



TRANSPORTATION OPTIMIZATION TECHNOLOGIES: DEPLOYMENT AND SUCCESS MEASUREMENT STRATEGIES

Getting the most from optimization tools

Transportation optimization technologies provide tremendous opportunities to improve productivity and customer service. However, their effectiveness can be severely limited by the deployment and success measurement strategies.

Getting the most from these tools requires that businesses spend time thinking about how they are going to be applied and how they will measure the results and overall success. The following four points can help improve the effectiveness of how you deploy new optimization technologies.

Optimize for today and tomorrow

How much money will I save? That is the question everyone asks when thinking about adding optimization tools to their business. The short answer is 12% - 20%.

The long answer requires some thought around the degree of change associated with use of optimization technology. The low side comes from optimizing the current processes and taking into account the current restrictions faced by the business. The high side of the range is based upon looking at the business processes and restrictions and asking what could be done differently to take best advantage of the optimization technology.

Deploying optimization technology provides an excellent opportunity to re-think business strategies, tactics and overall operations. If in the last 5 years, taking a step back to look at the current overall business processes hasn't happened - there is a good chance that there are processes that can be improved. It is also possible many of these processes are suboptimal or simplified, often due to lack of tools that allow you to more closely analyze your business.

Operations Flexibility

Optimization technologies work best when they have more flexibility to make as many trade-offs as possible. It's why they can produce results that cannot be achieved by the human mind. In the world of logistics, there are lots of trade-offs between different variables. For example, in a people transportation environment, there can be trade-offs between time windows, ride times, rider groupings, and driver/rider restrictions to reduce overall operating costs.



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Metrics define success

If metrics do not define success, deploying new tools becomes a subjective and painful experience. For example, in the world of people transportation it is not uncommon to hear from existing dispatchers and planners that they don't like the way optimized routes "look". What does "look" mean? If the goal was reducing total miles and vehicles, then they may not look like the routes that the planner put together in the past. However they may have taken out 15% of the miles driven and 10% of the fleet that used to make the same number of trips. That's the definition of success. If this is defined up front, the value expected from optimization technologies will come fast.



Using optimization technology to improve

Identifying where savings may be discovered is always a subjective process. One of the ways to move from opinion to fact is to use optimization technologies to demonstrate the value of making changes to a business.

If the current optimization technology being used is "baselined" to model current operational performance, evaluating changes to its configuration can help identify where opportunities exist; as optimization technologies are very good at finding "counterintuitive" answers. Sometimes the only way to make significant changes that challenge the norm is to be able to compare the "what if" to current performance. The great part of this approach is that you have a "sandbox" that allows you to be creative without touching the actual operations. From there, any doubters can dig into their results and verify the validity of the proposed solution.



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