PORT PRICING: A PROCESS

by Thomas J. Dowd

Despite the importance of port pricing, in most ports, the pricing process is more of an art form than a science!

Contrary to "common wisdom," there is a simple and logical port pricing process. This existing traditional financially-based process works very well in theory, However, in practice, it does not adequately address the current port pricing dilemma since it concentrates on internal factors and ignores external ones.

This paper will shed light on the port pricing arena, which seems to be constantly in the shadows, by providing an overview of the subject of port pricing and a guide to effective port pricing practices.

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Introduction

Public port authorities provide services and lease facilities for a price. The total of these prices equals the Operating Revenues of a port. Operating Revenues are the major source of revenues at virtually every public port authority in North America. Thus, the success or failure of a port's pricing strategy is a major determinant of a port's viability.

Initially, when most public port authorities were formed, they relied on Some form of subsidy (e.g. tax revenue, monetary grants and/or allocations, land grants, general obligation bonding authority) to cover capital and/or operating expenses. Today, some of those subsidies have been eliminated, some have been or are being reduced and many, if not most, of those that remain are under threat of reduction or elimination. This has forced public port authorities to emphasize the commercial side of their operation and deemphasize the bureaucratic/governmental public agency side. This increasing emphasis on the “business side" means a much greater reliance on Operating Revenues. With this focus on Operating Revenues comes a tremendous pressure for public port authorities to price services and facilities to generate a profit or, at the very least, provide for self-sufficiency!

A major challenge for public port authorities in the 1990's will be to act more like a business. For some ports, meeting this challenge will determine their survival!

The Environment

Over the years, the North American port pricing arena has changed and ports have had to adjust to these changes in order to remain viable. Three of the most important changes are:

> Port pricing has significantly diminished as an effective means to influence the actions of either carriers or shippers. Items out of the port's control (e.g. systemwide intermodal considerations, single bill of lading relationships, in-port time for vessels, labor work rules, and carrier strategic considerations) have become high priorities on carrier/shipper agendas. Today, pricing of port services or facilities is often not a high enough priority on these agendas to actually influence decisions.
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> Port pricing has undergone a series of significant market-driven changes that have dramatically altered the way that' ports price their services/facilities. For example, historically wharfage, dockage, and demurrage were the major components of a port's tariff and revenue sources, but today these have been replaced by terminal leases and time/ volume agreements. In some ports, wharfage and dockage charges exist primarily as a funding mechanism for terminal leases and other agreements.
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> Customer relationships within the port have changed dramatically; lessor/lessee has replaced port/customer, and longterm agreements have replaced the ship by ship relationships. These long-term agreements have actually limited pricing options/alternatives for many ports.

Thus, the last decade has seen changes that have very significantly altered the effect of port pricing on carrier/shipper decisions, the way in which ports relate to their customers, the tools that ports use to price services/facilities, and the alternatives/options available in the port pricing arena!

The Players

Pricing is not the sole responsibility of the marketing department, nor is it the sole responsibility of the accounting department or any other single department or person. Each department, the executive director, and the Board all have some level of input into the port's pricing arena, and by involving these players early in the pricing decision process, conflicts can be recognized and dealt with. It is important to remember that the influence input and its weight in the ultimate pricing decision change constantly.

On a microlevel, if capacity is not a constraint and the port has significant excess capacity, it might be very appropriate for the marketing department to exercise a major influence on the pricing of a service/facility. Conversely, if capacity is constrained, the influence of the marketing department would diminish. In effect, supply and demand (competition) determine the relative strength of the various players in the port pricing arena.

On a macrolevel, it is virtually impossible for any public port authority to do effective pricing without some policy guidelines! The Board must provide leadership by formulating policy guidelines in order for a port to function efficiently in the pricing arena.

Creation of policy guidelines should be a part of the strategic planning process. These guidelines should include the definition of target customers and business segments as well as indicators for appropriate Return on Investment (ROI) range levels. Without these guidelines, virtually every project or customer is of equal importance, and this eventually forces the Board to make all the ultimate pricing decisions. Additionally, without appropriate policy direction from the Board, the executive director and port staff will be forced to waste time and resources following up every prospect with equal effort. Thus, a clearly articulated pricing strategy is mandatory for any successful public port authority.

Pricing Strategy

Port Pricing can not be dealt with in isolation since Pricing is a major factor in the implementation of a port's strategic plan. Pricing must be viewed as one element in a much broader port management concept. This concept has three elements. The first is a port's planning and development philosophy and a port's goals or objectives. The second is a port's investment criteria and policies. The third is a port's pricing policies and techniques.

These three elements are closely interrelated. Significant change in anyone of these three elements directly affects the other two elements. This means that a port's Pricing approach should be supportive of the port's overall objectives, be consistent with the port's development and planning philosophy, and be a logical extension of the port's investment criteria and policies.

There are three basic approaches that ports consider in formulating their Pricing policies. The first is a purely economic approach, which argues for marginal cost Pricing. The second is a financial approach, which argues for prices to be set to recover fixed and variable costs and provide an adequate rate of return. The third approach is a public enterprise approach, which argues for prices to be set to recognize the need for the port to be a means to foster local development and existing local, regional and/or national economic activities. The third approach usually requires subsidization by taxpayers or other port customers.

The economic approach would be used by ports that are primarily concerned with being self-supporting (breaking even). The financial approach would be used by ports that Want to maximize profit as their main port goal. The public enterprise approach would be used by ports that are primarily concerned with maximizing throughput and Can afford to subsidize certain operations and functions in order to capture cargo.

Each of these approaches has its own strengths, but their basic requirements are often in conflict. The resolution of this conflict is the first step toward formulation of a pricing policy that is each port's foundation for rationally Pricing facilities or services.

There is no single Pricing approach that is accepted and' applied uniformly by all ports. Nor can it be said that there is a "best approach."

Ports are different and these differences are reflected in the pricing approach or combination of approaches that they use.

There is nothing inherently desirable or undesirable in this diversity and lack of uniformity in pricing. The only thing that is mandatory for a successful port Pricing policy is that it be supportive of the port's planning and development philosophy and objectives and the port's investment policies and criteria. As simple as this may sound, it is probably one of the most complex management decision areas for any port.

Port Pricing Process

Before one commences this process, it is necessary to answer affirmatively a single question-"Does this piece of business fit into the port's strategic plan?" If the answer is yes, the port should proceed. If it is no, then the port must determine if the strategic plan should be changed to accommodate it (such action would occur only after extensive study

and discussion) or make the decision to reject the business. Unfortunately, many ports do not feel sufficiently comfortable with their strategic plan to make this latter decision.

There are three phases in the port Pricing process: the internal examination, the external examination or "Reality Check," and the determination.

Internal Examination

The internal examination is the first phase. This first phase in the port pricing process provides a valid method of calculating the internal cost/expense based price or price range. The product of the internal investigation phase is the benchmark price.

There are four steps in this phase, each of which involves the calculation of an element of the benchmark price formula. The benchmark Price is a price that would generate sufficient gross revenue to cover all direct and indirect costs associated with the delivery of a service Or facility to the customer. These steps are: historical costs, imputed costs, return on investment, and sensitivity analysis.

Historical Cost: The first step is the calculation of the historical costs (both direct and indirect) of providing the service or facility.

Historical costs are: (1) direct depreciation expenses on existing facilities/equipment and depreciation or amortization expenses on facilities/equipment to be constructed or acquired; (2) direct maintenance expenses for facilities/equipment including amortization of contingency funds; (3) direct tax and insurance expenses; (4) direct and indirect terminal operating expenses; and (5) administrative and general expenses including indirect depreciation, maintenance, taxes and insurance as well as some share of the port's general and administrative expenses.

If any of these expenses are passed on to the customer through lease provisions or in the articles of any usage or throughput agreement, or if any of these expenses are not applicable (e.g. terminal operating expenses on a terminal to be operated by a lessee or contract terminal operator), these expenses should be eliminated from the above formula.

Imputed Cost: The second step is the calculation of imputed costs. Imputed costs are unreimbursed and often unrecorded benefits provided by an outside entity (e.g. fire, police, computer, or other services).

Return On Investment: The third step involves computation of return on investment (ROI) for both land and facilities/equipment.

Basing these ROI computations on market or replacement value rather than book value is more realistic, even though establishment of market or replacement value may pose a problem for the port.

Sensitivity Analysis: The calculation of historical cost, imputed cost, and return on investment requires that certain assumptions be made about various cost elements. These assumptions take the form of estimates or educated guesses about the applicable amounts/percentages of certain costs and/or whether to include a cost item in the benchmark price formula at all.

Despite the fact that the analyst bases these assumptions on the best available information, these assumptions may lead to understatement or overstatement of the costs. Thus, it is important for the analyst to state clearly the critical underlying assumptions used to calculate the cost estimates and to test how sensitive each is to the calculation of the benchmark price.

The price per unit of cargo or the normal published tariff rate is the benchmark price (historical cost + imputed cost + return on investment, tempered by the sensitivity analysis) less any applicable usage revenue (e.g. dockage, wharfage, storage charges) divided by the throughput volume.

A major controlling factor in the successful execution of the internal examination phase of the port pricing process is the port's own accounting system! ln order to gain the maximum benefit from this first phase, a port must have a fairly sophisticated cost accounting system. The system must be able to identify the various cost computation components (e.g. costs by line of business, function and/or facility). For many ports, the absence of or lack of sophistication of the cost accounting segment of their accounting system may make it difficult to accurately establish a benchmark price!

Container Terminal Leasing/Pricing Methods and Their Economic Effects, a paper in the Washington Sea Grant "Port Management Series," provides additional information about container terminal leasing and pricing.

Usage Pricing for Public Marine Terminal Facilities, published by the U.S. Department of Transportation, Maritime Administration, provides a comprehensive explanation of the elements used in the calculation of dockage and wharfage tariff charges.

External Examination or Reality Check

The product of the first phase of the port pricing process is the benchmark price," a specific number or numerical range that, if used, would ensure that the port will cover all direct and indirect, depreciation and debt service expenses and earn a profit. In the "ideal world," the port would charge the customer the benchmark price and prosper. Since the "ideal world" seldom exists for ports, the next phase is designed to subject the benchmark price to a series of tests that will determine its applicability/ usefulness.

This series of tests is known as the Reality Check! Just as the first phase of the port pricing process concentrates on internal factors (e.g. actual, anticipated or estimated expenses and a target ROI), the second phase concentrates on external factors (e.g. strategic goals and objectives of the port, competition, business conditions).

There are two steps in the external examination/Reality Check phase: consideration and negotiation.

Consideration: This step involves listing and prioritizing the various elements that might affect the port's ultimate pricing decision.

These factors would include at least the following: availability of excess capacity; cash flow requirements; competitive situation of the port versus other ports capable of and/or willing to take on the business; economic/political implications (e.g. regional, local, and, especially in Canada, national economic goals/objectives), growth management impacts (e.g. utility, road, rail, and mass transit concerns); and environmental implications.

Once all factors have been recorded, it is necessary to weigh each and eventually prioritize them. This prioritization allows the port to move into the next step in this phase, negotiation.

Negotiation: This step is the most difficult one for most ports. It requires that representatives of the port and customer meet to discuss the port's proposed price for the service/facility. This price can be the benchmark price or the benchmark price modified by the appropriate external factors.

In any event, the potential customer will most likely make a counteroffer or reject the initial port price offered. At this point, the port enters negotiation with the customer. The possible tactics/strategies for price negotiation are numerous, and the specific situation will dictate which the port will employ.

However, prior to each round of negotiation, the port should examine the priorities of the various external factors as well as the potential effect that the new price offer may have on the port's other facilities/cargos and the port's overall financial condition.

Negotiation is a rational process not an emotional one!

Determination

This phase involves approving the negotiated price. Normally, if the port has a well articulated pricing policy, the ultimate decision on most prices can be approved at the executive director level.

However, if the port lacks such a policy or is faced with a reservation of price approval power on certain or all ultimate price decisions, these decisions will be made at the commissioner level.

If the ultimate pricing decision will be made by the Commission, it is necessary that a formal staff recommendation and supporting documentation be made available to the members prior to their voting!

The Tariff Rate

There is a general assumption that the rates published in the port's official tariff apply to all customers. That is an incorrect assumption!

At best, a published tariff rate is the benchmark price, less usage revenues (e.g. preferential berthing charges), divided by estimated throughput. At worst, it is a random number, arrived at without any study of expense data, that appears to be in line with the tariff rates published by competing ports.

In fact, published tariff rates are an effective and flexible marketing tool. These rates are often a starting point for negotiation of a time/ volume agreement, a first or last port of call status agreement, or an increase in throughput from a carrier or shipper. This is a very valid use of these rates since, in most cases, they have not been subjected to any analyses of economy of scale profit potential or contracted time/volume effects on expense levels.

It is extremely important to remember that, if at all possible, any deviation from a published tariff rate should be

allowed only if there is a written agreement between the port and carrier/ shipper spelling out exactly what guarantees of additional throughput or other considerations are being made to justify such a deviation. Ports must recognize that any deviation from a published tariff rate is a valuable consideration that should be traded (not given) away.

Conclusions

There are many areas that must be better understood by ports before they can perfect their pricing techniques.

One of most important of these areas is the port vs. port negotiating tactics of some carriers! shippers. At this time, port competition is a fact of life and can not be ignored! But in many cases, carriers, shippers, and other customers use this competitive situation against ports. Playing one port against another seems to be a normal negotiating technique. Unfortunately, in many instances, this tactic is very effective in removing port goals/objectives and an appreciation of actual costs from the port pricing decision agenda and replacing them with emotion. When this happens, ports bid blindly in order to get a specific customer and the customer usually gets the services/facilities at a subsidized rate. One often wonders if the port that eventually obtains the business is the winner or the loser!

The process outlined in this paper will facilitate the port's pricing of both services and facilities. It will help ports price in a logical and economically sound manner as part of an overall strategy, provide a means to give due consideration to both the internal and external factors affecting the pricing arena, and move towards a more businesslike internal environment.

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