

# Marketing Concept Based on Logistics in the Online Shopping Market in Japan

Norie Yokoi

**Abstract**—The ratio of e-commerce sales to total retail sales has been growing. Shoppers have numerous choices concerning brands and retail outlets, and outlets can be physical stores or online retailers. Store managers and staff come into contact with customers at physical stores, while for online stores, only third-party delivery service providers have direct contact with customers. This means that retailers miss opportunities to have contact with their online customers, leaving it to the third-party providers. Is this an appropriate shopper-marketing strategy? This study considers the importance of logistics—including delivery services, which is viewed as a mobile retail market—and determines the relationship between customers' values and the efforts of logistics when customers shop online. This study considers how to create value based on the service-dominant logic (S-D logic) theory in online shopping marketing based on the logistics in Japan.

**Index Terms**—Distribution system, logistics, marketing, online shopping.

## I. INTRODUCTION

Developing global supply chains, improved logistics, and progressing information technology makes it easier to manufacture products at lower cost and to sell them globally. There are also benefits to shoppers, who can purchase many products more easily.

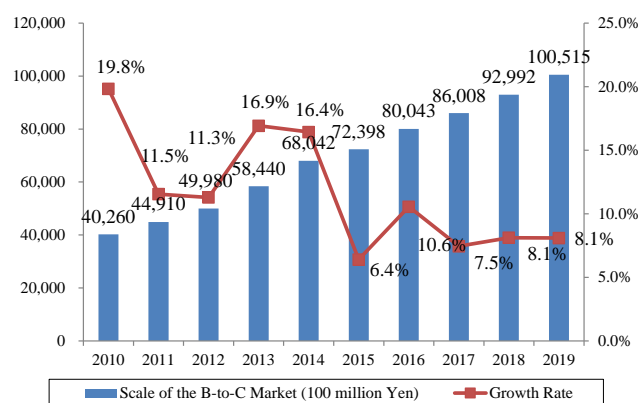
These developments may affect e-commerce sales. The Business to Customer (B to C) ratio for e-commerce sales of the total retail trade has been growing. Shoppers can purchase many products via global online shopping sites as well as national sites, as digital tools provide benefits to shoppers.

Fig. 1 shows the scale of the B to C market in Japan and the growth rate reported by the Ministry of Economy, Trade and Industry in Japan (METI). In July 2020, METI announced that the domestic B to C e-commerce market scale of the merchandising sector in 2019 expanded to 10.1 trillion Yen (USD 93.5 billion), up by 8.09% from the previous year. The B to C e-commerce ratio of the sector in 2019 was 6.76%, 0.54% higher than the previous year. Fig. 2 shows that some e-commerce categories in the sector's ratios were high, including 34.2% for books, audio, and music software and 32.8% for electrical appliances and PCs [1]. Each of the five sectors has a market scale of more than 10 billion USD and together, they hold around 85% of the total domestic market scale [1]. These examples show that purchasing goods online

with delivery is familiar to consumers.

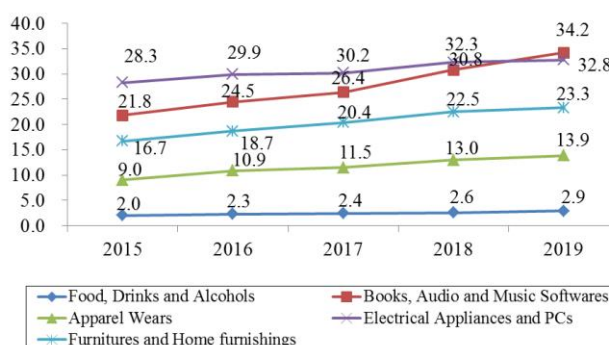
There are many reasons why consumers buy products online. One reason is the delivery option. Even if a consumer orders a large or heavy product, it can be delivered at their home anytime they like. This means that third-party delivery service providers have direct contact with online store customers and that online retailers lose the opportunity to make contact with their customers, leaving it to the third-party providers.

In 2019, the Japanese Ministry of Land, Infrastructure Transport and Tourism (MLIT) announced that the number of courier parcels has gradually increased since 1992. In 2018, the number of the parcels was 4.3 billion, up from 3.2 billion parcels in 2008 and 1.8 billion parcels in 1998, as shown in Fig. 3 [2]. The average number of parcels per person in Japan is 34 annually. As the aging phenomenon continues in Japan, the aging population also affects the logistics industry, including delivery providers. That is because active truck operators are also aging. In addition, the ratio of redelivery has become relatively high and there is one issue in Japan.



Source: METI

Fig. 1. Scale and growth rate of the B to C market in Japan.

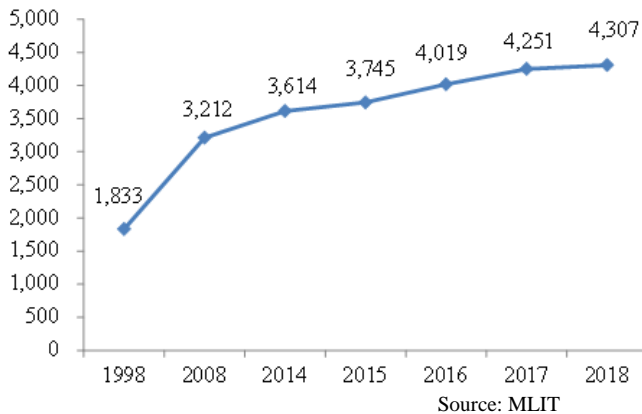


Source: METI

Fig. 2. E-commerce ratio per category in the merchandising sector.

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Source: MLIT  
Fig. 3. Number of delivered courier parcels in Japan.

Retailers distinguish between the sale and the delivery, leaving the delivery to third-party companies. Is this an appropriate marketing strategy? This study discusses the importance of logistics—including delivery services—from the perspective of mobile retail marketing, determines the relationship between customers’ values and the logistics efforts when customers shop online, and constructs the model in order to resolve the issues and to create new value.

II. ONLINE SHOPPING BENEFITS AND LOGISTICS EFFORTS

According to the consumer search theory, customers compare the benefits of multiple store visits to the costs of these visits; as long as the benefits exceed the costs, customers will engage in further searches [3]. Existing empirical evidence shows that approximately three out of four customers visit more than one store each week [4].

Reducing search costs is important for customers. A previous study argued that consumer costs (e.g., time) associated with gathering price comparison information are the lowest for the Internet channel and the highest for the physical store channel [5]. Saving search costs is one important reason for consumers to choose the online channel in multichannel retail environments. However, physical retailers provide for the instantaneous possession of products, while purchasing through catalogs and Internet retailers incurs a time delay [6]. Nevertheless, the ratio of B to C e-commerce sales in the total retail trade has been growing.

This study considers why customers use Internet channels rather than physical store retailers—even though online channels cannot provide instantaneous possession of products—in the view of customers’ shopping activities, other than their searching activities. We then adapt the organized activities discussed by Yokoi [7] and revise them—as shown in Table I—and examine other valuable merits, as shown in Table II.

Table I shows customers’ shopping activities at physical stores considering time cost, transportation cost, and energy spent. Table II shows their activities at online stores, considering the same three points. Comparing these two tables, shopping at online stores is much less costly than shopping at physical stores. Specifically, customers do not incur “transportation cost” when they shop at online stores. Consumers do take time to look for goods online; however, they are not required to go round on foot in the store, they can be anywhere, using their mobile device and clicking on products they want to purchase. Customers can reduce transportation cost as well as time cost and energy spent when they shop online.

TABLE I: SHOPPING ACTIVITIES AT PHYSICAL STORES CONSIDERING TIME COST, TRANSPORTATION COST, AND ENERGY SPENT

Shopping Activities	Time Cost	Transportation Cost	Energy Spent
Going to stores	✓	✓	
Going round in the store to search goods	✓		✓
Putting goods in a cart / a basket	✓		✓
Holding a cart / a basket with goods during shopping	✓		✓
Standing and waiting in long queues	✓		✓
Paying money	✓		
Sacking goods in the bag	✓		✓
Bringing goods in the bag to the car / the bicycle etc.	✓	✓	✓
Back to home with heavy goods	✓	✓	✓

NOTE: ✓ MEANS THERE IS A COST WHEN CUSTOMERS SHOP AT PHYSICAL STORES.  
SOURCE: ADAPTED FROM YOKOI 2019

TABLE II: SHOPPING ACTIVITIES AT ONLINE STORES CONSIDERING TIME COST, TRANSPORTATION COST, AND ENERGY SPENT

Shopping Activities	Time Cost	Transportation Cost	Energy Spent
Going to stores	N/A	N/A	
Going round in the store to search goods	✓		✓
Putting goods in a cart / a basket	✓		✓
Holding a cart / a basket with goods during shopping	N/A		N/A
Standing and waiting in long queues	N/A		N/A
Paying money	✓		
Sacking goods in the bag	N/A		N/A
Bringing goods in the bag to the car / the bicycle etc.	N/A	N/A	N/A
Back to home with heavy goods	N/A	N/A	N/A

NOTE: ✓ MEANS THERE IS A COST WHEN CUSTOMERS DO SHOPPING AT ONLINE STORES.  
N/A MEANS THERE IS NO COST WHEN CUSTOMERS DO SHOPPING AT ONLINE STORES.  
SOURCE: ADAPTED FROM YOKOI 2019

Search costs—including time and energy spent—have been discussed from the perspective of consumer search theory. Regarding retailers, the Internet provides retailers

with a low-cost opportunity to offer consumers a vast amount of information [5]. Customers benefit from such conveniences. These costs, customers’ benefits, and retailers’

profitable opportunities have been addressed in academic marketing studies. However, transportation costs have not been discussed enough in marketing research, even though it is also an important factor for customers when they compare multiple stores to decide where to shop.

### III. LOGISTICS' POSITION IN MARKETING STUDIES

Logistics and delivery functions are valuable for online shoppers and retailers have to grasp its importance; however, they distinguish between sales and delivery. Delivery is accompanied by the conventional distribution system, from producing to selling products. Yet, retailers leave the planning regarding direct contact with consumers to third-party providers. These vendors, therefore, do not have important marketing strategies in place, which include delivery.

A key factor of effective management strategies is reducing costs. Firms set an appropriate price for each product, while considering their competitors and aiming to obtain consumer satisfaction and increase profits. Logistics leverage can help firms achieve and maintain a positional advantage through both types of competitive advantage: cost and differentiation [8], [9].

Previous studies examined end users' engagement in value co-creation mainly through three of the four Ps of marketing—"product", "price," and "promotion"—while "place", the physical distribution part of marketing has been largely neglected from the perspective of end users' contribution to value co-creation [10]. However, logistics should be seen as a much more important factor in marketing strategy, as customers purchase goods online with delivery options.

Most marketing research articles have focused on products from a traditional manufacturing perspective. However some articles attached the importance of services and have focused on services. The service industry, for example, the transportation industry approaches their marketing activities while considering the service value of transportation by itself. Yet, firms who manufacture products approach their marketing activities mainly from a product value perspective

and ignore the service value of transportation, even though the transportation is important for product delivery from the manufacturer to the customer.

The evolution of marketing thought toward a new dominant logic was illuminated by Vargo and Lusch. This logic is called the service-dominant logic (S-D logic). Their theory is based upon a service-centered perspective of marketing, with heavy focus on the continuous process [11]. One of the key concepts of S-D logic is the co-created value. Traditionally, "goods" and "services" are seen as separate. However, Flint, Lusch, and Vargo stated that "service" implies a process rather than an output, and that it refers to the process of applying one actor's skills and competencies for the benefit of another [12]. Hence, "supply chain" actors from an organizational level involved in marketing include brand manufactures, retailers, brokers who act on behalf of brands or retailers, shopper marketing and promotion agencies, contractually bound and syndicated data collection firms, all of the materials and display vendors for manufacturers and retailers, and the logistics service providers who move, handle, and inventory all of the goods and displays [12].

### IV. LOGISTICS' FUTURE POSITION IN THE MARKETING MODEL

There are several logistics issues in Japan. One of the biggest issues is the aging of active drivers combined with a shortage of a younger labor force, as Japan is facing a declining birth rate and an aging population. This means that suppliers can sometimes not afford to allocate trucks to Business to Business (B to B) operations because active semi-trailer truck operators are aging and the number of young operators is not enough. In addition, the logistics industry faces the issue of redelivery at B to C operations. These issues are quite serious and to address the redelivery issue, the industry asks customers to receive parcels at one delivery point, such as delivery lockers near stations with easier access. The redelivery issue is not, however, the logistics industry's problem only; it also involves retailers, manufactures, and even customers.

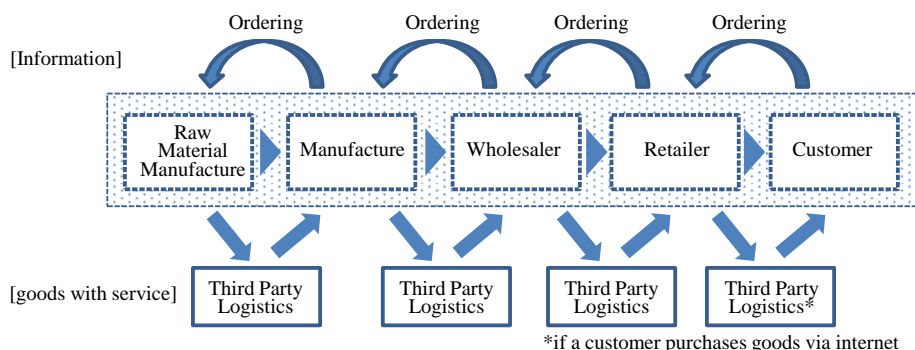


Fig. 4. Typical distribution system.

Third-party logistics firms in Japan tend to give customers the option of arranging scheduled deliveries. Some online stores provide the same option when shoppers order and pay via Internet. The stores then commission delivery providers to deliver parcels on a certain date; however, the others do

not. MLIT announced officially that the rate of redelivery in Japan has been high for several years, with an average of 15.5%. MLIT also carried out a questionnaire survey and published the results, which indicate why delivery providers who could not deliver packets to customers once, have to

redelivery them twice or more. Of the survey respondents, 71.2 % do not confirm the arrival date and time; further, 41.8% of the respondents who did not receive parcels the first time answered that they do not know when the packets will reach their homes [13]. This implies that retailers and third-party logistics firms do not communicate well. The rate of redelivery might decrease if retailers provide shoppers with the opportunity to arrange a certain date. If not, a shopper may feel that receiving a parcel—even at a delivery locker—without knowing their delivery time, may incur a time delay. A shopper may not feel to purchase at the online store next time and then the retailer will lose the opportunity of customers coming to the store. Arranging a certain date and time for deliver will be advantageous for manufactures as well as retailers and shoppers. Delivery providers can receive information such as when shoppers would like to use the product, what time they would like to receive their package, and what types of product they would like to receive faster. Manufacturers can analyze the same information to develop further products and retailers can use it to sell more goods. However, the current environment does not lend itself to this information exchange. The current system is the main problem.

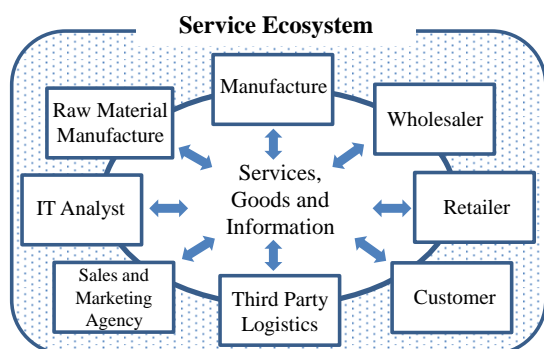


Fig. 5. Adopted service ecosystem.

A typical distribution system in Japan consists of manufacturers, wholesalers, retailers, and customers, as shown in Fig. 4. Along with ordering, the third-party logistics firms deliver goods from a raw material manufacture to a manufacture’ factory, from its factory to its depot, from the depot to a wholesaler’s distribution center, from the center to a retailer’s center, and from the center to the retailer’s store. The third-party logistics firms even deliver parcels from the stores or retailers’ distribution centers to customers in the case of online shopping activities. Although the logistics firms have relationships with the actors in the distribution system, they are not part of the line that manufacturers, wholesalers, retailers, and customers are part of. Regarding delivery from retailers to customers in an online shopping environment, this action is only the retailer ordering deliveries to delivery providers, and it is not related to other actors in the system. Therefore, there are issues such as redelivery, and fewer trucks allocated to B to B operations.

Based on the above, this study aims to determine the appropriate system model from a marketing perspective by utilizing S-D logic. This logic has been discussed often and has been revised since its first publication. Although this revision is a study still in progress, the previously published

article has been cited in many research papers and articles in marketing literature; therefore, this logic is appropriate for this study.

To resolve the issues mentioned earlier, this study examines the relationship model utilizing S-D logic, especially the service ecosystem discussed by Flint, Lusch, and Vargo. They mention “refining a recent definition within S-D logic, a service ecosystem can be viewed as a relatively self-contained, self-adjusting system of resource integrating actors connected by shared institutional logics and mutual value creation through service exchange” [12].

Based on the service ecosystem, a typical distribution model in Japan is adopted and constructed, as presented in Fig. 5. Logistics partners, IT analysts, or even other actors as well as manufacturers, wholesalers, retailers, and customers are included in the system. All of these actors share services, goods, and information. In our system, delivery issues will also be resolved. Retailers offer delivery options to shoppers, and customers even choose certain dates to receive their products actively. Furthermore, logistics partners report how many parcels they can deliver to retailers or others in the system. Manufactures receive this information and analyze it to decide how many or what kind of products to produce and develop. The information by logistics partners is even important for sales and marketing agencies to analyze and construct the further marketing plan.

The issues experienced by the logistics industry in Japan influences all other industries and even customers, because every actor needs delivery. The new system conceptualized in this study is required to improve the existing distribution system and existing marketing to further develop B to C marketing in Japan.

## V. CONCLUSION

This study aims to resolve several logistics issues in Japan, viewed from a marketing perspective. The logistics industry has tried to resolve its issues by itself; however, these issues have not been resolved thus far. Pricing strategies, such as offering small discounts if shoppers arrange scheduled deliveries, is not a good resolution for retailers. This strategy offers value only to the customer and does not offer a sustainable method to resolve issues if there is no co-created value.

This study first compares traditional physical shopping activities with online shopping activities and examines the merits of online shopping for customers. It reveals that these merits are impacted by logistic details. Next, it considers how the logistics industry relates to retailers, customers and even other actors and why the industry is linked to retailers. We then create a marketing-based service ecosystem referring to a previous study that ensures that the logistics industry is linked appropriately to other industries. In this conceptual ecosystem, all actors share information, services, and goods. It also assists the actors in the system with creating value, such as developing new goods or new services and reducing redelivery. If the appropriate steps are followed, it will be sustainable model both for co-creation and for reducing unnecessary issues.

Japan’s aging phenomenon is also considered in this study,



as an aging society has specific issues. How to accomplish successful marketing in an aging society such as Japan and other countries that already has the issue of aging should be discussed in future. This study confirms the importance of examining how to perform marketing with a few young labor powers, rather than marketing to older people or selling goods by age. That means marketing will be considered based on big issues. In many previous studies, marketing is discussed based on consumers. In this study, however, marketing is discussed based on logistics. This will be also much important for marketing studies in the e-commerce market.

#### CONFLICT OF INTEREST

The author declares no conflict of interest.

#### AUTHOR CONTRIBUTIONS

Norie Yokoi conducted the research, wrote the paper and approved the final version of the manuscript.

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