



# MPH\_SOMA Operations Management

Service Improvement

**M U N I**  
**E C O N**

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# Learning Goals

- To understand the importance of service improvement
- To explore different service improvement methodologies
- To learn how to implement service improvement initiatives

# What is Service Improvement?

- The term is an elusive concept, framed alongside other terms closely associated with improvement such as **effectiveness, efficiency, excellence, performance, reform** and so on (Hodgson et al, 2007).
- It refers to the systematic approach to enhancing **service quality, efficiency, and effectiveness.**
- It aims to **optimize customer satisfaction, operational performance, and overall business outcomes.**

# Key components of service Improvement?

- **Service improvement:** Emphasizes ongoing enhancements to processes, services, and customer experiences.
- **Innovation:** Encourages creative solutions and new approaches to meet evolving customer needs.
- **Problem-solving:** Focuses on identifying and addressing root causes of service issues to prevent recurrence.

# Service improvement methodologies

- **Improved Customer Satisfaction:** Enhancing service quality leads to higher customer loyalty and retention.
- **Cost Reduction:** Streamlining processes reduces operational costs and enhances profitability.
- **Competitive Advantage:** Differentiates businesses by offering superior services compared to competitors.
- **Regulatory Compliance:** Ensures adherence to industry standards and regulations.

**What are the examples of service improvement across industries?**

# Service Improvement methodologies

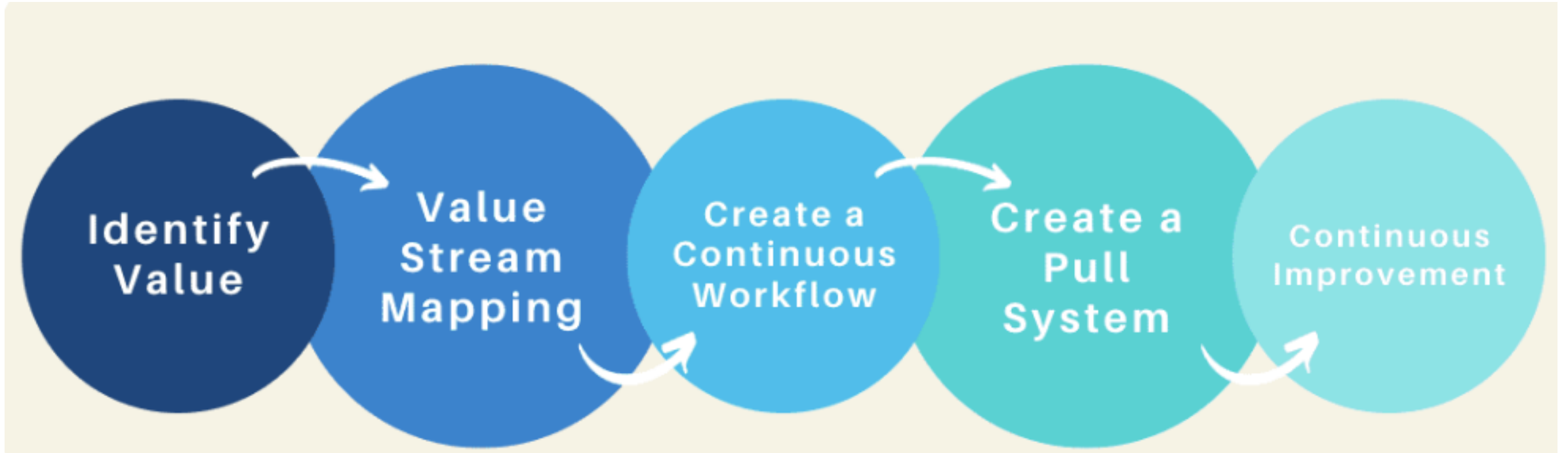
- LEAN MANAGEMENT:

A systematic approach to **optimizing processes** and **eliminating waste** in order to **maximize value for customers**.

- Core concepts of Lean Management:

1. **Waste reduction** (Overproduction, waiting, unnecessary transportation, excess inventory, defects, overprocessing, and underutilized talent) using some strategies: Just-in-Time (JIT) production, Kanban systems, and 5S workplace organization.
2. **Respect for people**: empowering employees to identify and solve problems, and fostering a culture of collaboration, teamwork, and continuous learning.

# Key principles of Lean Management





# Key principles of Lean Management

- 1. Identifying Value:** Understanding what adds value from the customer's perspective.
- 2. Mapping Value Stream:** Visualizing the end-to-end process to identify value-adding and non-value-adding activities.
- 3. Creating Flow:** Ensuring smooth and efficient flow of work or materials through the process.
- 4. Establishing Pull:** Producing based on actual customer demand to avoid overproduction.
- 5. Continuous Improvement (Kaizen):** Encouraging ongoing efforts to enhance processes and eliminate waste.

# Service Improvement methodologies

- **SIX SIGMA:**

A data-driven methodology aimed at reducing defects and variations in processes to achieve near-perfect quality.



# Key principles of Six Sigma

- **Focus on Customer Requirements:** Identifying and prioritizing customer needs and expectations.
- **Data-Driven Decision Making:** Using statistical tools and analysis to drive process improvements.
- **Process Improvement:** Applying structured methodologies like DMAIC (Define, Measure, Analyze, Improve, Control) and DMADV (Define, Measure, Analyze, Design, Verify).
- **Proactive Problem-Solving:** Addressing root causes of issues to prevent recurrence.
- **Cross-Functional Collaboration:** Involving stakeholders from different areas to drive collective improvement efforts.

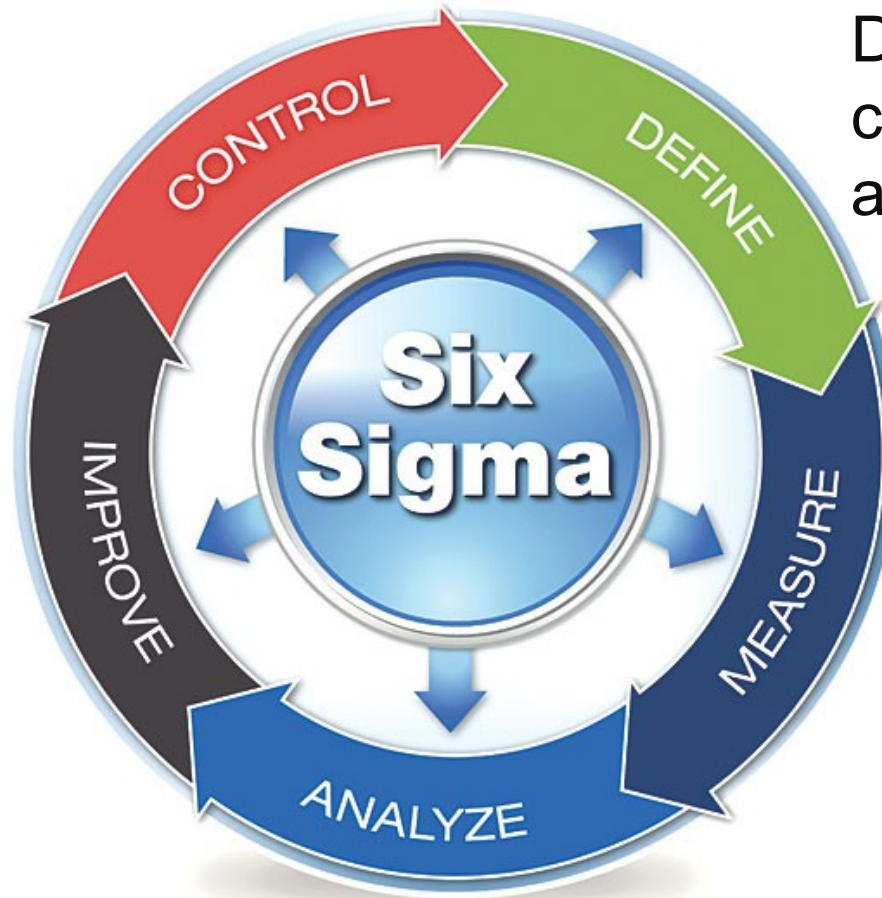
# Core concepts of Six Sigma

- **Defining CTQs (Critical-to-Quality):** identifying key parameters critical to meeting customer requirements.
- **Measurement Systems Analysis (MSA):** ensuring data accuracy and reliability through effective measurement techniques.
- **Statistical Tools:** utilizing tools like Pareto analysis, control charts, hypothesis testing, and regression analysis to analyze and improve processes.

# Phases in Six Sigma

Establish control measures to sustain improvements and monitor ongoing performance.

Implement solutions to address root causes and optimize processes.



Define project goals, customer requirements, and scope.

Define project goals, customer requirements, and scope.

Identify root causes of defects or variations using statistical methods.

# Key differences between Lean Management and Six Sigma

|                      | Lean Management   | Six Sigma   |
|----------------------|---|---|
| Focus                | Waste reduction and efficiency improvement  | Quality improvement and defect reduction  |
| Methodology          | Emphasizes process optimization through waste elimination and continuous improvement (Kaizen) | Employs statistical analysis and data-driven approaches to identify and eliminate root causes of defects                |
| Tools and techniques | Value Stream Mapping and Kanban are geared towards process flow and waste reduction           | Statistical Process Control (SPC) and Design of Experiments (DOE) are used for statistical analysis and problem-solving |
| Applicability        | Applicable to a wide range of industries beyond manufacturing                                 | Widely adopted across various sectors but often initially associated with manufacturing                                 |
| Goals                | Enhance efficiency and flow   | Achieve consistent quality and process performance  |

# Implementation strategies of service improvement

1. Define clear objectives
2. Engage stakeholders
3. Establish cross-functional teams and training
4. Utilize effective improvement methodologies
5. Identify and prioritize improvement opportunities
6. Develop action plans
7. Implement continued monitoring
8. Promote change management
9. Learn from failures and best practices

# Challenges of implementing service improvement

1. Resistance to change
2. Resource constraints
3. Lack of leadership support
4. Siloed mindset and communication
5. Unrealistic expectations
6. Measurement and evaluation challenges
7. Sustainability and integration



# Key success factors of implementing service improvement

1. Leadership commitment and support
2. Clear objectives and goals
3. Stakeholder engagement and collaboration
4. Data-driven decision making
5. Continues learning and adaptation
6. Change management and communication
7. Sharing best practices