State of Michigan Lean Process Improvement (LPI)

Fast, Accurate, and Secure
Using Lean Principles to improve your Election Process

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WELCOME!

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WELCOME!

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Agenda

- Introductions
- Intro to LEAN and process improvement
  - Brief background on LEAN and process improvements
  - What is “Waste”
  - What: How the State of Michigan uses Lean
- Lean/UP Tools
  - Gap Analysis (CVS)
  - Process mapping
  - Root Cause (5 whys)
- Putting it all together
  - Using your CVS, map, and root cause to identify issues and generate ideas
  - Creating a future process

What is “Lean”

- The Lean process improvement philosophy comes from a management system developed in post-war Japan by Toyota.
- This system was designed to eliminate waste and inefficiency from a manufacturing process, creating opportunities to increase quality while simultaneously reducing costs.
- Over time, Lean expanded beyond manufacturing and has been adopted by and adapted to nearly every major industry, including health care, finance, construction, engineering, and technology.

What is “Waste”

DOWNTIME stands for:
- Defects: errors, missing information, typos, confusing instructions
- Overproduction: unneeded reports, excess emails
- Waiting: approval cycle time, waiting for information/decisions
- Non-utilized resources and talent: narrowly defined jobs/expectations
- Transportation: report routing, transportation of documents
- Inventory: backlogs; excess materials; old databases, files, folders
- Motion: trips to printers, movement to find files/supplies, excess travel
- Excess processing: excess process steps, too many signature levels

Waste can be defined as “downtime”
What is LPI

Continuous Improvement

How Does it Work?

- A need for change is identified
- Commit to Process Improvement
- LPI resources are determined
How Does it Work?

1. Define the process to be improved
2. Identify outcomes you want
3. Internal & External Customers are identified
4. Project Team Leader is selected
5. Project Team Members are Identified
6. If necessary: focus groups, interviews and additional research is conducted

How Does it Work?

- Project Team Members work together to:
  - Identify Customer needs and current gaps
  - Map Current process
  - Identify Issues with process
  - Conduct Root Cause Analysis on key issues

How Does it Work?

- Project Team Members work together to:
  - Generate and Evaluate ideas to redesign the process
  - Map what the future process will look like
  - Develop key measures and metrics for the new process
How Does it Work?

- Develop a plan
- Project teams are created
- Implementation Tasks are given deadlines and are assigned to team members
- Project Plan is managed by Team Lead
- Regular updates are held to demonstrate progress and share any barriers

How Does it Work?

- New Process is Implemented
- Key measures and metrics are monitored to determine success
- Process improvements are re-evaluated for effectiveness
- Success is celebrated and shared with

Gap Analysis
Gap Analysis: Customer Value Structures

- Gap analysis activity used to define and analyze customer needs and how those needs are being met within the current process from the customer’s perspective.
- Provides a baseline of current performance and identifies gaps for targeted improvement.

Customer Value Structure

<table>
<thead>
<tr>
<th>Customer: Fast Food Customer</th>
<th>Process: Drive-thru Order</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Customer Needs</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
</tbody>
</table>

Calculating the CVS

Customer Value Structure Calculations

Value: 1 to 100.
Total of all Values = 100

Performance: Scale of 0 to 1
(1, 2, 3, 4, etc.)

Score = Value x Performance

Gap = Value – Score

Process Mapping

Activity 9
Current Process Mapping Legend

- High-Level Process Step
- Detailed Process Step
- Decision Point

The 80% Rule
What flows through 80% of the time
OR
80% of the volume

Current Process Map

Identifying Issues

- Use the map as a tool to identify and eliminate inefficiency
- Revisit your initial gap analysis
- Remember “DOWNTIME”
Root Cause Analysis

Activity 13

The 5 Whys

Root Cause Example: Jefferson Memorial

Root Cause

Issue Statement: The Jefferson Memorial is crumbling.

Why?

Bird Droppings

Why?

Spiders (Bird Food Source)

Why?

Insects (Spider Food Source)

Why?

Insects are attracted to the spires.

Why?

Hanging wires.
Designing the Future Process

Generating Ideas

- Current Process Map
  Read through the current process map, think value: challenge each process step by asking if the step adds value, if the customer needs the outcome of the task; think decision: for each decision point, ask how the step can be streamlined, how the decision points can be mitigated, and if the right person is making the decision; think shrink: look at the whole process and generate ideas that would reduce the number of hand-offs, the number of times the Flow Item is transported, or the number of steps.

- Process Issues
  Read through each issue that was not used in root cause analysis. When reading each issue, try to think of the issue from the perspective of who it might impact and how they would like to see the issue resolved.

- Root Cause Analysis
  Read through each root cause and generate redesign ideas by looking for solutions at each “why” line. Make sure that the group does not reanalyze the root cause. Use the issue statement to generate additional redesign ideas.

- Customer Value Structure
  Review customer value structures and read through the needs and gap scores for each customer. Generate redesign ideas that would close the gap.

Putting it all Together:
Creating the Future Process Map

- Create a process trigger: What is the first detailed step that initiates the process? What must happen before any work can be completed?
- Continue creating new detailed tasks until the final step shows that the input or output is final. Use verb/noun format
- Capture Who: the new position title completing the task
- Revisit the redesign ideas to ensure that the LPI team has considered each evaluated idea for the future process
What Will Make Your LPI Successful?

- People closest to the work are critical members of the team
- Customers are involved or represented
- Focus is on the process, not the people
- Activities build on each other to create understanding, ideas and ownership
- Participants in LPI projects learn the methodology and emerge as leaders

Tips for Engaging and Gaining Stakeholder Feedback:

- Create a trusting relationship
- Create routine frequent communication touch points
- Survey leadership for their feedback at the end of the workshop
- Share team member survey results at the end of the workshop
- Touchbase if there has been a leadership or cultural change
Questions?

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