

LOCATION DECISION IN RESTRUCTURING SUPPLY CHAINS: A CASE STUDY

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EXTENDED ABSTRACT

A liquor company launched a new flavored product to take advantage of the vigorously growing category in ready-to-drink alcoholic beverages (RTD) segment. In keeping with the company's outsourcing strategy, the base bourbon is procured from a distiller plant in Kentucky. After flavoring, the bourbon is shipped by container truck to Northern California, near the company's headquarters, for bottling. A Northern California bottling company was chosen for its proximity to the corporate offices and to capitalize on already existing relationships to reduce time to market. Once the product is bottled and placed in shipping boxes, inventory is split between two regional distribution centers (RDCs) in California and New Jersey. As the brand volume grows, shipping costs of current supply chain configurations will continue to drive down profit margins and reduce efficiencies in time to market.

Before we propose all of the Company's options, we must examine the logistical and cross-functional drivers integral to the success of our proposed supply chain framework. Our primary logistic drivers are facilities and transport, with an emphasis on location, and the overall tradeoff between responsiveness and efficiency. These components represent the primary theme for analysis and logistics decisions by the Company. Facility related metrics impacted by these components are examined. Transportation is also a component that impacts responsiveness and efficiency. While the advantage of faster transportation is increased responsiveness, the tradeoff is increased cost. By evaluating the Company's logistics in the context of the company's competitive strategy, we can identify a facility location(s) that strikes the appropriate balance between responsiveness and efficiency. The design of the transportation network, choice of transportation mode, and certain transportation related metrics are components we evaluate in our analysis. In addition to logistics, we also examine sourcing options and the set of business processes the Company requires to purchase goods and services. Again, sourcing decisions are critical to the balance between responsiveness and efficiency.

I. Facilities

With regards to facilities, it is important to note that the Company's centralized bottling facility in Northern California maximizes administrative efficiencies because of its proximity to company headquarters in Lafayette, CA. Furthermore, when considering scaling the business through a new phase of growth, the efficiencies gained by centralizing will give the Company a competitive advantage. The physical proximity of these business facilities enables a variety of benefits including: expedited quality controls, increased personal relationships through face-to-face interaction, and quick problem resolution by leveraging their respective resources. This all reduces the time it takes to bring the Company's products to market. On the other hand, lost efficiencies are experienced when shipping final goods from the west to east coast for warehousing. The

existing system also decreases responsiveness because of the longer lead times for raw materials to bottling and longer lead times to the east coast distribution center in New Jersey.

II. Transportation

Currently, the base bourbon used for the flavored products is purchased from Heaven Hill Distillery in Bardstown, Kentucky. The bourbon is shipped via tanker to a third party co-packing and bottling facility in Fairfield CA for flavoring, blending and packaging, for a fixed cost of \$5,886 for a 4500 case 9L tanker. Finished goods are then shipped via truckload to two regional distribution centers (RDC) in American Canyon, CA and North Bergen, New Jersey. Finally, third party distributors pick up product on demand via less than truck (LTL) load services from the closest RDC. Figure 1 shows the current distribution network. If bottling facilities were located closer to the source of bourbon production in Kentucky, shipping costs would decrease dramatically.

The Company has already adopted an outsourcing strategy to eliminate nearly all fixed costs associated with the production of raw materials. However, in order to reduce the costs associated with shipping the base bourbon to the west coast and then shipping the final product back east (where the process is initiated) the Company should consider several alternatives to increase the efficiency of their supply chain. Transportation, and its inherent fixed and variable costs represent a significant driver that must be considered in the supply chain framework decision-making process.

III. Sourcing

One could say that sourcing decisions are at the “root” of success or failure for many supply chain configurations. In this case, decisions regarding sourcing should be scrutinized carefully to ensure that they are aligned with other drivers and the Company’s competitive strategy. Many of the issues affecting the facilities and transportation drivers impact the sourcing driver.

The different portions of the sourcing driver should help the Company identify who is going to perform the various supply chain activities required for successful operations. When considering sourcing requirements, the Company must consider the following components and sourcing decisions; whether to outsource or perform required tasks in-house, the number of suppliers and how to evaluate and select those suppliers, and how to manage the procurement of goods to meet customer obligations.

In this case study, we examine the possible alternatives including the transition of the bottling facility to a co-packing provider located in the Midwest United States to reduce shipping costs to both RDCs. We also examine moving the bottling facility to the Midwest, and maintaining multiple bottling facilities to decrease the overall transportation costs associated with the cost of goods sold. Moreover, other considerations such as strategic fit, sales forecast, price hike, and risk mitigation are assessed with each alternative. Detail analyses and recommendations will be provided at the conference.