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Measuring Customer Mobility in Michigan

nder the leadership of Governor Rick Snyder, the Executive Branch of Government in the State of Michigan, USA has developed performance dashboards and scorecards to measure each agency's success in helping to reinvent Michigan Government to be more transparent and customer centered. The Michigan Department of Transportation (MDOT), in addition to supporting the Snyder Administration's Infrastructure Dashboard and its own MDOT Scorecard, has rolled out a more strategic focus on performance management based on the principles defined by Franklin Covey, Inc. as the Four Disciplines of Execution[®] (4DX).¹

Individuals and organizations spend a great deal of time learning about and developing very well thought out strategies that should lead to the realization of the desired outcomes and improvements in performance. The reality for most organizations, public or private, is that the failure to achieve their goals is not a failure of strategic planning, but rather a failure of execution. The 4DX process breaks down execution into four specific disciplines that, if practiced faithfully, help any person or organization more effectively produce the results that matter most to them. MDOT has been applying 4DX to improve highway operations, using User Delay Costs (UDC) as our defined metric for improvement, and we are beginning to see meaningful results for ourselves and our customers. A summary of the four disciplines follows, with a description of how MDOT has applied them for highway operations.²

Discipline 1: Focus on the Wildly Important. This first discipline is all about narrowing one's focus. Research has shown that the achievement of goals is inversely proportional to the number of goals one has. If you have one to two goals, you usually can achieve those goals with good success. With three to five goals, you might achieve one; and with ten or more, you usually achieve none of your goals to any great degree. This principle is built upon the idea that we all already have a vast number of urgent things that fill our day for us—Franklin Covey calls this the "whirlwind." The whirlwind consists of many urgent things that demand our attention. It tends to act on us. To be measureable and achievable, "wildly important goals" also need to be clearly defined in terms of moving from the current state, "X," to the desired state, "Y," by a certain time: from X to Y by WHEN.



Figure 1. Discipline 1: Focus on the Wildly Important (from Franklin Covey, Inc.)

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² To truly understand the 4DX process, it is suggested to read the book, *The Four Disciplines of Execution*. For the purposes of this context, a summary of the four disciplines are as follows, as well as a description of how MDOT has applied them for highway operations.

Michigan DOT's Experience: Setting Our Customer Mobility Wildly Important Goal

As a result of a series of inadequately managed work zones that caused an inordinate amount of user delay, several MDOT senior managers determined that it was "wildly important" to do a better job of managing the delay on our system and prevent irregular events from creating unreliable conditions for our customers, whether those events are induced by our actions through work zones or influenced by our actions in response to traffic incidents or winter weather events. Since the initial trigger for setting this wildly important goal to improve our operational performance was born out of issues stemming from work zones, we turned to user delay costs (UDC) as the measure to be managed. The data has also been refined and is now based on sensor and "probe" vehicle data to improve its accuracy and the ability to easily compute values on an ongoing basis. The 2013 Wildly Important Goal is to "Limit 2013 UDC to \$304.4 Million by December 31, 2013," which represents a 10 percent improvement from 2012.

Discipline 2: Act on the Lead Measures. Typically the goals we set for ourselves are things that we do not have as much control over as we would like, and we usually don't know how well we are performing until after the fact. This makes such measures "LAG" measures, since the recording of the measure "lags" the actual performance of whatever you are trying to do to affect it. For example, you may set a goal to lose weight, but you will not know if you have achieved it until after you weigh yourself, at which point it is too late to affect that measurement. Discipline 2 tells us to direct "Research has shown that the achievement of goals is inversely proportional to the number of goals one has."

our energies toward those things that we can act on and which should "lead" to the result we are trying to see. Good LEAD measures tend to be both predictive of the behavior or outcome we are striving for and influential; that is, they are things that we can actually do something about and that are more in our control than not.

Michigan DOT's Experience—Acting on the LEADs

Based on our experience and that of the industry, MDOT recognized that the three primary components of our non-recurring UDC are winter weather, traffic incidents, and work zones (see Figure 2). Consequently, we established these three areas as sub-wildly important goal categories and defined corresponding LAG measures and LEAD measures to manage our performance and operational responses to these sources of delay. Should we be successful in accomplishing these LEADs and LAGs, we expect to be able to manage our overall wildly important goal of limiting the UDC that our customers endure throughout the year.

Discipline 3: Keep a Compelling Player's Scoreboard. Have you ever watched a group of kids playing basketball at the park? How do you know if they are keeping score or not? More often

Winter Weather Lag: TIM Lag: Work Zone Lag: Limit Non-Recurring Regain Time < 2 hours Limit 1+ Lane Closure 80% of time 2+ hour Incidents to 203 Construction UDC to \$80.3M Lead 1: Lead 1: Perform After Storm Perform WZ Reviews Huddles 80% of the time 80% of the time Lead 1: Perform Post Incident Reviews 50% of the time Lead 2: Compliance Lead 2: Compare with Salting Predicted vs. Policies 80% of the time Actual UDC

Figure 2. Three primary components of non-recurring user delay costs (UDC).

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Figure 3. The team charts their progress on a scoreboard that resembles the game "Frogger."

than not, if the players are keeping score, you will see more intensity of play, more focus and attention to their execution, and more celebration when a team scores or wins the contest. This third principle reflects the reality that we all play the game differently (and better) if we are keeping score, otherwise, we are "just practicing." Most everyone is familiar with dashboards and scorecards, which are all useful tools for senior managers or for communicating to a broad spectrum of audiences. But as a tool for motivating and driving the performance of your team, these tools lack focus and offer too much information.

Michigan DOT's Experience with Players' Scoreboards

The key to creating a compelling players' scoreboard is to have the player make them and track their progress themselves. The more engaged staff are in the process of tracking their progress, the more engaged they will be in managing their performance. Too often, high-level scorecards and dashboards are computer generated reports that seem to come out of a black box. The power of the players' scoreboard is the degree of the players' engagement in it. That said, MDOT, like all DOTs, is an engineering and technically dominated organization, and as such we still tend to have nice neat lines and computer generated graphics. An example of one MDOT Transportation Service Center (where most of the action around managing UDC takes place) UDC Scoreboard is shown in Figure 4. But as an illustration of the fun and creativity that some MDOT staff have applied to other goals, another example is included (see Figure 3).

This scoreboard is related to a wildly important goal of improving the turnaround time for complex construction permits. The team charts their progress on a scoreboard that resembles the game "Frogger." If they exceed their monthly goal of the number of days to issue permits, they are playing in traffic and would have scared looks on the characters. But when they are in the acceptable range, they have happy faces, watching the cars go by.

Discipline 4: Maintain a Cadence of Accountability. This is where the rubber meets the road. We can do all the great planning in the world, set up the perfect LAG and LEAD measures, and have our players' create compelling scorecards for themselves—but if we don't commit to a deliberate discipline of persistently addressing what is wildly important, the whirlwind starts taking over, and we never accomplish what we intended to do in the first place. The recommended process for creating a cadence is to hold short (30 minutes or less) weekly, focused meetings with your team. Key to the success of these sessions is the idea of making one or two commitments each week to help move the needle on the LEAD measures. The question to ask is, "What one or two things can I do this week that will make the biggest difference in moving the LEAD measure in the right direction?" Each session starts with a reporting of the accomplishments of the previous week's commitments, then a look at the data on the LAG measure and LEAD measures, and then making a commitment or two for the upcoming week. It sounds easy, but in reality, it is hard to do. There is a reason they call this a discipline.

Michigan DOT's Experience with the Cadence of Accountability

MDOT's cadence of accountability starts each week with a report out of the previous week's data on UDC, traffic incidents, and winter weather or work zones, as applicable for the season. Monthly, overall performance is reported and reviewed with the chief operations officer and department director, as part of a bigger effort using 4DX to drive higher degrees of customer satisfaction. This cadence repeats itself each week and month, with deliberate regularity, such that everyone knows what to expect and who is expecting it. Wildly important goal sessions take 15–30 minutes, staying focused and to the point. Managers model the behavior for their staff and emphasize its importance by adhering to the schedule and making their own commitments.



Limit the 2013 user delay cost to \$28,000,000 between 2/4/13 and 12/31/13.

Figure 4. UDC Scoreboard.

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"A broad spectrum of front line staff is now actively engaged in highway operations—not just traffic operations engineers and traffic operations center staff. ..."

Performance Management Results

MDOT's actual results for our customers for the year to date have generally been positive. Our winter weather management results initially put us "into the red" on UDC's in a couple of our regions, but at this point all regions are reporting positive UDC results. These results are just part of the story, however. The big picture indicates that this process is definitely moving MDOT in the right direction of becoming a more operations-oriented DOT. Most notably, our approach to performance management of highway operations has yielded several high level outcomes.

A broad spectrum of front line staff is now actively engaged in highway operations—not just traffic operations engineers and traffic operations center staff, but maintenance engineers and coordinators, construction engineers, and project managers are, more than ever, paying attention to traffic operations, why it is important, and the impact they can have on improving the flow of traffic for our customers.

The rapid adoption of best practices, especially in the area of traffic incident management, has occurred due in part to the engagement of those front line staff with other incident responders and the frequent occurrence of post incident reviews.

MDOT is shifting from a reactionary response to operational issues to more of a proactive approach to actively manage traffic in real time. Instead of waiting for something to happen, we are putting practices and behaviors in place to avoid operational difficulties, or at least to be able to actively respond the moment that they happen.

There is improved transparency through all levels of our organization into the day-to-day operational health of our highway system. Staff, managers, and senior executives all have better visibility into the types of crashes, weather events, and work zones issues that happen, their impact on the users of our system, and the abilities we have to respond and reduce those impacts.

Conclusion

Applying the 4 Disciplines of Execution has been a great learning experience for our organization and has led to better traffic operational results for our customers. It has also led to increased employee engagement as our wildly important goal teams have had a renewed focus on connecting themselves to our customers on a weekly basis. In addition, the use of UDC as our primary operational metric has helped us drive performance improvement in the day-to-day decisions and responses that staff apply to operating the highway system. Such measures need to be easy to quantify and understand, easy to correlate actions and behaviors to their operational results, and ones that convey the magnitude of the impact on the end user.

In the end, state DOT's and the federal government's increasing focus on performance measures, while a good thing, does not end with just measurement. It is about producing results that matter for our customers—the travelers who use our highway systems to move people and goods, and the taxpayers who pay for that system. **itej**



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