

WHAT IS LOGISTICS AND MARKETING INTEGRATION?

— THE DIRECTION THAT THE SUSTAINABLE DISTRIBUTION INDUSTRY SHOULD LEAD TO —

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SUMMARY

- This report explores the potential of an integrated approach to logistics and marketing as a solution to various issues in the distribution of food, clothing, and other products, including logistical pressures and losses from waste in these industries.
- One problem is that the costs of logistics and disposal of excess inventory (either through sales promotion or disposal as waste) are not visible to operators at every level of the supply chain.
- Product shortages and extended lead times should be allowed in moderation, rather than being avoided as drawbacks. In this context, if business operators build relationships that benefit both companies and consumers, it should be possible for them to secure appropriate profits and for the distribution industry to achieve sustainability.

1. BACKGROUND OF THE NEED TO INTEGRATE LOGISTICS AND MARKETING

In the distribution industries for food, clothing, etc., there are concerns that logistics will be placed under severe pressure due to a shortage of labor—referred to as the 2024 problem—resulting in an inability to transport goods at current levels. Meanwhile, from a sales point of view, the problem is that goods that are mass-produced just to avoid opportunity losses remain in excess inventory and are not consumed, ultimately ending as waste losses (Figure 1).

It is important to recognize that these problems extend throughout the entire supply chain, including downstream retailers and consumers as well as upstream manufacturers and wholesalers (intermediate distributors). Logistics and sales issues are closely related at all levels: The irregular and excessive promotion of sales based on the concept of sales supremacy, as well as the surge in logistic

Figure 1: Status of waste loss

Item	Status	Source
Clothing	New domestic supply volume of 798,000 tons, with 458,000 tons of clothing discarded by households and 1.2 tons discarded by business locations, for a total of 470,000 tons, or roughly 60% of the new supply volume. (2022)	Yano Research Institute Ltd., <i>2022 Survey on Measures to Promote Recyclable Fashion by the Ministry of the Environment—Material Flow—March 2023</i> [in Japanese]
Food	Food loss (food that is discarded even though it is still edible) from restaurants, food retailers, food manufacturers, and similar business operations accounts for 53% (approx. 2.79 million tons) of the total domestic food loss volume (with 47% from households). (2021)	Food Loss Reduction Promotion Office, Consumer Education Promotion Division, Consumer Affairs Agency, <i>Reference Materials on Reducing Food Loss (August 23, 2023 version)</i> [in Japanese]

Source: Compiled by MGSSI based on various materials

volume to meet this demand, have pushed costs up and profits down. These factors are further reducing the already low profit margins in the existing distribution industry. In addition, business operators that engage in

high-frequency, extreme sales promotions, such as always selling at less than half price during limited-time-only sales just before closing to dispose of excess inventory, are not in compliance with the SDGs,¹ and these businesses may eventually lose their customers, employees, and investors.

This report explores the possibility of solving the aforementioned problems of logistical pressure and waste loss by integrating distribution and logistics with sales and marketing. Distribution and logistics have conventionally been thought to pursue cost reductions, while sales and marketing are oriented toward expanding sales. Seamlessly linking the supply chains for manufacturing, distribution, and sales could potentially make the distribution industry more sustainable than ever before.

2. ISSUES AND IDEALS

One issue is that logistics costs and the costs of processing excessive inventory via sales promotions and disposal of waste loss are not visualized by business operators at each level of the supply chain. In logistics, a pricing system in which logistics costs are included in the price of delivered products has become commonplace. In addition to the fact that the actual cost of logistics is unclear, it has also become difficult to immediately reflect fluctuations in logistics costs in prices. In terms of sales promotion, while offering discounts is a common practice for creating sales opportunities, the calculations and timings of discount rates are often ambiguous, and the right quantities may not necessarily be sold to the right customers at the right prices. (For instance, products may be purchased by bargain hunters instead of being sold to customers that the company truly values.) Acquiring and utilizing appropriate data, such as cost visualization, are important in a company's business operations and essential in exploring opportunities to collaborate with other companies in joint logistics and other projects. The following describes some possible ideal formats from each perspective.

2-1. Logistics

Given that low costs and convenience are prioritized, free shipping and other "affordable" options, as well as next-day delivery and other "speedy" services, are now considered the primary sources of value in logistics. However, with the shift in value criteria toward reducing waste loss and showing consideration for the environment, logistics prioritizes "delivering the necessary goods to the necessary person in the necessary place (the 'Right Person/Place') at the necessary time (the 'Right Time')." ² Adding the values of logistics (the 2 Rs) advocated in the marketing mix to the values of products (the 4 Ps) would enable the provision of new value to customers. This would require a shift from the current partial optimization (Figure 2) resulting from information fragmentation at each layer of the supply chain to optimization of the entire supply chain. In this process, it is essential not to produce, transport, or stock wasteful items, and it is necessary to consider the supply chain not only from upstream (manufacturers) to downstream (consumers) but also from downstream to upstream. It is thought that this form of demand management, starting from the consumers (Figure 3), will be effective in reducing waste in logistics and sales.

Other reasons that logistical burdens are so high include the low loading rates in transportation and unexpected surges resulting from small-lot, high-mix orders. Avoiding these would require improving

Figure 2: Partial optimization at each level of the supply chain

Player	Target of optimization	Means of optimization
Manufacturers	Procurement/production	Make-to-stock production based on inaccurate sales forecasts, accumulation of safety stock
Intermediate distributors	Shipping/storage	Shipping and storage as required by manufacturers/retailers
Retailers	Sales	Avoidance of excessive shortages, requirements to shorten lead times

Source: Compiled by MGSSI based on various materials

loading efficiency and flattening out fluctuations in volume. Such improvements would eliminate unreasonableness and waste in shipping and warehouse operations, which would in turn alleviate logistical

¹ Goals for achieving a sustainable world

² Put forth as the 2 Rs: the Right Time and the Right Place/Person. (Source: Presentation given by Naoto Imura, Project Researcher, University of Tokyo, on March 27, 2024)

pressures. To achieve this, it will be necessary to accurately communicate sales information on actual demand from downstream to upstream. Under the current framework, information on actual demand is gradually amplified upstream from retailers, resulting in a

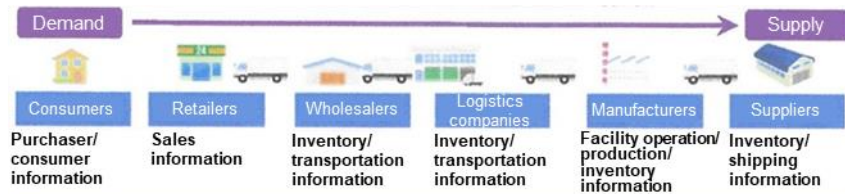


Figure 3: Demand management to centrally manage and share information on the entire supply chain starting from the consumer
Source: Presentation given by Naoto Imura, Project Researcher, University of Tokyo, on June 24, 2022

“bullwhip effect”³ in which chains of orders are placed that exceed the volume actually sold. Responding to these orders increases logistical burdens and leads to excess inventory. These behaviors could be seen as the result of excessive anticipation of hypothetical sales, but they could also be seen as rooted in business practices that view shortages and extended lead times as drawbacks. If the needs of both parties could be perceived in real time, including inventory information for suppliers at each level of the supply chain and lead time information for consumers, the uneven distribution of inventory would be eliminated, fluctuations in volume would be flattened, and demand would be appropriately stimulated.

2-2. Marketing

There are several ways to reduce waste loss. One approach is to forecast demand based on store location, date and time, customer attributes, and similar factors. Another is to advertise to the right customers at the right time, which could be quite early when there is a possibility of generating waste. Here, “right customers” refers to those with an extremely high likelihood of making a purchase based on the product characteristics, their purchase history, and other factors. Reducing the number of excessively discounted sales targeting an unspecified number of consumers due to the pressure to sell out the entire stock has benefits for consumers as well as retailers, who would be able to secure even higher profits than in the present situation. To achieve this, retailers and consumers should build deep relationships, such as by registering as members using a smartphone application. In establishing such connections, it is essential to consider factors beyond price, such as convenience, including the ease of use of the application.

To avoid creating excess inventory, it is also effective to shorten the supply chain itself to reduce lead times by first determining with a high degree of accuracy which items will sell before starting production, rather than rushing to manufacture and sell products in the expectation that they will sell. As an example, ZARA, a major apparel company, employs social media and internet search results to identify latent demand. Based on this information, the company manufactures and air-transportes products that it deems highly likely to become hits in a very short period. While the transportation costs themselves are higher, this also results in higher product turnover rates and less waste. The company also has no warehouses to store inventory for long periods of time, and it achieves high profit margins by using stores close to customers as sales and distribution centers. To put it another way, the company’s business model is to manufacture only items that will sell and to sell out the entire stock (enabling a high profit margin to be secured without generating waste, even though sales are not maximized). It is unlike the model common among conventional retailers of selling as much as they want of what they want (maximizing sales). Logistics costs are an example of where lowest is not necessarily best. Both brick-and-mortar stores and e-commerce sites are more than just places to sell. They are also vehicles for shortening lead times, reducing costs, and lowering CO2 emissions by serving as logistics hubs for shipping to consumers. Furthermore, while ZARA manufactures and sells products through its own factories as a specialty store retailer of private label apparel (SPA), the Chinese apparel retailer SHEIN employs a model in which it ships products from its affiliated production plants directly to consumers, without operating its own manufacturing plants.

³ When tracing the fluctuations in demand at the point of sale, from wholesalers through to factories and raw materials handlers, it is easy to overestimate such fluctuations.

The Amazon Dash Replenishment Service (Figure 4) is cited as a means of automatically communicating predictive information about consumer purchases to parties upstream in the supply chain via IoT devices. It automatically measures the quantities of everyday consumer goods, such as detergent and printer paper, and reorders them when they run low, eliminating the aforementioned bullwhip effect and enabling waste reduction.



Figure 4: Amazon Dash Replenishment Service

3. REQUIREMENTS OF A SUSTAINABLE DISTRIBUTION INDUSTRY

3-1. Tolerance of shortages

According to the Kurokawa Laboratory at the Tokyo University of Marine Science and Technology, there is a tendency in Japan to increase inventory retention rates out of an extreme aversion to shortages. Conversely, in Europe and the US, there is less aversion to shortages, and consumers are also used to purchasing substitutes for their regular items, which keeps inventory retention rates low. According to a publication written by logistics consultant Ryo Hanabusa,⁴ although the shortage rates are 1% in Japan and 8% in the US, profit margins are 10.3% in Japan and 11.2% in the US. Japan needs to reconsider its business practice of viewing shortages and extended lead times as drawbacks, as placing too much emphasis on securing sales opportunities has led to lower profit margins.

3-2. Utilization of digital marketing

Digital marketing refers to the strategic use of consumer data, including product suggestions based on purchase and search histories on apps and e-commerce sites. Walmart of the US reorganized its digital advertising business into Walmart Connect in January 2021 to boost its efforts in this area. Walmart Connect analyzes shopping data, including terms searched on e-commerce sites, purchased products, and deleted items from shopping carts, and provides this information to manufacturers. In turn, manufacturers are able to place advertisements in a more rational manner. This form of marketing could be considered based on demand management, as mentioned earlier.

3-3. Digital transformation in logistics

Further digital transformation in logistics will be essential in eliminating waste and ensuring sustainability. The sharing of logistics information and resources, as well as the optimization of logistics networks with enhanced compatibility with other companies (in the same or different industries), will enable more efficient loading rates and transportation. Furthermore, flexible pricing structures that align supply and demand through dynamic pricing will also likely be necessary.

4. CONCLUSION

A key to resolving social issues related to logistics and waste loss and ensuring sustainability in the distribution industry is to have a comprehensive, holistic view. This requires the integrated planning and rational execution of both demand creation (marketing) and product supply (logistics)—two functions that have traditionally been viewed as separate elements.

⁴ Ryo Hanabusa, *Uncovering Dormant Cash through Supply Chain Management (SCM)!—Recovering Excess Inventory and Preventing Shortages* [in Japanese] (*KinChu*, published on April 1, 2023)

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