Identifying intermodal research requirements

THE TRANSPORTATION RESEARCH Board is hosting a conference today focusing on the state of readiness for national and global intermodal freight movement. It is a worthy enterprise.

With luck, the participants will honestly address those issues. Frequently, however, many presentations at such gatherings degenerate into commercial messages for the speaker’s product — or, in the case of consultants, attendees are treated to yet another rehash of a canned message.

One positive outcome of this conference will be the development of an intermodal scorecard that will attempt to attach quantitative values to qualitative issues. Such a process will, perhaps, help the industry more effectively in the future.

Intermodal is no longer a new product. With network capacity increasingly constrained, the benefit of new intermodal business gets complicated. While new business represents a growth opportunity, attracting and retaining growth is becoming tougher and tougher.

Cargo carriers are asset-based, network-operating companies. Over time, science has developed to support operations improvement, revenue growth and profit enhancement. Railroads now rely on computer assistance for train scheduling and dispatching, crew calling and maintenance planning. Some carriers are moving into sophisticated yield management programs that were first developed by airlines.

But the body of technical knowledge available to intermodal is limited. Quantitative data is scarce and is subject to various interpretations, and most information is anecdotal in nature.

Even unreliable evidence, if found, can become the basis for established fact. One example would be the debate on roadblocks. Horror stories abound, yet when the railroads performed a comprehensive study, the incidence of problems was much less than was imagined.

An old adage tells us we can’t manage what we can’t measure, and today’s intermodal industry could be well reminded of it.

Intermodal, by its very nature, needs a number of participants to provide through transportation service. (Consultants today would describe it as a virtual company.) But with each participant seeking to optimize its small portion of the service, and lacking real information, it is impossible to optimize the overall network.

Right away, two aspects of the intermodal industry merit study, and these should not be soft, policy pieces. Rather, they ought to incorporate findings based on hard, quantitative study. The study outcomes should allow overall system improvement. Assets could be utilized more efficiently — obviating the need for further investment — and improving profitability. Base lines could be established to determine if future strategies have their desired effect.

The first study goal would be to understand intermodal connector communities, which have become the chokepoints of intermodal.

In freight, this means analyzing connections between two carriers of the same mode. That includes railroad interchange gateways (for example, Chicago, Memphis, Kansas City); and points connecting various modes, such as marine terminals (which connect ocean, rail and truck), airports (which connect air and truck) and intermodal ramps (which connect rail and truck).

Currently, no information exists to quantify the flow of traffic. Additionally, there is no information on asset utilization of auxiliary equipment, such as chassis.

Better information — regarding true costs of ownership and operation — might support chassis pooling. The ability to view a network community in the aggregate might also enable more efficient truck operations, which could decrease highway congestion.

Meaningful intermodal traffic statistics also are sorely needed. With them, the industry would identify movement through the supply chain and the commercial food chain. Consider an import load that is turned over to an intermodal marketing company that uses a truck-train operator moving on two different railroads.

How many “loads” is this? This becomes even more confusing if the import load is devanned and reloaded into a domestic trailer at port of discharge.

We need to understand if volume is really changing, or if statistics reflect a modification in the routing, which may include more — or less — involvement by intermediaries.

Because our country does not engage in national industrial policy, infrastructure investment decisions are made by many different entities. The industry today lacks clear, objective information as opposed to data to help guide this policy debate.

Not only are the stakes getting higher (consider the cost of new port infrastructure), but routing options are becoming more confusing. Intermodal routing can be affected by foreign options such as ports in Canada or consolidation in Asia.

As yet, the industry has not called for this brand of practical research. Consultants have seen no market for it. Academics are not really interested in it. The government, already overtaxed by existing requests, cannot justify supporting such research.

But change is overdue and the Office of Intermodalism cannot affect it alone. The Federal Highway Administration, the major source of funding for surface transportation, has increasingly recognized the importance of intermodal and the shortage of real information.

Although Washington is starting to enter the traditional dormancy period of a presidential campaign, these research initiatives should be considered as immediate possibilities. The industry cannot wait two more years to begin consideration again.

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