The Basics of Lean Six Sigma

Increased Revenue, Reduced Costs, and Improved Collaboration
The Basics of Lean Six Sigma

Lean Six Sigma is a combination of two powerful methods: Lean and Six Sigma.

What Is Lean Six Sigma?

LEAN
Reduces waste by streamlining a process.

SIX SIGMA
Reduces defects by effectively solving problems.

LEAN accelerates SIX SIGMA:
Solving problems and improving processes is faster and more efficient.
<table>
<thead>
<tr>
<th>The Basics of Lean Six Sigma</th>
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</thead>
<tbody>
<tr>
<td>Lean and Six Sigma complement each other.</td>
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<tr>
<td>Lean accelerates Six Sigma.</td>
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<tr>
<td>A comprehensive tool set to increase the speed and effectiveness of any process.</td>
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<tr>
<td>Increased Revenue, Reduced Costs, Improved Collaboration.</td>
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<tr>
<td>Go Lean Six Sigma: helps you understand Lean Six Sigma so you can apply it practically within your organization.</td>
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</table>
What is Lean?

Lean streamlines a process, resulting in increased revenue, reduced costs and improved customer satisfaction.

A Lean Process:

... is Faster.

... is more Efficient and Economical.

... delivers Satisfactory Quality.
What is Lean?
What is Six Sigma?

Six Sigma is simply a method of efficiently solving a problem.

Using Six Sigma:

<table>
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<tr>
<th>Reduces the amount of Defective Products or Services Provided.</th>
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<tr>
<td>Results in Increased Revenue.</td>
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<tr>
<td>Results in Greater Customer Satisfaction.</td>
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</table>
What does Six Sigma mean?

Six Sigma is named after a statistical concept where a process only produces 3.4 defects per million opportunities (DPMO).

Six Sigma’s goals:

- **Low Variation**: Processes encounter less defects.
- **High Consistency**: Products & Services can be delivered as expected reliably.
What does Six Sigma look like?

The term “Six Sigma” is based on a statistical concept: defective items can be minimized by maintaining 6 standard deviations (6 “sigma”) between the process mean (average) and its upper and lower specification limits.

Six Sigma also accounts for the tendency of processes to degrade over the long term: A Six Sigma process can tolerate a “shift” of 1.5 standard deviations (1.5σ shift) and still maintain a “safety cushion” between the process mean and its specification limits.
What does 3.4 DPMO look like?

A Six Sigma process has a 99.99966% defect-free rate.

This is equivalent to 3.4 DPMO (defects per million opportunities), or a single defect for every 294,000 units. How small does this look? The chart below illustrates 1 defect in 294,000 units with powers of magnification:

Zoom #1: 294,000 units

Zoom #2: 1,000 units

Zoom #3: 10 units

The ONLY defect in 294,000 units!

100x zoom

10x zoom

1 circle = 1,000 Units

1 square = 10 Units

1 square = 1 Unit
Benefits of Using Lean Six Sigma

#1. Lean Six Sigma Increases Revenue.

Before Lean Six Sigma:

- Home Loans = Revenue

Before processes were improved, 200 loans were successfully funded per month. Inefficient processes = less revenue.

After Lean Six Sigma:

- Home Loans = Revenue

After processes were improved, 600 loans were successfully funded per month. More funded applications = more revenue.
Benefits of Using Lean Six Sigma

How Lean Six Sigma Increases Revenue:

It increases your organization’s revenue by streamlining processes.

Streamlined processes = products or services that are completed faster + more efficiently at no cost to quality.

Enables your organization to do more with less.
Benefits of Using Lean Six Sigma

#2. Lean Six Sigma Decreases Costs.

Lean Six Sigma Benefit: Decreases Costs

Before Lean Six Sigma:
Computers On Assembly Line
Computers Assembled: Cost due to defects
Before processes were improved, 2 out of 4 computers had broken screens. More defects = increased costs.

After Lean Six Sigma:
Computers on Assembly Line
Computers Assembled: Cost due to defects
After processes were improved, No computers had broken screens. Less defects = decreased costs.
Benefits of Using Lean Six Sigma

How Lean Six Sigma Decreases Costs:

- Removes “Waste” from a process.
- Solves Problems caused by a process.
- Enables you to fix processes that cost your organization valuable resources.
Benefits of Using Lean Six Sigma

#3. Lean Six Sigma Increases Efficiency.

**Lean Six Sigma Benefit: Increases Efficiency**

Before Lean Six Sigma:
- Patients Seen Per Doctor
- Satisfied Patients

1 Doctor $= \begin{array}{c}
\text{Patients} \\
\text{Satisfied}
\end{array}$

Before processes were improved, 1 doctor could only see 4 patients successfully.
Decreased efficiency = less successful patient visits.

After Lean Six Sigma:
- Patients Seen Per Doctor
- Satisfied Patients

1 Doctor $= \begin{array}{c}
\text{Patients} \\
\text{Satisfied}
\end{array}$

After processes were improved, 1 doctor could see 9 patients successfully.
Increased efficiency = more successful patient visits.
## Benefits of Using Lean Six Sigma

### How Lean Six Sigma Improves Efficiency:

<table>
<thead>
<tr>
<th>Maximizes your Organization’s Efforts toward delivering a Satisfactory Product or Service to your Customers.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allows your organization to Allocate Resources/Revenue towards Growing your Business.</td>
</tr>
<tr>
<td>Enables you to create Efficient Processes so your organization can deliver More Products or Services, with More Satisfied Customers than ever before.</td>
</tr>
</tbody>
</table>
Benefits of Using Lean Six Sigma

#4. Lean Six Sigma Develops Effective People.

Successful Lean Six Sigma projects develop a sense of ownership and accountability for your employees. Success is felt and drives success up and down pyramid.
## Benefits of Using Lean Six Sigma

**How Lean Six Sigma Develops Effective People:**

| Involving employees in the improvement process = Active Participation + Engaged, Accountable Team |
| Building trust = Transparency throughout the Organization + Shared Understanding of Each Person’s Importance |
| Developing a sense of Ownership and Accountability = Increases Employee Effectiveness at Delivering Results |
How does Lean Six Sigma Work?

Lean Six Sigma is an effective methodology used to fix a problem. Based on common sense practices, it’s completed in 5 phases:

**DEFINE**
Define the problem.

**MEASURE**
Map out the current process.

**ANALYZE**
Identify the cause of the problem.

**IMPROVE**
Implement and verify the solution.

**CONTROL**
Maintain the solution.
## How does Lean Six Sigma Work?

**DMAIC: Five Phases**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Define:</strong></td>
<td>Define the problem + what is required to satisfy customers.</td>
</tr>
<tr>
<td><strong>Measure:</strong></td>
<td>Map the current process to collect data.</td>
</tr>
<tr>
<td><strong>Analyze:</strong></td>
<td>Investigate and identify what causes the problem.</td>
</tr>
<tr>
<td><strong>Improve:</strong></td>
<td>Implement a fix that will solve the problem.</td>
</tr>
<tr>
<td><strong>Control:</strong></td>
<td>Sustain the improved results.</td>
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How does Lean Six Sigma Work?

Simply put, Six Sigma:

- Helps you Identify the Cause of a Problem.
- Implements a Fix based on Facts, not Assumptions.
- Produces Improves Results & Successes.
Who Benefits from Lean Six Sigma?

Small- & Medium-Sized Businesses.

- A New Product or Service.
- Other Improvement Projects.
- Expanding your Sales Force.
Who Benefits from Lean Six Sigma?

**People & Morale.**

- Engages employees in improving the way they work.
- Builds employee confidence and develops capability.
- Encourages them to find and remove problems & waste.
### Who Benefits from Lean Six Sigma?

#### Health Care Industry

<table>
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<tr>
<th>Benefits</th>
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<tr>
<td>Increases the time care providers spend with patients.</td>
<td></td>
</tr>
<tr>
<td>Reduces the time spent on paperwork.</td>
<td></td>
</tr>
<tr>
<td>Reduce the time people spend waiting for care, waiting for claims or</td>
<td></td>
</tr>
<tr>
<td>waiting for a call.</td>
<td></td>
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</tbody>
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Who Benefits from Lean Six Sigma?

Technology Industry

Deliver products with fewer defects.

Decreases returns.

Increases customer satisfaction.
## Who Benefits from Lean Six Sigma?

**Financial Services Industry**

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<td>Shortens time to sign-up new customers.</td>
<td></td>
</tr>
<tr>
<td>Reduces time to provide customer service.</td>
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<tr>
<td>Brings revenue in faster.</td>
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Who Benefits from Lean Six Sigma?

Your Industry!

Lean Six Sigma can be applied to virtually any industry.

Contact Go Lean Six Sigma for a free consultation today!
Go Lean Six Sigma is dedicated to helping small- and medium-sized businesses (SMBs) increase revenue, reduce costs and improve collaboration in today's increasingly competitive economy.

For more information, please contact us at contact@goleansixsigma.com.