5.3: Place (Distribution)

After producing the product, business must distribute the goods and services to the consumer. A sustainable business will want to create an efficient distribution system. In particular, logistics plays a vital part in the distribution system. Logistics is the freight transport of goods and services from manufacturer to distributor and onward to point of consumption.

The sustainable business may be interested in collaborative planning, forecasting, and replenishment, which focuses on information sharing among trading partners in order to develop a joint market plan. Not only can businesses share information, but they can also share transportation, warehousing, and infrastructure. The use of just-in-time electronic data interchange and electronic point-of-sale concepts by sustainable businesses allows ordering and stocking to be more cost effective and timely, which creates replenishment efficiencies in the system. Companies hold less stock, it is shipped only when needed, and this reduces unnecessary shipping.

Reverse logistics is another concept that has arisen from the increase in efforts to reduce waste. Reverse logistics is the movement of a product backward through the supply channel to be reused, recycled, or reprocessed. Sustainable companies should create a continuous process that plans for products to be flagged for recycling or reuse at whatever point is most efficient. Agents in the chain should be identified that are in a position to collect the used products, classify and sort them, and then transport them back to the manufacturer. Kodak, the manufacturer of cameras, is very successful using reverse logistics and remanufacturing for their single-use cameras through retail photo processing. Another company, Lexmark, a printer and toner cartridge manufacturer, creates a process in which the customer is responsible for reverse logistics through rebate programs and incentives for returning used cartridges.Manjumder and Groenevelt (2001).

Freight is transported via various means such as roadways, waterways, railways, and air travel. Each has its advantages and disadvantages. The sustainable business will examine the viability of using efficient forms of travel, such as rail or waterways, to transport the product whenever possible. These forms can provide efficiencies in transportation costs by transporting more of the product at one time versus multiple transports by road with smaller loads. In addition, fewer loads result in fewer road accidents, which impact the triple bottom line from a social perspective.

Roadway travel is by far the slowest means and, from a sustainability standpoint, it is also the most inefficient. When using the roadway for transport, the sustainable business will conduct transportation modeling solutions to determine the most efficient distribution system in order to minimize distances and transportation costs. Transport systems many times will be only partially loaded or even empty if precision in planning is not accomplished. The sustainable business may be able to collaborate with other businesses to maximize transportation loading in both directions where feasible. In addition, distribution facilities should be centrally located to minimize travel distances.

In order to reduce emissions, the transportation fleet should be periodically checked for fuel efficiencies and emission performance. Fleet carriers should not be allowed to idle when not moving (traveling), which unnecessarily uses excessive fuel. In order for internal systems to operate, such as radios, air-conditioning, and refrigeration, trucks typically have had to keep engines idling. IdleAire manufactures a system that provides truck stops with a power grid for truck hookup. The grid provides power to the trucks while they are parked. Using this product, the state of New York expects to reduce emissions from commercial truck idling by 98%.Washington State University Extension Energy Program (n.d.).

The sustainable business should also plan routes for maximum efficiency, such as UPS's right-turn-only policy, and include stop points at diesel stations that have truck stop electrification to provide trucks with grid-based electricity. Companies that ship both refrigerated and nonrefrigerated products may consider dual temperature vehicles that move both product types in the same shipment and decrease the need for separate carriage.

Another example of transportation innovations in product distribution can be found at Unilever HLL's subsidiary in India. The company's laboratories developed a method that allows ice cream to be transported cheaply throughout the country in nonrefrigerated trucks. This innovation significantly reduced electricity consumption, eliminated the need for refrigerants, and was cheaper than previous transportation methods.Prahalad and Hart (2002).