The port paradigm paradox

There is an old story about a new chief executive officer encountering his dismissed predecessor, who announces he has left the newcomer three sealed envelopes containing advice. In spite of his pride, the new CEO finds himself opening the envelopes when times get tough. The first envelope advises him to blame the prior administration. The second envelope suggests blaming the unions. The third — and final — piece of advice is to prepare three envelopes.

Many ports today seem poised on the verge of opening the third envelope. The first two have been opened. Volume over U.S. West Coast ports has remained flat — or even declined (Blame the prior administration on the economy). The Pacific Maritime Association (PMA) has filed a grievance against the International Longshore and Warehouse Union (ILWU) for refusing to implement terms of their agreement (Blame the unions).

Like the rest of the nation, ports are suffering through an economic downturn. Additionally, however, they are grappling with critical issues regarding their future. International trade is expected to triple over the next 20 years. The industry is deciphering how it will manage all the volume.

Until recently, the solution was to build more. As demand grew, ports built bigger and bigger terminals. Because land and financing were available, major ports were able to become landlords, leaving the actual operation of the terminals to steamship lines and terminal operating companies. The process became formulaic. A steamship line (the tenant) would commit to a long-term lease and the port would finance and build, collecting a stream of guaranteed payments to service the debt.

The system worked for more than a generation. But in the current rush to build more port capacity, many have lost sight of the fact that we have failed to acknowledge that the economic life of terminals is becoming shorter than their physical life. Consider Southern California, where the ports of Los Angeles and Long Beach are building new facilities for Maersk and Hanjin. Facilities formerly used by these lines will be converted to use for other lines — often by rearranging configurations of adjacent terminals.

Tenants are outgrowing their facilities and no more land can be easily found for growth. Port engineering companies earn money by building terminals, and hence call for more land to accommodate growth. But few such firms have developed designs which do more with less.

Larger vessels affect requirements which cast an altogether uncertain future over design. The Ceres “Paragon” terminal being developed in Amsterdam represents a radical redesign of terminals to accommodate the 6,000 TEU (and larger) vessels, which are a growing part of the business.

Some industry analysts are now starting to focus on utilization of land — the scarcest resource. Ports in Asia and Europe can achieve utilization exceeding 20,000 TEUs per-acre annually, while the U.S. average ranged from 3,567 TEUs (for the West Coast) to 1,281 (for the East Coast.) The reasons for this difference vary.

First, the nature of American business is different. Overseas, the most prevalent business model is a common-user facility managed by an operating company (perhaps even one affiliated with the port.) In the United States, the terminal is usually proprietary to a specific line, and it is rare for a U.S. terminal to have working vessels all week (the norm overseas.) Due to vessel alliances, some terminals are idle more than they are working.

And additional differences exist in the two business models. Overseas containers are processed to and from stacks. This applies to both prior and subsequent movements by vessel and truck. In the United States, containers are managed three ways: to and from stack, premounted on chassis, and through on-dock rail (A need also exists for chassis parking). Such specialization affects suboptimization of land. Overseas, one homogenous terminal is sufficient to handle all lines alike. In the United States, land is subdivided into proprietary terminals by user — and then further subdivided by functionality.

This arrangement is made more complicated by two factors. In America, lines provide chassis, while truckers for overseas customers perform this service. Terminals abroad do not have to worry over chassis parking or the option of premounting containers. Additionally, United States units not handled by truck through the gate move by rail. On-dock rail consumes a large amount of land which cannot be redeployed for other uses. Overseas, non-truck moves travel by vessel transshipment. This method increases the overall (port) volume count and allows terminals to handle smaller, feeder vessels amidst a schedule of larger vessels.

Geography works against U.S. waterborne feeder services in many markets. While opportunities exist for feeder vessels, Jones Act requirements for intercoastal trade create a situation whereby costs and infrequent service usually become prohibitive when compared to truck and rail options. (There are isolated cases of U.S. barge transshipment success, and perhaps they will become more common.)

Any thorough productivity analysis should include a discussion of the labor issue. Joseph Minae, PMA President and CEO wrote last year “We are currently experiencing increasing congestion at our ports, stagnating productivity and a dire need to implement technology.” The industry has repeatedly acknowledged, but has been unable to resolve these longstanding issues. For example, improved technology usually signified job loss, and technology investment was justified this way.

The PMA, confident that increased volume will absorb any displaced workers, has guaranteed no loss of jobs. But the PMA’s attempt to start negotiations early for the next contract (which expires July 2002) was rebuffed by the union. No incentive exists to invest in technology which will not generate economic benefit.

Most of the port industry doubtless watched last year as Singapore lost 10 to 12 percent of its business overnight — literally. Maersk Sealand, moved most of its volume to a new facility, Tanjung Pelepas, located just across the strait in Malaysia. Unlike most lines, Maersk Sealand is large enough by itself to generate critical mass and network density.

Ports in this country are facing a changing industry and its increased demand. Consideration for improved efficiency must accompany additional investment. International trade requires nations to cooperate in developing effective transportation solutions to satisfy today’s more sophisticated customers.

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