

PSR: What is The Real Story?

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Overview

- Operations management view of railroad industry
- PSR: the good, the bad, and the ugly
- Philosophical conflicts
- Questions for the future






Operations Management and Railroads

- Previous goal of maximizing revenue and therefore profit from portfolio of assets
- Batch production dominates
- Physical bottlenecks limit capacity
- Service industry with variable, dependent-demand and no ability to store product
- Every day was and probably still is different





Lean, Six Sigma, and Theory of Constraints

- Theory of constraints
 - Focus only on bottlenecks to increase throughput (OLD STRATEGY)
- Lean manufacturing is a philosophy of waste reduction
 - Focus on asset utilization thru level loading of infrastructure (THINK ASSEMBLY LINE)
- Six Sigma is a program of profit maximization
 - Focus on actions that increase the difference between cost to produce and value to the customer (PROFIT MAXIMIZATION)





What Hath PSR Wrought: The Good

- Ops
 - Reduced reliance on costly hump yards
 - Effort to run fewer, balanced, general-purpose trains versus more specialize trains
 - Dramatic improvement
 - Asset utilization
 - Reduced trip time mean and variation for some
 - Significant improvement in operating ratio





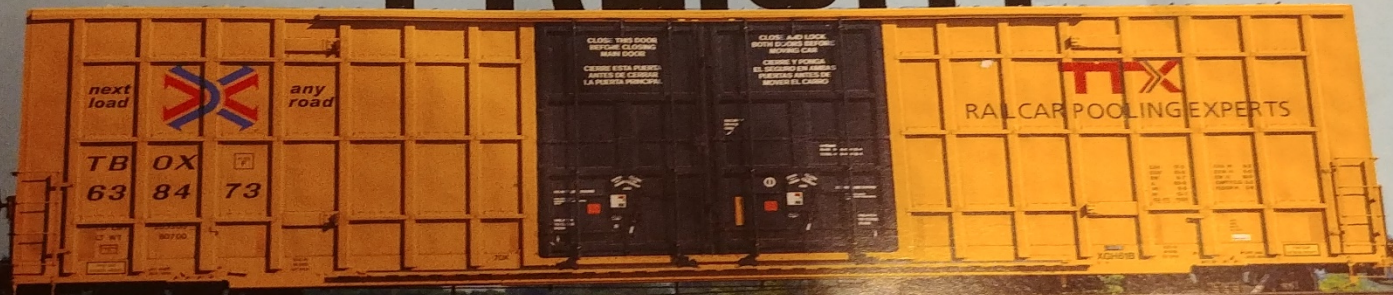
What Hath PSR Wrought: The Bad

- Ops
 - Significant increase in circuitous routing
 - Longer transit times and/or more variation in transit time for some
 - Worst effects on first and last mile
 - Low density business is a loser
 - Interchange
 - Unit trains (transit time)
 - Industry switch
 - Changes to demurrage and accessorial tariffs
 - Additional baggage associated with PSR implementation
 - Financial emphasis on operations
 - Manpower




What Hath PSR Wrought: The Ugly

VANISHING FREIGHT



THE DEMISE OF SINGLE CARLOADS, AND WHAT TO DO ABOUT IT

P. 20



What Hath PSR Wrought: The Ugly

- Loss of existing carload traffic
- More difficult to secure new business
 - Fewer marketing and sales employees
 - Concentration of authority to make rates make at higher levels withing organization
 - Costing systems inadequate to deal with new reality
- Return on Assets more important than:
 - Customer service
 - Profit
 - Growing traffic



Philosophical Conflicts

- Lean (assembly line) view of railroad operations versus reality of a service business
 - Can railroads change variable dependent demand into less-variable, more-elastic demand?
- Growth versus maximizing asset utilization
 - U.S. versus Canadian situation
- Common carrier responsibility versus fiduciary duty to stockholders





PSR: The Future

- The Good
 - Dramatically improved asset utilization and lower costs
 - CN and CP: Growth with good returns
 - Stockholder returns
- The Bad
 - Implementation
 - Cost saving not shared with shippers
- The Ugly
 - Signs point towards continued loss of carload traffic
 - Returns for other stakeholders
 - Demise of common carrier railroads



Thank You

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Your Questions: Later?

