THE RELATIONSHIP BETWEEN A UNIQUE TRANSPORTATION RATE STRUCTURE AND LOGISTICS IN HAWAI'I

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ABSTRACT

Hawai'i has a unique situation when it comes to its transportation rate structure. These transportation idiosyncrasies have led to a unique approach to supply chain management which the authors feel will change in the relatively near future. This paper describes why the existing transportation rate structure is unique, its impact on logistics, why we feel that the rate structure will change, and how that change will affect logistics in Hawai'i.

HAWAI'I'S UNIQUE SITUATION

Due to Hawai'i's location and its comparatively small population, most cargo to Hawai'i is shipped from the continental U.S. (i.e. the mainland). Even freight from foreign countries, like cars from Japan, are often shipped from Japan to the mainland, and then transshipped to Hawai'i on one of the American-flag carriers serving Hawai'i. This places Hawai'i in the unique position of: 1) being served by carriers in regulated trades, 2) having limited competition, and 3) having virtually no competition from foreign-flag vessels. This gives rise to unique pricing structures and one such unique pricing mechanism is the Common Fare.

Hawai'i receives most of the goods it consumes from sources outside Hawai'i. The majority of the goods flowing to and from Hawai'i, as well as among the islands, are transported on water carriers, and the majority of the consumer goods are transported in containers. When fully cellular containerships bring cargo from the mainland, all containers are unloaded from the vessel on O'ahu, where more than 70% of the population is located [1]. Those destined for the Neighbor Islands are reloaded onto a barge and then shipped to the desired island. Consequently, the costs involved for Neighbor Island shipments always exceed the costs to simply ship the containers to O'ahu due to the additional loading and unloading and vessel movement costs. Nonetheless, the tariff (i.e. freight rate) for each container is generally the same, no matter the destination. (This excludes a separate wharfage fee charged by the State of Hawai'i for the use of the ports.) This pricing phenomenon is referred to as —Common Fare", —Common Rate" or —Standard Tariff" (henceforth referred to as —Common Fare"). This Common Fare pricing is unique in the United States for in no other state, including Alaska, are all containers transshipped on a particular origin-to-destination movement and the customer not charged for the additional movement and associated costs. Further, this is a voluntary pricing practice by the carriers [2]. In this paper —Common Fare" refers to any pricing approach where additional costs, such as transshipment or additional distances, are not reflected in the pricing structure.

There are two existing containership carriers between the mainland and Hawai‘i and both use the Common Fare for Neighbor Island shipments. (Under the Merchant Marine Act of 1920 the domestic trades are restricted to U.S.-flag carriers that build their ships in the U.S. and use U.S. seafarers as crew. Consequently, domestic ocean transportation costs are far in excess of shipping costs in the foreign trades.) Neither company has service (denoted by bills of lading) to only O‘ahu without also serving the Neighbor Islands. This means that people that ship goods between the mainland and O‘ahu (with O‘ahu being the origin or destination) are subsidizing the freight movement of containers to the Neighbor Islands. As discussed below, this subsidy amounts to about $200 per container.

THE IMPACT OF THE COMMON FARE

Since there are no additional charges for containers transshipped from O‘ahu, the mainland to Honolulu containers —cross subsidize“ those destined for the Neighbor Islands. The extent of this subsidy and the impact on shippers and consumers dramatically affects cost and competition. The authors were unable to find accurate state or federal published information on the movement of containers or their average tariffs in the Hawai‘i trade [3]. Nevertheless, from discussions with governmental bodies, carriers, and shippers, we are confident that the data utilized are well within reason. This section addresses those factors.

Because the two containership companies serving Hawai‘i from the mainland are common carriers, all their tariffs are published. However, through decades of —evolution“ tariff books have become a maze of information on different commodities, different sizes of containers, different types of containers (e.g. refrigerated, dry box, liquid tank), and different types of service (e.g. port-to-port, door-to-door). The result is a myriad of different freight rates, expressed in hundreds of pages of tariffs, that exist under various scenarios. It is virtually impossible to secure precise figures on the actual freight rates paid by various shippers. After discussions with shippers and carriers it was concluded that a charge of $3,200 for the movement of any container from the mainland to any port in Hawai‘i is a representative Common Fare rate. Further, for any container in an intrastate movement (i.e., a container that originates on one island, such as O‘ahu, and is transported to another island) the representative rate is $600. In other words, a —representative“ shipper would pay $3,200 to ship a container from the mainland to any port in Hawai‘i. The same shipper would pay $600 to ship a container between two ports in Hawai‘i. Since shippers and carriers agree that these rates are representative of the rates actually charged, we can assume that the rates cover the full costs (with a reasonable profit) of the service. In either case we know that the cost to the shippers of a container destined for a Neighbor Island transshipped on O‘ahu will be only $3,200 if carried under the Common Fare, but would incur an additional $600 charge if off-loaded on O‘ahu and then sent to a Neighbor Island under a new bill of lading.

The percentage of containers from the mainland to Hawai‘i transshipped in Honolulu to the Neighbor Islands is steadily growing and at the current rate of growth will soon account for one third of containers from the mainland [4] [5] [6] [7] [8]. These containers are mainly carried by Young Brothers, the only interisland intrastate common carrier providing container service between O‘ahu and the Neighbor Islands. Assuming that one third of the containers are transshipped to the Neighbor Islands, and given the $600 representative interisland rate for the interisland movement, then each container moving from the mainland to O‘ahu contributes $200 to the interisland movement of the one out of three containers that is transshipped. In other words, shippers who move containers from an origin on the mainland to a destination on O‘ahu are cross subsidizing (or being overcharged) to the tune of $200 per container. Given the $3,200 representative rate of moving a container between the mainland and any major

Neighbor Island port, when the cross subsidy of $200 is subtracted from this amount, the actual cost to a shipper of the mainland to O‘ahu movement is $3,000.

The impacts of the cross subsidy on the different categories of stakeholders in the Common Fare environment vary. There are both current winners and losers associated with differing current and future alternative logistics strategies. Key variables are whether carriers that serve O‘ahu also serve the Neighbor Islands and whether Shippers/Consignees can take advantage of the Common Fare practice to ship full container loads (FCL) from the mainland to the Neighbor Islands. In general, the Common Fare puts those interests on O‘ahu at a disadvantage and those on the Neighbor Islands at an advantage.

REASONS FOR CHANGES IN THE COMMON FARE STRUCTURE

The major Neighbor Islands are currently growing and expected to continue to grow at a faster rate than O‘ahu, so we can anticipate that the amount of cross subsidy will also grow over time. In other words the amount of —overcharge“ to the containers going to O‘ahu will continue to increase. Since there is no legal requirement to maintain the Common Fare approach, under what conditions would this freight rate system end?

One trigger is potential actions by the carriers. They could increase rates differentially so that containers moving from the mainland to the Neighbor Islands (versus O‘ahu) would face higher rate increases. This would reduce, or eliminate, the cross subsidy to the Neighbor Island shippers. New entrants to the trade may have less reluctance to end the Common Fare than an existing carrier. Pasha Hawaii Transport Lines, a roll-on roll-off carrier, entered the mainland-Hawai‘i trade in 2005. Hawaii Superferry plans to carry passengers and cargo between O‘ahu and others islands with two high-speed ships beginning with the introduction of the first vessel in 2006. In addition, a third new carrier is currently attempting to enter the Hawai‘i trade.

IMPACT OF ENDING THE COMMON FARE

If the Common Fare ended, the effects would vary greatly depending on the individual stakeholder‘s situation. Shippers between the mainland and the Neighbor Islands would pay more for transportation. In theory, consumers on O‘ahu would pay less for their shipments. (Shippers have noted that they have no guarantee that such decreases would occur.) Manufacturers/producers on O‘ahu shipping to the Neighbor Islands would now theoretically have a —level playing field“ with their competitors on the mainland in terms of the transportation cost between O‘ahu and the Neighbor Islands. In contrast, companies located solely on a Neighbor Island would now face more competition from O‘ahu-based firms wishing to extend their reach to the Neighbor Islands. Carriers between the mainland and Hawai‘i would be better able to contend with competitors (or the threat of such competitors) that only served O‘ahu but not the Neighbor Islands.

CHANGES IN LOGISTICS

If the Neighbor Islands no longer have their transportation movements from the mainland subsidized, how will that affect approaches to Hawai'i's supply chain management? One possible result may be more distribution warehouses on O‘ahu. Since the barge cost from O‘ahu to the Neighbor Islands would now be the same whether the shipment originated on O‘ahu or the mainland, a distributor could provide much faster service from O‘ahu. (Of course the costs of warehouses and labor on O‘ahu versus the

mainland must also be considered.) Such an approach might result in less distribution warehouse services on the Neighbor Islands since the same customers could be served from O‘ahu.

Small businesses located only on the Neighbor Islands should be particularly concerned about large —Big Box“ competitors with a presence on all the major islands. These firms can: (1) obtain a lower price from the supplier on the mainland, (2) obtain a lower price from the ocean carriers, and (3) sell at one price statewide by averaging their lower cost traffic to O‘ahu with their higher price business in the Neighbor Islands. Consequently, a —Big Box“ retailer with the great majority of its business on O‘ahu will actually see its overall transportation costs go down statewide with the end of the Common Fare. With a statewide price policy its Neighbor Island prices would also decrease. In contrast, a —Mom and Pop“ store located only on a Neighbor Island would see its transportation cost increase with the end of the Common Fare.

The introduction of the Hawaii Superferry does not have to coincide with the end of the Common Fare; nevertheless, it will have its own impact on logistics. Once Hawaii Superferry has two ships in operation, one might imagine a number of daily trips to some Neighbor Islands. A —delivery truck“ could get on the first ferry voyage, spend the day making deliveries on a Neighbor Island, and take a ferry back to O‘ahu late in the day. One might imagine a series of such trucks, each focusing on a particular product area. For example, dairy products, baked goods, construction materials and electronic goods may each have their own delivery vehicle. Another approach may be to focus on customers needing a broader range of products, such as deliveries to restaurants, supermarkets, or large retail stores. Existing parcel carriers, such as UPS, might run their own services. The impact will be exacerbated if the Common Fare is terminated.

Another type of logistics change relates to certain services that exist on all islands, such as repair services, construction services and maybe even firefighting. At the present time one must allow a few days to move a piece of equipment from O‘ahu to a Neighbor Island. If that movement could be accomplished in a few hours, a —pool“ of —surplus“ (or emergency) equipment could be kept in O‘ahu. When needed, it could be ferried to a Neighbor Island (that had frequent daily service) rather than buying an identical piece of equipment to be stored on that Neighbor Island.

CONCLUDING COMMENTS

Within the waterborne trades of the U.S. the Common Fare system is an anachronism that exists in its present form only in Hawai‘i. The authors feel that it will someday disappear from the ocean freight rate structure. It is impossible to predict when the Common Fare approach will end, but the introduction of a new containership carrier that serves only O‘ahu and not the Neighbor Islands–or the threat of such an entrant–is the event must likely to trigger the re-evaluation of the practice. The introduction of the Hawaii Superferry will also generate new competitive issues.

The end of the Common Fare would generally work to the disadvantage of the Neighbor Islands where transportation rates from the mainland would increase. O‘ahu, as a consequence, might become a major distribution center serving the Neighbor Islands. In addition to potential ensuing effects caused by the end of the Common Fare, the Hawaii Superferry may eventually provide a number of daily delivery services from O‘ahu to the Neighbor Islands.

The best strategy for all stakeholders is to understand the current circumstances and potential changes on the horizon with their possible impending changes to the Common Fare practice. It is important that the

stakeholders begin the process of determining how the end of the Common Fare system might alter their business strategies and operations. Through this early recognition, stakeholders will be able to position themselves to take advantage of their new business environment. Further, this is an interesting case for transportation researchers to follow as it is unique in the waterborne trades.

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