



# Using Lean Six Sigma to Improve Customer Service within Government Agencies

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## **Abstract**

Customer service is important to government agencies for both internal and external stakeholders. For external stakeholders, such as citizens, businesses, and visitors, customer service is a critical factor in building trust, satisfaction, and loyalty. Most enterprises take customer service very seriously, monitoring service levels to track their performance and note when improvements need to be made. In most cases, a traditional approach is taken when reviewing and correcting changes in service levels. Agencies should approach customer service assessment from a holistic perspective that considers the interdependencies between various components. By doing so, they can identify the root causes of service deficiencies, and identify sustainable solutions that result in long-lasting improvements to customer service that can be implemented. The Efficiency Group has developed a proprietary methodology, called HELIX, which is grounded in Lean Six Sigma tools and techniques. The HELIX methodology leverages an agency's DNA, its People, Processes, Systems and Data. The HELIX methodology offers a systemic and data-driven approach to improving customer service that has been successful in various agencies. Improving customer service will result in positive relationships between agencies and the customers they serve. Using HELIX to improve customer service in government agencies not only improves service levels, but also helps increase employee satisfaction. HELIX involves employees in the assessment; it values their involvement regarding the implementation of improvements; it recognizes their interest in making customer service a job well done.

# Using Lean Six Sigma to Improve Customer Service within Government Agencies

## Introduction

Customer service is important to government agencies for both internal and external stakeholders. For external stakeholders, such as citizens, businesses, and visitors, customer service is a critical factor in building trust, satisfaction, and loyalty. Good customer service can help foster positive relationships between government agencies and the public they serve. This, in turn, can lead to increased engagement, participation, and cooperation from citizens.

Moreover, customer service can help reduce complaints, misunderstandings, and conflicts that arise. By providing clear, accurate, consistent, and timely information, government agencies can avoid misunderstandings and improve transparency, accountability, and credibility.

For internal stakeholders, customer service is equally important. A positive work culture that emphasizes customer service can lead to higher job satisfaction, better morale, and improved productivity. When employees feel supported and valued, they are more likely to be engaged, committed, and motivated to deliver quality services to the public.

Effective customer service helps government agencies identify areas for improvement and innovation. Feedback can be used to improve processes, services, and policies, leading to better outcomes and increased efficiency.

## Improving Customer Service – Traditional Approach

Most enterprises take customer service very seriously, monitoring service levels to track their performance and note when improvements need to be made. In most cases, a traditional approach is taken when reviewing and correcting changes in service levels. This approach has four basic steps:

1. Review service level data.
2. Compare the data against historical levels and targets.
3. Identify areas for improvement.
4. Apply resources to that area.

This traditional approach is used across many industries and often provides some increase in service levels. While this approach will yield some short-term improvements, it has inherent flaws that can hinder long-lasting, meaningful change. Specifically:

- The application of resources to a deficient area may unintentionally create negative impact in other areas causing service levels to drop as a result.
- Most organizations operate without extra resources to apply.
  - There are budget and personnel limitations which make it challenging to acquire additional resources.
  - Infrastructure may not support additional resources.

- Applying additional resources without a deep understanding of the underlying processes and their interactions across other processes provides a limited view and can be a recipe for disaster.

To avoid these issues, agencies should approach customer service assessments from a holistic perspective that considers the interdependencies between various components. By doing so, they can identify the root causes of service deficiencies, and sustainable solutions that result in long-lasting improvements to customer service that can be implemented.

### **The Lean Six Sigma Approach and the HELIX Methodology**

The roots of Lean and Six Sigma can be traced to Toyota and Motorola in the 1950's and 1980's respectively. Lean focuses on the reduction of waste through the elimination of non-valued steps and Six Sigma focuses on quality by reducing variations and defects. Both methodologies were developed for manufacturing and production environments where it is easy to collect quantifiable data and perform extensive statistical analysis. Today these methodologies are implemented together as Lean Six Sigma to maximize production and quality.

For government agencies implementing Lean Six Sigma can be a challenge. These organizations do not resemble manufacturing or production environments where raw materials are converted into hard goods using production line methodologies. There may be little or no data available for the statistical analysis required in traditional Lean Six Sigma implementation.

The Efficiency Group has developed a proprietary methodology, called HELIX, which is grounded in Lean Six Sigma tools and techniques. The HELIX methodology leverages an agency's DNA, its People, Processes, Systems and Data. It is grounded in data analysis, and aims to optimize service levels through process streamlining, documenting procedures, and staff training to cultivate a culture of continuous improvement.



### **HELIX METHODOLOGY**

HELIX is a systemic and data-driven approach for improving organizational structures, operations, and processes. It identifies operational strengths, areas of weakness, and strategies for improvement. There are six components within the HELIX methodology:

1. Data collection – Discrete data, process data and documentation
2. Data analysis
3. SME & Stakeholder interviews
4. Current State modeling

- Model Analysis
- 5. Recommendations for improvement
  - Future State modeling
- 6. Leadership Review

The HELIX methodology has proven effective in improving operations and productivity at a variety of agencies, including the National Institute of Health, the Department of Energy, the Environmental Protection Agency, and others. At each of these agencies, HELIX targeted the improvement of productivity and service delivery to internal and external stakeholders.

Using HELIX, an agency can take a holistic, proactive, and forward-thinking approach to customer service. HELIX recognizes that all processes are performed by people; people need to be considered and placed at the center of the process to have change embraced made effective.

### Data Collection

To improve customer service, it is important to collect both qualitative data and quantitative data. Quantitative data includes any existing service level data available that can be collected, reviewed, and analyzed. This information may be in various forms:

- Customer surveys
- Web comments
- Service ticket request data
  - Number of tickets
  - Wait time
  - Process time
  - Level of completion
  - Level of satisfaction
- Other data

A qualitative analysis of the current processes will provide a deeper understanding of process pain points and potential areas for improvement. Qualitative data collection provides insight into the preferences, priorities, and needs of customers and customer service processes, allowing for tailored improvements. Qualitative data can be collected via “Voice of the Customer” assessments, focus groups, individual customer/stakeholder surveys and related techniques.

Another important data component is the collection of process data. This data set includes any documentation pertaining to the performance of customer service activities, including Standard Operating Procedure (SOP) documents, job function descriptions, organizational charts, process models, etc.

Together, quantitative customer service level data, qualitative customer/stakeholder feedback data, and process information provide the opportunity to comprehensively evaluate customer services functions and devise strategies to improve them.

### Data Analysis

Data analysis of the service level data is a multifaceted process of reviewing service data against goals, industry standards, stakeholder expectations, organization mission, and objectives. It is through analysis that key customer service delivery characteristics can be gleaned.

Another key aspect of data analysis is the understanding of process documentation and the comparison of service level data to process. It is crucial to understand if the documentation supports the data from the perspective of execution, process, requirements, expectations, etc. Further, it is important to understand where existing process information may be missing, incomplete and/or erroneous.

Customer service, like any process, must be grounded in solid operational functions and process documentation to ensure that every stakeholder receives the same service from *any provider*. If the connection between documentation and execution is not clear, actionable, and definite, then it will be impossible for an organization to deliver consistent customer service levels and impossible for stakeholders to feel fully satisfied with the service they receive.

Service level data analysis will reveal:

- What data was collected?
- What data is missing?
- Service level target trends
- Service level target information
  - Documented service level targets
  - Undocumented service level targets
  - Service level targets with measurable metrics
  - Service level targets without measurable metrics
- Etc.

Process documentation analysis will reveal:

- What documentation currently exists?
- What documentation is in use?
- What documentation is out of date?
- What documentation is missing?
- How well does the documentation align to the actual process?
- How clear is the documentation in providing guidance to ensure consistent, high-quality customer service?
- Etc.

Combined, the analysis of the data and the documentation will support answering several customer services quality questions including:

- How does customer service performance rate in comparison?
  - Against agency goals
  - Against industry thresholds
  - Against stakeholder expectations
- Does the documentation support what the data indicates?
- Is the data collected representative of the process?
- Is there waste in the process?
  - Waste = redundancies

- Waste = lost data or data not processed
- Waste = processes which reverse flow
- What areas are most challenging for delivering effective customer service?
- What opportunities may exist for streamlining customer service and improving service delivery timeliness, accuracy, and consistency?
- Etc.

### Subject Matter Expert and Stakeholder Interviews

It is critical to recognize that within organizations, service delivery is done by people; individuals committed to the organization's mission and tasked with meeting that mission in the most efficient way possible. These individuals are the customer service foot soldiers; they are the experts regarding how service is delivered and what actually happens within the process. They are the Subject Matter Experts.

Thus, it is critical to augment process and documentation data with interviews with Subject Matter Experts (SME) and stakeholders. Speaking with SMEs, who are hands-on in executing processes and achieving organizational goals, reveals critical information regarding how an organization actually operates. It sheds light on the reality of processes and organizational operation, and can validate the accuracy of documented processes, adequacy of organizational goals, and proper addressing of stakeholder concerns.

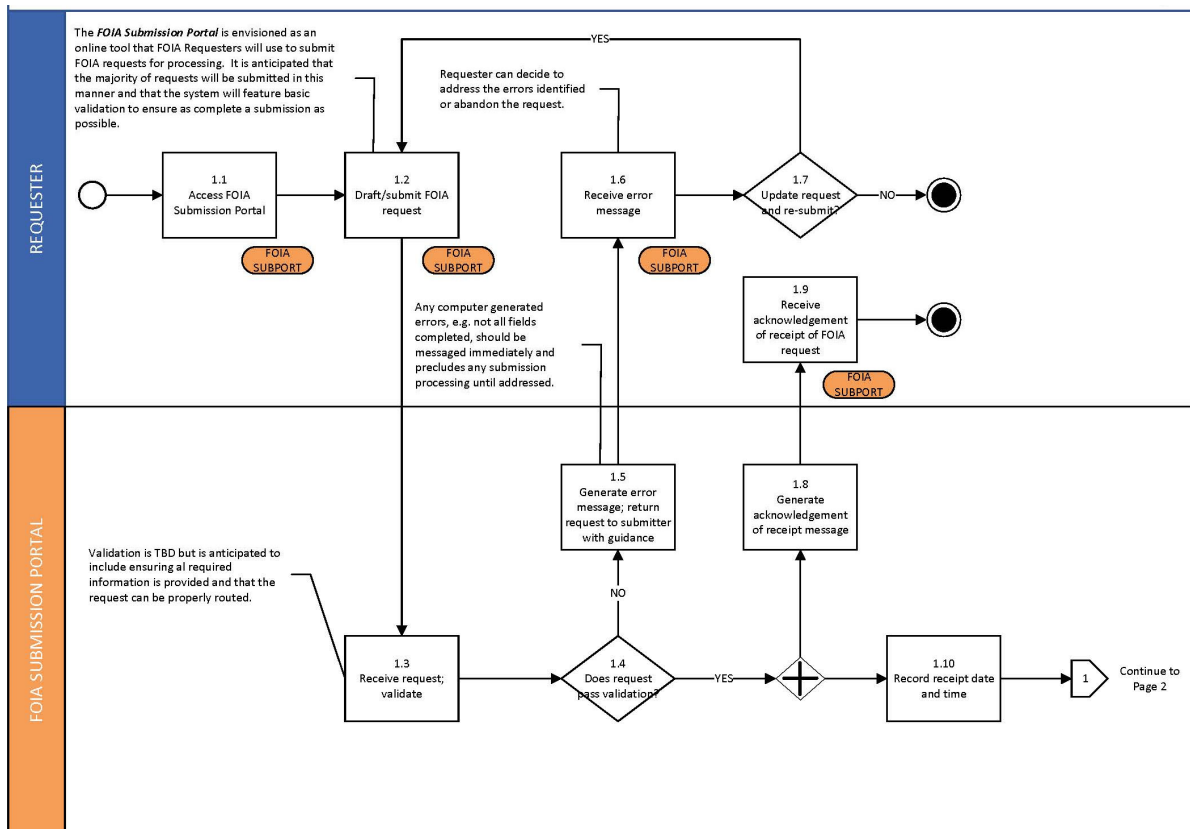
In most organizations, processes and organizational operations evolve due to many factors, but such changes are often inaccurately captured in documentation and create a discrepancy between documentation and reality. These conversations shed light upon the discrepancy between management's understanding and operational realities. Moreover, involving SMEs recognizes their contributions to operations and makes them part of the solution, thus mitigating any potential change management challenges in the future.

In addition to SMEs, internal and external stakeholders are also an important source of information and operational data. How an organization perceives itself can be vastly different from how it is perceived by different stakeholders. Interviews with stakeholders can illuminate the direction an organization is moving in and provide verification that plans are working or provide opportunities for organizational course corrections.

### Current State Model

Creating a Current State or As-Is model is a critical step in improving customer service processes. By creating an As-Is graphical representation of the customer service process, managers and staff can identify areas for improvement, such as bottlenecks and process waste. Process waste is identified where there are redundancies, data is not processed, data is lost, or processes reverse flow. Process defects can also become clear within models, creating the opportunity to identify the causes of defects and implement mitigation strategies. Provided below is a small portion of a detailed process model exemplifying the level of detail showing functions, business rules, data, and more.





**Sample Process Model Illustration**

One of the most important outputs of any organization, operational, or process improvement effort is a well-defined, well-documented, well-developed, accurate business process model that is meticulous and detail oriented. A detailed process model should identify all process activities, actors, business rules, system requirements and data needs. The model must be developed using the Business Process Modeling Notation (BPMN) standard and be easy to follow and understand.

Process modeling is critical to the success of improving customer service; only through process modeling can a customer service organization learn “what it does” and how it can “do it better.”

### Recommendations for Improvement

The completion of data collection, data analysis, interviews, and modelling will each highlight areas for customer service process or organizational improvement. These activities will illustrate the interconnection and interdependency between various processes and service targets. These interconnections and interdependencies provide the greatest opportunity for a holistic assessment of customer service current functions and for defining a vision for improvement.

The resulting recommendations for improvement will not only address the target areas where service levels fell short but also the underlying processes that support them. Combined, targeted services and their respective processes will deliver consistent, long-term improvements that will be sustainable.

With recommendations for improvement identified, a new Future State, or To-Be model, can be developed. This To-Be model is created using the input of the SMEs and stakeholders; it incorporates all appropriate recommended changes and improvements that were uncovered from the data and analysis.



The new model is reviewed and analyzed to ensure the new process will deliver the expected outcomes. Involving staff and stakeholders in the creation and analysis of To-Be models is critical to the success of improving customer service, as they will be tasked with executing the new process; their involvement and input make them part of the solution for service improvement, which can mitigate resistance to change and make the process more welcome throughout the organization.

### Leadership Review

The customer service assessment culminates with a meeting to inform agency leadership of the findings, analysis, and recommendations. This is a key milestone. Agency leadership have a view of the trajectory the organization should be following to deliver the best customer service. It is crucial that the recommendations for improvement be in sync with the direction leadership envision for the agency.

This alignment will help facilitate work done in the future to implement service level improvement recommendations. When staff, stakeholders, and leadership are all in sync regarding the changes necessary for improvement of customer service, implementation of the changes goes smoothly.

Government employee satisfaction surveys have revealed that three predictors of employee satisfaction<sup>1</sup> that are regularly rated very high are:

- Feeling personal accomplishment
- Involvement in decisions affecting my work
- Recognition of a job well done

Using HELIX to improve customer service in government agencies not only improves service levels, but also helps increase employee satisfaction. HELIX involves employees in the assessment; it values their involvement regarding the implementation of improvements; it recognizes their interest in making customer service a job well done.

### Conclusion

Implementing Lean Six Sigma techniques using the HELIX methodology delivers a complete and holistic approach to improving customer service within government agencies. It will provide lasting, repeatable, and consistent customer service. Unlike traditional approaches to addressing deficiencies, HELIX leverages an agency's People, Processes, Systems, and Data to consider the interconnections between various components and identify the root cause of deficiencies. These are key to providing sustainable solutions.

The HELIX methodology offers a systemic and data-driven approach to improving customer service that has been successful in various agencies. Improving customer service will result in positive relationships between agencies and the customers they serve, higher job satisfaction, better morale, and improved productivity for employees.

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<sup>1</sup> Banks, G. Q. (2020). Top 10 Predictors of Federal Employee Job Satisfaction. International Public Management Association for Human Resources. Retrieved 2023, from <https://www.ipma-hr.org/stay-informed/hr-news-issues/hr-news-article/top-10-predictors-of-federal-employee-job-satisfaction>