

## Using Lean/Six Sigma Process Improvement to Implement ITIL Service Delivery Best Practices

If you plan to leverage the power of ITIL's service delivery best practices, what you're really doing is a series of process improvement projects. Learn from the best practices of process improvement as found in the Lean / Six Sigma approach to find out how to make your ITIL-based process enhancements the best they can be.

### Key Learnings:

1. You will learn the commonalities between Lean / Six Sigma (LSS) process improvement approaches and the ITIL Continual Service Improvement approach.
2. You will learn about the numerous LSS agnostic process design, deployment and measurement tools that can be used to provide enhanced control, justification and expansion of ITIL improvement projects.
3. You will learn how to design ways to "piggyback"/integrate your ITIL process improvement projects with existing or planned LSS process improvement projects from a Program Management perspective.



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- The Balanced Scorecard: Translating Strategy into Action, Harvard Business School Press, Boston (1996)
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# What You Will Learn Today

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- You will learn the commonalities between Lean / Six Sigma (LSS) process improvement approaches and the ITIL Continual Service Improvement approach.
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- Born and raised in Chicago, Illinois. Sounds like it.
- B.B.A. in Operations Research & Statistics, Eastern Michigan University
- M.B.A. in Healthcare Administration and Pharmaceutical Management, University of Colorado, Denver
- ITIL Foundation and Service Strategy certifications
- Project Management PMP certification
- 30 years of experience in implementing improvements to business processes

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# What is ITIL?

- Global best practice for IT service management, rooted in IT but applicable to technology-enabled business processes as well
- A framework identifying specific service management processes, their inputs, outputs and integration, but not the specific processes themselves – that’s up to you
- A means to unite an organization around a common vision e.g. “There is the end vision, here's where we are today and how we are getting there”.
- A way to perform Continual Service (process) Improvement
- A common language adopted across the globe
- A means to individual career growth, advancement and increased value contribution to the enterprise

# The ITIL Framework

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Source: [www.itsmwatch.com](http://www.itsmwatch.com)

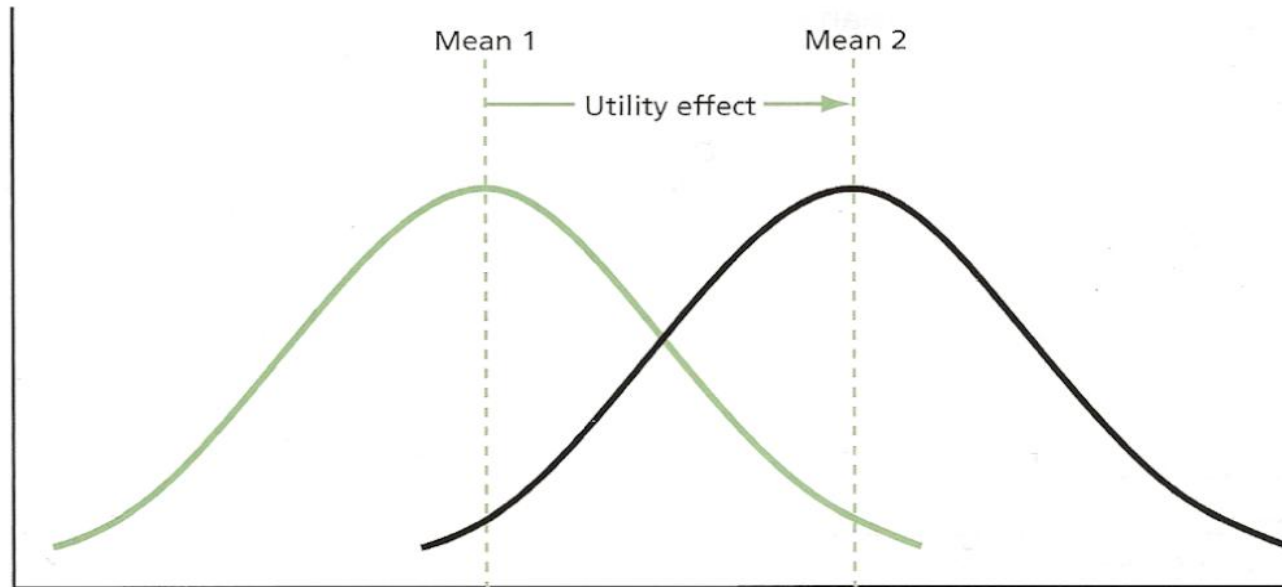
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# New Service Process Selection in ITIL *LEANVISTA*

- ITIL Service Strategy drives:
  - Strategy management for IT services
  - Service portfolio management
  - Financial management for IT services
  - Demand management
  - Business relationship management
- Perspective, Position, Plan and Patterns drive Strategy
- Service management patterns, asset types, archetypes and market spaces
- End game is to define high value services to the customer

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# Utility effect



- Probability of loading baggage within 15 minutes
- Probability of performing security checks, loading baggage and recording location within 15 minutes
- - - - - Performance mean for each level of utility

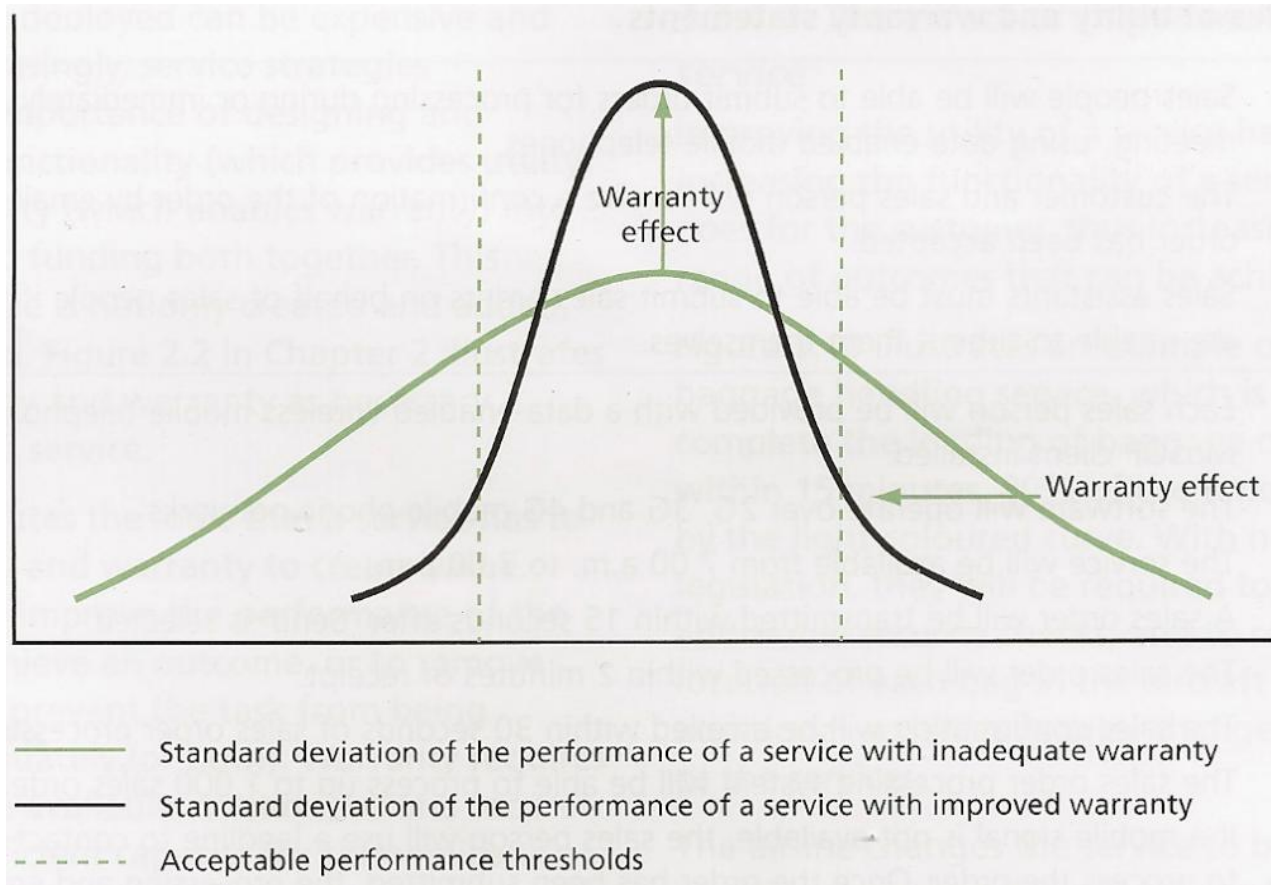
Goal: Improve the mean of performance

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# Warranty Effect

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Goal: Optimize the variation in performance

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# What is Lean Six Sigma (LSS)? *LEANVISTA*

- A synergy between Lean and Six Sigma, pioneered by Michael George in 2002
- Aimed at combining techniques for eliminating defects in manufacturing processes with improvements in eliminating waste from Lean principles e.g. “Seven Wastes” and the “Four Principles”
- Evolved to deal with business processes
- Based on collection and analysis of metrics
- Goal is to manage variation in process output and drive defects down (DPMO) to 3.4 DPMO (Six Sigma)
- Driven by the Voice of the Customer
- Two primary methodologies used: DMAIC/DMADV

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- Strategy – Voice of the Business
  - 5 year plan
  - Financial analysis identifies gaps in performance
- Business Objectives – Voice of the Customer
  - 1 year plan
  - Identifies gaps in customers needs, defines critical requirements. See appendix for description of the Seven Wastes and Four Principles.
- Voice of the Process
  - Process analysis by process (not function) and gives perspective on projects
- Design for Lean Six Sigma (DFSS or DMADV) used for new product introduction / design of new products, services, processes that precisely meet current and future needs
- DMAIC used for improvement of existing processes

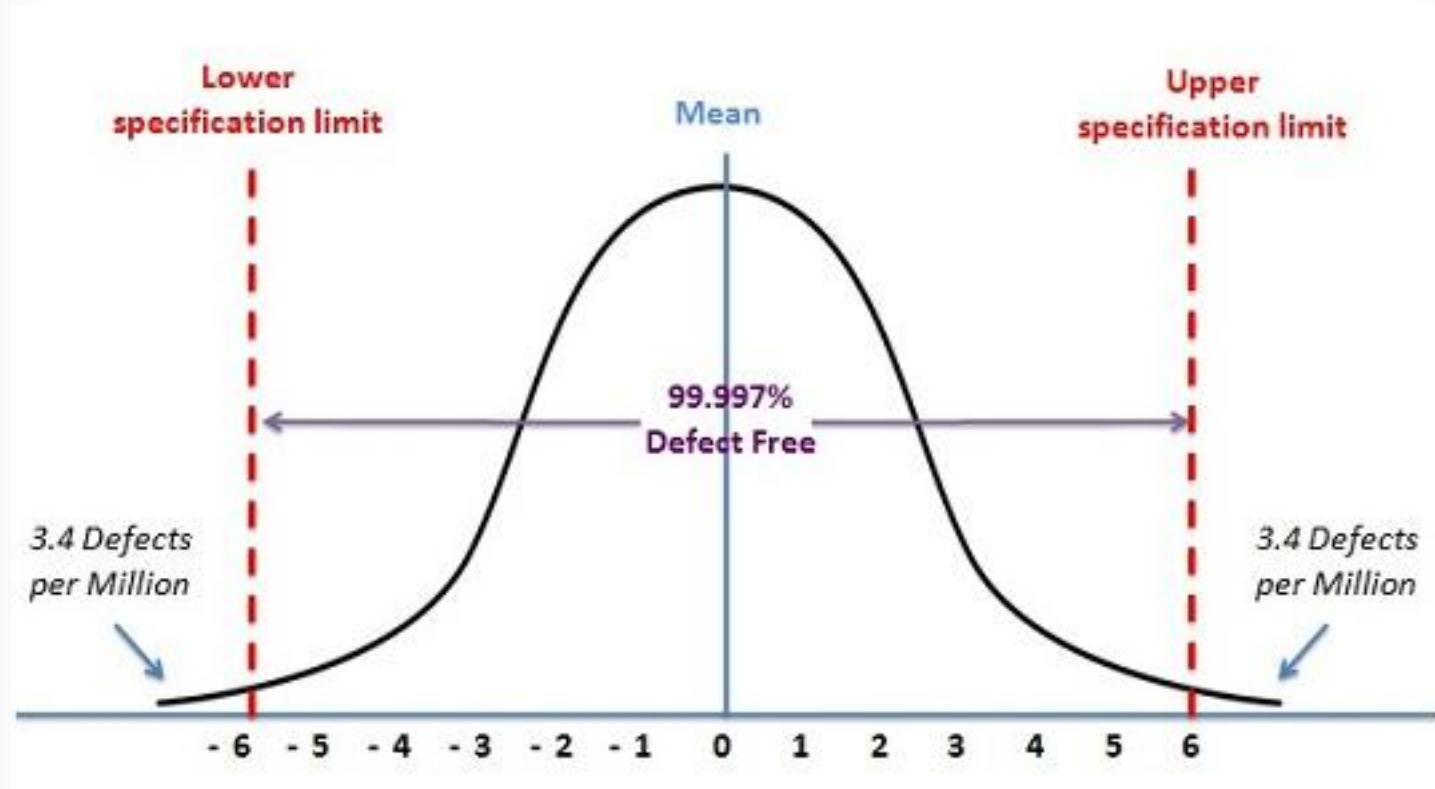
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- Used to capture requirements/feedback
- Goal is to provide best in class service or quality of product
- Many ways to obtain it
- Stated versus unstated needs
- Used to drive out specific measures of quality
- Used to help determine priorities

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- DMADV for new process development
  - Define opportunities
  - Measure customer needs
  - Analyze design concepts
  - Design detailed process
  - Verify detailed design

# Six Sigma Defect Distribution *LEANVISTA*



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- Derived from strategy development approaches such as Balanced Scorecard
  - Financial perspective
  - Learning & Growth
  - Internal Business Processes
  - Finance
- Decomposes to Programs of Work (collections of projects with common business purposes)
- Portfolio analysis drives financial return on investment analysis and prioritization
- Program and Project Management drive to completion
- Benefits realization analysis confirms attainment of benefits

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## Contrasting Process Improvement Approaches

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- Continual Service Improvement Model
  - Vision and goals
  - Where are we now?
  - Where do we want to be?
  - How do we get there?
  - Did we get there?
  - How do we keep the momentum going?
- The model leads to the process

- Continual Service Improvement Process
  - Defining what you should measure
  - Defining what you can measure
  - Gathering data
  - Processing data
  - Analyzing data
  - Presenting and using information
  - Implementing corrective action

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# LSS Process Improvement Approach *LEANVISTA*

- DMAIC for process improvement
  - Define
  - Measure
  - Analyze
  - Improve
  - Control
- Project team approach or Kaizen approach using “belt” resources and customers

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- New Process Development

- ITIL – Service Strategy, Service Design
- LSS – DMADV

- Process Improvement

- ITIL – Continual Service Improvement
- LSS - DMAIC

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# Commonality - Measurement *LEANVISTA*

- Measurements

- CSFs
- KPIs
- Process activity metrics
- Process Dashboards
- Defects
- Performance variation

- Goal of measurements

- ITIL – improvement of warranty and utility
- LSS – elimination of defects to Six Sigma level

- Both approaches are really trying to get to the same thing

- LSS has a reliance on more more statistical analytical techniques

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# Summary of LSS Analytical Tools

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- Value Stream Mapping and Process Flow Tools
- Data Collection – how to collect reliable data critical to quality
- Descriptive Statistics and Data Displays – provide basic information about the distribution and properties of a set of data
- Variation Analysis – to separate special cause from common cause variation and detect trends and patterns in data that provide clues about the variations in data
- Identification and Verifying Causes – to increase the chances you can identify the true root causes of problems that can then be targeted for improvement. Identifying and verification of root causes
- Reducing Lead Time and Non-Value Add Cost – to eliminate constraints in a process, and reduce the lead time and cost of a process
- Complexity Value Stream Analysis and Complexity Analysis – diagnose and quantify complex opportunities in your business unit or value stream
- Selecting and Testing Solutions – generate, select and implement “best” solutions

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# Integrating/Piggyback Strategies *LEANVISTA*

- Understand the alignment of Service Catalogue/Portfolio with Voice of the Customer
- If no clear alignment, why not?
- Alignment of existing measurements from ITIL utility, warranty and defect perspectives
- Alignment of measures with Balanced Scorecard or Portfolio Management perspectives
- Introduction of new measurements utilizing LSS statistical measures, particularly with the cost of variation
- Alignment of reporting dashboards and measurement platforms
- Adopt the lingo

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- Questions?

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# The Seven Wastes

1. *Delay on the part of customers waiting for service, for delivery, in queues, for response, not arriving as promised. The customer's time may seem free to the provider, but when she takes custom elsewhere the pain begins.*
2. *Duplication. Having to re-enter data, repeat details on forms, copy information across, answer queries from several sources within the same organization.*
3. *Unnecessary Movement. Queuing several times, lack of one-stop, poor ergonomics in the service encounter.*
4. *Unclear communication, and the wastes of seeking clarification, confusion over product or service use, wasting time finding a location that may result in misuse or duplication.*
5. *Incorrect inventory. Being out-of-stock, unable to get exactly what was required, substitute products or services.*
6. *An opportunity lost to retain or win customers, a failure to establish rapport, ignoring customers, unfriendliness, and rudeness.*
7. *Errors in the service transaction, product defects in the product-service bundle, lost or damaged goods.*

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# Brown & Spears 4 Principles *LEANVISTA*

- Rule 1: All work shall be highly specified as to content, sequence, timing, and outcome.
- Rule 2: Every customer-supplier connection must be direct, and there must be an unambiguous yes or no way to send requests and receive responses.
- Rule 3: The pathway for every product and service must be simple and direct.
- Rule 4: Any improvement must be made in accordance with the scientific method, under the guidance of a teacher, at the lowest possible level in the organization.

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