

Benchmarking Transportation Services

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Benchmarking transportation rates is difficult today. Direct comparisons of even line haul rates to and from the same locations can be very misleading. The rate that a carrier offers to a shipper is a reflection of a myriad of factors, such as the overall relationship, liability and performance requirements, origin- and destination-specific characteristics, and the structure of accessorials. But head to head comparisons do not capture the real drivers of transportation rates. Applying a Model-Based Benchmarking approach can help firms understand, quantify, and benchmark the underlying factors that impact overall transportation costs.

Traditional Benchmarking Has Flaws

Traditional benchmarking approaches like activity based costing and balanced scorecards are extremely helpful, but have significant shortcomings for comparing transportation services. Direct comparisons of line haul rates can be very misleading - even when shipping from and to the same place. The reason? Transportation services contain a myriad of factors that influence the overall rate -- factors such as the overall relationship, liability and performance requirements, origin- and destination-specific characteristics, and the structure of accessorials. Often these head-to-head comparisons don't capture the real drivers of transportation rates because they:

- **Rely too heavily on a single carrier's rates.** Pinning a benchmark on a specific carrier or set of carriers' rates makes the results questionable. Model-based benchmarking hedges against this by taking a larger snapshot of the market as a whole from a variety of industries.
- **Don't capture the underlying cost drivers.** While miles, weight, and load factors obviously impact transportation rates, most comparisons don't account for specific business practices at origin and destination facilities. So when a firm benchmarks an excessive rate on a lane, it won't know if a higher price is due to an above-market rate or underlying cost drivers like unusually tight pickup/delivery windows or excessive detention.
- **Require sharing of rates between companies.** Traditional benchmarking approaches require firms to share rates. But often, a carrier's confidentiality

clause can create legal issues for firms trying to create these comparisons using actual rates.

- **Require exact comparisons.** In traditional benchmarking, a firm must find a company with EXACTLY the same freight characteristics. So often transportation benchmarking attempts fail because they lack sufficient data or the firm can't find another company whose hundreds of thousands of traffic lanes match theirs.

Introducing Model-Based Transportation Benchmarking

To remedy these problems, firms need a new category of benchmarking that integrates the best elements of traditional benchmarking with econometric based modeling approaches -- Model-based Benchmarking (MBB). The MBB approach allows a user to not only determine if their transportation costs are in line with the market, but also understand how to change business practices to reduce overall costs. Using MBB, a company can benchmark their transportation services and thus determine:

- **Operational factors that increase transportation rates.** Model-based benchmarking captures and quantifies the impact that operational characteristics and business practices have on transportation rates. Using transaction data, MBB gets an accurate snapshot of what a firm actually paid for transportation, not what it hoped to pay in contracts. By tying these cost drivers to the actual cost, the model can capture the effect of each factor on overall cost.
- **The appropriate price for services compared to peers.** The MBB approach creates a robust predictive tool can be used for comparisons of overall shipping costs, costs for individual lanes, or costs for any subsets of a network. And because MBB only shares the impact of the operational cost drivers -- not the rates themselves -- ***companies never actually have to share or provide visibility into their carrier-specific rates.***
- **The need for conducting a procurement event or rationalizing the carrier base.** Before conducting a bid, MBB lets each firm know whether it can expect to save money for a procurement event as well as provide an estimate on how much the saving or cost increase will be. In addition, the model is robust enough to enable a company to estimate rates for new lanes and services that might arise in with future business.

Comparing Transportation Services

The Model-Based Benchmarking approach for transportation has been applied to a wide variety of surface transportation types (flatbed, dry van, temperature controlled, TL, LTL) and organizations, including industries such as retail, CPG, paper and packaging, and defense. The Model-Based Benchmarking approach enables a firm to:

- Quantify the impact that service requirements and business restrictions have on carrier rates.
- Compare cost drivers across a wide variety of different companies without needing to find "identical" firms.

- Bypass any carrier confidentiality issues since no actual rate or transaction data is shared.
- Measure the benefit that continuous move, round-robin, dedicated fleet, and backhaul programs have on rates.
- Benchmark across all lanes regardless of the number.
- Easily capture the combined effects of line haul and accessorial rates in the same analysis.
- Estimate market rates for lanes where there isn't adequate individual coverage.

Summary

Model-based benchmarking addresses shortcomings of traditional benchmark techniques. The MBB approach was specifically designed to answer the following three questions for users of transportation services:

1. Am I paying an appropriate price for transportation with respect to my competitors and peer companies?
2. Am I paying the best price for the transportation services that I really need?
3. Am I doing the right things in my operations to lead to the best price for transportation services?

The MBB approach, then, allows you to not only determine if your costs are in line with the market, but also provides insights into how you should change business practices to improve your overall cost structure.

Chainalytics, LLC provides leading companies with advanced consulting and outsourcing services to improve supply chain performance. Specializing in the application of advanced decision sciences technology, Chainalytics supports improved strategic and tactical decision-making in the areas of supply chain strategy, transportation planning, and inventory planning. The company's powerful combination of expertise, technology, and continuous approach enables clients to achieve and sustain double-digit cost reductions and customer service improvements. Chainalytics serves mid-to-large size enterprises with complex supply chains.