8.4: Supply Chain Design

Supply Chain Design is a strategic decision which determines who needs to take on what role or responsibility in the supply chain and where they should be located. Different companies choose different design or structure for their supply chains. For example, Walmart has always used traditional brick and mortar stores to serve its customers, while Amazon has been using an online platform to get customers' orders and then, ship them directly from their distribution/fulfillment centres.

When designing a supply chain, two main things to consider are Efficiency (cost reductions) and Responsiveness. The balance between these two could be different for different companies. That is, depending on the customers' preferences, the company decides to have a certain structure for their supply chain. For example, if the customers for a particular company are willing to wait for 5-7 days to get their ordered products online, the company can store its inventory in fewer locations and use the longer time of transportation to serve its customers. However, if the customers want to have their products right away, the company may need to open quite a few stores and keep enough inventory in each one to be able to respond faster to its customers' needs.

A company may decide to use other companies for parts of their supply chain or to have their own entities. This includes Vertical and/or Horizontal integration. Vertical integration is a term that is used when a firm owns more than one portion of its supply chain. For example, for a manufacturer company, they may have their own distributors or even retail stores to sell their products to the end-consumers (forward integration) or they may choose to own one or more of the suppliers that provide the company with certain materials or components (backwards integration).

Horizontal Integration is a situation where a business chooses to increase their holdings by acquiring or merging with another firm in the same market. An example of this was the 2015 merger of Kraft foods and Heinz, or Marriott International's purchase of Starwood hotels in 2016.

Example 8.4.1

A complex surrounding the Highland Park Plant included a power plant, machine shop, and foundry. Ford was starting to bring together the various stages in the manufacture of automobiles, a strategy called vertical integration. By the 1920s, Ford had purchased a rubber plantation in Brazil, coal mines in Kentucky, acres of timberland and iron-ore mines in Michigan and Minnesota, a fleet of ships, and a railroad. These efforts to vertically integrate helped Ford make sure his company would have raw materials and parts when they were needed, guaranteeing a continuously operating assembly line. These efforts also enabled the company to profit from more of the processes involved in producing the automobile.[1]

Example 8.4.1

Netflix is one of the most significant backward vertical integration examples in the entertainment industry. In the past, Netflix was established at the end of the supply chain because it was a platform to distribute films and TV shows created by other content creators. Although this was a profitable means of doing business, Netflix leaders realized that they could generate greater revenue by creating their own original content. This would offset their reliance on outside content creators, and fill what Netflix discovered was a desire among their subscribers for original content. Netflix leaders understood that they could leverage their existing distribution platform to promote original content to a captive audience. This strategy has become vital to Netflix's continuing success because as more and more film studios end their licensing agreements with the streaming giant, the company's original content will become the main attractor for new subscribers.[2]

References

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