

Article

Exploring Omni-Channels for Customer-Centric e-Tailing

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Abstract: In this volatile post-COVID environment where customers look for ways to order products online using personal computers and mobile devices, a traditional sale/delivery of products via single distribution channel needs to be reassessed. As a revolutionary alternative to a conventional distribution channel, this paper proposes an omni-channel strategy. The omni-channel aims to maximize the customer shopping experience by diversifying and integrating the product purchase and delivery media through customer engagement. The omni-channel also facilitates the sales of products by allowing customers to seamlessly interact with retailers across the multiple channels such as websites, social media, brick-and-mortar stores, kiosks, call centers, and the like. Since the transformation of product sale, purchase, and delivery processes requires a new business mindset and innovative strategic initiatives, this paper sheds light on potential challenges and opportunities of implementing the omni-channel strategy, while identifying key success factors for the application of the omni-channel concept to e-tailing.

Keywords: omni-channel; e-tailing; logistics; expository study; content analysis



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1. Background

With the explosive growth of online shopping in the wake of the COVID-19 pandemic, today's savvy customers would like to buy anything from anywhere, anytime without visiting brick-and-mortar stores. In particular, customers constantly seek ways to compare different product offerings at different prices, check inventory statuses, and then order products online for local in-store pickup using mobile devices and personal computers (PCs). To meet this rapidly changing customer preference and then adapt to e-commerce driven shopping environments, a growing number of retailers began to realize that a traditional sale/delivery of products via a single distribution channel no longer makes sense. A viable alternative to such a traditional business practice is the exploitation of an omni-distribution channel. Generally, an omni-channel refers to an approach that transcends multi-distribution, multi-media channels connecting the Internet (e.g., social-media, web sources), mobile tech (including ubiquitous), and brick-and-mortar into a seamless integration through multiple touch points [1,2]. This omni-channel allows the customer to view products online, purchase it using his/her mobile devices such as smartphones, and pick up the ordered product by dropping by the nearby brick-and-mortar store, as shown in Figure 1. The omni-channel also opens up two-way communications for online shoppers through interactions between the customer and the retailer in lieu of one-way communication (e.g., advertisements). Though similar in that the omni-channel can be viewed as the special case of a multi-channel, the omni-channel differs from the multi-channel, as summarized in Table 1.

The omni-channel needs to be developed, especially when many products that were sold to the customers are returned and customer complaints increase due to the hassles of product returns. In fact, approximately 5 to 10 percent of in-store purchases are returned and the product return rate rises to 15 to 40 percent for online purchases [3]. A vast majority (92%) of consumers surveyed by the Infographic said that they will buy again if the product return process is easy, whereas 79% of consumers want free return shipping [4]. This

survey result indicates that customers are likely to complain unless they are allowed to return products whenever they want. In addition, the omni-channel structure permits the retailer to link its inventory to customer demand. Indeed, during the ongoing COVID-19 pandemic, 69% of the brick-and-mortar shoppers surveyed by Shopkick would purchase different brands if their preferred one is unavailable [5]. Given the growing importance of product availability to shopping convenience in times of pandemic induced travel restrictions, pre-shopping trip information about inventory availability can lure more potential customers.

Thanks to the aforementioned omni-channel flexibility, the latest Neilson survey reported that omni-channel shopping (both in-store and online) increased by 50% in 2020 [6]. This survey result also reflected changed shopping behavior during the Covid-19 outbreak, with many customers avoiding or limiting their time in brick-and-mortar stores [7]. As a matter of fact, customers who shopped heavily or exclusively online rose by 133% from September 2019 to September 2020. In-store pickup preferences also grew by 26% during that time period [6].

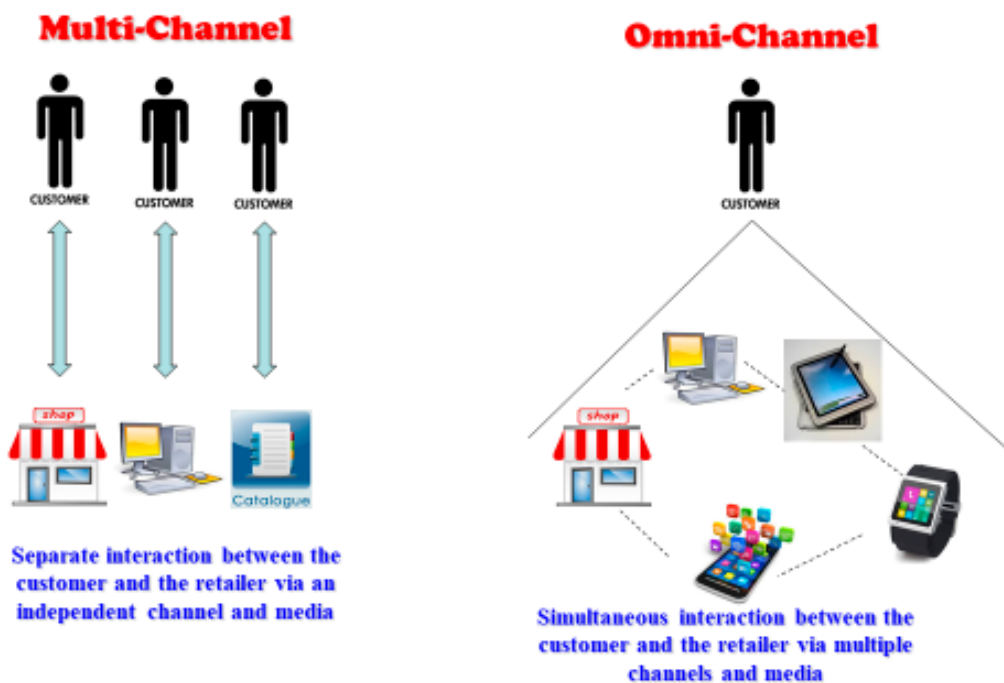


Figure 1. Multi-Channel vs. Omni-Channel.

Table 1. Differences between the Multi-Channel and Omni-Channel.

Multi-Channel	Omni-Channel
<ul style="list-style-type: none"> ■ Provides customers with a variety of platforms or channels to facilitate the sale of products. ■ Channels are disconnected and separated from each other with silos (or no overlap). ■ Information across the channels is disjointed. 	<ul style="list-style-type: none"> ■ Integrates the various retail channels to provide customers with a consistent brand experience through empowerment ■ Channels are integrated. ■ Information across the channels is seamlessly coordinated and shared with customers. ■ Tends to utilize social-media and mobile technology more than the traditional channel.

2. Literature Review

Over the last two decades, an increased digitization of retailing activities has facilitated the movement from the multi-channel to the omni-channel. Reflecting this trend,

the omni-channel has begun to receive growing attention from both practitioners and academicians alike in the last decade. Some of the pioneering research works on the omni-channel were initiated by a group of scholars such as Brynjolfsson et al. [8], Bell et al. [1], Piotrowicz and Cuthbertson [9], and Chakraborty and Chung [10]. To elaborate, Brynjolfsson et al. [8] conducted a case study of local women clothing stores to examine the level of competition between online retailers (i.e., e-tailers) and offline (i.e., brick-and-mortar) retailers. Their study discovered that e-tailers faced a significant competition from offline retailers when selling mainstream products, whereas the former was virtually immune from competition when selling niche products. Their study focused on the analysis of cross-channel competition with respect to types of products. Bell et al. [1] presented potential challenges and opportunities of the omni-channel environment for the provision of product information and product order fulfillment based on secondary data sources. To thrive in the omni-channel environment, they suggested that retailers of all types should deploy marketing strategies that reduce friction in every phase of the retail buying process. Such a strategy includes a hybrid online and offline channel development, including buy online and pickup store options. Piotrowicz and Cuthbertson [9] examined the role of information technology (especially mobile technology) in creating new omni-channel approaches to channel integration and seamless customer experiences based on focus group discussions. They also observed the growing role of social media in spurring the omni-channel approach. Chakraborty and Chung [5] argued that the omni-channel strategy could increase business risk resiliency, especially in the high risk industries such as pharmaceutical and oil industries, by boosting the customer's real-time access to product information and ability to shop through all available channels. Their study is one of the first to relate the omni-channel to the company's risk management.

To follow up on the aforementioned omni-channel studies, Kaczorowska-Spychalska [11] focused her attention on customer perspectives of the omni-channel strategy. She noticed that the omni-channel strategy allowed the customer to move from one channel to another freely all within a single transaction process and thus enhanced the customer shopping experience. This study indicated that such an experience could help build a close relationship with the customer and establish the company brand. Unlike previous studies, Gao and Su [12] developed a newsvendor model to estimate the retailer payoff of choosing either online or offline channels in the omni-channel environment. Through a series of mathematical model experiments, they found that the offline channel via a physical showroom display led to a reduction in the retailer's profit due to the product availability risk (e.g., stock out). They also concluded that information mechanisms such as availability information on the retailer's website were generally profitable to the retailer, since they alleviated customer uncertainty about product value and inventory availability. Similarly, Bell et al. [13] examined how a lack of full product information prior to the product purchase in the omni-retail environment influenced customer (demand) uncertainty and operating costs. Based on the analysis of the quasi-experimental data, they found that offline showrooms increase sales within online-first retailers' trading area and through the web channel. They also concluded that the ability of the showrooms to drive incremental demand were vital to the omni-channel strategy, since it could reduce product returns. More recently, Hickmand et al. [14] identified key factors influencing an omni-channel experience based on the questionnaire survey. Those factors are brand familiarity, customization, perceived value, and technology readiness. They found that brand familiarity had a strong influence on the omni-channel shopping experience while perceived value had a negative impact on the mobile shopping experience. Based on this finding, they suggested that retailers should use multiple touchpoints simultaneously to enhance their overall customer's omni-channel experience. Hossain et al. [15] conducted an empirical study based on focus group interviews and a questionnaire survey of Australians to examine the influence of the integration quality within all different multi-channels on the customer's cross-buying behavior.

As this literature review on the omni-channel reveals, most of the prior omni-channel studies primarily investigated how different multi-channel options influenced omni-

channel operating efficiency and identified key factors influencing omni-channel benefits/costs and customer shopping experiences. Though all of the aforementioned omni-channel studies are helpful for understanding the underlying ideas and motivation behind the omni-channel trend and what potential the omni-channel has, these prior studies did not discuss the specific ways that the omni-channel can be structured for actual retail settings and what specific challenges and opportunities should be dealt with. To fill the current research gap, this paper proposes an omni-channel framework conducive to the e-tailing business success and discusses practical challenges and opportunities associated with the omni-channel strategy. In developing such a framework, this paper adopted content analysis as a primary research tool, given the relative youth and newness of omni-channel research. Since the content analysis aims to derive new meanings from written and printed texts, this paper drew upon research materials from archives or publicly available sources such as the published literature, magazine articles, and mass media reports [16,17].

3. An Underlying Framework of the Omni-Channel for e-Tailing

Prior to developing the omni-channel framework in e-tailing environments, we needed to clarify what can be accomplished by leveraging the omni-channel. With that in mind, we considered the following strategic goals that the omni-channel strategy can achieve:

- (1) Gain insights into customer behavior to determine target customer segments that are likely to explore omni-channel options;
- (2) Personalize customer online shopping experience by diversifying touchpoints;
- (3) Empower and engage customers in their online shopping decisions;
- (4) Break down the channel barriers to better inform customers of product availability and utilize on-hand inventory by providing a single view of all inventory and order status;
- (5) Maximize customer online shopping experience and retain satisfied customers.

Based on above goals, the following subsections shed light on key elements crucial for the successful accomplishment of each goal.

3.1. Omni-Channel Customer Segments

To fully exploit the omni-channel strategy, e-tailers should start with omni-channel promotion and marketing. Since one-size-fits-all marketing is rarely effective, segmented marketing will be more sensible for promoting the attractiveness and convenience of omni-channel shopping experience to the potential customer bases. To identify omni-channel customers and develop their profiles, we segmented the omni-channel customer into four different categories as summarized in Table 1 [18,19]. Though generational differences are not fully proven by all the scientific studies, some generational studies such as Volcom et al. [20] and Lai and Hong [21] reported the presence of generational differences in learning technology that may impact some customer segments' omni-channel shopping behaviors. Table 2 indicates that generation Z and millennials can be the primary target customer segments for omni-channel marketing.

Table 2. Potential Omni-channel Customer Segments.

Age Group	Generation	Feature
Born 1997 or after	Generation Z	Independent, ready for multi-task, wants to communicate face-to-face, adaptable to digitalization
Born 1981 to 1996	Millennials	Collaborative, achievement-oriented, highly creative, positive, diverse, can embrace technology
Born 1965 to 1980	Generation X	Fast-paced, flexible, informal, better information access
Born 1964 or after	Baby boomers, seniors, retirees, traditionalists (silent generation)	Conservative, hierarchical, and not technically savvy

3.2. Touchpoints for the Omni-Channel

As an important part of the omni-channel shopping experience, customers are given multiple options that allow them to gather information about product features and availability. Such options would represent omni-channel touchpoints. These touchpoints are communication forums where online customers can interact with e-tailers through multiple media. These media includes both analogue and digital media. Analogue media include newspaper ads, TV ads, catalogues, offline showrooms, and so forth. Digital media include the e-tailer’s websites, e-mails, blogs, mobile webs, online ads (e.g., YouTube), social media (e.g., Facebook, Webchats), instant messaging, and so forth. Though these multiple diversified touchpoints create complexity, e-tailers should ensure trouble-free easy access to each one of these touchpoints to enhance the customer’s online shopping experience. One way to better manage omni-channel touchpoints is to develop a customer journey map. A customer journey map is an innovative visualization tool that aimed to understand the customer’s motivation and behavioral patterns for a product/service purchase. As such, it helps the marketer to improve the target customer’s shopping experience by gaining valuable insights into a series of customer touch points [22–24]. The proposed customer journey map consists of two dimensions (a vertical axis showing omni-channel media, and a horizontal axis showing the omni-channel shopping process). For illustrative purposes, Figure 2 displays the customer journey map that contains the customer’s omni-channel shopping behavior and patterns.

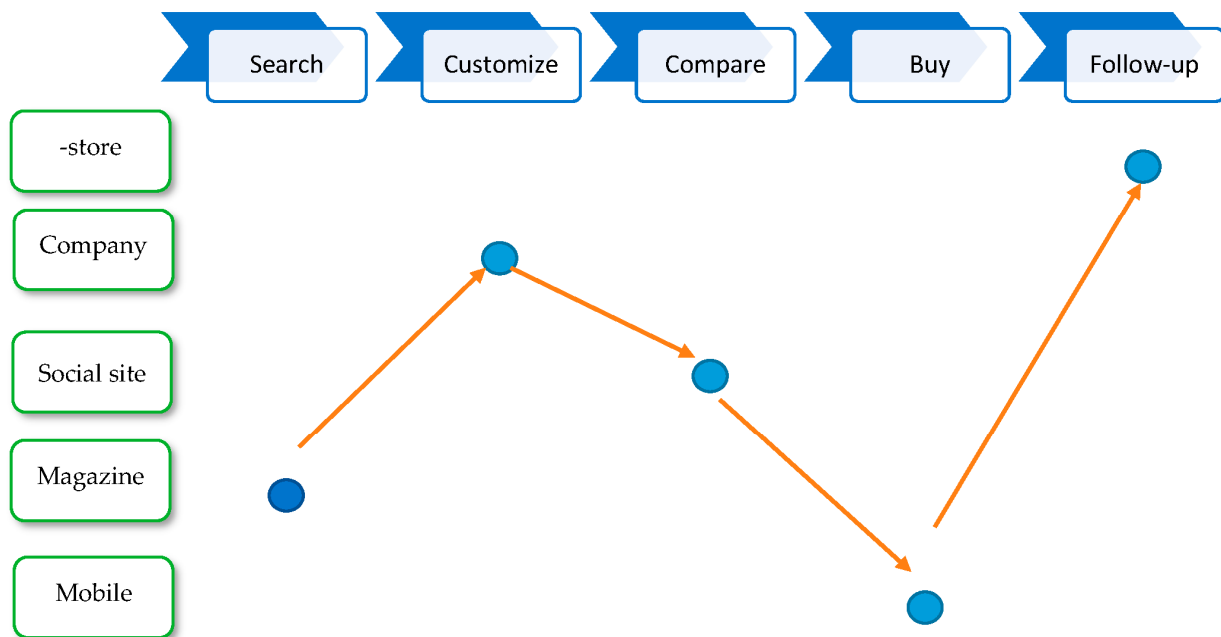


Figure 2. A Customer Journey Map in the Omni-Channel.

3.3. Order Fulfillment via the Omni-Channel

In the omni-channel environment, the customer can place an order online and then that order may be shipped to the local in-store (a brick-and-mortar store) from the fulfillment center (e.g., a regional warehouse) and be picked up in-store by the customer. Also, the order can be delivered to ship-to-partners such as carriers, pickup depots, and lockers. Due to this built-in flexibility, the omni-channel fulfillment is more complicated than the traditional single order mechanism. When considering the importance of order fulfillment to customer satisfaction, the omni-channel order fulfillment process has to be structured in a systematic manner. The omni-channel order fulfillment process can be conceptualized as a sequence of steps through which an e-tailer handles order, as illustrated by Figure 3.

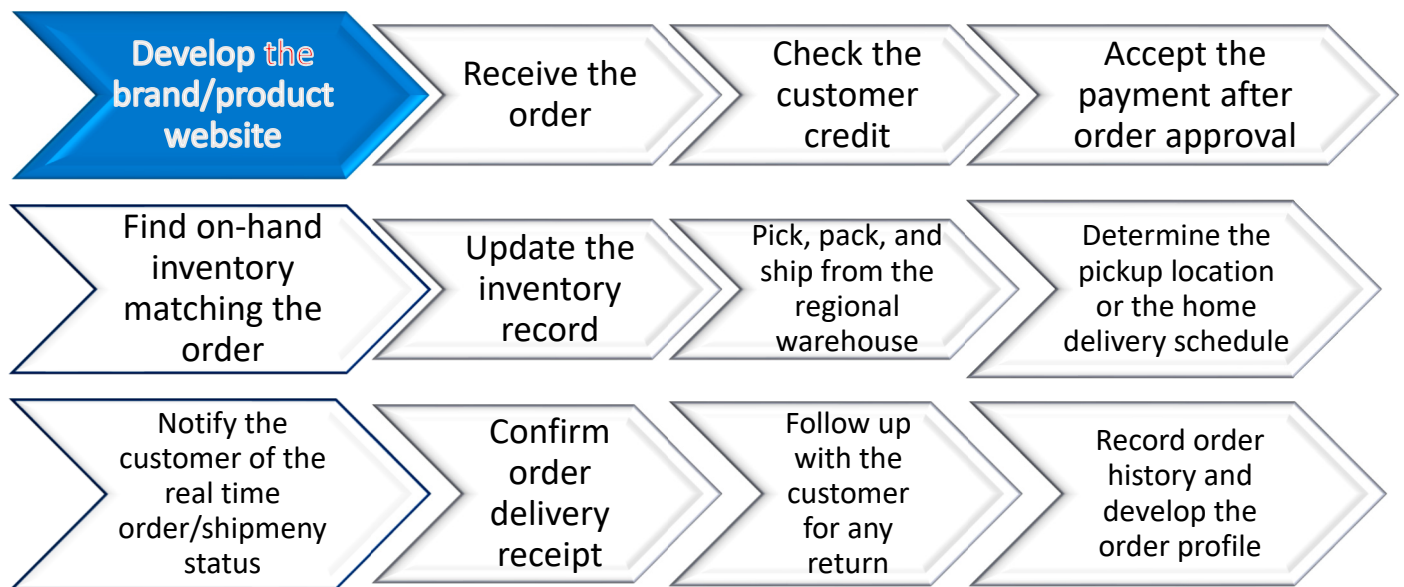


Figure 3. The Omni-channel Order Fulfillment Process.

3.4. Omni-Channel Barriers and Challenges

Despite the growing popularity of the omni-channel fulfillment, it poses a number of managerial challenges due to newness and inherent complexity associated with multimedia communication and the multi-channel order and product delivery process. In addition, the omni-channel strategy triggers a series of changes in the e-tailer's organizational culture and way of doing business. For instance, if one fulfillment route such as direct shipping to the customer fails, the e-tailer should pivot to other options, including in-store pickup through a regional warehouse (distribution center). This kind of flexibility requires the e-tailer to shift and to develop new distribution systems not to mention new supply chain practices. These changes may increase the employee fear of adapting to unfamiliar routines and unknown business practices. As a result, the e-tailer in an omni-channel environment is likely to face strong organizational resistance from its employees. Other potential challenges include:

Channel cannibalism: The Wall Street Journal once reported that Walmart began charging higher prices for products online than in-stores, with the goal of getting more in-store traffic [25]. Different order options via different channels (online point-and-click buying versus in-store buying) may create price differentials and subsequently some customers can be drawn to a particular channel offering lower prices and/or more convenience than its alternative channel. This may create channel conflict.

Difficulty in integrating multiple channels for a single customer view: The availability of multi-channel options may confuse some customers who have to navigate through different channels with conflicting product/price information (e.g., information about coupon use, inventory availability) and varying transaction processes.

Returns management: In an effort to enhance the online customer shopping experience, e-tailers tend to permit their customers to return unwanted products across the channels (e.g., in-store returns). For example, Amazon gave its customers the option of returning items purchased online to a local Kohl's department store. Since the omni-channel tended to significantly increase the number of product returns compared to the traditional offline (brick-and-mortar) channel and product return handling tended to increase order cycle time significantly, the cost of managing returns would be substantially higher in the omni-channel environment [26].

4. Leveraging the Omni-Channel for e-Tailing

When customers are given a chance to buy products anywhere, anytime, and anyway they prefer, they are likely to be drawn to that option due to extended freedom and seamlessly integrated shopping. In other words, such an option can enhance customer shopping experiences. Indeed, more than half (54%) of approximately 2400 online shoppers surveyed by Facebook said that they were more likely to shop with a retailer that made it easier to buy products on several different technological devices, including mobile devices [27]. In addition, providing real-time information about products (e.g., inventory availability, price) on multiple channels can not only increase web traffic, but also give the online customer a chance to compare shopping choices. Case in point, Urban Outfitter enjoyed significant sales growth after offering omni-channel options, since omni-channel shoppers tended to shop more frequently and spent almost 3.5 times more than traditional single channel shoppers [28]. Furthermore, companies with a strong omni-channel strategy exhibited a tendency to retain an average of 89% of their customers. The average customer retention rate was 39% and a survey by Accenture showed that 75% of B2B customers would make a follow-up purchase from the same retailer offering an omni-channel option [29]. As discussed above, there is no doubt that an omni-channel strategy can bring a number of managerial benefits to the retailer. To exploit these benefits fully, an e-tailer has to build the basic architecture (including technological infrastructure) and nurture the organizational culture essential for a customer friendly omni-channel development. With this mind, this paper first listed key action items needed for building the omni-channel as shown in Figure 4 and then proposed the underlying architecture graphically displayed in Figure 5 as an important prerequisite to the omni-channel strategy. Figure 5 also explains what it takes to make an omni-channel work and which elements comprise the omni-channel structure. For instance, an omni-channel cannot be built successfully without the installation of a point of sale system (POS).

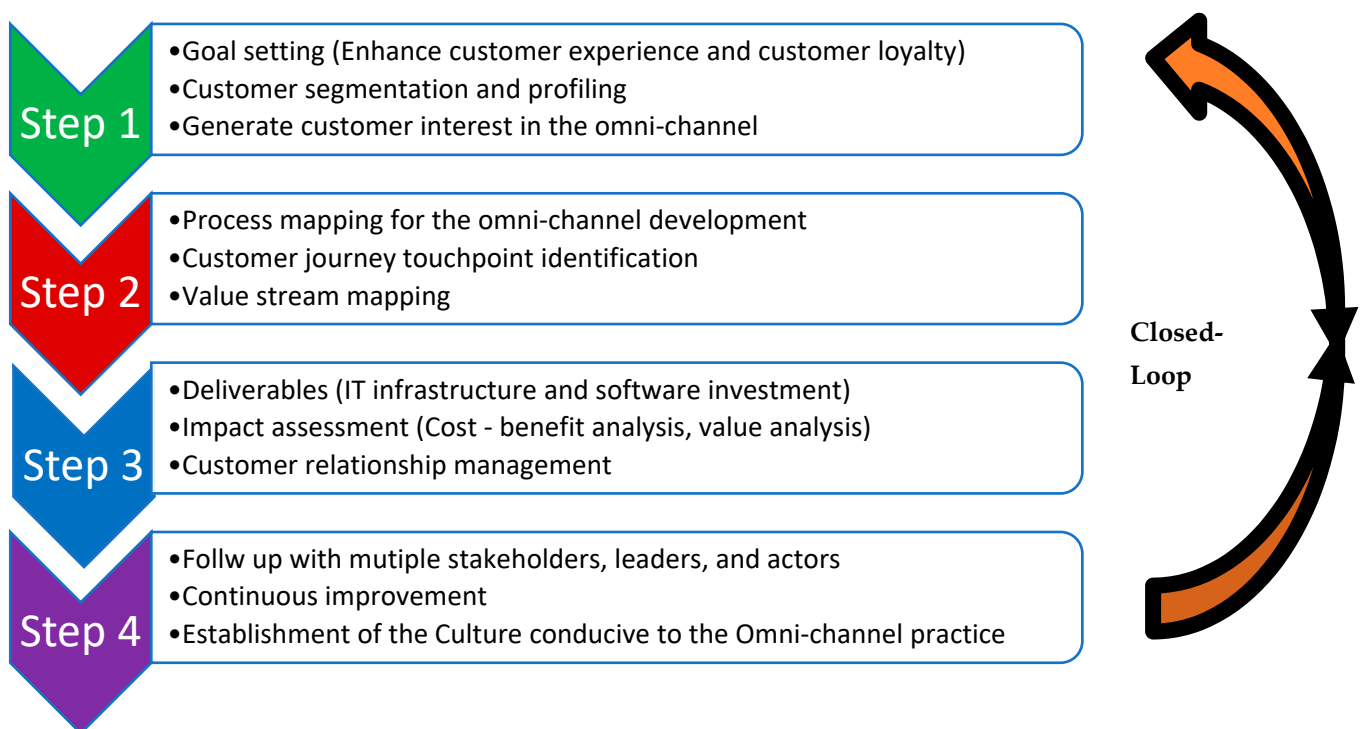


Figure 4. Action Items for Building the Omni-Channel.

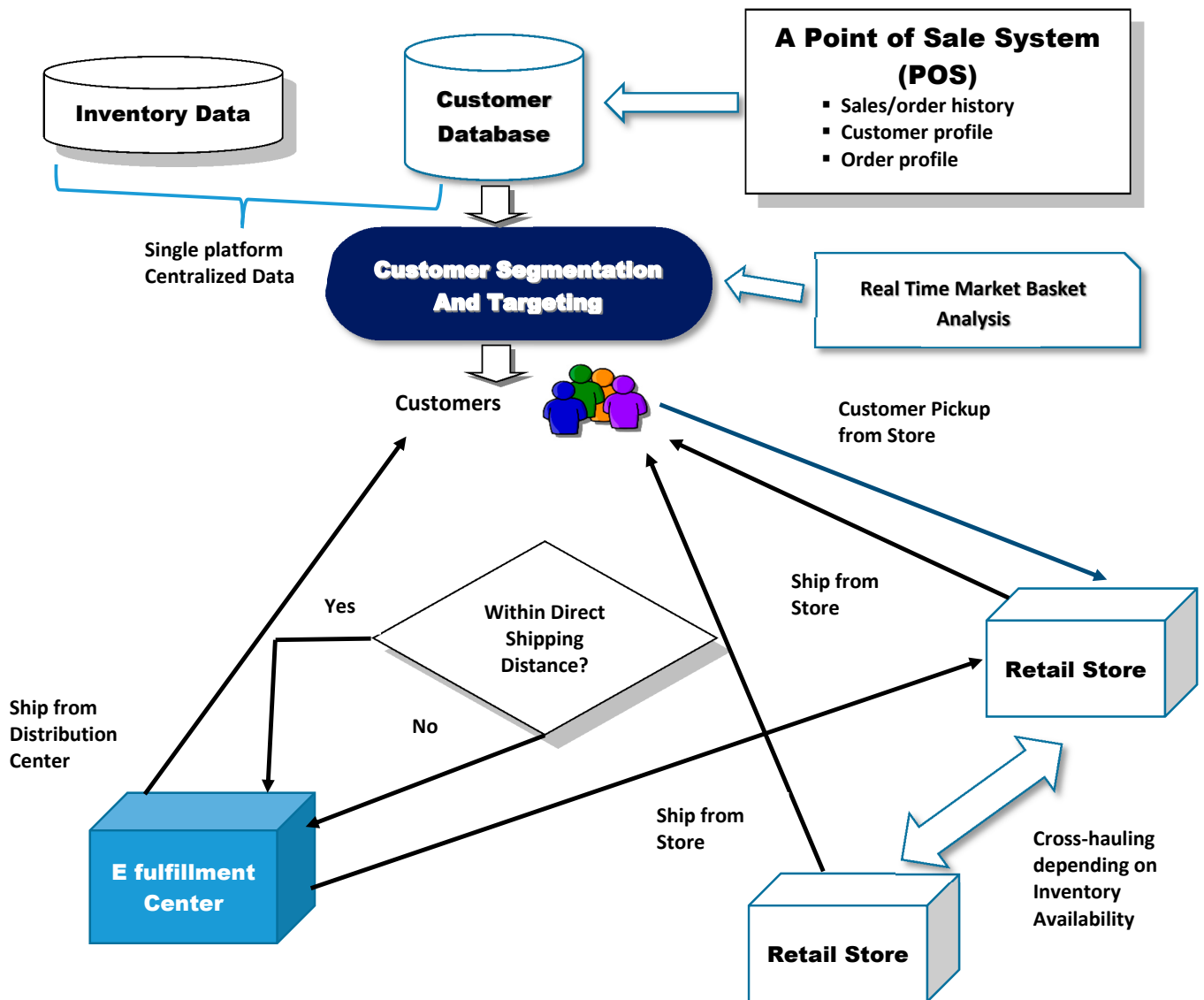


Figure 5. A Basic Architecture of the Prototype Omni-Channel.

5. A Summary and Conclusions

The COVID-19 pandemic has changed our lifestyles and daily routines. One of the new norms created by the COVID-19 pandemic is online shopping. To compete in the online marketplace, e-tailers are increasingly pressured to offer customer tailored, flexible, and convenient shopping experiences via multiple communication and delivery options. Such pressure led to the growing adaption of omni-channel strategies among e-tailers. Given the paucity of research on omni-channel practices, this paper has sought to conceptualize the essence of the omni-channel strategy in practical terms and develop the basic architecture of the omni-channel crucial for its successful implementation that was rarely discussed in the existing literature. This paper also identified some key success factors and potential barriers (or challenges) for omni-channel adaptation with the hopes of developing omni-channel practical guidelines. Furthermore, this paper is one of the first attempts to propose a customer journey map as a visual aid in identifying, linking, and synchronizing omni-channel touchpoints. Future research will need to extend the scope of this study in order to assess the true impact of pre-conceived success factors (e.g., top management support, information technological advancement, streamlined customer touchpoints, customer-friendly e-fulfillment, and technology-driven organizational culture) on omni-channel practices through rigorous empirical studies.

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