

### CASE STUDY #2: Sonae MC

Sonae MC is a Portuguese food retailer that aims to offer the best value proposition to market. Being one of market leaders in Portugal, the company has diverse business segments that offer a varied range of high-quality products, at the best prices, to satisfy the requirements of a wide, differentiated, and demanding group of consumers. Currently, the retailer operates more than 200 owned stores in Portugal with profits of over 800 million € annually.

Counting with more than 2000 suppliers, Sonae MC deals with a large variety of products with different warehousing requirements, ones being perishable and others non-perishable, and for that same reason stocks are managed independently by a specific and focused direction. Most international suppliers subcontract the services of 3PL provider, to stock and consolidate their orders.

One of the first efforts to improve Sonae's Inventory Management was the implementation of Vendor Management Inventory with few suppliers, namely Johnson and Johnson the first Walmart's partner when this strategy was implemented, giving the responsibility to the supplier to manage their own inventory inside the retailer warehouse. Additional efforts were made in developing and sharing a monthly logistic report, whose purpose was to measure the supplier compliance with delivery time and logistics standards and the creation of a Supplier Portal with finance and transactional information; and, lastly, the existence of a backhauling service. Although these efforts occurred, none of them sustained on the long run. In all the Sonae's stores.

Regarding the retailer's network logistics, the structure comprehends two warehouses; five distribution centres and one logistic hub, which operates solely in cross-docking. There are two main types of supply flows namely, a centralized supply flow and a direct store delivery flow.

If the product is delivered in the warehouse two types of flows can occur, namely, Picking-By-Stock or Picking-By-Line. The first operation Flow that comprehends the reception and storage of mono-product pallets, whose picking preparation will be by store/client. After the reception and subsequent delivery checking, the pallet is allocated to an available position in the warehouse's racks. The second one deals with the direct flow from the reception bays to the expedition bays, where the products will be assigned to the several stores/clients according to their needs, without constituting stock. Mono and multi-products can be delivered. For the material flows leaving Sonae's warehouses, the company subcontracted a 3PL provider to have their own truck fleet, promoting the flexibility of the supply chain. Considering the perishable products, namely fruits and vegetables, these specific articles have a lead time and a review time of 1 or 2 days, to ensure product's quality and freshness. The pickers allocated to this warehouse space make the control manually.

Due to the volume of transactions and the number of stores supplied by the central warehouse, currently warehouses do not have the capacity to store more than 1 day of stock, so the main objective is to consolidate and dispatch orders to stores. In the case of the PBS flows, stocks managers monitor the inventory levels for each item via a Warehouse Management System (WMS) to guarantee that when it achieves a certain level an order is placed. The store replenishment occurs ideally during the night period when stores are closed to the public. This process is managed through an information system that links the central warehouses with the stores.

Currently, in Sonae, what is sold is recorded in its Point of Sales System (POS). Sonae's forecasting is based on historical data from the POS and seasonality from previous sales, the demand's variability is high especially in the promotional events occurring in stores. Planners along the supply chain make daily inputs adjustments about demand and forecast.

One of the biggest problems faced by Sonae's Supply Chain is the impact of the promotional fairs in the chain, due to high lead times of production it is difficult for the suppliers to adjust to last minutes requirements. Walmart, one of the biggest world retailers, implemented a different strategy based on everyday-low-price strategy to deal with demand uncertainty

1. Draw Sonae's supply chain network, representing the material and information flow between stakeholders.
2. Regarding the inventory policies given in the theoretical class, what do you think is the most suitable for Sonae to manage his inventory?
3. Discuss Sonae's information structure and link it with the bullwhip effect. Give examples of measures implemented by the company to improve supply chain information sharing, highlighting some possible advantages and challenges that Sonae had faced when implementing it.