Business Process Mapping
and
Continuous Process Improvement
Business process mapping

Introduction

Business process mapping refers to activities involved in defining

• what a business entity does,

• who is responsible,

• to what standard a business process should be completed, and

• how the success of a business process can be determined.
Business process mapping

Main Purpose

• to assist organizations in becoming more effective.

A clear and detailed business process map or diagram

• allows outside firms to come in and look at whether or not improvements can be made to the current process.
Business process mapping

What it does

Business process mapping
• takes a specific objective and
• helps to measure and compare that objective alongside the entire organization's objectives
• to make sure that all processes are aligned with the company's values and capabilities.
Business process mapping
Supports Quality Management

The International Organization for Standardization or ISO 9001 encourages a process approach to quality management. It is important to understand how each process relates to other processes within the organization and how those interactions impact Quality Management.
Steps of Process Improvement using Process Mapping

- **Process identification** - identify objectives, scope, players and work areas.
- **Information gathering** - gather process facts (what, who, where, when) from the people who do the work.
- **Process Mapping** - convert facts into a process map.
- **Analysis** - work through the map, challenging each step (what-why?, who-why?, where-why?, when-why?, how-why?)
- **Develop/Install New Methods** - eliminate unnecessary work, combine steps, rearrange steps, add new steps where necessary
- **Manage process** - maintain process map in library, review routinely, and monitor process for changes
Process: Making Breakfast

**Inputs:** eggs, milk, bread, butter, bacon, plates, utensils, cookware, potatoes

**Outputs:** scrambled eggs, toast, crisp bacon, pan-fried potatoes

1. **Prepare Ingredients**
   - Cook Bacon
   - Cook Eggs
   - Toast Bread
   - Fry Potatoes

2. **Cook Ingredients**
   - Heat Pan
   - Pour Mixture
   - Stir Mixture
   - Add Pepper
   - Remove Eggs

3. **Serve Ingredients**
Continuous Process Improvement

Create a system for constant and continuous improvement
Process Model

Input

Process

FEEDBACK

Output
Four Phases of PDCA Cycle

- **Plan** a change aimed at improvement
- **Do** – Carry out the change
- **Check/Study** the results
- **Act** - Adopt, adapt, or abandon
1. Select improvement opportunity
2. Analyze current situation or process
3. Identify root causes
4. Generate and choose solutions
5. Map out and implement a trial run
6. Analyze the results
7. Draw conclusions
8. Adopt, Adapt or Abandon
9. Monitor; hold the gains

Start

PDCA Cycle
Plan: (1) Select Improvement Opportunity

- Generate list and select
- Redefine team
- Write problem/opportunity/aim statement
- Management review and support
Plan: (1) Select Improvement Opportunity

Common Selection Criteria

- Controllable
- Measurable results identifiable
- Achievable
- Data available or easy to capture
- Resource availability
- Significant importance
- Highly visible
  - High volume
  - High risk
  - Problem prone/variation
- Timely completion
- Probability for success
- Team motivation and involvement
- Senior Mgt. support
Plan: (2) Analyze Current Situation

- Define process/problem to be solved
  - Identify the customer(s).
- Baseline data
- Performance gaps?
  - Look at benchmarks, standards, regulatory requirements
- Composition of team?
- Validate problem and statement
- Management review
Plan: (3) Identify Root Causes

- Very important step
- Analyze cause and effect relationships
  - Fishbone diagrams
- Select root cause
  - Shared decision making
- Unbiased and reliable data to verify
  - Baseline data
- Management review
Plan: (4) Generate and Choose Solutions

• Generate list and select solutions
  – Directly linked to root cause and supported by data
  – Team brainstorming and shared decision making
  – Consider best practices
  – Be honest about barriers
  – Change is hard!!

• Choose best solution based on criteria
  – Shared decision making is key to buy-in!

• Define and map out solution
  – Plan to measure (SMART objectives)
  – Handoffs, resources, outputs, accountabilities

• Management review
1. Select improvement opportunity
2. Analyze current situation or process
3. Identify root causes
4. Generate and choose solutions
5. Map out and implement a trial run
6. Analyze the results
7. Draw conclusions
8. Adopt, Adapt or Abandon
9. Monitor; hold the gains

Start

PDCA Cycle
Do: (5) Map Out and Implement a Trial Run

• Map out a trial run
  – Communication and education/training are key
  – Be specific
  – New forms, handoffs, data etc.

• Implement trial run
  – Small scale but representative
  – Tests the intervention on a small scale to ensure change will produce desired output
1. Select improvement opportunity
2. Analyze current situation or process
3. Identify root causes
4. Generate and choose solutions
5. Map out and implement a trial run
6. Analyze the results
7. Draw conclusions
8. Adopt, Adapt or Abandon
9. Monitor; hold the gains

Start
Check: (6) Analyze the Results

• Collect and evaluate results
  – Team-based analysis and beyond
  – Flexible and inclusive
  – Objective and subjective data
  – Revisit process as it was mapped out
  – Be honest!
Check: (7) Draw Conclusions

- Team-based discussion and beyond
- Did the desired change occur?
  - Did the intervention go as planned?
  - Was the root cause eliminated?
  - Are outcomes generalizable?
- What worked?
- What didn’t work?
- What could be improved/changed?
- What did we learn?
1. Select improvement opportunity
2. Analyze current situation or process
3. Identify root causes
4. Generate and choose solutions
5. Map out and implement a trial run
6. Analyze the results
7. Draw conclusions
8. Adopt, Adapt or Abandon
9. Monitor; hold the gains

Start

PDCA Cycle
Act: (8) Adopt, Adapt, or Abandon the Intervention

• Team-based discussion and beyond

• Adopt
  – Test again on a larger scale?
  – Communication, education, and training
  – Plan to measure

• Adapt
  – Revise plan and repeat trial
  – Communication, education, and training

• Abandon
  – Revisit root cause analysis and/or list of solutions
  – Need additional/new members on the team?
Problem Solving: A Continuous Effort

1. Identify problems as an opportunity
2. Analyze the problem: to find root causes
3. Develop optimal and cost effective solutions
4. Implement changes: system wide
5. Study the results: worked or not? Need adjustment?
Continuous Improvement

- Build a quality (continuous improvement) culture. Positive and Constructive.
- Drive out fear.
- Provide organization-structural assurance for continuing feedback system.
- Respond to customers needs and solve problems timely.
- Standardize the procedure and continuously improve it.
Kai Zen στα Ιαπωνικά

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Quality Control with Kaizen Method

- A diagram to show the two PDCA cycles. The first cycle is Plan, Do, Check and Act, while the second cycle is a subset of the "Do" part, containing Problem Finding, Display, Clear and Acknowledge. These are part of the kaizen method of quality control, and also is used in the Toyota Way.
• https://www.youtube.com/watch?v=osRArZmxG4Q
• https://www.youtube.com/watch?v=_ObRQRKXLzA&list=PLip-k_VHkLg4SLAn1hFlndIHVCA69- c
• https://www.youtube.com/watch?v=iLDAYBR5sQU&t=226s