Alternate Pricing Models for Transportation Contracts

Background
Transportation contracts are made for a period of 1-2 years, making them irrelevant to the market dynamics, resulting in:

- Rejection of loads by carriers
- Higher % of loads going to spot market
- Increased cost & reduced service levels

Index based contract pricing will lead to better service levels and reduced expenses.

Hypothesis
Index based contract pricing will lead to better service levels and reduced expenses.

Relevant Literature
- Kim, Y. J. (2013). Analysis of truckload prices and rejection rates

Methodology
Bid files
Tender acceptance
Shipment details
Market Index
Supplier discussions

Spot Rate vs Contract Rate
Regional Variations
Carrier Acceptance
Service Level Metrics

Develop models to estimate optimal lane level index for contract prices.

Initial Results
- 60% higher rates in spot market vs contract rates for 2016-2018
- Carrier reservations on market index adequacy

Expected Contribution
- Lane level index price reflecting the market conditions
- Simulation of past tenders to estimate potential savings
- Improved relationship between shipper and carriers

Spot vs Contract in USA

Spot Premium for low/high volume lanes

Proposed Index Price

Supervised and unsupervised algorithms

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