SOLUTIONS FOR THE 'FINAL 50 FEET' OF THE HOME DELIVERY PROCESS COULD LEAD TO DEVELOPMENT OF NEW SERVICES

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INTRODUCTION

Demand for door-to-door delivery services surged as a result of the growth of online retailers, as well as conventional retailers' efforts to expand their business from brick-and-mortar stores. For both types of retailers, how to deliver goods to customers and by whom has been a key issue, and focus has been placed on "last mile delivery" (from the last distribution depot to the end user). As retailers and delivery companies have managed to build an extensive network for distribution, many consumers take home delivery services for granted now. Against this background, the focus has shifted to how to deal with failed delivery attempts in the absence of the recipient. The term "final 50 feet" (i.e., the final leg of last mile delivery) was first used in a project conducted by University of Washington in 2017, which studied the impact of an increasing number of deliveries amid the expansion of online shopping, mainly in urban areas, as well as problems caused by failed first delivery attempts. The term emphasizes the importance of the last part of the delivery process, including the receipt of the package by the customer, and clarifies the nature of current problems associated with the distribution of consumer goods. In this report, possible solutions for such problems are overviewed, and an outlook for future directions is provided.

FINAL 50 FEET PROBLEM DIFFERS FROM COUNTRY TO COUNTRY

The percentage of failed first delivery attempts in total is high in Japan. While the number of parcels shipped has continued to rise (up 7.3% year on year to 4,018.61 million in FY2016), the redelivery rate was 15.5% in October 2017. Meanwhile, home-delivery service providers have faced a serious labor shortage. The ratio of job offers to job seekers stood at 2.72 for drivers vs. 1.35 for the average of all industries. Japan's major parcel delivery company Yamato Transport changed its service terms, including delivery time slots and the deadline to request same-day redelivery in June 2017, and raised delivery prices in October 2017. Although delivery companies have made efforts to reduce the number of redeliveries by introducing smartphone apps to notify delivery status, etc., the problem has persisted.

In the US, the cost of redelivery is limited, because a package is left in front of the door when the recipient is not at home. However, packages are often stolen or broken. In a survey conducted in 2016 by US packaging materials and equipment provider Shorr Packaging, about 30% of households shopping online responded that they have experienced package theft. Moreover, an increasing number of people purchase high-ticket items on the Internet, leading to a higher risk of porch pirates and rising redelivery costs.

In Europe, customers pick up their parcel at a distribution center or a post office when they failed to receive it at home. There is no need for redelivery (no additional costs) or leaving the package in front of the door (no security risk), but it is not convenient for consumers.

As such, each region sacrifices something in delivery services: costs in Japan; security in the US; and convenience in Europe.

ADDING NEW PICKUP LOCATIONS

In Japan, the US, and Europe, retailers and package delivery companies are trying to find ways to offer better services, and some of them have already increased delivery options by adding new pickup locations, where customers can receive their parcels.

Boosting the number of pickup locations reduces the abovementioned problems in each region (i.e., security in the US, redelivery costs in Japan, inconvenience in Europe compared to picking up at a logistics center). Of note, some Japanese convenience stores and French supermarkets have enhanced customer convenience by introducing in-store pickup services for online orders not only for their offerings but also for items sold by other retailers, etc. The function as a pickup point can be another important role for brick-and-mortar stores, as well as the showroom function. In Europe, there are relay points, where specialized operators handle packages shipped from various companies. Picking up at a relay point is convenient for consumers, as (1) they can receive packages from several delivery companies at the same place, (2) relay points are located at train stations, commercial facilities, public facilities, and in other places that are easier to access than carriers' logistics centers, and (3) the operating hours are long.

Due to personnel and other costs at relay points, however, more and more players opt to install unmanned parcel lockers recently. In Japan, online retailers such as Amazon and Rakuten as well as delivery companies have started to install delivery lockers, or utilize baggage lockers at railway stations. Packcity Japan, a joint venture established by Yamato Transport and Neopost (France), installs and operates PUDO (pick up and drop off) stations that can be used by any customer and any delivery company. The number of such lockers stood at about 2,500 as of end-February 2018.

US retail giant Walmart has also installed the "Pickup Towers" in its stores (Fig. 1). By using a smartphone app, shoppers can receive their online orders for apparel and household goods without asking staff. Walmart has introduced these large vending machines at 200 stores by the end of 2017 and plans to bring the total number of such stores to 700 by the end of 2018. As for foods and beverages that need to be kept cool/cold, it also introduced automated delivery/pickup machines for its online supermarket, which are available 24 hours a day, on a trial basis.

Fig. 1: Walmart's Pickup Tower

Picture taken by the author

IN-HOME DELIVERY

Although the number of pickup locations has increased, there are limitations to improving convenience for customers. As such, some players are taking a new approach. As a method to securely deliver the parcel when the recipient is not at home, more and more delivery lockers are being installed not only at condominiums but also at single-family houses in Japan. Such lockers are also sold in the US. However, they seem to have limited antitheft effect, although they are useful for preventing damage from rain etc.

It is noteworthy that some US firms have gone further by offering in-home deliveries. In November 2017, Amazon rolled out "Amazon Key" for its Prime members in 37 cities, which uses a smart lock to allow drop-offs inside the front door in the absence of the recipient. A customer registered for the service can give a one-time passcode to a delivery driver, and the driver enters the code to open the door. The driver then places the parcel inside the door and closes the door, which locks automatically, and the delivery is completed. When the door is opened/closed, the customer will receive a real-time notification via smartphone and can watch the video from a security camera. Not a few people feel reluctant to let delivery people step into their home, even at the entrance, and some people are concerned about entrusting their home security entirely to a system. However, the risk of porch pirates or damage will be eliminated. In April 2018, Amazon acquired Ring, which was established in 2013, the smart doorbells and other home security products of which are used in about 3 million households. The e-commerce giant apparently aims to strengthen its competitiveness in home security.

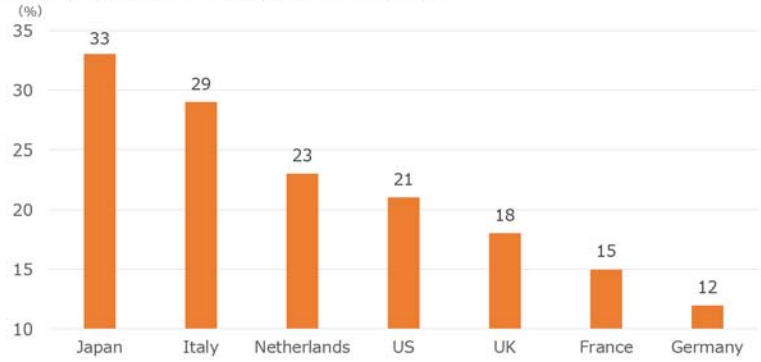
Meanwhile, Walmart began testing “in-fridge” delivery in September 2017 by partnering with August Home, a provider of home security products. Deliveries themselves are handled by existing delivery partner Deliv. The Deliv driver uses a smart key to enter the home and place foods and beverages that need to be temperature-controlled, not just inside the house but in the fridge. At this juncture, Amazon’s and Walmart’s in-home delivery services are only available in some cities in the US. In the future, such services may be more widely used in the US, as well as in other regions such as Japan and Europe. Our eyes are on whether these pioneering cases in the US turn out to be successful, as they can be a clue to solve the “final 50 feet” and other problems related to home delivery in each region.

CHALLENGE TO PRIVACY

In-home delivery is a good option for consumers in terms of convenience, security, and costs, but some may hesitate to use the service due to a sense of privacy (i.e., they do not want their private space to be seen by others).

Meanwhile, an increasing number of people choose to enjoy better services even if they sacrifice their digital privacy to some extent. For example, the number of people who use online shopping, SNS, search engines, or smart speakers has increased although their browsing history, search history, and online purchase history are collected. KPMG, which provides tax, audit, and advisory services, as well as data storage company EMC, released their findings that a certain percentage of people are willing to trade digital privacy for greater convenience in online services, although figures differ from country to country (Fig. 2).

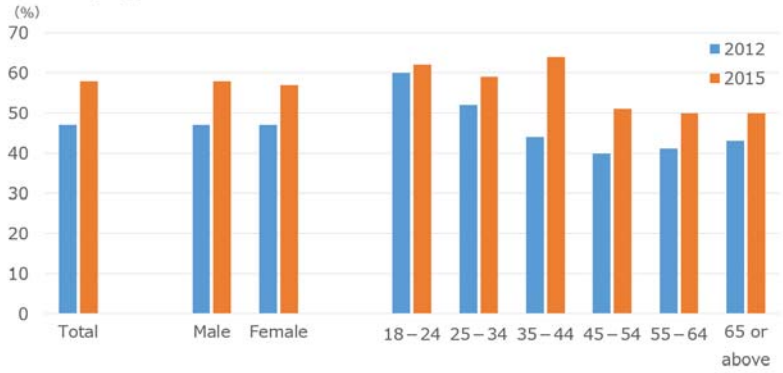
Fig. 2: Percentage of People Who Respoded They Are Willing to Trade Privacy for Greater Convenience and Ease



Note: Survey of 15,000 people in each country. The question was,"Would you be willng to trade some privacy for greater convience and ease?"
Source : Compiled by MGSSI based on EMC data.

Acxiom, which provides data management and analysis as well as cloud services, also revealed that the ratio of consumers who are willing to provide personal information (e.g., e-mail address, purchase history, and browsing history) in exchange for better services increased between 2012 and 2015 (Fig. 3).

Fig. 3 : Percentage of People Who Responded They Are Happy to Provide Personal Information in Exchange for Better Services and Offers (UK)



Note: Percentage of people who responded to the question, "I am happy to provide personal information in exchange for better service and offers" (strongly agree or agree).
Source: Compiled by MGSSI based on Acxiom data.

Comparing personal information being collected through the Internet with allowing a delivery driver to enter the home, the psychological barriers must be different significantly. Interestingly, however, there are some business models based on the assumption that a service staff enters the customer's house during his/her absence. For example, security companies, such as SECOM and ALSOK in Japan, and Protect America in the US, are allowed to get into the customer's house in case of emergencies. In their home security services, staff are dispatched to the site when sensors detect an intruder or fire, and they check the situation by entering the home if necessary. Another example is housekeeping service providers, such as long-established Minimaid Services and Bears in Japan, and Maid Brigade and Merry Maids (business conducted by Duskin in Japan) in the US. Their services are based on a proven track record and customers' trust.

Security companies are granted access only in emergencies, and home service providers have a relatively small number of customers. As such, the situation may be different from what is expected to be a solution for the final 50 feet of the home delivery service. Even so, their approaches to customers should have some implications for creating new business models that can be applied to solving the problem in home delivery.

It is not easy for companies to gain trust of customers and make them less sensitive about privacy. However, such enterprises will play a key role in the final 50 feet of delivery of consumer goods. Possible candidates include those that have faced the final 50 feet problem, such as delivery companies (Yamato Transport, UPS, etc.) and retailers (Amazon, Walmart, etc.), as well as those that have been allowed to enter the house when the family is out, such as housekeeping service providers and security firms. Whoever it is, a player which successfully overcomes the challenge will be able to exert an influence on the distribution of consumer goods, and develop new services, including various home services to be provided without the customer being at home, by taking full advantage of customer trust.