Improving Operations Without Technology

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Goals for this presentation

1. Understand that technology is a “piece of the puzzle” when improving operations
2. How to understand any IT operation through metrics and maps
3. Provide a different way of thinking about solving operational problems
4. How to write effective business cases that will help get your work prioritized over others
Agenda

1. Who can we learn from?
2. Familiar operational problems
3. Operational Complexity
4. Change is Difficult
5. Understand your process
6. Problem Solving Approach
7. Measurement Systems
8. Motion in an IT Environment
9. Quality Tools
10. Quantifying the Problem
11. Summary
Who can we learn from?

“If you can't describe what you are doing as a process, you don’t know what you're doing”

“An organization's ability to learn, and translate that learning into action rapidly, is the ultimate competitive advantage”

“I'm not going to change anything. We will use the same players and the same training system. But we will concentrate on becoming brilliant at the basics.”
Familiar Operational Problems?

- Overloaded Teams (incoming email or alert volume)
- Customer complaints about speed and quality
- Incorrect code pushed out onto a network
- Budget challenges: reduce / hold headcount, minimal spend for new tech, etc.
- Risk / compliance concerns
- Misleading, partial or incomplete metrics
- Lack of training
- Technology challenges: too many systems, older technology
Operational Complexity - Three Mile Island Nuclear Meltdown

What didn’t go wrong?

- No critical component failed cataclysmically.
- No sabotage or gross negligence on the part of an individual worker.
- Systems functioned as designed.

The real problem was the complexity of the technical system and the complexity of the organization responsible for it.” Charles Perrow
Change is Difficult!

- We already have professionals that do change management!
- How to get people on your team to embrace change?
- How to get people around your team to embrace change?
- Where across the enterprise do you encounter resistance?

Solve problems by addressing flow first and technology second!
Change Entails...

The process of change entails...

1) Creating a perception that change is needed.
2) Moving toward the new desired level of behavior
3) Solidifying the new behavior as the norm

Kurt Lewin, Psychology Today
Understanding your process

Ask the basic questions:

- What are the goals of the process?
- How do you measure them?
- How do you perform it?
- Does your process meet the needs of the customer?
- Where does your process run into problems?
The Turtle Diagram

5. Understand your Process

How do you know that you've met your customer's requirements?

How do you know that they've met your requirements?
Traditional Problem Solving Approach

Traditional “view” of processes: start at the beginning and solve problems in order to ensure a good outcome

“Solve all of the problems to ensure the correct outcome”
Start at the last step in the process to solve problems and go “upstream.”
End to End Process Example

Do metrics line up end to end?
What handoff problems do we have?
Do we have enough process capacity?
Measurement Systems

Technology

Typically Neglected in Metrics

People
Skill sets
Mind sets

Process
Overall Process Lead Time
Throughput

Measured Well
How many clocks in a process?

Lead Time: What customers really feel and is never measured.

Cycle Time: Start through end of the process. What we try to measure.

Activity Time: Clock starts and stops as a transaction is worked on. Our impression of how long a process takes.
Overall SOC Operational Capacity Model

Overall Global Capacity Chart
2017 Only
Assumes 70% Utilization Rate

7. Measurement Systems
“Individual” SOC Capacity Model

SOC Capacity Model
2017 Only
Assumes 70% Utilization Rate
Productivity: “Leveling the Playing Field”

Week Ending March 27, 2017

7. Measurement Systems
Productivity: “Leveling the Playing Field”

Week Ending October 30, 2017

Diagram: Avg Acknowledgements within 5 minutes vs. Avg Acknowledgements Per Technician

Axes:
- Y-axis: Ack Within 5 Min (%)
- X-axis: Avg Acknowledgements Per Technician Per Hour
Team Productivity in a Global Environment

Productivity
Average Task Volume/hr

- 7. Measurement Systems
Manager Productivity – Global Environment

Time to Respond to Managers

Alerts

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% Acknowledged Within 7 minutes

- Total: 100%
- Volume: 95%
- Ack within 7 min (%): 88%
What do we learn from this map?
Mapping Processes
What a Process Map doesn’t account for

8. Motion in an IT Environment
Days and weeks can elapse as people debate a problem while the customer feels the pain.
7 Basic Quality Tools

1. Cause and Effect Diagram (Fishbone / Ishikawa)
2. Check Sheet
3. Control Charts
4. Histogram
5. Pareto Chart
6. Scatter Diagram
7. Stratification

Source: ASQ
Your problem is more critical than others!

Approach:

- Quantify what activities cost (throughput, quality / risk, cost, etc.)
- Use metrics (capacity and productivity)
- Use graphics (spaghetti maps, etc.)

Benefits:

- People will align with you faster
- Focuses people on where the most pain is
- People in the process embrace change because their voice is being heard!

“Create the perception that change is needed.”

Kurt Lewin
Example Business Case

XYZ operation is a customer facing process that provides critical services to the parent company (or paying customers). It has seen an increase in volume of X% over the last year while staffing levels have remained steady. Additionally, an X% increase in customer complaints has been seen over the last year primarily due to slow response time and other quality problems. As a result of slow response time, Y customers have churned this year resulting in $Y of lost revenue. It currently takes X minutes to create an email to send to a customer which translates into Y thousands of hours of labor capacity per year and $Z in fully loaded labor cost.

All supporting facts and documentation get placed after this.

Is your audience ready for change now?
Summary

Last Process Step First

Focus on Process and Communication

Measure Process Not Technology

Improved Processes
Thank you!

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