或氛围，可以通过所有感官来体验。这种互动形式使顾客在过程中有更多地参与，因为它可以在潜意识水平上产生影响，并有效的影响了服务水平的感知 (Bitner, 1992)。

因此，另一个重要的区别在于接触的程度。当顾客参观商店时，可以通过零售店与他们进行身体上的互动，与卖家建立更深的关系。在电子环境中，商店空间可能不存在，因为客户能够通过网页提供的服务自动购买产品。这方面通常被认为是由于通过直接接触，买方可以提供更主观的反应或提高谈判的可能性。值得一提的是，现在许多虚拟通道将呼叫中心和聊天系统结合在一起，以满足这些需求。

直接接触的另一个重要部分是安全感 : 直接的互动降低了交易的风险，因为卖家欺骗的可能性更小。为了克服这些缺点，除了支付系统，在线零售商的声誉和信任可以通过鼓励顾客在购买完成后分享积极的评论或评级卖家来实现 (Lin Chang & Wu, 2012)。

可用的信息类型也不同。通常，网站提供更详细和具体的信息，而面对面的互动可能更加有限和非结构化。网络允许检索其他用户的经验和反馈以及产品的更多技术数据表。相反，销售点通常提供销售助理的总结信息和建议，而且它允许客户在购买前直接与产品互动。特定类型信息的重要性取决于产品的特征，这些特征可以分为外在和内在特征（Agarwal & Teas，2000 ）。第一个是指不受物理产品限制的一系列特征，如价格、品牌或包装，而内在线索是属于特定产品的属性，可以通过与其直接交互来充分体验。举个例子，在购买一件衣服时，实体客户比虚拟客户可以更轻松地访问有关产品的外在线索信息。另一方面，只有产品的一些内在特征可以在线体验，比如颜色或设计，但只有在实体环境中，顾客才能触摸或尝试它。在线零售商试图开发更好的产品展示，或保证系统，以应对客户和产品之间缺乏物理交互的问题（Chen，Dubinsky，2003）。

另一个区别依赖于时间。 客户可以随时随地在线购买，而在物理环境中，客户互动由商店的营业时间定义和限制。 移动商务被定义为“随时随地进行商务活动”（Balasubramanian，Peterson & Jarvenpaa，2002）。

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另一方面，在商店购买允许客户在有货的情况下立即拿到产品，而电子商务需要发货等待的时间（Rose、Hair & Clark，2011）。值得一提的是，由于库存的组织和管理，在线商店通常拥有更广泛的产品目录和更多的可用性。因此，客户可以享受更多的产品选择，并有更好的机会找到更适合需求的产品。

在线上环境的的语境中，通道的其他特征受到接入点的影响。移动商务被定义为"通过使用连接到计算机网络的移动设备发起和/或结束的任何涉及所有权或使用商品和服务的权利转移的交易"（Khalifa，Shen, 2008）。

近年来，由于移动通信行业的突破以及用户对通过移动设备进行支付的信任度增加，该渠道的受欢迎程度有所提高。移动电子商务是可访问的：通过移动网站、专门为这些设备设计的网站，以及移动应用程序，即为在特定类型的手机上运行而创建的软件。许多零售商已经开发了一种共存策略，让用户的选择变得无多差别。一般来说，手机应用没有网站那样的细量，但由于考虑到屏幕大小，或允许与其他应用进行交互，因此具有提供更丰富、更吸引人的体验的优势。移动商务为用户提供了在任何地点和时间购物的可能性，增加了来自客户冲动欲望的购买。

3.2. 渠道的组合

买家可以根据自己的喜好在一次购买的不同时间从一个渠道切换到另一个渠道。在移动过程中，用户可能会改变他们的想法和选择不同的零售商，特别是如果零售商不提供整合的渠道策略。(Steinfield, Bouwman & Adelaar, 2002)

为了分析可能的交互，一种简化的客户购买周期，将把重点放在研究客户和零售商之间的交互。在意识到必要性后，客户开始搜索活动以识别能够满足其需求的产品。该活动可能会受到以前的经验或外部评估的影响，并考虑产品的内在和外在线索，以便做出最终选择。一旦选择了产品，购买活动就开始了，这就是交易实际发生的时候。这项活动主要受零售商的声誉、付款方式和收到货物所需的时间的影响。零售商还可以在客户开始搜索产品之前与他们进行互动，通过不同形式的沟通和营销活动或通过售后服务加强与他们的关系。在这些活动中，为了完成交易，客户可以切换渠道，公司引入了不同的模式来遵循他们的路径并提供更好的体验。

移动电话在零售店的其他应用依赖于支付系统或商店定位器。

许多参与者，尤其是服装行业的参与者，提供店内支持，包括在商店中为在虚拟渠道上完成的购买提供售后服务。这条路径为在线客户创造了一种安全感，因为他们知道对于每笔虚拟交易，都会有一个物理场所可以直接与公司互动，以防出现问题。

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预订和取货（book-and-pick）模式包括在线创建预订，然后直接在较近的实体店支付和提取产品。 该系统可以确保产品的可用性，尤其是在需求量大的时期，并避免错误的订单，因为一旦产品可见就付款。通过这个系统，用户还可以更好地控制时间，他们可以决定什么时候取货，避免了在家等待快递员的问题。 无论如何，这种模式并不是特别受欢迎，特别是由于问责制问题和不同渠道的库存管理。

一个类似的模式是**取货和支付（pick-and pay）**模式。与前一个模式一样，客户可以在线选择产品并在不发货的情况下取消它。真正的区别在于产品收集的地点，不仅是实体商店，而且有专门设计的收集点，还由其他公司提供，增加分销网络的毛细性，避免与其他销售点的库存管理问题。另一方面，通过增加收集点，采用该系统的供应商将面临更多的复杂性和额外的成本。

显然，所有的在线活动都可以通过固定和移动设备进行。使用智能手机或平板电脑的优势主要取决于获得优惠的时间。

模式如**预订和支付（book-and-pay）**可以从中受益，因为移动用户总是连接在一起的，因此在有限的优惠情况下更容易联系到他们。其他与实体店的结合和优惠也可通过电子优惠券在广告中获得。这些解决方案允许顾客在手机上开始搜索活动，并吸引顾客到实体店购买特别促销商品。

3.3. 全渠道合作与行为

如今，人们从各种渠道购买，例如实体店、电子商务、移动应用程序和社交媒体。 渠道及其支持资源不是并行工作，而是被设计和编排为以全渠道的方式合作。

线上和线下消费的主要驱动力不同。 初步研究表明，线上环境下，消费者的动机依赖于价格、便利性、产品可用性和网上购物态度，而在线下环境中，消费者更感兴趣的是审美情趣、购物体验和消费者店内服务。 (Liu et al., 2013) 显然，互联网在负责搜索和触达产品方面具有很强的优势，因为它使消费者能够更快、更远、更深入地获取信息。同时，实体店越来越多地成为消费者触摸、感受产品和沉浸其中的地方。

插图 3. 美国网民的购买过程（墨菲研究，2018)。见英文原文

4P 模型，也称为营销组合，通常被认为是描述运营营销的基本工具，其特征是关于产品、促销、价格和地点的一系列选择。

然而 4E 模型描述了在过去几年中如何：产品（product）已经成为一种体验（experience）；价格（price）变成了交换（exchange）；地点（place）变成了无处不在（everyplace）；促销（promotion）已经变成了步道（evangelism）。

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插图 4. 从 4P 到 4E (Ivasciuc, Epuran, Micu, 2015)。见英文原文

从产品到体验

一家公司要想在当今竞争激烈的全球经济中生存，就应该有足够的灵活性来改变其工作领域。 与其将营销工作集中在组织提供的产品上（出于某种原因或其他原因会随着速度的增加而发生变化），不如将工作重点放在最终用户的体验上，因此零售商将不再销售产品 / 服务：他们提供满足客户需求的解决方案。

产品已被置旁，体验已经入场，因为它可以真正吸引潜在客户并将其吸引到品牌中。 创造情感和积极的感觉可以在品牌和消费者之间建立联系。 产品是公司的一个属性，体验是消费者生活的方式，或者更确切地说，是客户体验与品牌或公司关系的结合。

从价格到交换

从价格到交换的演变凸显了认识价值的必要性。 价格仍然很重要，但在很多情况下，客户不会遵循最低价格，而是选择提供最高价值的解决方案。 这是客户在完成购买后，在产品之外获得的东西。因此，一个不想固守过去策略的公司，必须思考它想真正为消费者提供什么，以具体的方式来换取他们的关注和忠诚。

由于对交换的理解发生了演变，这发生在买卖双方之间、供需之间，不再只是拿钱换取商品，而是带来“价值”。

从地点到无处不在

随着数字商务的出现，购买方式发生了很大变化。如果以前需要在实体店拿到产品，现在有了电子商务，就不再需要中间媒介了。

购买可以是随时随地的，不受地点限制。这就是为什么从一个地方（distribution）传递到每个地方（everywhere）。消费者可以通过使用手机打破每一个物理边界并加快流程来购买商品和服务。

然而，无处不在的感觉也转化为在社交媒体以及品牌网站建设的稳固存在。通过这样做，潜在客户可以更容易地参与进来，然后变成消费者。

无处不在体现了消费者随心所欲访问解决方案的可能性和能力，业务开发人员应该学会拦截他们的客户而不是打断他们，当客户更有可能接受产品或服务时，他们就会参与进来；当知道这项工作有多困难，营销工作就应被设计为确保在适当的时候，产品或品牌可用。在线上和线下同时建立强大的影响力是必要的。

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从促销到步道

当今产品的促销对于成功的营销策略仍然必不可少。 消费者参与对于新的营销方式至关重要。

不仅推广零售商销售的产品很重要。 零售商必须学习如何在将客户转变为品牌传播者方面向前迈出一步。 如果零售商正在推广技术解决方案，则应将其超越就其解决方案的技术方面对潜在客户进行指导和培训，提供有关解决方案的有用信息并教育消费者。

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第二部分

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4. 商店的设计范式

实体店的现代再利用（repurpose）标志着过去 30 年来大卖场（big box stores）最大的转型。它明显背离了千篇一律的传统零售，使品牌和零售商能够在其实际位置以灵活的方式为客户提供服务。他们正在开设更多的以特定客户为目标的商店，试图在客户购买过程的每个步骤中展示更新的价值主张。他们的最终目标是提供引人入胜、连贯而流畅的体验，而不一定是提高转化率。由于店内销售是通过移动应用程序进行的，因此很难衡量这些新商店形式的财务影响，因为它们会影响实体销售和在线销售。然而，这种改变目标的策略最重要的胜利是确保访问实体店作为客户旅程的一部分的相关性。这将使实体零售成为电子商务的补充，并标志着实体店的新时代，专注于销售体验。

零售空间不断迭代更新，呈现出丰富多样的零售景观。零售空间的常规功能，例如展示和交付产品，逐渐被在线零售所取代。它带来了前所未有的最大产品系列、总价格透明度和可见的客户评论，在线商店数量的激增正在改变市场。线下零售转型艰难，但在体验、临时活动、优质服务、时间和成本效率方面力求胜出。未来的零售空间可以从以下几个方面考虑。

这本书的写作发生在新冠疫情大流行期间，它指出商店中发生的某些革命将因新形势而加速。随着新消费者和可用技术的出现，商店的角色也将在体验、存在和表现方面发生深刻的变化，在为已经明确转移到网上购买的人提供更多的服务。

4.1. 体验

对当代销售空间的演绎与一个地方的形象相吻合，这个地方试图在一个复杂的过程中整合部分和 / 或功能，受物理、生物、社会和文化系统的影响，决定了它的特征和性质。

近来，环境倾向于创造同时涉及感官的情感体验。新的零售规划基于连接：从供应空间到身心健康、体验和娱乐的场所。

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人们越来越有兴趣通过体验而不是产品来满足自己。 零售空间成为体验的舞台，消费者扮演主角，产品作为道具出现。 它旨在为品牌创造关注度、声誉和客户忠诚度。 为了创造特殊的体验，零售空间吸收了其他元素来创造它的环境或进入一个全新的环境。 它与各种活动融为一体，与公众生活深度融合。

随着心理学和行为主义在营销中的应用，零售商以感官为媒介来吸引消费者，从而将空间分解为每个购物阶段的刺激物。 零售商提供完全人造的环境，其中视觉、声音、气味、光线、材料、自然，甚至空气的化学成分都是经过设计的。 这些线索旨在让消费者融入空间，抚慰他们的感觉，缓解他们的疲劳，延长停留在店内的时间，从而产生欲望反应并提高购买概率。

4.2. 社交性

根据产品的不同，其他客户评价始终是决策过程中的一个影响因素。客户可以从点评网站汇集想法，并通过社交平台分享他们的经验。 对于零售商来说，这种社交互动对客户忠诚度有直接影响，意味着获得竞争优势。

事实上，对于零售商来说，虚拟化的威胁可能是一个巨大的机会，他们可以使用交互性、连接性、新形式的媒体和移动性来深化他们的品牌信息并吸引新兴受众，他们对两个方面的发展保持警惕并做出反应 --- 线上和线下的零售世界。

互联网使消费者能够比以往任何时候都更快、更远、更深入地接触商品世界。

零售文化不能仅仅被简化为商品、商店或消费者，而必须从关系的角度来理解，作为一个递归循环。 （Crewe，2008）

商业区不仅必须应对交易的功能要求，还需要结合更复杂的环境问题，积极响应相关语境，将得益于零售空间的质量的转变，从货物集装箱转变为社交和交流的机会。新的零售和消费场所正在成为重要的社交和发展人际关系的中心，但如果一方面消费在现代社会中的中心作用越来越明显，另一方面，人们仍然拒绝接受购物已经成为每个人的基本时刻。

随着基本需求的减少，欲望成为购买决策的首要标准。 消费者正在寻找尽可能接近审美和生活方式的解决方案。为了满足更肤浅的愿望，雷姆 · 库哈斯 (Rem Koolhaas) 表示“购物可以说是最后剩下的公共活动形式”。 在过去几年中越来越多的购物包含一种强烈的好玩的、逃避的和体验的因素。 零售空间的类型混合应该成为创造新功能身份的机会，因为它在今天越来越普遍，娱乐、教育、社会关系和商业活动。(Gerosa, 2008)

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4.3. 服务

在大多数零售空间中，店内库存面积的比例正在下降。 空间不再主要被产品占据，而是无形的人际交流和专业服务。 随着运输行业和快递行业新兴力量的崛起，如机器人、无人机、无人驾驶汽车，店内库存不再是必不可少的。 购物旅程被重塑，产品可以在消费者到达商店之前从网上订购，也可以在离开商店后送到家中。 因此，全面体验产品比获得产品更重要。 与存储场所的缩小相比，服务区域正在扩大。

4.4. 大众的定制

消费者对个性化体验的期望在零售业达到了新的高度。无论互动是面对面的还是在线的，消费者都希望这种体验能够让他们表达他们想要什么、他们是谁以及他们想如何购买。通过这种方式定制体验的公司可以让客户感觉比以前更加投入。上游客户参与和以这种个性化方式提供卓越体验的转型对底线的影响是显而易见的。如果零售商的店内体验是积极的，则消费者倾向于再次从同一零售商处购物。在这些新的销售空间中，消费者在创造空间和提供的产品方面扮演着设计师的角色。这是一个非常有趣的领域，因为它证明了共同创造理论的有效性（Prahalad & Venkat Ramaswamy，2004），开始思考未来的销售空间真的像店内关系和体验的地方。在物理空间和虚拟空间之间交互的多渠道概念中，设计可以发挥有趣的作用，创造更复杂的格式。(Ianilli, 2008)

为了定义沉浸式体验，我们必须考虑如何通过个性化对话在情感层面上连接购物者，并让他们控制购物体验。 零售体验更多的是让客户参与，而不是商品和销售。 刺激人们视觉、听觉、嗅觉和触觉的技术解决方案，与购物体验产生的情感强度相关联，可以打开一个全新的世界。 此外，产品的定制化和专业化与新媒体一起创造了更加个性化的体验，为消费者提供了与其兴趣相匹配的新选择。

4.5. 不再是消费者

消费者这个词可能最不适合描述现在去商店的人。 他们是推动品牌发展的产品、营销和传播领域的利益相关者、共同设计师、影响者、实验者和专家。 他们根据品牌允许的参与程度进入并影响选择。 正是参与才是某些公司成功的衡量标准。 激活协同设计流程的商店是积极主动的，他们设定的挑战超出了产品的销售范围，他们用忠诚度换取品牌信用，并确保极具创新性的维度。 消费者积极和批判性地要求更多地参与社会和环境问题以及商品，并且以前所未有的力量，他们

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能够无情地奖励或惩罚那些拒绝他们这种参与形式的人。

4.6. 技术

无法在客户旅程的所有阶段都提供人性化界面的全球品牌正在转向数字化。 精通技术的千禧一代将数字体验视为关键的品牌指标，并期望直观的产品能够为他们提供同样即时的零售体验。

思考设计在与全球市场、生产模式和消费行为相关的情况下所发挥的作用已经发生了巨大变化，颠覆了旧战略，迫使承包商和设计师重新思考他们的战略。这种转变的原因有很多，但技术无疑是最重要的，承担了曾经属于科学的领导者角色。

体验的创造始于关注人类体验的意义。 公众的身心关系与销售点的灵魂和使用敏感工具所强调的意义相互作用。

互联网和信息技术为设计零售空间提供了一个新的维度。 它配备了数字系统和触点，购买流程为零售商提供了大量不同的信息，包括交易数据、消费者数据和环境数据。 因此，智能空间成为了解市场和消费者的工具，就像其他设备，如手机或电脑一样。 数据挖掘有助于零售商更好地预测消费者行为，设计更具吸引力的产品，提供更个性化的服务，同时也为改进空间设计提供反馈。

线上和线下的世界正在融合，这就是未来的零售空间必须做出反应，更重要的是，整合整个销售渠道。线上和线下的销售是互补的渠道，而不是竞争对手，它们都有助于消费者旅程的完成和品牌形象的表达。网络购物之旅在很多阶段还涉及到物理空间，开始时是直播室，中间是产品体验厅，最后是提货区。了解这两个世界的优势和劣势，以及新技术将重塑它们，这是未来零售领域的关键。

4.7. 基于时间的设计

随着营销事件和活动的创新，大量的临时店面应运而生。 时间性、压缩性和不稳定性使零售能够以更具创造性、动态性和实验性的形式存在。 此外，消费者在空间中花费的时间因购物旅程的不同而有很大差异，空间设计应根据时间的变化做出反应。

未来评估市场参与者的重要标准，将是其产品和服务在消费者一天 24 小时内的占比。 (Zhang, 2018)。 由于网络购物的发展，消费者的购物行为变得更加没有时间限制。 所以，实体店要考虑消费者的购物和时间的关系，实体零售购物才能获得真正的优势，比如自助商店提供 24 小时的便利服务，旗舰店为消费者创造更多的体验，让消费者在店内花费更多的时间，临时空间如快闪店和移动商店，等等。

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零售商必须考虑他们的目标消费者通过体验寻找什么。 因此，实体零售空间应该通过思考人、产品、地点和时间之间的关系来定义。

事实上，这本书展示了媒介革命如何改变了时间的形式，从而改变了零售的空间。 产品 24/7 的在线可用性迫使零售空间重新设计其基于时间的质量。这是进行大多数实验的维度 – 快闪; 临时的、扩展的、混合的、远程的——商店以及未来的商店将成形。

最关注空间与新数字技术之间关系的行业（不包括电子消费品商店）涉及 3 个领域：时尚、体育和食品。 关于这些，我们已经测试了在使用所示工具的基础上可以确定新商店类型的可能性。

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5. 设计创新的工具

作者—王思怡

5.1. 工具 1: 零售空间指标

图表 5. 见英文原文，由王思怡设计，Anna Barbara 教授指导

David R. Bell (2017) 得出的结论是，销售第三方品牌（不是自己拥有的）产品的零售商应该专注于如何更快、更经济地将产品交付给消费者。 相比之下，不通过第三方销售的垂直品牌应该控制和关注信息，从而通过快闪店、优质服务和零售体验。 不同类型的店铺对其空间构成的具体因素有不同的表现，因此需要设计一种工具来衡量不同类型店铺的特征。 根据我们对零售空间设计数字化的研究，影响零售空间设计的重要因素有 7 个，它们是：空间稳定性、营业时间、数字交互、体验强调、感官参与、员工服务多样性、库存空间。

• 空间稳定性是指零售的多样性，例如在百货公司等场地较大的门店，品牌会选择借用部分空间来插入快闪店，或短期展览。 这类临时事件在时间和空间的维度上影响了原空间，从而影响了商店的空间稳定性；

• 营业时间，对客户的生活方式有一定的决定性影响。 通常，顾客只能在白天的固定时间访问商店。 但是，最近 24 小时自助商店和移动商店越来越多。 这些不同类型的商店编织了零售的互动网络，逐步覆盖城市场景中消费者的 24 小时；

• 数字交互也是本书的一个关键研究因素。 在本书的其他章节中，介绍了不同的数字技术方法在门店前端的应用及其功能。 这部分是对不同门店数字交互水平的总结；

• 体验强调是指在店内的体验，例如一些品牌开设体验店，品牌或店主通过店内体验的设计来操纵消费者的情绪；

• 感官参与是评价体验的另一个指标。通过空间中的视觉、听觉、味觉、嗅觉和触觉的设计，提升顾客在店内的多感官体验；

• 员工服务多样性，实施全渠道合作后，顾客获取产品信息的方式将更加多样化，即无需店员的讲解和指导即可获取信息。 因此，不同类型门店的员工职能也会发生变化；

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• 库存空间，由于数字技术和渠道合作的介入，门店空间既可以作为线下购物展示，也可以作为线上零售的仓库。 在全渠道城市场景中，当线上线下联动时，店内的存储空间也会受到影响。

我们将这 7 个因素分为 10 个级别，在接下来的章节中，我们将在三个特定零售领域的空间原型的比较和分析中使用该模型来说明不同类型商店的特征。

5.2. 工具 2: 零售体验的结构

图表 6. 见英文原文，由王思怡设计，Anna Barbara 教授指导

几十年来，营销和消费者行为研究调查了消费者如何经历决策过程。Lemon 和 Verhoef (2016) 从营销的角度介绍了一个客户体验旅程模型，分为 3 个阶段，即预购阶段、购买阶段和购后阶段。 基于这个模型，我们发展了零售空间设计的 6 个阶段的用户体验旅程：

• 购物前是指人们进入空间的原因；
• 获取一般信息是指对建立品牌认知度很重要的要素；
• 搜索产品描述引导或随机搜索过程；
• 体验产品是指消费者如何获得产品的进一步信息；
• 做出决定是消费者决定是否购买的阶段。
• 购物后，消费者可以与朋友或社交媒体分享信息。

该模型旨在揭示不同商店原型中的用户旅程，也可作为城市场景中不同类型商店空间设计的测量和指南。

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6. 时尚商店

作者—王思怡

毋庸置疑，时装业一直是最快把握生产、销售和物流数字化潜力的行业。 近年来时尚行业进行了许多实验，这些实验对商店产生了重大影响。 而且，新冠疫情的大流行加速了已经在进行的进程，使物理存在的缺失变得更加激进，但并不排除身体存在。

在时尚界，重塑零售空间最显着的数字化创新是互动屏幕、体感云货架、数字试衣镜、人脸识别自动售货机、3D 扫描仪等。据悉，80% 的消费者会使用商店内的云货架[1]和神奇试衣镜[2]，云货架使消费者能够快速获取产品的价格、款式、库存等信息。 陈列和布局[3]会被定期调整和更改，平均时间为 3 个月。

顾客使用智能设备后，其触摸、保存和分享的记录将有助于门店识别顾客选择的产品，改变空间布局。 此外，线上线下会员数据系统打通，实现性能叠加提升。 所有这些设备和空间不仅可以改善室内消费者体验，还鼓励[4]他们在社交媒体上分享信息。

[1] Kerr&Kroes 的云货架案例，见链接：https://mmbiz.qpic.cn/ mmbiz_gif/ic3wSQSIKLjCACQBiax5cibceIzqlnueo0xrfBloMEibVG0DgQQo87DJ6olDl6p GREm5cYhfOztrt0RDI06OlmvqhA/640?wx_fmt=gif

[2] Kerr&Kroes 的神奇试衣镜案例，见链接：https://lh3. googleusercontent.com/proxy/DzFoFsIm_qfeqbbGNeHPB0xUAD01KQ0fiaR2Pj0AQ1txO- q-rDAKVDGFiPcP7x991aUJ2CaTyX9HGtETG-9vajYIl4VbYlXd0Pcg7Fvhk1yK11c

[3] Kerr&Kroes 的商店布局案例，见链接：https://img.itw01. com/images/2018/05/11/16/1547_z4uJP9_GQAO9EX.jpg!r800x0.jpg

[4] 通过设置自拍区和游戏区来改善商店体验，Kerr&Kroes 就是一个例子。自拍区，见链接：https://wx3.sinaimg.cn/mw690/6ef98b7cgy1fu18wuj maxj20m80etjsl.jpg 游戏区见链接：https://wx2.sinaimg.cn/mw690/006ORDM1gy1 fu04n6z8cdj318k0qon1z.jpg

项目简介：项目名称：Kerr&Kroes，类型：混合时尚店，首次开业：2018 年，地点：中国上海，商店类别：智能零售店，商店规模：1600 平方米，平均参观时间：30 分钟，设计师：Istore, Alibaba。

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一些品牌已经激进地整合数字和模拟，以数字方式增加客户参与度和店内销售。 走进商店大门就像走进他们的网站。 某知名品牌的 CEO 在谈到他们的生活世界商店 （World Life Store）时解释说：“它第一次将我们的数字世界带到物理空间中，客户可以通过沉浸式多媒体内容体验品牌的方方面面，就像他们在网上一样 ”。

部分门店在主厅周围设置了隐藏式扬声器、现场音乐液压舞台或数字屏幕[5]，以响应在店内举办直播 T 台秀和音乐人表演的计划[6]。此外，视觉和音频系统被用来创造非凡的效果，例如“天气时刻[7]”，伴随着雷雨声的数字阵雨。

其他一些品牌也将芯片嵌入产品中，通过射频识别技术（RFID），让消费者在拿起一件产品靠近公共区域的屏幕或试衣间的镜子时，即可访问相关产品信息：从工艺到走秀造型。

甚至有些商店不设置衣服库存，而是提供许多客户服务便利设施，在线购买和店内取货、路边取货、定制和店内退货是最受欢迎的服务，其次还包括捐赠衣服， 个人造型[8]、免费茶点、行李箱俱乐部服务、美甲服务。 它充当本地服务中心[9]，是电子商务的重要补充。 这一战略选择大大减少了商店本身的规模。

[5] 举例来说，商店中的现场音乐活动，巴宝莉声学事件，杰克巴格秀，伦敦，2013 年， 见 链 接： http://ella-lapetiteanglaise.com/wp-content/uploads/2013/02/ burberry-acoustic-presents-jake-bugg-live-at-121-regent-street-london.jpg

[6] 以数字屏幕为例，中庭中心的巨型屏幕，巴宝莉，2012 年，见链接： https://ramboll.com/-/media/images/ruk/3_projects/abc/burberry-regent- street/image-viewer/1280-x-720-burberry-regent-street-1.jpg?mw=640

[7] 天气时刻案例，数字阵雨，巴宝莉，2012 年，见链接：https://cdn.wallpaper.com/main/styles/fp_922x565/s3/legacy/gallery/17053421/03-burberry- store.jpg
项目介绍：项目名称 :Burberry 旗舰店，类型：单品牌时尚商店，首次开业 :2012 年，地点：英国伦敦，商店类别：体验店，商店规模 :4080 平方米，平均参观时间 :30 分钟，设计师 :Christopher Bailey 领导的团队。

[8] 商店提供个人造型服务的一个例子，会面空间围绕着更衣室，Nordstrom Local，见 链 接： https://fashionista.com/.image/c_fit%2Ccs_srgb%2Cfl_ progressive%2Cq_auto:good%2Cw_620/MTUwNDUxNTM5OTA2MjA5NDUx/084_10-3- 17-nordstrom-local.jpg

[9] 商店成为本地服务中心的一个例子，入口处看去的整体视图，Nordstrom local，见链接 :https://media.bizj.us/view/img/10922525/nordstrom-local- 23*1200xx5456-3069-0-284.jpg
项目简介：项目名称 :Nordstrom Local，类型：本地服务中心，首次开业 :2017 年，地点：美国洛杉矶，商店类别：定制服装店，商店面积 :330 平方米，平均参观时间 :45 分钟，设计师 :Hoshide Wanzer Architects。

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从空间混合的角度来看，另一个有趣的现象是在近年来社交媒体热潮中出现的网红的帮助下推广产品。 (Peng, Yao, 2018)

据官方报道，2018 年 80 余个主播销售额均超过 1 亿元，涵盖服装、首饰、箱包、化妆品等品类。 直播平台 [10] 的引入改变了实体店的零售模式。

在接受中国日报网采访时，消费者表示看直播就像逛商场一样，换频道的方式类似于逛商场的不同店铺。在这个过程中，主播充当导购、模特和售后客服的角色，让消费者感受到更多的联系。

店铺迁移的现象也呈现出店铺与酒店相结合的情况，比如酒店房间的迷你时装吧 [11]。 有一个品牌开始在欧洲的精品酒店房间里放置商品。该项目基于以下见解：由于不可预见的天气或旅行计划，为假期打包合适的衣服可能很困难。 该机构在酒店的衣橱 [12] 里摆满了由造型师和时尚博主根据天气、位置和附近景点精心挑选的各种的时尚前卫服装。当客人发现他们没有适合特定场合的合适服装时，他们可以简单地从迷你时尚吧选择，在房间试穿，然后在结账时付款。 如果商品尺码不合适，客人可以联系时尚礼宾部进行更换。

6.1. 空间原型 _ 时尚

零售空间面临的挑战是重新创造创新、情感和令人回味的零售空间。“因此，即使购物不断面临危机和衰退，它也在不断（和人为地）被重新发明、重新解释、重新塑造、重生、重塑渠道和重新包装。 实现这一目标的是一种装置——一种生存机制——它可以利用任何技术来挤

[10] 举一个直播购物的例子，一个直播者正在通过淘宝直播应用介绍产品，见链接：https://cdn.i.haymarketmedia.asia/?n=campaign- asia%2Fcontent%2Fviya_taobao.jpg
项目介绍：平台：淘宝直播，类型：电商，启动时间 :2016 年，地点：无限制，商店类别：直播空间，商店规模 :2-10 平方米，平均参观时间：无限制。

[11] 酒店门上的标志示意酒店房间内的迷你时装吧，Pimkie International，见链接：hwww.the- spin-off.com/news/media/3/Door-sign-at-Pimkie-Mini-Fashion-Bar-22928-detailp.jpeg

[12] 酒店的衣柜成为迷你时装吧，Pimkie International，2015 年，米兰，意大利，见链接见链接 :www.the-spin-off.com/news/media/3/A-regular-minibar-but-with-clothes-and- accessories-22926-detailp.jpeg, 和 www2.eurobest.com/winners/2015/media/entry.cfm?entryid=3642&award=3
项目简介：项目名称 :Pimkie International，类型：迷你时装吧，首次开业 :2015 年，地点 :Palazzo Segreti Hotel，意大利米兰，商店类别：语境中的衣橱，商店大小 :0.5 平方米，平均参观时间 :5 分钟，设计师 :Happiness Brussels。

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出一条通往生命的道路：调整、不断变化、伪装、突变、捕食、破坏、寄生、监视”。 (Leong, 2002)

6.1.1 体验空间 _ 时尚

空间尺度：2,000-7,000m^2
营业时间：9:00-21:30

插图 7. 体验空间空间原型 _ 时尚。见英文原文

体验零售空间的特点是提供与品牌相一致的体验，品牌的价值和形象在顾客的互动过程中得以体现。 它还被强调为增加消费者在店内停留时间的策略。

当零售商有意以服务为舞台，以商品为道具，以涉及多种感官的方式吸引个人客户并创造令人难忘的事件时，就会产生一种体验。 根据顾客的参与程度和顾客与环境之间的联系，有四种类型的体验，娱乐性、教育性、审美性和逃避性（Pine，Gilmore，1998），它们可以发生在画廊、咖啡馆等空间 、餐厅、游戏区、拍照场景区等。

这些商店大多规模较大，面积在 2,000 至 7,000 平方米之间，至少有两层楼的销售空间，通常超过销售功能需求。 一般来说，体验景观位于中庭的中心周围，以便在消费者进入空间时引起他们的注意。此外，类似于一个舞台，除了参与的消费者之外，其他人都可以在购物过程中从各个角度获得信息，因此销售空间和体验空间相互关联。

这种类型在旗舰店中经常使用，不仅作为销售场所，而且旨在让消费者获得品牌体验并增强品牌忠诚度。 由于可及性的提高，一些商店甚至成为旅游目的地，经常被该品牌的非传统客户光顾。

插图 8，体验空间的用户旅程 _ 时尚。见英文原文

6.1.2. 智能零售商店 _ 时尚

空间尺度：500-3,000m^2
营业时间：9:00-21:30

插图 9. 智能零售商店空间原型 _ 时尚。见英文原文

智能零售空间通过整合数字技术、移动技术和沉浸式店内应用，使零售流程变得可行，这将同时增强组织流程和销售活动。

空间由不同的数字设备和系统主导，如面部识别设备、交互式展示

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（云货架）、智能镜子、RFID 系统、室内定位系统、增强现实环境。通过这些数字设备，客户和产品的数据被捕获、分析和重组，以帮助零售商和研究人员了解客户行为并提供更好的消费体验。 例如，根据顾客行为数据，定期调整和改变店内陈列和布局，为设计开辟新的视角。

智能技术改善了消费过程。 消费者可以在没有员工直接帮助的情况下通过新技术访问所有产品信息，检索新系列、材料和产品可用性、价格等信息。 员工配备平板电脑来支持他们的任务并为顾客提供个性化服务。

智能零售空间可以与利用基于全渠道的协同效应的零售商一起发挥其最大潜力。 通过这种方式，允许客户以一种无缝和自然的体验在现实世界和虚拟世界环境中访问商业。

插图 10，智能零售商店的用户旅程 _ 时尚。见英文原文

6.1.3. 秀场选购（即看即买）_ 时尚

空间尺度：1,000-2,000m^2
营业时间：第一天发布特定时间，第 2-7 天 10:00-19:00

插图 11，秀场选购空间原型 _ 时尚。见英文原文

秀场选购是随着 SNBN（即看即买）现象而兴起的。 它是一个结合展示、娱乐、餐饮服务、信息展示的典型的品牌体验创造方式，但以短暂的形式展示品牌意义的空间。 它产生了强化的消费者 - 品牌关系、改善的品牌认知和品牌忠诚度。

这种类型需要很大的面积，通常包括一个循环空间，用于组织时装表演。 空间的功能是基于时间的：第一天，部分空间将用于时装秀，而在其他日子则变成产品的展示空间。

秀场选购主要应用在一些高级时装品牌上，他们希望压缩时装业务的流程，建立品牌与消费者之间的直接联系，而不仅仅是通过买手和传统媒体。

插图 12，秀场选购的用户旅程 _ 时尚。见英文原文

6.1.4. 展览销售（策展商店）_ 时尚

空间尺度：100-200m^2
营业时间：9:00-21:30

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插图 13，展览销售空间原型 _ 时尚。见英文原文

展览销售是一个以杂志和画廊的角度来看的零售空间。 这种类型使用商店作为媒体，品牌作为赞助商，产品作为策划内容的一部分，中心主题定期变化。

店内迭代展示是一种产生和传播差异化的方式，满足消费者对新鲜感和刺激性的兴趣，从而通过商品和体验提升品牌影响力，吸引消费者反复回到店内。

模拟展厅，充满活动墙、展示架和数字媒体设备的零售空间，布局周期性变化。 它将文化内容和产品并置，通过不同的媒体展示信息的混合，包括实物、文本、图像和视频。

展览销售被一些知名品牌或第三方品牌（不是自己拥有的）使用，他们保持灵活的零售策略并计划不断产生创意叙事。

插图 14，展览销售的用户旅程 _ 时尚。见英文原文

6.1.5. 快闪店 _ 时尚

空间尺度：20-100m^2
营业时间：9:00-21:30

插图 15，快闪店的空间原型 _ 时尚。见英文原文

在传统的时尚零售过程中，消费者找到他们想要的东西。相比之下，通过这类新的零售空间类型，产品找到了消费者。

这类临时空间起到了破冰的陈列室的作用，人们可以在那里第一次接触品牌或试用其产品。在新的环境下，人们没有了消费的压力，从而更易于光临。如果消费者决定下次购买该产品，他们可以从其他购物场所购买，例如本地商店、折扣店或网上购物。

短暂且可移动的空间能够以低成本实现高影响力并被大众看到。零售空间和环境之间的关系是关键。语境内容应该是零售可以满足其目标受众的地方。同时，它们之间应该有对比，以吸引人们的注意力并提供难忘的购物体验。此外，外观往往是醒目的半封闭结构，与其他类型的进入动机不同，这种类型需要激发人们进入的好奇心。此外，空间通常设计为易于组装或拆卸的轻质材料。

这些都是适合新品牌和初创公司进行市场测试、老牌品牌进行新品推广、实验活动和开拓新市场，或电商零售商提升品牌公信力的理想商店类型。

插图 16， 快闪店的用户旅程 _ 时尚。见英文原文

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6.1.6 换装室 _ 时尚

空间尺度：200-350m^2
营业时间：9:00-21:30

插图 17，换装室的空间原型 _ 时尚。见英文原文

换装室是没有衣服的服装店，而是为顾客提供便利设施的商店，例如在线购买和店内取货，路边取货，裁缝和店内退货，还包括服装捐赠、个人造型师、 茶点、卡车俱乐部服务、美甲服务。 它作为一站式本地服务中心，增加了消费者对它的依赖。

这种类型与传统商店完全不同，因为没有库存。 空间主要由两部分组成：一个流动的公共空间就像一个俱乐部，几个服务空间以酒吧为主导，具有广阔的交流区域； 开放空间周围的更衣室，是普通更衣室的两倍或三倍。

它作为电子商务的重要补充，将产品搜索和购买过程从店内空间中解放出来，强调在产品体验、服务和人际交流方面与在线零售相比不可替代的部分。

插图 18，换装室的用户旅程 _ 时尚。见英文原文

6.1.7 定制服装店 (裁缝店)_ 时尚

空间尺度：180-300m^2
营业时间：9:00-21:30

插图 19，定制服装店的空间原型 _ 时尚。见英文原文

定制服装店是最传统的服装店类型之一，通过高度个性化的服务实现了生存。

不同于其他类型商店在消费路径上具有随机性，尤其是在产品搜索阶段，在定制服装店中，几乎所有的消费体验都在工作人员的指导下进行，因此空间有着强烈的秩序，暗示着定制的过程。

空间的前面是接待和展示的入口大厅，其次是更衣室进行测量。 制作间一般在楼下或楼上。 然而，为了强调定制仍然是商店的核心，裁剪台位于首层的中心，因此量体师和裁缝会将客户放在视野中心。 店后部通常设有私人会所，配有桌球桌或壁炉等经典陈设以供放松和交流，为消费者营造归属感。

插图 20，定制服装店的用户旅程 _ 时尚。见英文原文

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6.1.8 寻宝商店（折扣店）_ 时尚

空间尺度：3,000-8,000m^2
营业时间：9:00-21:30

插图 21，寻宝商店的空间原型 _ 时尚。见英文原文

寻宝商店是低价零售商的常见类型，他们专注于以低价向消费者提供丰富的产品。

销售第三方品牌的产品，品牌广告不是寻宝营销策略的一部分，因为供应商想保护自己的品牌价值，不想宣传那些低价的产品，这也是为什么许多品牌拒绝在网上销售大量商品。

这些商店中的大多数都是大型的，一栋配有自动扶梯和电梯的多层建筑。为了帮助消费者从海量的产品中找到自己需要的东西，空间逻辑和信息系统应该易于理解。典型的购物中心或百货公司被锁定在以大品牌为主的平面图中，而寻宝将品牌混合在同一架子上，使其具有更强的灵活性。

为了释放搜索产品的压力和疲劳，还使用了基于感官的策略。丰富的氧气供应、微弱的臭氧分子云、令人放松的气味或音乐都可以通过技术系统泵送。

这些商店很有趣，因为它们在社交媒体上有着非常活跃的数字生态。它们与一个非常结构化的物流和通信网络相连，用于产品和特价商品，这些网络通常非常广泛，以至于它成为每年吸引数十万消费者的奥特莱斯旅游现象的一部分。

插图 22，寻宝商店的用户旅程 _ 时尚。见英文原文

6.1.9 直播空间 _ 时尚

空间尺度：4-12m^2
营业时间：24/7

插图 23，直播空间的空间原型 _ 时尚。见英文原文

直播空间存在于移动应用平台之上。该平台将电子商务与直播相结合，旨在将观看直接转换为购买。

移动应用平台是消费者完成选择过程的无形空间。看产品直播就像在商场里闲逛，他们换频道的方式类似于在商场里浏览不同的商店。在这个过程中，直播者和消费者之间几乎是面对面的交流，让消费者感受到更多的联系。

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直播空间看起来就像一个临时工作室，包括模拟材料的灰色墙壁，带有一些基本信息的黑板，装满衣服的架子，低成本的装饰品，灯光和直播设备。即便是顶级主播，情况也大同小异，一个满足直播基本需求的裸空间。观众不再以二维的方式从手机小屏幕上感知空间或环境信息，而是专注于产品的介绍和与主播的交流。

插图 24，直播空间的用户旅程 _ 时尚。见英文原文

6.1.10 语境中的衣橱 _ 时尚

空间尺度：1-2m^2
营业时间：24/7

插图 25，语境中的衣橱的空间原型 _ 时尚。见英文原文

由于不可预见的天气或计划，语境中的衣橱在特定场合是基于对衣服的直接需求。 零售商将适合环境的产品预先装满衣柜。

衣柜往往是半敞开的，没有门的，或者有醒目的颜色的门，以吸引潜在消费者的注意力。

它主要是在无人值守的情况下运行，因此通常与酒店或健身房等第三方合作，进行退房、检查库存和换码等几个步骤。

插图 24 语境中的衣橱的用户旅程 _ 时尚。见英文原文

6.1.11 自助服务空间（快速）_ 时尚

空间尺度：2-6m^2
营业时间：9:00-21:30

插图 26，自助服务空间的空间原型 _ 时尚。见英文原文

自助服务空间是快时尚品牌部分门店新增的空间类型。 自助结账空间使消费者无需与收银员互动即可扫描、打包和支付产品。 客户因此获得控制权，从排长队中解放出来；零售商减少了所需的收银员数量，从而降低了劳动力成本。

一般来说，它是一个开放或半封闭的空间，位于传统柜台附近，易于被注意到。

插图 27，自助服务空间的用户旅程 _ 时尚。见英文原文

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6.1.12 电子商务亭 _ 时尚

空间尺度：8-30m^2
营业时间：9:00-21:30

插图 28，电子商务亭的空间原型 _ 时尚。见英文原文

电子商务亭是一种自动点击和收集系统，作为整合线下商店与在线世界的策略。 顾客在网上购物，会收到货到的通知，然后就可以悠闲地前往取货地点。

它在店内占地很小，从 8 到 30 平方米不等，可容纳 266 到 4000 个包裹。它位于店铺的后层或顶层，抓住可能让顾客浏览更多产品并购物。 此外，旁边通常有一个新系列的展示区。 同时，为了不成为烦人的策略，它就在电梯或自动扶梯旁边，帮助消费者轻松找到它。

电子商务亭适合正在开发基于全渠道的协同效应的零售商。

插图 29，电子商务亭的用户旅程 _ 时尚。见英文原文

6.2. 时尚商店类型比较

图表 30, 见英文原文

6.3. 时尚商店的类型分析

图表 31-32, 时尚零售类型的特征分析，图表见英文原文

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7. 体育商店

诺伯特·埃利亚斯（Norbert Elias）创造的一个术语，用来描述流行文化活动或民间游戏因行为规范和规则的发展以及对暴力可接受限度的观念的改变而发生变化的过程。埃利亚斯将过去时代的“体育化”（sportization）称为英文社会向体育运动转变的简称，其中一些运动几乎在全球范围内输出。(Dunning，1986)
体育和健身被描述为“诱导运动”。(van Hilvoorde，2008)

换句话说，它们通常由国家组织，旨在加强国家人口的力量和健康。被制定的卫生政策意在减少高血压、冠状动脉疾病和糖尿病等疾病。

“健康主义”的意识形态也非常强调个人责任。 健身不仅仅是个人健康选择的问题； 这已经成为一个社会问题。 它是区分和个体比较的工具。 健身有助于构建身份。健身代表着绝对健康的梦想。“身体变成了一个分化的系统。身体变成了自己的衣服。时尚叫做健身”。 (de Wachter，1984)

健身行业成功地结合了传统体育和美容行业的元素； 它成功地将追求灵活性和健康与道德、审美和商业要求相结合。

体育用品商店的典型需求有四个类别：健美、营养、教育和时尚。体育和健康零售结合的时尚可以被解释为运动休闲（Athleisure）。运动休闲是一种时尚趋势，简单的总结 = 运动（Athletic） + 休闲（Leisure），根据 Merriam-Webster 的说法，为锻炼和其他运动而设计的服装可以在其他场合穿着，运动休闲的定义是休闲服装，旨在锻炼和一般用途。 例如在工作场所、学校或其他休闲或社交场合。“看起来像运动服”的运动休闲装的特点是“时尚的，精心打扮的运动衫和运动服”。 (Di Blasio，2015)

在这种情况下，增加数字化起着关键作用。 事实上，许多品牌已经决定，与其将数字化视为需要抵制的挑战，不如押注这种整合，这将赋予商店新的维度、形态和任务，这将更加有趣。

大型体育零售商实际上正在远离类似于体育用品超市的传统设计，而采用商店的策略，即不尽可能大规模地展示尽可能多的产品，而是部分地在货架上展示产品[1]，结合数字化应用、线上线下门店，为消

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费者提供多样化的店内体验[2]。

数字化区域主要为动作游戏[3]和在线订购预留[4]，专注于为消费者提供更多的数字交互体验。

即使是更传统的零售区，通常是商店最大的区域，展示运动服装和配饰，除了传统的岛式和壁式货架展示外，还设置了数字展示墙和明星产品的触摸屏。 由于空间大小的限制，展示的产品选择通常是基于客户的购买数据，这为大多数客户找到他们想要的产品提供了便利。

这种沉浸式的维度越来越多地出现在更多的品牌体验中，消费者可以使用店内产品体验流行的运动项目。

这类店铺的结账流程还是基于传统的人工结账。至于取货区，虽然门店适应了全渠道零售，但点击取货（click & collect）的功能实现仍然是基于店家的服务。

物理空间中的数字化使用可以追溯到各种活动：在商店的平板电脑上搜索产品和下订单；在商店接收在线订单；购物和体验整个店内的故事和不同类型的路径 / 用户旅程：店内预约送货；在商店购物；只取在线订单。

插图 33，迪卡侬 Connect 的用户旅程。见英文原文

数字与空间之间的一个重要关系是通过与 APP 的交互引入的，它允许人们提前购买产品并将它们放在店内的一个储物柜中以便稍后取货，或者扫描到试用（scan-to-try）允许客户在访问商店时扫描物品，因为他们已经在试衣间等待，或者更具体地说，客户可以到达这个楼层找到一个有他们订单的储物柜，然后可以通过他们的智能手机解锁。

[1] 举例如迪卡侬 Connect 的商店布局，见链接：https://retaildesignblog. net/wp-content/uploads/2016/03/Decathlon-Connect-store-by-kplus-konzept-Munich- Germany.jpg， 和 https://d1tm14lrsghf7q.cloudfront.net/public/media/16264/ conversions/14082-thumb.jpg

[2] 以迪卡侬 Connect 为例，该商店在店内安装了数字游戏功能，见链接：https://kplus-konzept.de/wp-content/uploads/2017/09/kplus-konzept- m%C3%BCnchen-decathlon-connect-web-3.jpg

[3] 有关商店中的动作游戏的例子，见链接：https://retaildesignblog.net/wp-content/uploads/2016/03/Decathlon-Connect-store-by-kplus-konzept-Munich-Germany-04.jpg

[4] 在商店中提供产品信息和订购服务的数字平板电脑的例子，见链接：https://d1tm14lrsghf7q.cloudfront.net/public/ media/16275/conversions/14088-thumb.jpg

项目介绍：项目名称：迪卡侬 Connect，类型：体育用品店，地点：慕尼黑，德国，商店类别：城市商店，商店规模 :220 平方米，首次开业 :2016 年，平均参观时间 :30 分钟，设计师 :Kplus Konzept。

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这是专为当地消费者获得他们想要的东西而设计的，以提高购物效率并节省时间[5]。

插图 34，耐克创新之家 000 的用户旅程。见英文原文

数字与空间之间的一个重要关系是通过与 APP 的交互引入的，它允许人们提前购买产品并将它们放在店内的一个储物柜中以便稍后取货，或者扫描到试用（scan-to-try）允许客户在访问商店时扫描物品，因为他们已经在试衣间等待，或者更具体地说，客户可以到达这个楼层找到一个有他们订单的储物柜，然后可以通过他们的智能手机解锁。这是专为当地消费者获得他们想要的东西而设计的，以提高购物效率并节省时间。

数字化支付系统当然也重塑了结账空间，让客户可以选择在店内通过手机支付，而不是在收银台排队等候。 App 用户可以安排与店内专家的会面，以得到产品推荐和建议。 此外，通过店内“实验室”，客户可以在了解到设计师推荐的同时设计定制自己的产品。

这种概念店的核心是带来数字化驱动的体育零售创新、设计和个性化服务，通过体验式环境设计将数字化和线下服务相结合。

店内的应用有：

- 数字显示屏
- 个性化
- 即时结帐
- 扫描获取信息
- 在线预订，到店取货
- 活动组织
- 扫描并试用
- 在店内查找

体育用品商店正在关注零售商的新兴趋势，随着越来越多的销售继续在网上进行，零售商正试图吸引更多顾客光顾他们的商店。

插图 35，耐克创新之家 000 的用户旅程。见英文原文

[5] 关于商店中的取货柜的一个例子，见链接：https:// static.dezeen.com/uploads/2018/11/nike-house-of-innovation-000-new-york-flagship-store_ dezeen_2364_col_15-852x568.jpg

项目简介：项目名称：耐克创新之家 000，类型：体育商店，地点：美国纽约，商店类别：旗舰店，商店规模：6400 平方米，首次开业：2018 年，平均参观时间：60 分钟，设计师：Nike 设计团队。

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数字时代越来越多地考虑体验模式，公司正在向零售和娱乐[6]产品的融合投入更多资金，而不仅仅是通过线上和线下的连接来销售产品和建立社区[7]。

插图 36，Lululemon 芝加哥旗舰店的用户旅程。见英文原文

一些做法使模拟空间和数字空间之间的关系变得激进，例如数字信息亭的体验和潜力仍处于起步阶段，但它可能代表了销售点与品牌之间不断发展的关系的前沿。 这些是位于城市环境中的自动售货机，用于发售限量版或独家产品，只能通过品牌的社交媒体和口耳相传得知。在某些品牌的做出的最极端情况下，这些是使用忠诚度积分工作的分销商，这些积分是客户通过运动或其他活动收集的。

如果顾客获得了积分，他们可以在自动售货机[8]上用积分换取袜子和 T 恤等装备，甚至是运动手环。 这种售货机的特点是往往不是固定在一个地方，不是传统意义上的自助模式的自动售货机，它在随机出现在街道上，是临时的和可移动的，更多的是激励，创造多样化的购物体验， 在鼓励用户养成更好的运动习惯的同时，它是移动技术、自助服务和短期灵活零售单员结算的结合。

数字体验还涉及进店体验，在一些使用运动传感器摄像头的情况下，店门口的主橱窗展示可以识别路人的性别和大致年龄，并直观地推荐适合的商品。 该界面还可以显示一个二维码，客户可以扫描该二维码从他们的手机订购推荐的产品。 一进门，顾客就通过主橱窗体验与商

[6] 例如 Lululemon 芝加哥旗舰店在商店中提供更多体育活动，包括冥想室，见链接：https://images.lululemon.com/is/image/ lululemon/gbl_july19_ExpStores_LincolnPark_Meditation_Hero_FINAL

[7] 例如，Lululemon 芝加哥旗舰店有一个带数字亭的用餐区，考虑让用户在锻炼后以恢复体力，并有一个社交区域，见链接：https://cdn.vox-cdn.com/thumbor/dT1i8oCiC5F2ZZgPhntDppp9h34=/1400x0/filters:no_ upscale()/cdn.vox-cdn.com/uploads/chorus_asset/file/18301914/blb14635_48248969896_ o.jpg

项目简介 : 项目名称 :Lululemon 芝加哥旗舰店，类型 : 体育用品及生活方式商店，首开 :2019 年，地点 : 美国芝加哥，商店面积 :1860 平方米，平均参观时间 :60 分钟，商店类别 : 旗舰店，设计师 :555 International。

[8] 一个例子，耐克的 Fuelbox 自动售货机，见链接：https://images. fastcompany.net/image/upload/w_1280,f_auto,q_auto,fl_lossy/fc/3033577-poster-p-1-nike- fuel-currency.jpg

项目介绍 : 项目名称 : 耐克 Fuelbox 自动贩卖机，类型：体育用品自动贩卖机，地点 : 美国纽约，商店类别 : 自动贩卖机，商店规模 :1 平方米，首次开业 :2014 年，平均参观时间 :5 分钟，设计师 :Huge (Brooklyn) 和 Nike 设计团队。

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店的第一次互动，主橱窗展示了基本的目录，随后为顾客推荐产品。橱窗就像一个 24 小时的时尚机器，积极与路人互动。 客户也可以使用二维码进行购买和获取优惠券。

这还涉及到基于云货架的 AI 技术，这是一种交互式数字墙[9]，用以存储大量商品信息供消费者选择。 一旦客户从智能货架上选择产品，有关尺寸、颜色和功能的信息就会出现在交互式墙屏上。通过云货架，客户还可以查看和了解未展示的产品。 这个虚拟空间将可用的产品种类扩展到商店中的四倍。 借助云货架，海量产品一次性呈现在消费者面前，大大扩展了有效展示空间。

店内收集的数据也将助力品牌获得有价值的消费者洞察，并不断提升其产品范围和服务。 这是一个革命性的概念，它融合了线上和线下的最佳产品，并支持零售商加速其数字化进程。 它设想未来的零售商使用在不同平台上产生的消费者洞察来开发信息和娱乐内容，以实现全渠道交付。

AI 购物助手和智能镜子，均配备内置 3D 感应摄像头，可以给予时尚建议，以完成客户的搭配。

互动屏幕安装在墙壁中间，一旦客户从智能货架上取下蓝牙连接产品，就可以提供丰富的信息。 更重要的是，云货架的额外虚拟存储可以为客户提供店内没有的产品，从而将实体店空间扩大四倍。 到目前为止，主屏幕可以同时服务多位客户。

这是一个虚拟购物车。 通过扫描二维码，顾客可以将商品放入他们的虚拟购物车中，并在以后做出购买决定，即使他们已经离开了商店。顾客也可以在店内购物，如果不想携带，可以要求将货物送到指定地址。 数字化的一个好处是它促进了货物的交付。 有了大数据，商店可以根据销售情况调整库存。 此外，与其他分店的商品配送和调整变得更加容易。

插图 37，Intersport 北京的用户旅程。见英文原文

结合公司在 O2O（Online to Off line）零售领域的经验和前瞻性技术应用，一些以大数据为驱动，以人脸识别和射频识别（RFID）为动力的门店理念，创造了第一家智能自助运动服饰商店[43]。

[9] 以 Intersport Beijing 的 AR 和智能货架为例，，见链接：https://jeff towson.com/wp-content/uploads/2019/03/Photo-Sep-21-2-56-50-PM.jpg，和 https://osssource.alizila.com/uploads/2018/05/intersports-smart-sneaker-wall-2.png

项目简介：项目名称 :Intersport 北京，类型：体育用品商店，地点：中国北京，商店类别：超级商店，商店规模 :1300 平方米，首次开业 :2018 年，平均参观时间 :30 分钟，设计师：天猫新零售团队。

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首次进店[10]前，用户需要在APP上进行人脸登记。人脸识别[11]完成后，每次都可以通过店内人脸识别摄像头进店。

使用这项技术，只要客户走到屏幕前，它就会识别客户并根据相关数据推荐合适或客户可能喜欢的产品； 另外，后台应用可以计算每天进出店铺的顾客数量，最终产生多少销售额，并快速计算销售转化率。这可以精确到消费者的整个活动轨迹，用户在哪个柜台停留的时间最长，哪些商品被提货次数最多。 在此基础上，它可以绘制柜台 / 区域的热力图和用户在店内活动的热力图。 当一个物品被捡起时，后台会统计它的捡起动作，从而分析每个物品的被注意的数据，并根据用户的喜好将物品移动到最方便的地方。

插图 38，苏宁 Biu 南京的用户旅程。见英文原文

大多数配备了面部识别技术的空间都可以直接访问电子支付系统。这导致空间、购物体验的简化和无需销售人员。 店内所有商品均采用电子标签显示价格。 如果顾客选择商品，那么可以将它们带走并结算价格。 结账区上方还有一个人脸识别装置，顾客拿着货物，站一会，结账，等待轧机门打开，然后走出去。 这种出入口分开布置，可以提高购物和结账的效率。

此类小型无人店的选址主要是为了方便社区周边消费者。 产品展示基于用户偏好数据，并应用人脸识别和自动结账技术，旨在为周边社区提供更方便快捷的购物体验。 无人店的目标是用更少的人力成本降低传统商店的成本，而无人店项目的目标不是完全取代或替代传统实体店，而是对其进行改进。

一个有趣的例子是作为开放式创新场所的快闪店，不仅空间小巧，而且时间短暂。从这个意义上说，制造商世界的典型技术已经进入了

[10] 有关智能自助运动服装商店的例子，商店布局见链接：https://lh3.googleusercontent.com/proxy/K_2QN7thhR1PieVlHPx3_vaei6qnU02TCi0Oo8DYOX3yBU-QcI6ykEWf2ixmfdho-g2OU5MCLlBqwH- zfB2d88Tn9_JEOKKqPBmgYomjX87pMmgzAKK604tkl-yJ4w 和 http://5b0988e595225. cdn.sohucs.com/images/20170922/d41d418ede5d43669fbd304adb357871.jpeg 智橱窗口查看产品信息，见链接：https://st4.depositphotos. com/21607914/23648/i/450/depositphotos_236485348-stock-photo-a-customer-looks-at-the. jpg

[11] 关于人脸识别系统和入口空间的例子，见链接：http://img. chinatimes.com/newsphoto/2017-09-29/656/a16a00_p_03_02.jpg

项目介绍：项目名称：苏宁 Biu 南京，类型：体育用品店，地点：中国南京，商店类别：自助邻里商店，商店规模 :40 平方米，首次开业 :2017 年，平均参观时间 :10 分钟，设计师：苏宁项目团队。

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零售领域，他们的实验项目提供了现场生产站和非常高水平的定制[12]。创新的数字化店内架构允许客户设计和制作自己的个性化产品。为了确保衣服的完美贴合，通常都与人体扫描仪技术相结合。在一个专门的区域里，有动态投影的图纸，响应客户的移动，激发构图的选择。指导客户完成服装设计和生产的每一个阶段，使流程变得简单、引人入胜且快速。

买家首先进入一个黑暗的房间，在那里图案被投射到他们的身上[13]。房间里布满了检测手势的传感器，让买家可以创造他们喜欢的设计。该软件记录了数十种解决方案，买家稍后可以在计算机屏幕上显示时从中选择他们最喜欢的解决方案[14]。

然后，顾客可以选择一个标准尺寸，或者选择使用激光全身扫描技术来确定一个确切的尺寸，这是由店内的数字架构实现的——在每件毛衣进入生产之前，店内的工作人员会使用激光全身扫描技术来测量顾客的尺寸。

一旦设计和尺码被选定，他们就把样板送到一排工业机器进行生产。

因此，这些空间的性质是生产基地和销售基地之间整合的结果，试验了可持续发展的制式。 这种工艺的环境优势是不同的：物流和运输造成的污染更少，生产和库存过剩造成的浪费更少。

商店空间主要分为三大区域：展示区[15]、定制区和生产区[16]。 入口附近是展示区，通过悬挂展示和多种方式让客户了解定制和各种可能性，这是一个开放的区域。 后面是生产空间，一个相对封闭的空间，用玻璃墙隔开，让顾客可以看到生产过程。 最里面的区域是一个带有人体扫描仪和定制工作台的定制空间，是一个相对私密的空间。

这种特殊的生产创新是面向客户和客户驱动的。 这很大程度上是为了让客户参与他们自己独特的个性化定制和生产的购物体验。

[12] 举个商店内设置生产区域的例子，阿迪达斯 - 你的毛衣，见链接：https://csga.ca/wp- content/uploads/2017/03/adidas-knit-for-you-3-data-750x467.jpg

[13] 一个商店内设置身体扫描区域的例子，见链接：https:// thehimalayantimes.com/uploads/imported_images/wp-content/uploads/2017/03/Adidas-in- store-machines.jpg

[14] 一个消费者在店员的帮助下设计毛衣，见链接：www.engadget.com/2017-03-21-adidas-will-knit- you-a-200-sweater-while-you-wait.html

[15] 商店入口处的展示区，见链接：https://images.wired.it/wp-content/uploads/2017/03/27154759/1490615278_Pop-up- store-adidas-knit-for-you.jpg

[16] 商店中的定制和生产区域，见链接：www.kikilab.it/wp-content/uploads/2018/09/Knit-for-You_6-x.jpg

项目简介：项目名称：阿迪达斯 - 你的毛衣，类型：定制运动用品店，地点：德国柏林，商店类别：快闪店，商店规模 :260 平方米，首次开业 :2016-2017 年，平均参观时间 :1.5 小时，设计师 :Adidas 团队，the BAKERY，与学术和行业合作伙伴合作。

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插图 39，阿迪达斯你的毛衣商店的用户旅程。见英文原文

线下和线上之间的边界极近模糊，以至于有例子表明商店本身就是相关应用程序的完美转换[17]。 空间以不同的颜色划分为功能区[18]，出口与入口分开。 一般来说，开放式的入口有多个入口[19]，会增加空间的透明度，让顾客了解其他区域的情况，从而安排参观顺序，减少等待时间。 除了公共区域，还有一个封闭的小空间作为后台空间和员工仓库。

空间中的体验变成了一种有助于提高参与度的游戏[20]。 这些商店的功能不是直接销售产品，而是建立忠诚度，参与一项或多项挑战。 商店更像是一个了解产品和体验产品的空间。 店铺的目的不是在店内销售商品，所以不需要很大的库存空间。 在店内体验后，购买可以在网上进行，并送到顾客家中或他们需要的地方。 门店也为品牌建立了线上线下零售的社交属性。

插图 40，不同数字技术在不同体育商店中的应用。见英文原文

培养客户忠诚度一直是零售商和购物中心所有者的考虑的首要因素，但在当今的按需经济中，它变得更加难以保证。 品牌仍然能够与购物者产生共鸣的最佳方式可能是通过店内体验。 这当然是一把双刃剑，因为购物者现在开始期待从店内购物中获得独特和更好的体验。与线上相比，它更注重速度和便利性。 在一份新报告中，仲量联行零售（JLL Retail）提出了零售体验的六个维度，这是一套通用的基准，用于定义零售商满足购物者期望的程度。

这六个零售体验的维度是：

• 直观：购物者可以轻松轻松地找到他们想要的商品，包括热门产品和新商品。

[17] 一个与空间活动同步的手机应用的例子，Keep 卡路里百货商店，见链接：https://socialbeta.oss-cn-hangzhou.aliyuncs.com/ upload/15345-1560837236.png

[18] Keep 卡路里百货商店的商店布局，见链接：https://socialbeta.oss- cn-hangzhou.aliyuncs.com/upload/15345-1560836872.png

[19] Keep 卡路里百货商店的商店入口，见链接：https://socialbeta.oss-cn- hangzhou.aliyuncs.com/upload/15345-1560836833.png

[20] Keep 卡路里百货商店中的游戏区域，见链接：https:// socialbeta.oss-cn-hangzhou.aliyuncs.com/upload/15345-1560846867.jpg

项目介绍：项目名称 :Keep 卡路里百货商店，类型：体育用品商店，地点：中国北京，商店类别：快闪店，商店规模 :210 平方米，首次开业 :2019 年，平均参观时间 :50 分钟，设计师 :ALINE STUDIO，北京。

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• 人性化：购物者可以与公平对待他们的、知识渊博的、可靠的人员进行高质量的互动。
• 有意义：零售商改变了购物者的生活，他们在那里购物时会感到自豪。
• 沉浸式：商店的外观和内部都很吸引人。购物者喜欢在那里消磨时光。
• 触手可及：购物者可以随时随地购物（商店、手机或网站），零售商知道他们的偏好。
• 个性化：体验是购物者想要的方式，拥有了解他们独特需求的员工、基于过去偏好的推荐和基于忠诚度的奖励。

插图 41，体育类商店案例对比。见英文原文

7.1. 分析图

插图 42，城市场景中不同类型商店的愿景。见英文原文

关于店铺类型的分型，此部分是基于城市化的。 不同的店铺类型会影响店铺在城市环境中的位置、规模和功能。 由基于智能设备的移动应用程序编织而成的通信和服务网络，将帮助消费者根据触达的时间和目的选择去哪类商店。

插图 43，体育商店中的数字化物理触点。见英文原文

7.2. 空间原型 _ 体育

7.2.1. 超级商店 _ 体育

空间尺度：1,500-12,000m^2
营业时间：10:00-22:00

插图 44，超级商店空间原型 _ 体育。见英文原文

超级商店通常是一层以上的大空间，通常在店内明显的位置设有自动扶梯，方便消费者在不同楼层之间轻松交流。 为了展示更多的产品和更高效的空间利用，结合 App 后，可以在一个区域内创造更多真实的体验空间，然后在产品密集展示区找到产品。 在这个意义上特别有趣的是新销售点内部的连接。

插图 45，超级商店的用户旅程 _ 体育。见英文原文

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7.2.2. 旗舰店 _ 体育

空间尺度：1,000-7,000m^2
营业时间：10:00-21:00

插图 46，旗舰店空间原型 _ 体育。见英文原文

旗舰店不仅仅是一个陈列室，更是一个舞台，而不是商店本身。 它以最新技术、最高水平的产品定制和精品客户服务为动力，提供身临其境的无缝体验。 它可以提供多种体验。

多感官、味觉、触觉、嗅觉和声音及原型：感觉中枢领域作为一个连续的整体和相互关联的实体，其中感官协同相互作用，改变功能和职责，根据内容相互替换。

感觉中枢领域是深刻而动态地相互关联和约束的。 每一种感官都有从环境中提取特定信息的才能或能力。 感官协同运作，是情绪系统的主要激活者。 (Iannilli，2008)

这类商店通常是一层以上的大型商店，1000-7000 平方米，通常一个品牌在一个城市或地区只有一个旗舰店。

对于消费者来说，创造更令人印象深刻的体验更有意义，比如博物馆，或者景观，通常他们有一个完整的中庭中心，广阔的视野让顾客进入商店就能注意到整个空间发生了什么。 旗舰店可以利用所有类型的零售数字接触点创建不同的单元来刺激消费和多样化需求。

零售商可以利用旗舰店来吸引顾客，邀请他们参与生产过程，为他们提供个性化的帮助和专属社区。

插图 47，旗舰店的用户旅程 _ 体育。见英文原文

7.2.3. 城市商店 _ 体育

空间尺度：100-700m^2
营业时间：10:00-21:00

插图 48. 城市商店空间原型 _ 体育。见英文原文

城市商店是传统实体店的复兴版本，通过利用各种技术手段，旨在为客户提供更好、更方便的购物体验和支持。它们可以整合一些技术，如智能结账，以解决长时间排队的问题，智能货架，帮助顾客识别商品的位置，与线上应用程序集成，提供个性化建议，等等。

插图 49，城市商店的用户旅程 _ 体育。见英文原文

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7.2.4. 邻里商店 _ 体育

空间尺度：50-200m^2
营业时间：9:00-20:00

插图 50，邻里商店空间原型 _ 体育。见英文原文

邻里商店是一种较小的商店形式，迎合了当地客户的特定需求，并作为一个存取中心，可以提取在线订单，并且不需要太多仓储空间。

在传统邻里门店濒临倒闭的情况下，新的邻里商店可以为周边社区的消费者提供更加多元化和本地化的服务。 例如，在体育与健康零售中，除了销售运动器材外，还可以提供健康食品服务和运动课程。 它可以成为一个小型的社区综合体，为附近的居民提供更多样化和更受欢迎的服务。

插图 51，邻里商店空间原型 _ 体育。见英文原文

7.2.5. 定制商店 _ 体育

空间尺度：100-300m^2
营业时间：9:00-21:00

插图 52，定制商店空间原型 _ 体育。见英文原文

定制商店是体育与健康零售中的一种新型零售空间类型，以提供个性化服务。由于技术的发展，快速生产成为可能。由于定制服务不是量产的，可能只用于个别商品类型，零售空间不是很大。

与其他类型商店消费者路径的随机性不同，尤其是在产品搜索阶段，在定制门店中，几乎所有的消费体验都是在店员的指导下进行的，所以空间的组织和逻辑性很强，暗示定制的过程。

空间的入口是展示区，毗邻接待区，可能靠近生产区，是消费者观看生产过程的新体验。更内部的区域是选择和定制区域，可以使用身体扫描等技术应用。它改变了传统的生产过程，是一种更高效、更现代的生产方式，因为它为消费者创造了更多样化的体验。

插图 53，定制商店的用户旅程 _ 体育。见英文原文

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7.2.6. 自助商店 _ 体育

空间尺度：50-100m^2
营业时间：6:00-2:00

插图 54，自助商店空间原型 _ 体育。见英文原文

自助商店是体育与健康零售中一种新型的零售商店，它依赖于自助结算技术的支持。这种类型的店面通常不是很大，大约 50-100 平方米。这种类型的店铺最大的优点是解决了购物的时间限制，可以提供近 24 小时的服务，同时减少了结账排队的时间，提供了快速购物的可能。这种类型的商店可能位于更靠近生活区的地方，为附近的居民提供服务。
由于自助店的技术要求，空间的出入口通常是分开的，出口通常分为购物通道和无购物通道两个通道，优化了店内人流。由于自助服务的特点，门店没有服务人员，运动服装的试穿要求难以落实。因此，门店可以使用智能镜子来模拟试衣，而不是设置独立的试衣间。由于门店的自助性质，对存储空间的特性有特殊要求，需要能够让消费者自己在门店中找到商品。

插图 55，自助商店的用户旅程 _ 体育。见英文原文

7.2.7. 微型自助购物空间 _ 体育

空间尺度：1-5m^2
营业时间：0:00-24:00

插图 56，微型自助购物空间的空间原型 _ 体育。见英文原文

这是一种小型无人零售单元，过去被认为是自动售货机，而在体育与健康零售的单元经常出现在药店。 它的特点是结合了自助店的 24 小时服务和快闪店的灵活性。 虽然只能提供数量有限的产品，但可以灵活介入消费者的生活社区，提供便捷的服务。

插图 57，微型自助购物空间的用户旅程 _ 体育。见英文原文

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7.2.8. 快闪店 _ 体育

空间尺度：20-300m^2
营业时间：9:00-21:00

插图 58，快闪店的空间原型 _ 体育。见英文原文

在传统的零售过程中，消费者希望找到他们需要的东西。相反，通过这些新型零售空间，产品找到了消费者。这些临时空间充当破冰陈列室，人们可以在那里第一次接触品牌或试用其产品。新场景中，人们不是被迫消费，因此更容易接近。他们可以选择从其他渠道购买，例如网上购物。一个临时的空间可以达到更高的影响力，并以较低的成本被大量的观众看到。零售空间和环境之间的关系是关键。环境应该是零售可以满足目标受众的地方。同时，它们之间应该有对比，以吸引人们的注意力并提供难忘的购物体验。此外，外观往往是醒目的半封闭结构，因为与其他类型的进入动机不同，这种类型需要激发人们的好奇心才能进入。此外，空间通常被设计为易于组装或使用的轻质材料。

这种类型适合新品牌和初创企业测试市场，老品牌推广新产品、实验活动和开拓新市场，以及电子商务零售商提升品牌可信度。

如今，社会结构的各种现象具有新的亚文化的特征，社会领域中存在相似的社会行为，这些社会行为本身就成为了生活方式。 尝试欣赏这些趋势和生活方式：不断增加流动空间，传统解决方案让位于对新习惯和身份的不那么传统的态度。 因此，我们观察到新零售空间变得更具表现力，被以更灵活的方式定义，也能够为相关活动提供服务。(Iannilli，2008)

插图 59，快闪店的用户旅程 _ 体育。见英文原文

7.2.9. 移动商店 _ 体育

空间尺度：50-100m^2
营业时间：6:00-2:00

插图 60，移动商店的空间原型 _ 体育。见英文原文

移动商店可以被看作是快闪店的一种分型，但不同的是，它不是固定在一个位置。
移动商店允许零售商与不同市场的新受众建立联系。 它们还允许零售商通过面对面的互动建立关系并测试新市场。 它可以更轻松地接触到

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更多不同地区的消费者，并且可以作为为特殊体育赛事服务的商店。

插图 61，移动商店的用户旅程 _ 体育。见英文原文

7.3. 体育商店的类型比较

图表 62, 图表见英文原文

7.4. 体育商店的类型分析

图表 63-64, 体育与健康零售类型的特征分析，图表见英文原文

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8. 食品商店

技术已成为超市活动的关键和核心。 那些可以使所有零售商分销渠道更加高效和有效的店内和物流技术在清单上被逐一开发。然而，所有的食品零售渠道都有能力开发新的方式来满足顾客。如美国已经在开发“无结账商店”，使用射频识别和其他方法，让消费者可以简单地拿起他们的产品并走出大门。供应链能力的新替代方法每天都在出现，但这些技术并没有给任何单一的零售渠道带来优势，因为任何形式都可以采用这种技术。

然而，网络技术的爆炸式发展催生了一种新的分销渠道。最明显的例子是，食品公司让消费者能够在自己家里在线订购食品，并让他们送货或在商店或指定的取货地点取货。目前有两种选择，一种是传统杂货店采用这种方法，另一种是将食品杂货直接送到家里。目前有两种选择，一种是传统杂货店采用这种方法，另一种是将食品杂货直接送到家里。

就市场份额而言，欧洲传统的大型超市的零售渠道也在令人难以置信地萎缩，因为随着消费者涌向价值较高的、较小的商店和网上商店，到 2025 年，超市的销售额可能会跌至 50% 以下。(贝恩 ,2016)

有些公司提供送货上门服务。它们的特别之处在于，顾客可以根据放置在不同区域的带有电子代码的广告牌进行订购，只需简单地扫描所需的物品，然后它们就会出现在你的家中。还有一个“点击和收集”功能，允许顾客在网上订购，然后去一个特定的地点（不一定是超市）取货。有些公司正在将送货上门的概念扩展到购物者所到的任何地方。他们正计划建立一个名为“暗箱商店”的全国在线商店网络，希望从日益流行的网上杂货购物中获利：一些有得来速市场，而另一些有自己的送货卡车。

还有各种各样的在线订购服务，直接把特定种类的食物送到家里。在欧洲，人们可以得到一盒健康的，营养丰富的新鲜食品，从公司以任何想要的频率发送。商家会定期送达一盒营养小吃。可以被送达的食物选择似乎是无穷无尽的。

然而有趣的是，随着传统食品零售业技术越来越先进，农贸市场和

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街头市场的复苏也同样在增加。发展中的消费者群体之一是那些相信本地新鲜食品更美味、更新鲜、因此更健康的人。

零售行业的未来在一个方面是明确的：食品零售商店必然存在。这些商店的性质很可能与过去城市地区的街角商店有很大的不同。随着科技的进步，该行业一直在戏剧性地适应消费群体的变化。

街头市场和菜市场不仅仍然存在，而且是食品零售的主要类型。在不发达国家甚至一些发展中国家，菜市场是主要的零售食品来源。在印度这样的国家，现代食品零售业刚刚起步。美国和欧洲的发达市场并不是审视食品零售业的唯一途径。

毫无疑问，随着零售行业的变化，就像过去一些企业会跳进去填补空白一样，空白也会再次出现。

在一些商店，顾客可以不用在收银台排队以节省时间。最接近的先例可能是一些大型超市或药店的自助结账系统。该系统引入了非接触式支付系统，是最接近客户无现金购物的解决方案。然而，识别和计数物品仍然依赖于人力。为了解决这个问题，研究人员开发了一种技术来检测每个客户挑选了什么商品。例如，创建了一类货架，当客户拿起物品时，它会做出反应。类似地，商品标签曾经是主流的解决方案，但是这个解决方案并没有将产品与客户的身份联系起来。

这类商店的步骤是：

• 当客户注册，商店就可以链接他们的账户。顾客需要在他们的手机上下载一个应用程序。在商店入口处，他们需要在入口处扫描他们手机 App 上的二维码，这种闸门几乎看起来像某种地铁入口[1]。
• 跟踪客户的位置，这样系统就可以将客户数据与所采取的行动关联起来。通常有很多 RGB 摄像头用于跟踪每个客户。这不需要面部识别技术。相反，这些摄像头检测每个客户的总体轮廓，并通过运动检测跟踪个人。相机将离开摄像头 A 的客户关联起来，并接收进入的同一客户。 相机 B 则使用单独的深度感应相机提高了跟踪的准确性。
• 检测已拿起的物品，以便系统可以将物品添加到在该位置的客户的虚拟购物车中。
• 检测物品是否被放回货架，以便系统可以从客户的虚拟购物车中移除物品。

[1] 以商店大门为例，基 于“Just Walk Out Technology”，通过扫描手机上的代码进入商店，Amazon go，见链接：https://i.guim.co.uk/img/media/414 5219fa6a0ee1d4c53cb60fa3f99faaf611dc1/0_335_2644_1586/master/2644.jpg?width=1020 &quality=85&auto=format&fit=max&s=21713757881f120c41dd2eb8d4fd97a1，和 https:// ichef.bbci.co.uk/news/1024/cpsprodpb/D9B1/production/_99692755_hi044242322_crop.jpg

项目介绍：项目名称 :Amazon go，类型：食品店，地点：美国西雅图，商店类别：自助购物店，商店规模 :167 平方米，首次开业 :2016 年，平均参观时间 :10 分钟，设计师 :Amazon 团队。

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每个货架都有一个重量传感器，可以知道每件物品的确切重量。 当拿起一件物品时，传感器可以准确地判断出该物品来自哪个货架。 同样，传感器会检测何时放回相同重量的物体。

中央处理单元将有关每个客户位置的信息以及在每个货架上发生的操作联系起来。 由于这种系统设计，每个货架上都有清晰的导轨分隔每一排，与普通杂货店相比，它们更宽敞。 商店总是看起来整洁有序，因为物品需要精确放置，空间有助于准确检测客户。

它可以检测客户何时离开商店，因此可以完成客户的在线交易。 客户不必像进入时那样扫描二维码即可离店。 店内跟踪设备可以检测他们何时离开商店。

这些商店还处于起步阶段，他们需要人来帮助运营。例如，当处理的置信度评分很低时，仍然需要人工协助为正确的客户的虚拟购物车检测正确的商品。人力是不可避免的部分，因为有足够的灵活性来调整混合操作。

其他实验与围绕智能手机设计的高科技超市有关。它可用于商店的一切，从在购买杂货时将商品放入数字购物车，到获取产品营养信息，再到支付商品。根据阿里巴巴创始人马云 (Jack Ma) 的说法，新零售的这种类型是“横跨单一价值链的线上、线下、物流和数据的整合”。这是一项旨在连接线上和线下零售和数字化商店的倡议，以提供更好的客户体验。

典型的功能有：

• 扫描和离开。购物前，顾客需要下载移动应用程序。他们通过扫描每件商品的二维码来购物，然后该商品就会被添加到他们的数字购物车中。扫描产品的二维码还可以向顾客提供该产品的相关信息，包括它的新鲜度（通过查看它是何时被送到商店的）。其他可用的数据包括营养信息、客户评论、客户使用该产品可以制作的食谱，以及如果客户希望将产品送到他们家中的配送选项。

• 使用人工智能进行个性化购物推荐。该应用还能记住购物者的购买行为，并利用机器学习为客户提供个性化的产品推荐。

• 商店作为物流中心。员工在店内挑选网上订单，一旦订单被挑选出来，就会被放在传送带上，传送带会把订单运送到商店后面，准备好送货。

• 包括面部识别的数字支付。当顾客完成购物是，他们可以使用移动应用程序支付。

• 超快交货。这适用于在商店购物并希望将订单送到家中或在网上购买的顾客。

• 门店作为配送中心。以提高其交付能力。

• 体验的零售。超市本质上是杂货店和餐馆的综合体，顾客可以在这里购买食品杂货，如果他们愿意的话，也可以坐下来和家人一起吃晚饭。顾客喜欢的事实是，他们可以很容易地选择一些新鲜的海鲜，可以被立刻烹饪，并在餐厅享用。

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• 使用机器人的自动化服务[2]，大部分食物是用机器人送到客户手中的。这些餐厅不是完全自动化的，员工可以回答问题，也可以做一些他们还没有让机器人做的事情，例如烹饪。如果顾客想在这家机器人餐厅坐上一席，则需要使用应用程序在自助服务亭登记。当顾客来到他们的桌子前，他们只需扫描餐桌上的二维码，然后使用该应用点餐。

机器人餐厅的主要特点是将食物从厨房送到最终客户手中的自动化过程。许多定制设计的机器人沿着从操作空间延伸到用餐区的轨道运行，到达每一张桌子，并按其定制的订单准备用餐。该项目的核心是通过应用程序下订单后提供的各种配送方式：从餐厅到店内取货，从储物柜的存储到配送。新零售模式将线上、线下、物流和数据整合在一个单一的价值链上，以创造向上销售的机会。

另一个案例是整个空间可以连接到一个便利店，便利店的布局是为短暂停留设计的空间，目的是最大限度地提高购物体验的效率[3]。

速度和效率从繁忙的工作节奏中下降，并融入到一个布局中，促进了围绕三个中心岛的运动，并在那里准备食物。店内设置了人脸识别和自助结账台，以保证顾客的畅通。

速度和效率从忙碌的工作时间节奏中下降，并融入一个布局，以促进围绕三个中心岛的运动，朝向准备食物的焦点。 店铺周边设置人脸识别系统和自助收银台，保证顾客购物旅程的畅通无阻。

在数字化方向上，有一些有趣的案例，与其说他们没有取得巨大成功，不如说是它们开辟了新的视野。其中一些已尝试结合互动食品桌、智能货架和实时数据可视化等设施，以便让购物者了解特定食品的来源和特征，促进更明智的消费习惯。数以千计的产品展示在大型交互式桌子上。当购物者将手靠近产品时，关于食物的额外信息会出现在

[2] 以阿里巴巴盒马 necc 机器人餐厅的用餐区和机器人送货为例，见链接：https://m.designverse.com.cn/view/upload/material/upload_b1bb345959a87190ba9f4f07a47bd4bf.jpg, and https://area-17.com/sites/default/files/styles/node- project/public/project/image/03-Hema-NECC-Photo%20%283%29.jpg?itok=B9btmIQn

项目介绍：项目名称：阿里巴巴盒马 NECC 机器人餐厅，类型：食品店兼餐厅，地点：中国上海，商店类别：自助商店，商店规模 :2700 平方米，首次开业 :2018 年，平均参观时间 :15 分钟，设计师 :Area – 17 architecture & interiors。

[3] 以方便食品店的取货柜为例，见链接：https://area-17. com/sites/default/files/styles/node-project/public/project/image/03-Alibaba-Hema-F2%20 %283%29.jpg?itok=9mP1GKNQ

项目介绍：项目名称：盒马 f2，类型：便利店，线上线下循环超市，地点：中国上海，商店类别：自助店，商店规模 :400 平方米，首次开业 :2019 年，平均参观时间 :5 分钟，设计师 :Area – 17 architecture & interiors。

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上方悬挂的数字镜子上——就像无缝增强现实一样，没有任何额外繁琐的设备或界面。通过这些增强标签[4]，每种产品都可以传达其营养特性、来源、过敏原信息、废物处理说明、相关产品和促销以及其他数据。这种体验是通过使用身体检测来分析客户手势的传感器实现的。在这家商店内，讲故事的元素通过由监视器组成的长实时数据可视化墙得到加强，顾客可以在其中查看有关商店商品的信息，包括特价、烹饪建议、社交媒体帖子和每日畅销产品。这家超市代表了探索数据如何促进更明智、更可持续的消费模式的进一步发展。与完全透明的供应链互动的购物者可以更好地了解自然资源的限制和可用性。反过来，这可能会鼓励更多地使用新鲜的本地产品，甚至是建立人与人之间的新社会联系。未来，我们可能会考虑利用共享经济和点对点的动态，打造一个人人既是生产者又是消费者的自由交流区。

其他新的零售模式还有线上和线下一体化的超市，线下体验，线上交易。主要解决生鲜食品行业缺乏优质、安全、新鲜食品的问题。它是一系列连锁店，以独特的空间原型为基础。商店的主要功能包括用餐区、市场和超市。大多数商店都设在居民区。消费者需要下载 App 进行线上和线下的下单和等待配送。

利用大数据、互联网、物联网和自动化技术等技术，实现人、货、场的最佳匹配，实现仓储与配送的自动化融合，大大提高物流效率。它基于五个标准：

- 线上线下统一会员
- 统一库存
- 统一价格
- 统一营销
- 统一结算

供应链涉及从商品采购到仓储物流再到配送到消费者的整个业务链。

另一类食品商店专注于向消费者提供可以使烹饪过程更有效率的食品套盒。因此，从后台的角度来看，它是一个收集所有订阅者偏好的数据驱动平台。这些客户洞察使公司能够不断改进他们的价值主张。通过利用数据的力量，它在优化自己的供应链方面处于有利地位。这

[4]数据变化的智能橱窗让顾客在购物时了解更多产品信息，COOP 未来超市，见链接：https://static. dezeen.com/uploads/2015/05/Future-Food-District-at-Milan-Expo-2015-by-MIT-and- Carlo-Ratti-bb_dezeen_468_8-e1430481398573.jpg，和 https://carloratti.com/wp-content/ uploads/2015/05/D_SL_8497-scaled.jpg

项目介绍：项目名称 :COOP 未来超市 - 2015 年米兰世博会，类型：超市，地点：意大利米兰，商店类别：概念城市食品店，商店规模 :7000 平方米，首次开业 :2015 年，平均参观时间 :30 分钟，设计师 :Carlo Ratti Associates。

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些公司还能够准确预测客户接下来想要什么食谱，从而直接改善客户体验。这家公司利用其主要服务的优势，开发了一个线下购物部门，其目标是彻底改变工作场所的午餐体验，并通过提供多种产品的选择使每天的工作更轻松、更高效。售货单元[5]允许消费者在首次注册后使用触摸屏进行订购，并使用会员卡或指纹完成支付。在后台，实时销售数据可以完美地控制分类，并可以快速灵活地更改每个单独的位置。此外，它允许产品组合的持续开发。

插图 65，体育类商店案例对比。见英文原文

8.1. 空间原型 _ 食品

插图 66，食品类商店的数字化物理触点。见英文原文

8.1.1. 整体商店 _ 食品

空间尺度：1,500-12,000m^2
营业时间：9:00-22:00

插图 67，整体商店空间原型 _ 食品。见英文原文

整体商店可以被视为混合食品零售。 这种类型的商店具备了面对面购物的必备要素，这意味着加强店内的体验部分，例如侍酒师沿着葡萄酒排列引导顾客尝试和选择，熟食店服务人员提供有关肉类和奶酪、品尝的机会等。 美食是一种文化和生活方式，整体店铺包含了关于美食、购物、学习烹饪、饮食和社交活动的多项活动，所以整体店铺通常规模较大，不止一层。 为了展示更多的产品和更高效的空间利用，结合 App 后，真正的体验空间是在一个专门的区域，即使产品在展示区也能找到。 从这个意义上说，有趣的是新销售点内部的联系。

插图 68，整体商店的用户旅程 _ 食品。见英文原文

[5] 以 Hellofresh Go 冰箱为例，见链接：https://industrieanzeiger.industrie. de/wp-content/uploads/H/e/HelloFreshGO_K%C3%BChlschrank_1-990x1483.jpg， 和 http://ir.hellofreshgroup.com/download/companies/hellofresh/pics/HelloFreshGO.jpg
项目介绍：项目名称 :Hellofresh Go，类型：食品冰箱，地点：欧洲，商店类别：微型零售空间，商店大小 :1-2 平方米，首次开业 :2017 年，平均参观时间 :3 分钟，设计师 :Hellofresh 团队。

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8.1.2. 城市商店 _ 食品

空间尺度：1,000-8,000m^2
营业时间：8:00-20:00

插图 69，城市商店空间原型 _ 食品。见英文原文

城市商店是传统食品商店的复兴版本，通过实施旨在为客户提供更好、更方便的购物体验的技术提供支持。 他们预计将集成技术，如智能结账解决排长队，智能货架帮助客户识别物品位置，与在线 App 集成提供个性化推荐，机器人助手为客户提供产品信息咨询等服务。 配合活动空间，可作为活动发布场地或快闪店等。城市店铺通常规模较大，其购物单元可根据场地实际情况进行规划组合。

插图 70，城市商店的用户旅程 _ 食品。见英文原文

8.1.3. 邻里商店 _ 食品

空间尺度：30-500m^2
营业时间：8:00-22:00

插图 71，邻里商店空间原型 _ 食品。见英文原文

这类零售主要被视为专注于社区的本地业务。 随着消费者和消费者行为的改变，区域设置的概念也发生了变化。 邻里零售现在被视为本地零售，但消费者和零售商的本地感和行为各不相同。 多家零售商在便利市场上强势崛起。 便利的概念现在可能被视为“新”邻里零售。 尽管如此，独立零售商可以帮助为当地及其消费者培养一种“地方感”，从而产生经典意义上的社区。

随着数字化的发展，邻里商店可以通过建立小规模的混合零售方式来增加其在当地社区的便利性和吸引力。 这种类型的零售空间主要可以分为两条路径。 一是便利服务，智慧购物是通过发展网上下单、店内取货方式或店内自助购物方式完成的，店内购物空间设置在一楼或靠近入口和出口的区域。 另一条路是在二楼或远离出入口的地方设置社交活动区和用餐区，这样可以让店铺有助于增加社区的活力，另一方面也有助于吸引更多的当地消费者到访。

插图 72，邻里商店的用户旅程 _ 食品。见英文原文

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8.1.4. 直播空间 _ 食品

空间尺度：5-20m^2
营业时间：0:00-24:00

插图 73，直播空间空间原型 _ 食品。见英文原文

通过直播销售食品和饮料是一项大生意，品牌可以在几秒钟内切换数千种产品。这种现象以不同的形式表现出来。有互动节日购物体验，或一日品牌活动，利用平台将直播与电子商务网站相结合，以产品演示为特色，让观众实时提问并获得即时答案。为直接通过直播购买的人提供限时特惠。这些活动招募有影响力的人在直播期间提供帮助，同时也将其作为推出独家口味的机会。

最先进的实验是关于新的实时购物功能，如“节日一起购（Holiday Shop-along Spectacular）”节目与应用程序上的知名创作者合作，举办客厅时装秀和舞会，同时展示在商店出售的品牌。

通常有一个厨房或一张桌子，里面摆放着一系列以包装或现成形式展示的产品，并使用文字和标签，就像增强现实一样，以获取吸引购买所需的信息产品。这种现象真正起源于烹饪界，是 1980 年代电视广告的直接产物。

插图 74，直播空间的用户旅程 _ 食品。见英文原文

8.1.5. 快闪店 _ 食品

空间尺度：10-150m^2
营业时间：8:00-22:00

插图 75，快闪店空间原型 _ 食品。见英文原文

快闪店是临时零售空间，它是破冰的陈列室，人们可以在那里第一次接触品牌或试用其产品。 对于希望扩展品牌和推出新产品的零售商来说，这种类型的商店已成为首选的营销策略。 快闪店正在开发成各种形状和大小以及位置。 它们可以在传统的实体店中找到——作为店中店——作为独立的售货亭，甚至通过机动车辆，从食品卡车的热潮中脱颖而出。

消费者希望快闪购物体验是独一无二的——不同于一般的实体店购物体验。 这些体验包括独特的服务 / 产品、本地化的分类、最优的定价、便利性和有趣的体验。

短暂且可移动的空间能够以低成本实现高影响力并被大量观众看

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到。零售空间和环境之间的关系是关键。同时，它们之间应该有对比，以吸引人们的注意力并提供难忘的购物体验。 此外，外观往往是醒目的半封闭结构，与其他类型的进入动机不同，这种类型需要激发人们进入的好奇心。 此外，空间具有灵活多变的属性，通常设计为易于组装或拆卸的轻质材料。

插图 76，快闪店的用户旅程 _ 食品。见英文原文

8.1.6. 移动商店 _ 食品

空间尺度：5-30m^2
营业时间：6:00-3:00

插图 77，移动商店空间原型 _ 食品。见英文原文

食品移动商店可以视为升级的食品商店类型 - 食品卡车。车轮上的食品商店通过最新的应用程序和技术保持竞争力。

根据 Intuit 的数据，食品卡车的增长速度超过了传统食品服务选择的 1.1%。随着越来越多的食品卡车上路，通过技术脱颖而出是保持竞争优势的一种方式。

新的软件和硬件使食品卡车对顾客来说变得更加高效和方便。例如，有数百个 POS 系统针对食品卡车的使用进行了优化或专门设计。为了在午餐时间宣传或吸引饥饿的顾客，投资营销应用程序，可以对移动商店的位置进行地理跟踪，并让用户知道食品卡车在哪里以及商店将在一天中的位置。其他技术可以使卡车的展示给客户留下更深刻的印象，例如数字菜单和食品安全软件。此外，一些通过卡车侧面数字屏幕的互动游戏将为顾客创造更好的体验，让顾客在等待食物准备的同时打发时间，并树立商店的良好形象。

特别是在疫情大流行时或大流行后时期，移动商店可以发挥重要作用，因为它们的移动性可以提供灵活且相对较少接触的服务。 移动门店可以加载非接触式取货机，顾客可以通过手机 APP 下单，到附近门店进行非接触式取货，在获得基本服务的同时降低疾病传播风险。

插图 78，移动商店的用户旅程 _ 食品。见英文原文

8.1.7. 自助服务商店 _ 食品

空间尺度：50-100m^2
营业时间：6:00-2:00

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插图 79，自助服务商店空间原型 _ 食品。见英文原文

数字化自助商店是便利零售，其主要特点是位置、速度和食物。

便利零售业的这种巨大增长的驱动因素是持续的城市化（发达国家和发展中国家）、家庭规模的缩小以及总体上消费者对更小、更频繁的购物任务的偏好。 此外，它们靠近市区，这使得 便利店成为提供新服务的完美候选者，例如挑选“订购和取货”物品——为商店带来更多流量并增加冲动购买——或在内部提供快速服务餐厅。 便利店 (C-store) 零售商必须随着消费者的需求而发展，以扩大市场份额并兑现便利的承诺，但 便利零售商无法单独做到这一点。 他们需要合适的商店自动化技术和业务合作伙伴来继续满足消费者的需求并保持竞争优势。

现代消费者渴望个性化、方便快捷的服务。 自助食品订购亭、自助结账柜台、移动支付和实时个性化优惠等创新都有助于提供出色的店内体验。 对于 便利店购物者来说，便利是王道。

NACS (Holterman, 2019) 进行的一项研究发现，归结为位置和服务速度被当今的消费者视为“方便”。 63% 的消费者表示他们光顾 便利店是因为它离传统杂货店很近，或者提供比传统杂货店快得多的服务——或者两者兼而有之。 93% 的人表示，他们住在距离便利店 10 分钟路程的范围内，而 45% 的人表示他们在便利店内停留的时间不到三分钟。

插图 80，自助服务商店的用户旅程 _ 食品。见英文原文

8.1.8. 微型自助购物空间 _ 食品

空间尺度：2-8m^2
营业时间：0:00-24:00

插图 81，微型自助购物空间空间原型 _ 食品。见英文原文

微型自助购物空间可以看作是自动售货机。自动售货机最初只提供种类有限的休闲食品和罐装饮料，随着科技的进步，这种微购物单元开发了更多的可能性。可放置在办公室，提供更新鲜的餐食，数字屏幕让消费者在点餐前通过屏幕了解食物来源和营养成分，创造更好的购物体验。使用会员卡、指纹识别或扫描二维码可以简化支付过程。其幕后数据采集和统计系统可以根据客户的食物偏好优化产品配置，提供更多样化和个性化的产品以满足消费者的需求。

这个微型零售单位的特点是灵活，可以全天候提供 24 小时服务。既可以作为活动事件的手段，也可以贴近消费者的活动区域，提供便捷的服务。

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自动售货机是食品的自动取款机，拥有自己的文艺语言作为能够产生社会化和聚合的空间。 因此，不应忽视该销售设备前面空间的设计方面。 最进化的形式是 24 小时营业的自动商店。 近年来，这些业务迅速扩张，在意大利人重新发现与电子商务和交付等技术服务相结合的社区商店的封锁期间尤为突出

插图 82，微型自助购物空间的用户旅程 _ 食品。见英文原文

8.2. 食品商店的类型比较

图表 83, 图表见英文原文

8.3. 食品商店的类型分析

图表 84-85, 食品零售类型的特征分析，图表见英文原文

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结语

本书描绘了影响空间，尤其是零售世界的数字化现象。

其中一些现象涉及应用程序提供的服务，允许用户和品牌之间的交互，但我们选择了那些在各方面重新设计的空间，改变它们的形式、层次结构、流程系统、商品安排、体验和维度。

应用程序实际上是数字和实体游戏中最重要的工具，或者在现在被定义为数字物理（phygital）的世界中。它们是真正的诱饵，无论是通过与地理位置相关的通知来进行招揽，还是作为对参与和请求的高度响应系统。有些品牌会在等候区（公交车站、火车站等）放置产品广告，并附有相关的二维码，只需使用应用程序用手机拍照即可购买。这些都是有趣的现象，因为它们仍在不断发展，我们可以在其中瞥见非常先进的创新，但显然影响不大，未来也很短，而其他一些尚不成熟的创新，被证明有能力预示零售行业近期前景的根本性转折点。

第一次革命关注的是消费者的想法，他们从来没有像今天这样想要与决策互动，实际上经常影响决策，指导决策。那些进入一家商店已经知道他们想买什么，但是他们想知道如果它是不是正确的选择，或者他们想亲自了解产品特性，或者他们只是想要与品牌保持一致或者玩乐，在他们想买的东西的最佳情境中获得娱乐。对该主题的研究表明，四分之三的消费者在进入商店之前以及在此期间使用网络（和社区）作为伴随产品选择的顾问来搜索产品信息。

在极端情况下，销售点仅成为收集已经在线购买的商品的存储场所，但也有一些地方，产品是独特的，环境是它完美的配置。 因此，购买是店内体验的一部分，商店提供专业知识，展示人们的愿望，这也成为吸引具有相同兴趣和热情的群体或小社区的社交吸引力。

因此，除了销售、展览、表演、娱乐、参与和感官沉浸之外，零售空间呈现出全新的维度和特征。 商店是为那些想要接触品牌的人的欲望和感官、心理和时间需求量身定制的地方。

数字界面，无论是移动设备、屏幕、应用程序、VR、AR 还是其他，都有助于激活品牌与客户之间的关系，从而扩展空间，并在更广阔的领域内分布各种形式的商店，有时甚至超出实体空间。 商店，一个城

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市规模的网络，在物理触点和数字节点之间进行三角测量。

从这个意义上说，顾客 - 商店 - 品牌之间的关系是参与式的，通常基于沉浸式、互动式和游戏体验，以确认一种主动而非纯粹被动的模式。

游戏可以通过流媒体平台的购买方式在到达商店之前开始，但它也可以涉及一种吸引机制，通过应用程序检测商店周围的存在并发送参与通知，或以混合形式进入商店。

这些将商店变成了一个具有玩耍、会议、表演、学习、测试产品等以及销售区域的地方。

因此，零售设计师必须考虑将真实和数字融合在一起的所有这些方面，使这两种体验相互融合，功能性地增强体验的参与性和可记忆性，进而增强品牌的可记忆性。关注阈值现在已经下降到 8 秒 (Andreula, 2020)，我们需要设计与那些数字平台无法提供的参与竞争的客户旅程。这场疫情大流行加速了一些数字化进程，也比过去更快地引入了其他做法。

例如，在大流行期间经历了指数级增长和传播的微型自助商店就是这种情况，与现有商店相比，需要增加产品和空间体量。

随着疫情的蔓延，许多商店，特别是社区商店，无法承受大型网购平台的配送到家服务的冲击和竞争力，重新（那些可以）为最近的区域发明新的功能和新的服务。

疫情大流行导致的社交距离也引入了一个主题，即减少在场和强迫性，支持更程序化的行为，需要通过预约和不断消毒表面和产品。

因此，我们正处于许多引导了几个世纪的店内零售模式的终结，一个新的时代已经开始，即扩展商店时代，这将由数字转型推动。扩展后的商店将有模拟、物理和数字的维度，所有这些都共存并共享同样的成功。它也将是一个遍布整个区域的商店，客户和品牌之间的联络点遍布整个版图。就其本质而言，扩展后的商店将更紧密、更容易获得、更开放，同时更近、更大规模定制，但最重要的是，它将更加数字化，能够更快、更忠实地满足和修正自身的需求和愿望。

商店不会在 21 世纪消失，但为了生存，他们必须改变（如果他们还没有这样做的话）。他们将不得不通过集成技术解决方案来演进，这些技术解决方案不仅是后端（就像他们目前所做的那样），而且是前端的，因此就像书中所描述的案例一样，可以在商店中提供给客户。

出于这个原因，本书中的许多例子都提到了那些推进和已经将这种转变吸收到日常生活的各种形式的国家。

这一阶段必须将设计视为一种工具和方法，用于设计更好的可持续性、提高消费意识、促进交易循环、实现更好的商品共享和交换过程。设计必须在零售空间的设计中重新占据中心地位，其基本特征是真实性、多感官和共同创造的故事叙述，能够整合物理和数字体验，设计能够容纳身体和他们的人性的空间，并探索一个算法和启发式都是我们体验的平衡部分的未来。

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Bibliography

Andreula N. (2020), Phygital. Il Nuovo marketing tra fisico e digitale, Hoepli, Milano.

Balasubramanian S., Peterson R.A, Jarvenpaa S.L (2002), Exploring the implications of M-commerce for markets and marketing. *Journal of the Academy of Marketing Science*, Volume: 30 issue: 4, page(s): 348-361.

Bell D. R. (2014), Location Is (Still) Everything: The Surprising Influence of the Real World on How We Search, Shop, and Sell in the Virtual One. New Harvest.

Bell D. R, Gallino S., Moreno A. (2018) The store is dead–long live the store. MIT Sloan Manag Rev 59:59–66, available at the website: https://sloanreview.mit.edu/article/the-store-is-dead-long-live-the-store/

Bitner M. J. (1992) Servicescapes: The Impact of Physical Surroundings on Customers and Employees, *Journal of Marketing*, Volume: 56 issue: 2, page(s): 57-71.

Blom A., Lange F., Hess R.L, (2017), Onichannel-based promotions' effects on purchase behavior and brand image, *Journal of Retailing and Consumer Services,* volume 39.

Brun A, Castelli C.(2008), Supply chain strategy in the fashion industry: Developing a portfolio model depending on product, retail channel and brand. *International Journal of Production Economics*, volume 116, issue 2, p.169-181.

Chen Z., Dubinsky A.J, (2003), A conceptual model of perceived customer value in e-commerce: A preliminary investigation. *Journal of Psychology & Marketing*, Volume20, Issue4, Special Issue: Nostalgia for Early Experience as a Determinant of Consumer Preferences.

Crewe L. (2008) "The architecture of fashion, Buildings and bodies as a new syntax of the city", in L. Basso Peressut; I.a Fiorino; G.

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Postiglione; F. Scullica (a cura di), Places & Themes Of Interiors: Contemporary Research Worldwide, FrancoAngeli, Milano.
Dorner K., Edelman. D.C, (2015), What "digital" really means. *McKinsey & Company article*, available at the website: https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/what-digital-really-means
Edelman D.C, Singer M. (2015), Competing on Customer Journeys, *Harvard Business Review*, issue November 2015, p.88.
Frontoni E., Mancini A., Zingaretti P., (2015),Embedded Vision Sensor Network for Planogram Maintenance in Retail Environments, *Sensors* 2015, 15(9), 21114-21133.
Gold R. (2007), The Plenitude. Creativity, Innovation and Making Stuff, p. 63, The MIT Press, Cambridge, Massachusetts.
Holterman J.R. (2019), Self-Service in Convenience Retail: What Do Location, Speed and Food Have In Common?
available at the website: https://www.dieboldnixdorf.com/en-us/retail/insights/blog-retail/blog-self-service-in-convenience-retail
Iannilli V. M. (2008), "The Future of Retail Store Design", in L. Basso Peressut; I. Fiorino; G. Postiglione; F. Scullica (a cura di), Places & Themes Of Interiors: Contemporary Research Worldwide, p. 115-124, FrancoAngeli, Milano.
Ieva M., Ziliani C. (2018), The role of customer experience touchpoints in driving loyalty intentions in services, *TQM Journal*, volume 30.
Ju-Young M. Kang (2018), Showrooming, Webrooming, and User-Generated Content Creation in the Omnichannel Era, *Journal of Internet Commerce*, volume 17, Issue 2.
Khalifa M., Shen K. (2008), 'Explaining the adoption of transactional B2C mobile commerce', *Journal of Enterprise Information Management*, vol. 21, no. 2, pp. 110-124.
King H. (2013), What is digital transformation, available at the website: https://www.theguardian.com/media-network/media-network-blog/2013/nov/21/digital-transformation
Kumar J., Herger M. (2013), Gamification at Work: Designing Engaging Business Software, Interaction Design Foundation.
Lemon N. K., Verhoef P. C. (2016), Understanding Customer Experience Throughout the Customer Journey. *Journal of Marketing*, volume 80, issue 6.
Leong J.K., Kim W., Ham S. (2002), The Effects of Service Recovery on Repeat Patronage, *Journal of Quality Assurance in Hospitality & Tourism*, Volume 3, 2002 - Issue 1-2.
Lin C.C., Wu H.Y., Chang Y.F. (2011). The critical factors impact on

Copyright © 2021 by FrancoAngeli s.r.l., Milano, Italy. ISBN 9788835132523

online customer satisfaction. *Procedia Computer Science*, 3, 276–281.
Liu D. (2019), Bestseller Fashion Group's New Retail in China, available at the website: https://crs.alibaba.com/events
Liu H., Lobschat L., Verhoef P.C., (2013), Multichannel Retailing: A Review and Research Agenda, *Foundations and Trends® in Marketing* 12(1):1-79.
Ma Y.M., (2019) Retailtainment,Digitalization and Sportization, How sports and health retail can be changed by digital apps. School of Design, Politecnico di Milano.
Pantano E., Priporas. C.V. (2016) The effect of mobile retailing on consumers' purchasing experiences: A dynamic perspective, *Journal of Computers in Human Behavior*, Volume 61.
Peng P., Yao.Y, (2018), Livestreaming gives boost to retail sales. available at the website: http://www.chinadaily.com.cn/a/201812/14/WS5c13247ea310eff3032910d4_3.html
Prahalad C.K., Ramaswamy.V, (2004), Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, volume 18, Issue 3, p5-14.
Rapp A., Baker T.L., Bachrach D.G., Ogilvie J. (2015), Perceived customer showrooming behavior and the effect on retail salesperson self-efficacy and performance, *Journal of Retailing* volume 91(2).
Richardson A. (2010), Understanding Customer Experience, available at the website: http://www.iimagineservicedesign.com/wp-content/uploads/2015/09/Understanding-Customer-Experience.pdf
Rodríguez-Torrico P., Cabezudo R. S. J., San-Martín, S. (2017). Tell me what they are like and I will tell you where they buy. An analysis of omnichannel consumer behavior. *Computers in Human Behavior*, 68, 465-471.
Rose S., Hair N., Clark M., (2011), Online Customer Experience: A Review of the Business-to-Consumer Online Purchase Context. *International Journal of Management Reviews*, volume 13, issue 1, Pages 24-39.
Shao X., Shi S. (2018), Alibaba's Tmall Unveils the First New Retail Megastore for INTERSPORT, available at the website: https://www.alibabagroup.com/en/news/article?news=p180529b
Shen X., Li Y., Su Y., Wang N., (2018) Channel Integration Quality, Perceived Fluency and Omnichannel Service Usage: The Moderating Roles of Internal and External Usage Experience, *Journal: Decision Support Systems (DECIS SUPPORT SYST)*, Elsevier.
Steinfield C., Bouwman H., Adelaar T., (2002), The Dynamics of Click-and- Mortar Electronic Commerce: Opportunities and Management Strategies. *International Journal of Electronic Commerce*, Volume 7,

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2002 - Issue 1, p93-119.
Teas R.K. Agarwal S. (2000) The Effects of Extrinsic Product Cues on Consumers' Perceptions of Quality, Sacrifice, and Value. *Journal of the Academy of Marketing Science*, 28, 278-290.
Timetrade (2015), Study: 85% of Consumers Prefer to Shop at Physical Stores vs. Online, available at the website: https://www.timetrade.com/about/news-events/news-item/study-85-of-consumers-prefer-to-shop-at-physical-stores-vs-online/
Verhoef P.C., Kannan P.K., Inman J.J., (2015), From Multi-Channel Retailing to Omni-Channel Retailing - Introduction to the Special Issue on Multi-Channel Retailing, *Journal of Retailing* 91 (2).
Von Briel F., Davidsson P., Recker J. (2018), Digital Technologies as External Enablers of New Venture Creation in the IT Hardware Sector, *Entrepreneurship Theory and Practice* 42(1):47-69.
Wang S.Y. (2019) Comtemporary fashion retail space segment analysis and prototype design. School of Design, Politecnico di Milano.
Zhang T., (2018), Future retail: New strategic thinking in the digital era, *Deloitte*.

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Extended store has been a work of mapping the phenomena of digitalization that effects spaces and above all the world of retail. Apps allow interaction between users and brands, the book hosts a selection of those which are redesigning spaces, changing their forms, hierarchies, flow systems, arrangement of goods, experiences, and dimensions.

The store takes on completely new dimensions and characteristics, in addition to sales, that of exhibition, performance, entertainment, engagement and sensory immersion. The store is a place tailored to the desires and sensory, psychological, and temporal needs of those who want to encounter the brand.

The extended store will be a shop spread throughout the territory, it will be more connected, more available, more open and at the same time closer, mass-customized, but above all it will be more digitalized and able to fulfil and modify itself more quickly and faithfully to needs and desires.

Shops will not disappear in the 21st century, but they will have to change (if they have not already done so) to survive. They will have to evolve by integrating technological solutions that are not only back-end (as they have done so far), but front-end, and therefore available to customers in the shop as in the cases reported in the book.

扩展的商店是一项描绘数字化现象如何影响空间乃至整个零售世界的工作。应用程序允许用户和品牌之间进行交互，本书精选了一些重新设计空间、改变形式、层次结构、流程系统、商品安排、体验和维度的应用程序。应用程序允许用户和品牌之间的互动，但这本书提供了一些重新设计空间、改变它们的形式、层次、流动系统、商品的安排、体验和尺寸的选择。

商店呈现出全新的维度和特征，除了销售，还有展示、表演、娱乐、参与和沉浸式感官。商店是为那些想要接触品牌的人的欲望和感官、心理和时间需求量身定制的地方。

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La passione per le conoscenze