

**The influence of physical stores on the integration of online and offline channels, from a customer-centric perspective**

**- a case study of Alibaba's fresh food store, Freshippo**

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**ABSTRACT**, in the customer-centric era, the fragmentation of channels can no longer satisfy customer's increasing demand for superior customer experience. So, retailers need to figure out how to integrate channels to enhance customer experience. Thus, this study aims to explore the synergy between digital and traditional channels. With the popularity of e-commerce, it becomes difficult for most physical retailers to survive in the market environment. However, the in-store experience, especially for fresh food grocery, is quite essential, due to its role of enabling awareness, brand connection and human touch. Therefore, the purpose of this study is to investigate the influence of physical stores on the integration of online and offline channels, from a customer-centric perspective. Omni channel retailing is a growing body of research. However, most studies only focus on the perspective of customer experience but ignore the synergy between digital channels and traditional channels that is achieved by the excellent in-store experience and physical store digital transformation. Therefore, in this study, customer experience is not only the goal of Omni channel retail strategy but also the starting point of Omni channel strategy.

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**Keywords, Omni channel retail, channel integration, customer experience, in-store technology, experiential marketing, personalization, mobile app penetration, big data**

# 1. Introduction

## 1.1 Situation

Due to emergence of digital retail channels and continued digitalization, the retailing has undergone dramatic changes over the past two decades. (Verhoef et al, 2015). With the popularity of e-commerce and mobile commerce, customers nowadays can choose from multiple channels. These two shopping channels give a hit to traditional physical stores. In traditional retailing, lacking customers and little understanding of what they desire to reach a deal are main drawbacks. However, e-commerce and mobile commerce also have the disadvantages, where customers cannot have a real shopping experience.

The most important lesson from the market digitalization is that power has shifted to the customer, which means customer is king. However, the fragmentation of various touch points increases the complexity of customer experience, which is not beneficial to retail. According to Barthel, Hudson Smith and de Jode (2015), there is a major trend in retail that retailers are pursuing the increasing demand for a seamless and undifferentiated customer experience between mobile-commerce, e-commerce and in-store shopping, which means the customer sees the same retailer brand and values in the shopping journey when shifting from one channel to another (ShaDrena Simon, 2018).

And as is stated by Gupta (2004) and Shah (2006), there is a difference between omnichannel retailing and multichannel retailing. Instead of developing each channel as an independent entity, the omni-channel retailing focuses on a customer-centric strategy, featuring a holistic and integral customer experience, which can be defined as an integrated network in which all the channels are aligned and synchronized and display a single face to the consumer (Accenture, 2015).

In the era of omni-channel retailing, the boundaries of online and offline channels are uncertain (Deloitte, 2017). Therefore, it is necessary for retailer to study the customer's preference and shopping patterns. As is stated, the customer prefers an undifferentiated shopping journey nowadays. So, the traditional separating strategy that differentiates online and offline channel cannot optimize customer experience anymore. Instead, it has been important to integrate resources and data across channels to support omni-channel operation (Deloitte, 2019). Also, integration of online and offline channels' advantages to optimize the customer experience, enabling customers to feel agility in offline channels and feel real experience in online channels is key.

Since there are a lot of retailers for customers to choose among, the bargaining power nowadays is transferring to customers, and with the commonly high financial strength, customers are not just satisfying with buying the needed things, their needs for personalized service is becoming motivations and driving forces to buy something. As surprising as that may sound, retailers that are able to offer personalized experience across physical and digital channels, can obtain 5-15% revenue increase (Mckinsey, 2020). Even if the action of personalization has already existed in the online shopping channels, it's still seldom in offline customer journey. So, personalization to a larger scale, covering both physical and digital channels is the next big marketing opportunity. (Mckinsey, 2020)

Nowadays, developments in information and communication technology have led to digital revolution in the retail industry. However, while digital transformation is key trend in retail industry, a lot of physical stores are still in embarrassing situations because physical stores fail to connect to the digital world. As a result, although e-commerce is an important milestone in the process of digitalization, its influence extends beyond e-commerce and reflects in the transformation of physical stores to complement and create synergy with the digital world (Pauwel, 2011).

In the e-commerce age, digital platform is killing traditional channels. So, how can superior in-store customer experience can be created by digital technologies and other methods to positively affect the online platform are the key research target.

## 1.2 Research Background: The status quo of fresh food physical store and e-commerce

With the rise of online shopping and the improvement of people's life quality, the market for fresh grocery e-commerce is becoming increasingly prominent. According to the report from Euromonitor (2020), in 2017, the fresh market transaction amount reached 1789.7 billion yuan, while fresh grocery e-commerce market transaction amount was only 141.8 billion yuan. The market mainstream is still mainly offline. Although online penetration is low, it continues to improve, reaching 7.9% (Xiaodong Liu, 2019). It is expected that the fresh grocery e-commerce market transaction amount will reach 215.82 billion yuan within the next three years, with a compound growth rate of 49%. The penetration rate will continue to increase and will reach 21.7% by 2021.

At present, there are more than 4,000 fresh e-commerce retailers on the local market, and more than 90% of the businesses are unprofitable, but the

fresh e-commerce industry is still attracting businesses with its strong consumer stickiness, high repurchase rate of just-in-time product features and broad market prospects.

According to EnfoDesk (2014), since 2013, China's O2O industry has undergone a rapid development, with traditional retailers becoming aware of the need to move brick-and-mortar stores information to online channels and unify categories and prices. While this approach has increased the number of channels for consumption, the relatively independent operating model between online and offline channels has led to a fragmented user experience. At the same time, the development of traditional online e-commerce in China also tends to be saturated, with online retail sales declining 3 percentage points compared to last year and has been declining for three consecutive years.

In the era of customer upgrade, whether it is offline entities seeking online connections or online e-commerce seeking offline carriers, the integration of online and offline has become a major trend, and the time for change is becoming increasingly ripe.

### **1.3 Research Objective**

The research objective of this thesis is to study how can fresh grocery store use digital technologies in store to provide superior customer experience and how can fresh grocery store break down the silos separating online and offline channels in the era of digital transformation.

#### **Research question:**

**How can physical store influence the integration of online and offline channels, from a customer-centric perspective?**

- How can digital technologies interventions integrate the advantages of online and offline channels?
- How to obtain in-store personalization?
- How to increase customer interaction in the physical stores?
- How does Alibaba use mobile application to penetrate through the whole customer journey, and what's the meaning of this mobile app penetration?

### **1.4 Practical relevance**

This thesis is for sure not purely theoretical; it can be interesting for every marketer and every industry who want to enter the omni channel market. And it is based on a practical case study, also Alibaba is a very successful company, the thesis is of high practical

value. Some traditional retailers can use the results of this thesis to figure out how to integrate digital technologies in offline stores, how to break down the boundaries between online and offline and how to optimize their current retail processes.

During 2020, covid-19 is an unprecedented pandemic that is rapidly changing the life of everyone. It also requires significant changes in physical retail and e-commerce and mobile commerce platforms. In this dynamic time, full of humanitarian and social uncertainty, what the customers buy, how they buy, and when and where they buy is undergoing a dramatic shift. (Accenture, 2020)

Retailers are the one who serves the communities, where the health and safety of consumers should be the main concern for retailers. Therefore, retailers have to keep responsibility in the daily operations and implement some tactics to cope with the problems of covid-19. Through this thesis, retailers can also learn from Alibaba's Freshippo to see how their omnichannel strategies can proactively minimize the risks and negative influence of covid-19.

### **1.5 Academic relevance**

This thesis is novel. First, omni-channel marketing is a very new concept, there are not that much research in this field. And digital technologies are always changing and improving, so there will always be something new to be exploited and study. And Alibaba's Freshippo is the only one which requires customers to download app to finish shopping and customers can only use digital payment in-store, the case study provides proof and practical case to show that big data analytics can be quite helpful in omnichannel retail. Also, little study discusses the meaning of personalization in retail, especially in-store personalization. So, the content on personalization can have a lot of academic meaning in omnichannel study.

## **2. Literature Review**

The essence of omnichannel retail strategy is to interact with consumers from every available touch point. Thus, the changing consumer landscape is driving an evolution in the role of physical store from just a point for placing an order to a place for interaction and engagement. Since the e-commerce is gradually replacing the physical stores. The in-store customer journey is essential to the revival of physical retail (Mckinsey, 2019). Even if it is convenient and easy to place an order on e-commerce platforms and mobile commerce apps, some needs of the consumers can only be satisfied by personally visiting a real-world store such as feeling product directly and

evaluate its quality personally, trying on a clothes or a lipstick in front of the mirror (McKinsey, 2019). These are the main difference between physical store experiences and online shopping experience, since the feeling of satisfaction directly perceived through senses plays a key role in developing a loyal customer relationship (Blázquez, 2014). And these are also the reasons why the digital retail channels cannot totally replace and 'kill' the physical stores.

Traditional physical stores often face challenges such as high operating costs, low efficiency. In the era of digital transformation, technology redefines and upgrades the in-store experience and store environment (Pantano and Naccarato 2010; Merle et al. 2012), making the customer shopping journey both attractive and unforgettable (Piotrowicz and Cuthbertson, 2014) and enabling physical store to survive in the digital revolution. Also, with the enrichment of technology and other digitalization measures, retail stores can surpass and break the boundary, making integrated experience possible (Brynjolfsson et al. 2013).

According to a McKinsey report (2019), 57 percent of interviewees in a McKinsey survey said the in-store digitalization positively influenced the purchasing decisions. Moreover, with the increasing cost of digital marketing, it is an opportunity to invest in the physical stores towards a technology-enabled digital transformation to attract and retain the customers.

The effect of technology on customer experience is hard to ignore. It is a trend to introduce technologies into the physical store responds to customer preferences needs and expectations (Renko and Druzijanic, 2014). The key differentiator, then, is how retailer can use that technology to elevate the customer experience. So, this study aims to investigate the use of in-store technologies and how can these technologies interact with customer along the whole customer journeys to create a superior customer experience and provide personalization.

## **2.1 Customer Experience and Experiential Marketing**

Customer experience plays an essential role in determining the success of a retail strategy (Gentile, 2007; Yakhlef, 2015). Retailing stores that care about the customer experience and regard improving customer experience as part of the credo and strategy often obtain increasing customer acquisitions, increasing revenues, and improving retail performance (Johan, 2017). In traditional retail environment, retailers depend on both tangible high-quality and interesting products and services to generate great shopping memories for customers (Chen & Lin, 2015; Tsaur & Wang, 2007). According to Schmitt (1999),

customer experience refers to "the perception or acknowledgment which a customer gains from seeing or joining in an event which can add value to the services and products".

One evident difference in today's customer behavior and shopping pattern is their non-linear path to purchase (Accenture, 2012). The shopping journey they went through was a traditional marketing 'funnel', starting with awareness, to thinking and evaluation, and ending with buying and loyalty (Accenture, 2012). By contrast, while the customers nowadays still move along these stages, the only difference is that whichever stage customer goes through, the evaluation mindset exists all along the shopping journey. Thus, it is important for retailers to orchestrate high-value customer experiences along the whole customer journey.

Since the customer acquisition costs keep rising. In fact, acquiring a new customer means spending 6 to 7 times what it would cost to make a client buy again. Therefore the sales funnel is not enough, and loyalty programs play an integral role in retailer's strategy.

The increasingly important role of customer experience in customer's evaluation and decision process is a driving force that motivates retailers to adopt various strategies from the traditional ones to leave a deep impression on customer (Cliffe and Motion, 2004). Fragmented marketing and retailing have no longer the power of persuading customers to conduct a transaction especially in offline physical stores. Also, actions that only focus on improving customer satisfaction are not enough to maximize the holistic customer experience. As a result, nowadays, the retailing strategy should pay attention to meeting consumer's expectations on cognitive, affective and interactive levels (Tsai, 2005). Since traditional retailing methods are based on the relational decision-making of customer, however, in real life retail environment, customer's shopping behavior is not complex, which is usually actions driven by perceptual judgment due to certain stimulus in a specific retailing situation.

According to Schmitt (2010), traditional retailing focuses on features and advantages of tangible products. However, with the increasing competitions among retailers, the products and services point to great convergence. Therefore, the experiential marketing plays an important role in adding value to customers because it concentrates on customer experiences where emotional, cognitive and behavioral influences can happen.

Experiential marketing is defined as a "method of identifying and satisfying customer needs and desires,

engaging them into interactive activities which add value to the target consumers” (Smilansky, 2009). Experiential marketing aims to establish emotional resonance and connection with the customers. And according to Yuan and Wu (2008), experiential marketing is a marketing tactic used by retailers to decorate and fill the entire physical environment, which increases the customer interaction and enrich the customer experience, therefore triggering the customer acceptance and shopping desire.

Overall, experiential marketing is based on the customer's emotional decision-making, it is through a series of marketing activities to enhance consumer engagement and experience, to stimulate the consumer's emotional cognition, to stimulate consumer's desire to buy and then create the purchase behavior. So, despite using digital technologies to improve the customer experience, experiential marketing tactic and activities can be implemented to satisfy customer's expectation for superior shopping experience.

## 2.2 Personalization

The advances in digital technologies are reconfiguring traditional retailing. Armed with an abundance of accessible touch points, customers have a more complicated requirement for the retailers, thus they no longer accept the role of passive receivers of traditional retailing and the empowerment is thus transferring to the customer (Stefano & Oguz, 2016). This is turning traditional retailing strategy upside down. In the omni-channel retail environment, a lot of retailers notice the tendency of seamless customer experience. However, only the superior shopping experience is not motivated enough to let the customers make purchase decision.

According to a survey conducted by BCG (2019), when high level of personalization is contained in the shopping journey, customers thought that they were 110% more likely to buy additional products and approx. 50% more likely to spend more than they had planned. Moreover, when customers are required to rate the retailers, level of personalization is also a very critical indicator. Retail stores which can provide personalized service are ranked 20% higher than normal stores even if they sell the same products.

In traditional offline stores, personalization is defined as knowing what the customer need and always satisfying their needs at the right time (Shen and Ball, 2009). The core idea of personalization is a customer-centric mindset. In the digital online environment, retailers can check customers' purchase history, based on the data collection and big data analysis; they can then launch some intelligent

recommendations based on personalized preference (Zhang et al., 2011). Retailers attempt to provide relevance to customers by recommending products which they are interested in to meet their needs, which is essential to personalization and means delivering “the right things to the right person at the right time” (Tam & Ho, 2006).

To conclude, retail personalization contains personalized marketing and personalized products, aiming to provide the most suitable products at the optimal time and in the best place to satisfy customers and show full respect to customers (Sunikka and Bragge, 2012).

While personalization is common online, a lot of e-commerce platform already provided personalized recommendations and other personalized experience. It is still rare in physical stores. So, this study aims to find out how can retailers realize the omnichannel personalization by obtaining in-store personalization and how this action can boost the synergy between digital and traditional retail channels.

## 3. Methodology

### 3.1 Research Design

Case study can be defined as an empirical research method, which is used to investigate a phenomenon or entity, via focusing on the dynamics of the case, within its contextual environment. The goal of case study can be to understand the essence beyond a phenomenon and the reasons for the existence of an entity. Case study can be divided into three categories, exploratory, descriptive or explanatory one. Given the explorative attribute of the research question and sub-questions, a case study research method is selected for the thesis.

Since omnichannel is a new concept and still need to be explored, case study can be used for both positivist and interpretive goal, aiming to test established theory as well as contributing new logic based on a benchmarking enterprise, Alibaba.

Alibaba's Freshippo is a key enterprise in the field of omnichannel business ecology, and Alibaba intends to completely reconstruct offline supermarkets through Freshippo. Since Freshippo has received widespread attention from the industry and has become a benchmark enterprise in the field of omnichannel retail. The investigation of the operation model of Freshippo can provide good reference and inspiration for the transformation and upgrading of traditional retail, which is of strong practical significance.

### 3.2 Data Collection and Analysis

There are multiple data collection methods within case study, interviews and secondary data, etc. This study aims to find out what is the role of physical store in the omnichannel environment and how can it take advantages of the synergy between online and offline channels. So, incorporating multiple qualitative data collection methods generates the opportunity for more complete explanations to the research question and sub-questions.

First, to investigate the application of in-store services to upgrade the customer experience, some secondary data can be collected, especially from the Freshippo's official website and other industry reports. For the in-store technology, it is hard to simply demonstrate their attributes through words. Therefore, images were collected to fully display the in-store technologies.

To find out whether and how the store creates personalized service and superior customer experience, the participants' in-store feelings and experience are key data. And to make the results completer and more subjective, the data collection includes 16 face-to-face semi-structured interviews with 15 in-store customers and 1 store operation manager. The full list of interview questions can be found in Appendix A.

To avoid the bias in interviewee's answers and increase the validity of data, some websites and archive documents are also used as complementary data collection methods.

By entering the official website of the Alibaba Group (alizia.com), there are the latest news and updates of Alibaba. As a business unit of Alibaba, news, updates and reports about Freshippo are also displayed on the websites. Moreover, there are a lot of online discussion community (such as zhihu.com), where users can propose questions to the public, and there will be some experts in a certain field to answer the questions.

Additionally, there are a lot of available interviews between some reporters and the employees of Freshippo online. These existing interviews offered insights into the research questions.

## 4. Results and Findings

The new retail model of Freshippo Store is a business model of online e-commerce plus offline stores around physical stores, and effectively combines the three functions of fresh supermarket plus restaurant plus logistics, thus forming a compound ecology of supermarket plus catering plus logistics plus APP.

### 4.1 The in-store technology-enabled digitalization

Recently, interactive in-store technologies have been applied to increase customers satisfaction and enhance their shopping experience. The combination of online e-commerce retail and physical retail complements both strengths. Online e-commerce retail is gradually materialized, and physical retail is based on big data to achieve organic integration. It is consumer-centric and strives to improve the consumer experience and stimulate consumers' demands.

Poncin and Ben Mimoun (2014) argued that the fresh customer experience of the in-store digital technologies can attract more consumers to the physical stores, reducing the boundaries and differences between traditional in-store atmospherics and e-commerce platform atmospherics.

Alibaba's Freshippo operates on cutting-edge innovation in physical stores like digital price tag, facial recognition, robots and intelligent conveyors, aiming to create a retail environment combined the physicality and accountability of traditional offline shopping with the speed and ease of digital online shopping (Marc Andrews, 2020). In a shopping environment where customers can not only feel and see the products personally, but also can enjoy the convenience through high technologies, the customers feel more satisfied and appealing compared with either traditional or digital shopping.

#### 4.1.1 Digital price tag/ Electronic shelf label

To integrate the online and offline retail channels, one of the biggest challenges is the information synchronization. Offline stores use electronic price tags that display the product name, price and corresponding QR code. Customers can scan the code through the Hema App to view product information in real time and add the product to the shopping cart. Electronic price tag opens online and offline product management. For consumers, it can help them view product details, browse product reviews, and facilitate users' shopping choices. For staff in Freshippo, it is convenient for product management, can adjust product information, and update product inventory in real time.

The electronic price tag relies on the network between the backside and front-side electronic price tag information, so that real-time information can be replaced, with fast time and high accuracy (Tricia Mckinnon, 2019). In the cloud platform to electronic price tag to change prices, a price tag content modification update takes less than 1 second, 50,000 pieces of electronic price tag within the refresh, the fastest up to 10 minutes / times, to achieve flexible pricing, real-time promotion. Moreover, the electronic price tag can display customized contents, such as

membership price, promotion price, coupons, images, QR code and other information (Bibek, 2019). The convenience of electronic price tag to change prices facilitates the promotion activities of retailers and supermarkets, and the number of products promoted every day can be added at will, which greatly strengthens the ability of attracting customers.

*According to respondent 3, who is the operation manager of the Freshippo store, 'the electronic price tag is leading the tendency; customers can get all the products information through scanning the QR code on the label'.*

In addition to displaying prices, electronic price tags can also help consumers understand various types of information about the products they buy and reduce their worries about food safety issues. By scanning the QR code on the electronic price tag, consumers can obtain information on the origin of the food, food additives, production time, usage method, etc. The electronic price tag can also help them understand the products they are buying, thus *increasing their trust about the food quality (respondent 1)* and reducing their worries about food safety. The QR code can also be used to enhance interaction with customers, who can scan the code to get special offers or access online product pages, thus increasing customer stickiness.

Overall, digital price tag is an electronic display device which is mainly used in electronic tags that display price information in supermarkets, convenience stores, and pharmacies. Each electronic shelf label is connected to the computer database of the store through the intranet network; therefore, the back-side information of a product can be displayed through scanning the QR code on the digital price tag. Since on traditional paper price tag, only little information, such as the price and product name can be shown, which are not enough for customers to evaluate the products and to make a buying decision. Through scanning the digital price tag on the shelf, the information transparency can increase customer's trust of the product quality, making their shopping journey more reliable. Also, the digital price tag can update any promotion or discount in time, ensuring that the product price is consistent with the checkout price, avoiding the omissions caused by traditional manual price changes. This will also avoid or reduce the chance of misleading price indications, which guarantees the rights of consumers to the greatest extent.



Figure 1. The digital price tag on a shelf.

Source: <https://mariellalabels.com/>

Electronic price tags also have navigation functions. It can optimize the picking route among the shelf and improve the picking speed according to the user's order information. Therefore, Freshippo uses digital price tag with better performance to replace the traditional paper price tag as a price display tool, enabling the customers to enjoy a more reliable shopping journey.

#### *4.1.2 Digital payment with Facial recognition*

In Freshippo store, when customers finish their shopping journey, they can only pay by using the Freshippo's app, which is directly linked with Alibaba's digital payment method- Alipay. At certain Freshippo stores, customers can choose to conduct the payment by using facial recognition payment technology.

At the self-checkout desk, there is a camera equipped above the screen, which is used to scan the customer's face. The facial recognition system is bounded with Alipay's database to verify the customer's identity. Customers can also choose to enter their phone number or make some facial dynamic expression as a safeguard (Tricia, 2019). Therefore, customers can buy anything at any time without carrying cash or card, which is quite convenient.

*According to several interviewees, they think the self-checkout, digital payment and facial recognition make their shopping journey more convenient and faster (respondent 2, 6, 7, 9, 10, 11, 15).*

For example, the self-service cash register allows customers to scan products, check out and pay in a self-service way, eliminating the queuing process, liberating the one-to-one bondage between the cashier and the cashier, improving cashier efficiency, saving labor costs, and increasing shopping fun through experiencing these technological machines. The most attractive point for self-service check-out desk and facial recognition is to bring fresh experiences to consumers through the technological machines, which is important for supermarkets to increase its attractiveness and appeal.



Figure 2. A self-service cashier.

Source: <https://sohu.com/>

#### 4.1.3 Robot

*According to the introduction about Freshippo's Robot.Ho restaurant by Yi Hou (founder of Freshippo)(Sohu, 2018), when customers enter the robotic restaurant of Freshippo, they will first get the table assigned by the system according to the number of diners on the digital screen at the entrance, and after being seated, they can scan the QR code to place a meal through the app, and wait for the robot to deliver the food after the order is finished. After the meal is over, customers only need to press the button on the table; the cloud task will dispatch and assign the robot to the table to clean the table service.*

The food delivery robot can increase the customer experience because it can avoid the possibility of collisions between customers and waiters while dining, ensuring the stability of restaurant service. It can also improve the feeling of independence, because instead of employing a food delivery staff, a robot will not say anything when delivering the food to the table. Therefore, the customers in the robot restaurant can enjoy a constant dining without being interrupted. Also, since the robot delivery in a restaurant is innovative, the fresh experience can also improve their shopping journey.

In addition, the food delivery robot reduces the employment of restaurant service personnel and reduces labor costs.



Figure 3. Food delivery robot

Source: <https://zhihu.com/>

#### 4.1.4 Intelligent conveyor belt

Intelligent conveyor belt technology allows customers to intuitively see the entire process of goods being transferred from the warehouse in the physical store, which increases customer trust in the brand. The use of intelligent conveyor belt technology can transport goods from the back warehouse to the store at the maximum speed, making it easier for customers to shop. After receiving the order online, staffs pick the ordered products in the store, put them in special insulated shopping bags, which are therefore transferred to the back-end area through the automatic conveyor belt. Thereafter, the selected goods are sent to the first floor by the vertical lifting system Shipment. This process from ordering to packing only takes 10 minutes. Hence, consumers can buy their products within 30 minutes without leaving home. The application of intelligent conveyor belt brings enormous convenience for consumers, in which they can obtain what they need without getting out for shopping.

According to the in-store customers, after entering the Freshippo store, they were attracted by the suspended chain transport system.

*“I've seen the 100% automatic sorting system, by which Freshippo fetches goods on the shelter and make packages totally with the help of robots so that human power is saved, and efficiency is improved. It is impressive and technologically cutting-edge (respondent 5).”*

For customers who choose to pick up the goods in store, the goods will be delivered directly to the self-service checkout desk through the conveyor belt. For customers who choose a home delivery, the in-store pickers will directly go to the storage area or



retail area after receiving the order on the mobile terminal, selecting the goods, putting the goods in the incubator, putting them on the conveyor belt, and letting the conveyor belt automatically deliver them to the delivery man.

*“The home delivery was quite quickly around 20 minutes (respondent 9&10).”*

So, through the automated in-store logistics system, the entire process from order acceptance, sorting, distribution, and delivery can be finished within 10 minutes, which benefits the consumers to enjoy a faster home delivery and enable them to get the food whenever they want.



Figure 4. *Intelligent conveyor belt*

Source: <https://sohu.com/>

## 4.2 In-store personalization

### 4.2.1. Improving consumption experience through the personalized recommendation

*According to respondent 8, when checking out through both self-checkout desk in physical stores and mobile app, the system will recommend products based on personal preference and historic shopping records.*

The intelligent recommendation system will not only recommend products based on customer’s historic shopping records. Also, some recommendations are complementary products to the existing products in the shopping carts. For example, if a customer buys some seafood, certain kinds of condiments which can be used to flavor the seafood will be automatically recommended to the customers when checking out.

Through the personalized recommendation system, it is possible to recommend products to consumers which match their specific interest preference, or which they may need to buy but forget to add into the shopping cart. Moreover, the recommendation system can also suggest some novel things, which may be new arrivals.

Therefore, through providing personalized and precise recommendations about what are needed or favored by the customers, the system act as an intelligent assistant to remind consumers and offer consumers with convenience, surprise and novelty, improving the customer experience, therefore.

### 4.2.2 Free combination of food

According to Carrie (2020), there are an area in some Freshippo stores, selling washed vegetables and chopped-up meats, aiming at enabling busy office clerks to prepare some dishes in around 15-30 minutes. Consumers can either buy a dish of mixed food, or they can propose their own requests about what kind of vegetables and meats do they want and each of what amounts.

In traditional stores, consumers can only buy a bundle of vegetables or a box of meat. If they only buy limited kinds of food, they cannot make a fancy meal. If they buy too many, the costs may be very high and there may be some waste because the shelf life of fresh vegetables and meats is short. Therefore, this free combination of food is personalized because it can enable the customers to cook any dishes they want to eat without any waste.



Figure 5. *Free combination of food*

Source: <https://baijiahao.baidu.com>

## 4.3 Improving customer satisfaction through experiential customer journey

Experiential marketing is a customer-centric strategy, adding value to customers through communicating and interacting with customers, therefore, offering extreme shopping experience to customers. Freshippo’s experiential strategy is used both online and offline. In offline environment, it is used to attract and acquire customers with superior experience, while in online environment, it is used to motivating customer loyalty and retain customer.

### *Emotional experience*

The target customers of Freshippo have the following characteristics: the majority of them are busy workers and company employees, who relatively have little time to cook; and they have high requirements for product and service quality (Li, C et al., 2020). Freshippo grasps every detail, treats customers wholeheartedly, and establishes emotional bonds with customers through high-quality products and good services. Freshippo is committed to providing consumers with the freshest ingredients and meeting the needs of customers for every meal. Therefore, the retail strategy of Freshippo is:

(1) Customers can purchase all the ingredients for a meal; (2) Raw materials are sourced directly from the world and bases, which are safe and secure; (3) Daily fresh vegetables are directly harvest seasonal vegetables and Freshippo sell them on the same day instead of selling overnight vegetables; (4) Sell clean vegetables, which consumers can directly process, which is convenient and hygienic; (5) Sell cooked food and light meals, which customers can eat directly; (6) For customers who are too busy to buy in stores, they can make order through app. Freshippo food is delivered from -18°C to 60°C at full temperature. Through the intelligent distribution system, it will be delivered within 30 minutes, allowing customers to enjoy fresh food.

*At the same time, according to respondent 5, 6, 7, Freshippo also provides customers with many daily life services, such as laundry and cleaning, nail beauty, devices maintenance and some complementary services like free lockers.*

These services can let the customers feel that Freshippo is considering the customers through satisfying customer's extra needs during their shopping journey.

#### *Pragmatic experience*

Pragmatic experience aims to motivate customer behavior by exposing customers to interactive activities.

*According to respondent 1, 2, 4, 9, 10, Freshippo launches a lot of interaction activities, and events for traditional Chinese New Year, Mid-Autumn Festival and other festivals.*

Through these events and activities, it can boost the Freshippo-customer relationship. Interesting activities can provide customers with some completely unexpected product attributes or service behaviors, and surprise customers. When the product provides such services in demand, customers will be very satisfied with the product, thereby increasing customer experience.

Besides, Freshippo launches a lot of tasting activities and issues coupons for customers to receive free products in stores. After the customers taste, they are asked to share the tastes on social media and Freshippo selects the most excellent post to reward. Freshippo also encourages customers to invite relatives and friends to purchase products. Customers can share QR codes to invite friends to place orders. If friends place orders, both the customer and his friends can get rewards.

#### **4.4 Mobile Apps penetration for customer big data analytics**

Freshippo rely on the mobile App as the cornerstone of the online and offline integration. To purchase goods in offline stores, customers must download the App, register and log in and bind Alipay. The QR code on the product's digital price tag can only be identified by the App. Customers who see the product they want to buy but feel inconvenient to take home immediately; can place an order through the app by scanning the QR code and wait 30 minutes to receive the products. The various vending machines and checkout machines in the store can only realize self-service payment through the payment code on the App, eliminating the cost of labor cost. In the restaurant area, customers can only order meals by scanning the code through the app. Customers can do other things when they wait for the meal. The App will remind them when the meal is prepared. Digital method's offline intervention will incur certain learning costs. When Freshippo started, the rejection of cash or card caused a lot of controversy (Ying, L et al., 2020). However, after customers have experienced the convenience and fun of this digital transformation, the App has become a successful bridge between online and offline channels.

## **5. Discussion**

5.1 Integrating online and offline retail channels through creating superior in-store experience to drive traffic to online, breaking the data barriers.

Traditional supermarkets use a single offline retail model, which is with a more stable service radius and customer groups and offers customers the opportunity to experience the products and service in person, and can meet the needs of consumers for gathering, catering, relaxation and other diversified scenarios, rather than just a single shopping, etc. However, the traditional retail model also has the disadvantages of category management, single display and the radiation range of the site is limited by time and space. As a result, it cannot be compared with the online retail which has more flexible categories and layout.

Moreover, higher rental costs, and increasing labor costs are both the problems facing traditional retail.

E-commerce platform is the opposite of in-store shopping, which is convenient and fast, breaking the time and space constraints of shopping, and solving the asymmetry of information between retailers and customers; but at the same time, there is a lack of practical experience, and product quality is difficult to guarantee, also, after-sales issues are more difficult to get proper and timely treatment.

However, in fresh food grocery and other stores where customers focus on the real experience, retailers need to re-imagine the nature of physical retail. The physical store still plays an essential role in attracting customer's awareness, providing great experience, interacting with customers.

In the era of omnichannel retailing environment, retailers need to adopt a highly integrated business strategy, moving towards digital transformation. However, digital transformation does not imply that online channels will replace traditional ones. Physical stores will always remain an important role in the retail environment and will be responsible and extremely important to the evolution (McKinsey, 2020). Therefore, combining the advantages of both online and offline channels, especially creating in-store agility, convenience and high-tech environment is key.

While the increasing bargaining power of the customer and upgrading of consumption determines that new retail strategy must create new value and new experience. Compared to single channel of traditional retailers, new offline retailers have remodeled the customer's perception of retail through technological in-store atmosphere, personalized service and experiential retail environment to create an extreme customer shopping experience. Through the high-quality shopping environment, customers are attracted to enter the store for shopping. And since in Freshippo, the checkout and payment can only be conducted through mobile application, which is connected to Alibaba's Alipay. Customers who are attracted to shop in Freshippo must download the mobile app, they are therefore brought into the online channels, where their shopping behavior can be collected and analyzed.

One lesson we can learn from the silo mentality is that lacking information exchange and sharing can lead to less efficiency (Anindya, 2020). Therefore, to break down the silo effect in retail scenario, the data sharing across multiple channels and platforms is pivotal to the Omni channel retail success. Beyond the superior customer experience and digital payment is Freshippo's strategy to integrate the online and offline

channels, relying on the high-quality in-store customer experience through technological in-store atmosphere, personalized service and experiential marketing to attract customers to enter the store, then using the mobile app to gather customer data and therefore mining big data on user consumption behavior.

Thus, the synergy between the integration of online and offline channels reflects in three main advantages by leveraging big data.

1. The in-store operations become more convenient and more efficient. Leveraging the advantages of big data, a series of digitalization processes can be realized, including digitalization of user information, digitalization of commodity information, digitalization of transaction processes, improving retail sales efficiency and in-store & logistics operations. It also makes operations more clear, transparent and efficient.
2. With the help of data, build user portraits to achieve precision marketing. Freshippo uses the big data analysis of a large amount of consumption behavior, historical transaction data, and app browsing records to grasp the shopping behavior characteristics and preferences of each consumer during shopping. Therefore, Freshippo can provide customers with optimized & personalized recommendations to achieve precise marketing and increase the conversion rate. And relying on the big data, retailers can adjust the marketing strategy in time. For example, for the best-selling products, retailers can increase the procurement and supply planning; for the slow-selling products, certain promotion strategy can be launched.
3. The introduction of disruptive technologies can effectively control operating costs. Through big data, cloud computing, retailers can collect and process data from offline stores and online sales and rely on Alibaba's accumulation of big data to analyze the specific needs of consumers through deep mining of customer data and collected data to conduct accurate demand forecast. Therefore, there will be less waste and less operating costs.

### **5.3 Unlocking the in-store personalization**

Nowadays, since there are more new entrants into the fresh food retail markets, the competitions among retailers increase. Moreover, the online players are also disrupting the market shares of physical retailers (McKinsey, 2020). The retail environment is becoming more complex and challenging. Thus, traditional methods to differentiate retailers and empower retailers with competitive advantages are no longer effective, such as providing promotions or higher-quality food

because these methods can be easily imitated by competitors. However, differentiations can still be achieved by personalized methods where customers can be satisfied with unique shopping experience.

Brodie (2014) assumes that in today's highly dynamic business environment, personalized engagement with customers is key to improve their shopping experience and therefore attract and retain customers. However, most retailers haven't made it clear what does personalization means to the consumers (BCG, 2020)

Personalized retailing aims to provide customers with high-value information and experience, where relevance, omnichannel and timeliness are three key indicators to measure the personalization performance.

*Relevance: personalization needs to be relevant to customer expectation*

Whether use complex recommendation algorithms to provide customers with desirable products and services or increase efforts to compile personalized discount and reward information for loyal customers, the stronger the relevance, the stronger the stickiness and loyalty of users. New customers become old customers, making old customers more loyal. This requires retailers to quickly discover, understand and stay close to their customers. In recent years, the demands of Chinese customers for self-concern and self-expression have greatly increased. Therefore, retailers need to shape highly relevant products and experience for customers.

Typical personalization settings at Freshippo also attract enormous attention from consumers. For instance, according to Respondent Mr. Jiang, Ms. Cai and Mr. Gao, there are some interesting events and activities designed for Freshippo memberships and family day at Freshippo. In this respect, Freshippo is transformed from a supermarket into a dining space with fast delivery service. Furthermore, when people buy products at an on-line APP frequently, it will automatically recommend products based on customers' preference, which improves repeat-purchase (Respondent Mr. Xu). Even though most people worry about the risk of information leak, they still believe it can be avoided by technologies in the future, and they still choose APP to order products at Freshippo.

*Omnichannel: personalization across all channels and touchpoints*

Personalization is common in online customer journey, such as the location-based recommendation, AI chatbot on the website, shopping behavior track and preferred goods recommendation. However, in an omnichannel environment, customers want a seamless

customer experience, which means whether online or offline, they can enjoy the same experience. And to integrate the different channels by relying on physical store to drive traffic to online, the extreme in-store experience can not only be achieved by digital technologies but also by in-store personalization service. And for in-store personalization, retailers need to achieve all-touchpoint-personalization, which means to provide personalized services along the thorough customer journey.

*Timeliness: personalization at the most appropriate time maximizes conversions.*

Sometimes the timing of sending a recommendation message is even more important than the content itself. If companies can use previous order data and personal information to push marketing messages when customers are obsessed with the shopping experience, or on special days (birthdays, anniversaries, etc.), the effect is usually better. In addition, "tracking" customers' purchase desires and consumption behaviors is also an effective means to improve timeliness. When the customer's previously purchased goods are almost used up, when the inventory of the goods is replenished, and when a new product is released for a certain product or category that the consumer repeatedly buys, it may be the best time to send a recommendation message.

#### **5.4 Stores as fulfillment**

In the traditional retail model, supermarkets in community have the advantages of close distances and fast delivery, but the products categories are few. Although the e-commerce platform has complete categories, the high requirements of frozen storage and cold chain logistics for fresh food have limited the development of fresh food e-commerce. Therefore, customers prefer to go to traditional offline supermarkets to buy fresh products, where offer fresh products that are fresher, more convenient and complete in variety.

Fresh food e-commerce under the omnichannel strategy has explored and innovated a "front store and back warehouse" model (also named as store as fulfillment), breaking through the space limitations of traditional supermarkets, realizing short-distance fast logistics and distribution services of goods. The "store as fulfillment" model deploy the logistics and warehousing services into physical stores, which enables shared storage and delivery system between distribution center and stores. Therefore, this model reduces the overall costs. Additionally, the intelligent conveyor belt in the store also improve the sorting and delivery efficiency. So, combined with the 'store as

fulfillment' model and the in-store intelligent conveyor belt, customers can enjoy a faster food delivery.

Take Freshippo as an example. It has created its own "store as fulfillment" model, where the storefront is both a commercial area and a storage area. And through the integration of the offline store and online e-commerce platform, online orders being placed within 3 kilometers of the store can be guaranteed to deliver within 30 minutes, which can ensure the convenience and high quality of the fresh products. This is also one of the biggest features of Freshippo. It is precisely because Freshippo has a set of intelligent digital logistics system that it can be delivered in such a short time.

During the covid-19 pandemic, it's clear that the period of lockdown has had a profound impact on how people live. The period of self-quarantine and economic uncertainty will change the way customers behave, especially the shopping behavior changes towards e-commerce penetration (Mckinsey, 2020). So, how can traditional retailers survive in this pandemic is key. With the traffic lost in physical stores, traditional retailers should reconsider the role of physical stores. It is not only a place where customers can personally engage in, but also it can be regarded as a fulfillment center and distribution center. With fresh food retail store's community attribute, like Freshippo, using stores as fulfillment can improve the delivery speed and quality, therefore satisfying the e-commerce customers with a thoroughly superior experience, from ordering to delivering.

## 6. Conclusion

With the status of consumers in transactions continuing to rise, the customer-centric age comes. The isolated multi channels can no longer meet the needs of consumers. Therefore, the era of omni-channel emerges. To classify the omnichannel more clearly, it can be broken down into two parts. (1). the undifferentiated online and offline customer experience. (2). the integration of online and offline channels.

First, the omni-channel undifferentiated shopping experience allows consumers to achieve a unified consumption experience, and it neutralizes and combines the advantages of various channels and upgrades the shopping experience. Since this study focuses on the impact of physical stores on omni-channel retail revolution, the results and discussion highlight the digital transformation of offline physical stores, using in-store technology to enhance the shopping experience.

Secondly, the integration between channels lies in the synergy between traditional and digital channels. It is a truth that the existence of e-commerce is threatening traditional brick-and-mortar retail stores (Nicholas, 2017), so how physical retailers can help themselves survive in omnichannel retail environment, while not affecting e-commerce performance is key.

Take Alibaba's Freshippo as an example, by blurring the channel boundary, the online and offline channels of Freshippo are no longer two competing individuals. It leverages superior in-store customer experience to attract traffic to e-commerce platforms and use the big data-empowered online platforms to realize omni-channel precision marketing.

To sum up, the integration of online and offline channels starts from the optimization and transformation of offline physical stores, relying on the upgraded physical stores experience to attract customers, then using the penetration of mobile app to gather customer data, and through the big data analysis, benefits can be obtained from the synergy of online and offline channels.

## 7. Limitation and Future Research

The research comes with some limitations. First, since omnichannel is a relatively new concept, even if a lot of retailers are moving towards multi-channel retail, only a few are focusing on omnichannel strategy. So, the benchmark enterprise is hard to select. Thus, only one case study on Alibaba is used in the data collection. So, this may lack some diversity in the data. Secondly, in the data collection process, due to the small size of interviewees, the outcomes may contain some bias. Thirdly, in this study, the omnichannel actions and strategies of Alibaba's Freshippo are introduced. However, even if in the interview, the customer's experience data have been collected, lack of some confidential data, like the revenue before and after omnichannel strategy, leads to lower validity, thus it cannot be fully proved that these are useful omnichannel actions.

## 8. Acknowledgements

I would like to express my sincere thanks and gratitude to my supervisor, Dr. Agata. Leszkiewicz, who provided me with a lot of useful feedbacks and comments, helping improve my thesis with both practical relevance and academic relevance. During the very special pandemic, she is still glad to have discussion with me online. Moreover, I would like to thank all the interviewees who spent time taking the

interview and expressing their opinions. Their answers enabled me to answer the research questions and finish the thesis.

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