Frozen Drink Mix -Frozen Food Industry Case Study: (Refrigerated Truckload)

Massachusetts based Subject Company is a leading manufacturer of blenders, mixers and ice shaving equipment used in the processing and preparation of beverages for the restaurant, fitness, and fast food industry. In addition to the manufacture of the equipment subject company also manufactures frozen fruit juice concentrates and dry powdered or granulized fruit drink additives, providing both the equipment and ingredients for a variety of alcoholic and non alcoholic beverages.

The blenders, ice shavers, and mixers are manufactured, assembled and shipped in/from MA, and ME.

Raw materials for the ingredients consist primarily of fresh fruit truckload shipments coming in from produce crops in FL, CA, OR, WA, WI, TX and other overseas produce sources. This material is shipped to processing facilities where it is processed, packaged, frozen and shipped to three primary US distribution facilities (DC's) located in FL, OH and AZ.

Subject company maintains a large network of for-hire frozen drayage houses, commissaries and other freezer locations throughout the US, Canada, and Caribbean to receive, store and ship to local area end users of their frozen product. These freezer locations are shipped product from the three DC's in FL, OH & AZ. Many of the freezer locations have limited storage capacity, 2nd and 3rd shift receiving windows, and limited days on which they will receive finished ingredients from the Subject Company.

The large network of freezer locations used for final delivery of frozen product to end users evolved over a series or years without any pre planning or engineering to address optimum locations with sufficient storage capacity to meet projected requirements. In fact, local sales personnel and individual authorized distributors contracted with these freezer locations without consideration to system sales and total distribution.

The limitations and deficiencies of the local freezer location networks resulted in 75% of all shipments and 68% of all weight shipped from the three DC locations in FL, OH, and AZ to be shipped in frozen less than truckload quantities. Given the limited number of LTL carriers serving the frozen food industry on a national basis the client represented a captive audience to the few LTL players that could serve the required national territory. In addition to the few national LTL players several carriers served a local or regional niche market.

The client maintained little or no rate documentation and had no in-house or outside freight bill audit system in place and paid all LTL freight and truckload freight invoices as presented to them with little or no documentation.

In discussions with Subject Company and DSI it was revealed that distribution and logistics costs as a percentage of total sales exceeded 10%, unusually high for similar companies in the same sector.

The client's customer service personnel made promises to their customers concerning delivery deadlines with little or no correlation to transportation costs involved or the reality of time, distance and achievable transit times. Dsi developed a transit time schedule for LTL, Truckload and Truckload with stop off shipments for the client for use in discussions with customers concerning lead times and required delivery dates.

Dsi began its relationship with the client providing freight bill audit, payment and management reporting services (APMR). Through the APMR services DSi pieced together an audit trail consisting of rate publications and formalized rate sheets to be able to provide audit and payment services.

With a sixty day sample of shipment activity in DSi's audit database, benchmark costs for LTL and truckload costs were established and demonstrated to the client and served as the basis for future measurement of savings from a DSi managed distribution and supply chain program.

A process of sourcing qualified refrigerated truckload carriers, who met certain predetermined parameters of size, scope of service territory, financial status and operating methodologies was undertaken by Dsi. A resulting qualified carrier list of 32 refrigerated truckload carries resulted from the sourcing process.

Through a DSi run RFP (Request for Proposal) process DSi negotiated program contract truckload rates with a "Core Carrier" group of 6 truckload carriers who could meet or exceed all identified service requirements. These 6 finalists also were able to agree to daily and weekly equipment / driver commitments that would meet or exceed forecasted volumes.

Working directly with client information systems personnel and DSi technology personnel, an FTP (File Transfer Protocol) process was set up and implemented. The FTP allowed DSi to receive multiple daily uploads of shipment level detail from the client's Order Entry System.

Shipment level detail was simultaneously transferred to DSi's, TMS (Transportation Management System) to run daily LTL requirements through DSi's load optimization software system. The load optimization system, through a series of algorithms, calculated transit time requirements from identified due dates, space requirements, LTL vs. TL price points, unloading time and other parameters to consolidate costly LTL shipments into less costly Truckload with stop off shipments.

Through this consolidation process a conversion of mode mix usage by the client saw LTL shipments drop from 75% of all shipments to 27% of all shipments. The balance of shipments were comprised of 5% Full Truckload and 68% of Truckload with stop offs.

Savings reports to the client tracked savings in one of two ways as follows:

1. Aggregate LTL costs vs. Truckload with stop off costs: (i.e. 4 LTL shipments rated at LTL rates of $3,000.00 for the 4 shipments vs. Truckload with stop off costs of $2,000 for the same 4 LTL shipments-showing $1,000 savings.)

2. Pre-program Truckload costs per mile vs. Post-program Truckload costs per mile for full truckload shipment savings.

DSi personnel dispatched, tracked and traced all shipments through DSi's TMS system.

First year program savings totaled over $800,000 for this client. First year on time(as measured against identified due dates) performance ratios of 97.8% and claims incidence ratios of .00269% were maintained for this client through the implementation of DSi services.