
SIX SIGMA AND LAW

Sachidanand Kandloor, Narsee Monjee Institute of Management Studies

INTRODUCTION

This report is a thought academic document that aims to connect the underlying principles and terminology of Lean and Six Sigma with current legal applications.

Being a certified Lean Six Sigma Green Belt myself I can facilitate this report for those who want to learn about the many methods to Lean/Six Sigma, how to get started, and what the results have been for those who have tried it.

Let's begin with the fundamentals. What does "process improvement" entail? The major purpose of this paper is to offer an overview of the two most prominent process improvement toolkits for law firms (Lean and Six Sigma), as well as the basic principles and language associated with each.

Six Sigma is a methodology that gives businesses the tools they need to optimise their business operations. This improvement in performance and reduction in process variance helps to reduce defects and boost earnings, staff morale, and product or service quality.

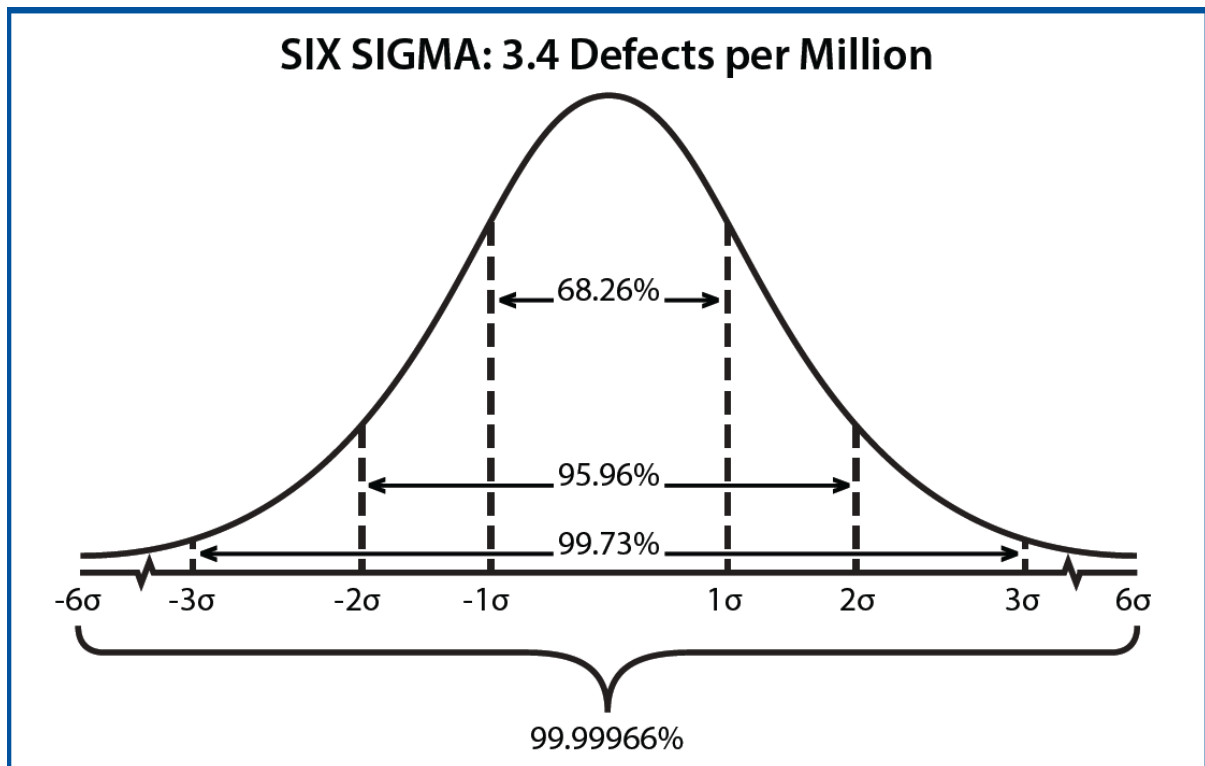
Six Sigma quality refers to a process that is well controlled (between process limitations of 3s from the centre line in a control chart and requirements/tolerance limits of 6s from the centre line).

Six Sigma views all work as processes that can be defined, monitored, analysed, improved, and managed from a philosophical standpoint. Processes need inputs (x) and outputs (y). You can control the outputs if you control the inputs. This is usually written as $y = f. (x)$.¹

To enhance processes, the Six Sigma expert use both qualitative and quantitative methodologies or tools. Statistical process control (SPC), control charts, failure mode and

¹ Six Sigma Definition - What Is Lean Six Sigma? | ASQ. (n.d.). Six Sigma Definition - What is Lean Six Sigma? | ASQ. <https://asq.org/quality-resources/six-sigma>.

effects analysis (FMEA), and process mapping are examples of such techniques. Professionals in the field of Six Sigma disagree on which tools make up the set.



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Six Sigma quality performance is defined as 3.4 faults per million opportunities (accounting for a 1.5-sigma shift in the mean).²

IMPLEMENTING SIX SIGMA

Using this method, selected personnel (practitioners) are periodically taught statistical tools and instructed to apply them on the job as necessary. If necessary, the practitioners may seek assistance from a statistician. Within an organisation, there may be achievements, but they do not build on one another to drive more and better usage of the tools and overall technique.

When companies embrace Six Sigma as a programme or effort, it frequently looks that they have just added a few new tools to their toolkit in an ad hoc manner through training sessions. Applying the tools as needed to give projects is one extension of this technique. It's crucial to remember, though, that project selection, management, and execution are all done by people.

² Six Sigma Definition - What Is Lean Six Sigma? | ASQ. (n.d.). Six Sigma Definition - What is Lean Six Sigma? | ASQ. <https://asq.org/quality-resources/six-sigma>.

Putting in place a Six Sigma programme or effort might be difficult. Because these projects are generally started from the bottom of the company, they may not have the support of senior management, which might lead to push back from other groups affected by the effort. Furthermore, there is usually no one appointed to advocate cross-organizational projects and support transformation.

Typically, a Six Sigma programme or effort does not develop an infrastructure that leads to bottom-line advantages through initiatives aligned with the organization's strategic goals. As a result, it's possible that it won't have the buy-in needed to get a good return on the training expenditure.

Executive backing and management buy-in are required for actual success. This may pave the way for statistical tools and other Six Sigma approaches to be applied across corporate boundaries.



This study includes an overview of process improvement, process measurement, the five important phases of executing a process improvement project (define, measure, analyse, improve, control), and the primary actions and most typical instruments used in each phase. In outlining what is necessary to get beyond opportunistic process improvement, I intend to not only establish the case for initiating a programme and eventually methodically carrying out process improvement, but also to assist the reader in making the case.

It is the methodical process of studying a process to understand how it is being carried out, then searching for and prioritising issues, problems, and opportunities in the process. Following the prioritisation process, tools and approaches are used to solve priority issues or seize important opportunities. Finally, the new process must be monitored to ensure that it achieves the expected results.

Getting Started with Lean

By methodically reducing waste from a process and boosting its flow, lean management focuses on team effort to increase efficiency, speed, and performance. Mr. Taiichi Ohno formalised the Lean management philosophy into the Toyota Production System, despite the fact that the principles have been present for a long time. Waste is defined as everything that does not contribute value to the system. Defects, Overproduction, Waiting, Non-Utilized Talent, Transportation, Inventory, Motion, and Extra-Processing are the eight wastes of Lean (commonly referred as DOWNTIME). The focus on the "voice of the customer" and the importance of defect prevention over defect discovery are two important characteristics of Lean to the practise of law. The objective is to "get it correctly the first time."³

Many thought leaders advocate for the use of Lean and Six Sigma in the legal field. Six Sigma is a statistically driven technique and toolkit for reducing and controlling variance. While Lean focuses on waste reduction in the end-to-end process, Six Sigma reduces variance by addressing areas of sub-optimization inside that process. Motorola created Six Sigma in the early 1980s, based on quality management principles, and it quickly became a popular strategy at GE in the early 1990s. The population standard deviation, or sigma, is a measure of variance in a data set gathered about the process.



³ Process Improvement for Regulatory Analyses of Custom-Blend Fertilizers
Author : Keith A Wegner

A six-sigma process has a process mean (average) that is six standard deviations from the nearest specification limit, assuming a defect is defined by specification limits distinguishing good from bad process outcomes. This offers a sufficient buffer between the inherent fluctuation of the process and the specification limitations. To eliminate variance, Six Sigma significantly depends on statistical data analysis and design work.⁴

The combination of Lean and Six Sigma is perfect. Lawyers, on the other hand, have a negative reaction to limiting their job to a procedure with little or no variety, which is occasionally justified. We will argue that combining Lean and Six Sigma to begin modernising established legal procedures may be too much to take on in the first place. Instead, prioritising Lean will result in big and demonstrable benefits in your practise. Best of all, it's simple to implement with a few tweaks.

Simple tools like Kaizen events, Kanban systems, value stream mapping, and DMAIC cycles help Lean achieve its aims.

- A cross-functional team gathers together for a specified period of time, generally 3 or 5 days, consecutive or not, to solve an issue or improve a process in a Kaizen event. The activity's cycle may be summarised as "Plan, Do, Check, Act." A Deming cycle, or PDCA, is another name for this.⁵
- Kanban are team-wide visual to-do lists. The work phases must be represented by numerous columns on every Kanban board. The tasks that each member must fulfil are represented by cards. The group divides the table into three columns: 'To Do,' 'Doing,' and 'Done.' With a few exceptions, the purpose is to complete one activity before moving on to the next. The reason for this is that one of Kanban's key aims is to keep the number of works in progress to a minimum (WIP). This will, incidentally, have a good influence on attorneys' timekeeping. At the conclusion of the project, the team should reflect on the process to identify waste or bottlenecks that should be addressed in the future.⁶
- A technique for assessing the present state of a process and re-designing a better future state is value-stream mapping. Process mapping is an important part of the Lean

⁴ Title : USING STATISTICAL SOFTWARE TO ACCELERATE SIX SIGMA

Author : JENNIFER ATLAS

⁵ Kaizen means "change for the better."

⁶ Kanban means a visible record (such as a billboard, card, label, or sign).

methodology. A Kaizen event is an excellent opportunity to sketch out your present process map and explore ways to enhance it.

- DMAIC (Define, Measure, Analyse, Enhance, and Control) is a business process and design improvement cycle. It is used to improve, optimise, and stabilise business processes and designs. The DMAIC improvement cycle is a key component of Six Sigma programmes. DMAIC, on the other hand, is not limited to Six Sigma and may be utilised as a Lean technique.

Improvements to the procedure in a legal context

One of our issues is translating process improvement principles so that they make sense in a legal setting.

After all, law firms aren't in the business of making cars or silicon wafers. There is a lot of diversity: each company, practise group, lawyer, client, jurisdiction, topic, case, facts, judge, opposing counsel, and so on are all unique. So, how can we ensure that the desire to eliminate something from a process does not obstruct our capacity to accomplish something that is in the firm's and client's best interests?

Timekeeping, customer intake, and dispute resolution are examples of procedures. It might be difficult to imagine how these notions can be applied to legal work at first since there is frequently a great deal of variance in how attorneys choose to undertake and deliver certain types of work.

However, every service provided, whether it is litigation or transactional work, involves a set of repetitive, describable phases – even if each one differs – and so each one is a process. As a result, there are several chances to use Lean ideas and technologies to make the process simpler and faster in each service offering.

Example:

Law Firm A was representative of many others in a similar situation. The full-service legal practise was looking for fresh methods to develop in a very competitive business climate after completing four acquisitions that more than tripled its size. Client expectations have risen, resulting in a proliferation of service offers as well as an increase in the complexity and expense of service delivery.

At the same time, specialised niche players offering lower premiums and faster handling of legal services like document review were pressuring full-service law firms to enhance service while also cutting costs.

Law firm A's executive committee realised that the firm needed to stand out in the eyes of its clients, prospects, and referral sources... Firm of Attorneys A crucial component of the plan was identifying excellent service to them.

It was obvious that by improving processes, the company could dramatically boost revenue. Indeed, the firm estimated that if it could deliver legal work to its most used services of its key clients within three weeks of receiving the request for work, offer periodic status and budget reports, simplify the intake process, and reduce errors to 1%, it could increase profits per partner by 10-15%.

In a market where technology, alternative legal service providers (ALSPs), the Big Four, and skilled in-house legal operations departments are all cutting into law firm profitability, law firms must evolve to stay competitive. The competitor accomplishes this by listening to the customer's voice and providing results. Clients will continue to expect technological and business methods that are innovative. They expect high-quality services given quickly and at a cheap cost. Lean is a tried-and-true business technique that specifically meets such needs. It boosts productivity by lowering waste in any process.

Because many legal processes waste time, resources, and money, adopting a Lean management approach at the firm level can help companies stay competitive. Let's look at the history and current condition of circumstances to offer the business case more perspective.

The billable hour idea and a consistent supply of high-volume employment have always benefited attorneys. Both of these revenue-generating channels are under siege. Fixed rates, capped fees, alternative fee agreements, and contingency fee-based engagements are preferred by clients. If the company maintains an hourly fee structure, customers frequently seek substantial reductions or lower realisation rates, or both. Clients are increasingly refusing to bear numerous expenditures that were formerly passed through or to pay for first- or even second-year associates.

Furthermore, most of the labour-intensive work at legal firms, the most common of which is document review, is virtually always outsourced out to contractors. Furthermore, given the

availability of artificial intelligence and analytics solutions in the market, customers should notice a significant reduction in document review time if done correctly. Artificial intelligence will continue to rob attorneys of employment in legal research, contract drafting and administration, and due diligence evaluations, to mention a few areas.

Applying Lean to Legal Processes

As attorneys, one of our strengths is our scepticism. Expect the following reply if you bring Lean into the conversation: "Do we need it?" "Is it going to make a difference?" "Why can't you simply let me get back to doing real work?" is a particular five.

Let's look at some examples of downtime we experience on a daily basis and the expenses to your client to demonstrate how Lean may help:

- Defects include misfiled unstructured data that can't be found; data entry errors; the generation of privileged or nonresponsive documents; and budgets that aren't reached.
- Overproduction: attorneys working in silos, researching or preparing memoranda on the same topic; lawyers turning every stone when controlling case law has already been identified and the time spent is disproportionate to the case or the budget; printing everything, often several times.
- Staff or attorneys are waiting for assignments or instructions; disagreements are being resolved; papers are being delivered; and client approvals are pending.
- Untapped potential: the same associates performing all the work while others are overworked; assigning associates work that can be done by paralegals; and a lack of training.
- Unnecessary travel of persons or files is referred to as transportation waste.
- Inventory: you have too many attorneys or employees; you have supplies you don't utilise; you have reference books or memberships you don't use; office space that isn't being used; software licences that aren't being used.
- Extra processing: absence of templates; failure to save files in your document management system, resulting in additional file processing and storage; employees working in silos on the same job; a lack of knowledge management; several proof-readers; an ineffective or non-existent draught control procedure; repeated reviews of the same material

Six Sigma to reduce variation

When we combine Lean with Six Sigma, which focuses on minimising process variation to minimise mistakes and defects, we get a better result.

Our focus is on deciphering correlations between a variety of factors.

These include the linkages between inputs and outputs, essential elements that influence results, and the "optimal approach" to do something (i.e., how can we enhance our chances of a successful outcome).

The art and science of legal process improvement

Six Sigma is based on a few basic ideas at its foundation. The first is "essential to quality," which refers to the client's most vital characteristics . Any inability to produce what the client expects is referred to as a "defect." We must constantly remember that variety is what our clients see and feel; clients want to be delighted, not surprised, so "stable operations," which guarantee that we have consistent, predictable procedures to enhance what the client sees and feels, are critical.

This is why legal process improvement is both an art and a science. Not every step or component of any process should be standardised or regulated as tightly as another phase in the same process. There may be a number of processes where we need to give ourselves a lot of leeway since we need to account for difference based on the lawyer's expertise and knowledge.

Other processes, on the other hand, demand little to no judgement and are thus strong candidates for reducing variance.

Every case or issue does not need us to treat it as if we have never done anything like it before; this is inefficient, and it also contradicts what we tell our clients, prospects, and referral sources about the benefits of dealing with experienced attorneys.

The description (mapping) of the process is the cornerstone of process improvement. The procedure is then measured. Each process has its own set of performance needs and resource requirements. Process performance (also known as process capability) relates to how successfully a process fulfils client expectations, whereas process resource needs (also known

as process efficiency) refers to the resources (time, people, equipment, and expenses) needed to complete the process. A process may be measured in multiple dimensions; a process can perform well in some categories while performing poorly in others.

Five principles of process improvement

Lean Sigma is a methodology as well as a set of tools. The approach entails looking at a process and improving it by using a set of five principles in a certain order:

1. Specify value from the client's perspective: We use the client's perspective to determine whether an activity is value-adding (activities that work to create a feature or attribute that the client is willing to pay for) or non-value-adding (activities that take time and resources but do not add value to the client). All non-value-added tasks should be eliminated or minimised as soon as possible.
2. Reduce waste and variation: In addition to limiting or eliminating the eight types of waste, we are aware that processes that vary are more difficult to operate and demand more resources. In addition, when procedures differ, the end product may fall beyond the client's acceptable range.
3. Make value flow at the client's beck and call: When a process has "flow," the steps are connected together so that we may proceed from one value-adding action to the next without halting or waiting. Non-value-added stages have been removed, and operations are now closely spaced. This means there is no batching or waiting, and the procedure takes the quickest time feasible from start to finish. Because of the short cycle time, a legal firm may respond quickly to a client's needs. The concept of "pull" refers to a legal firm's ability to produce value in response to genuine client demand. All process phases must be precisely coordinated in order to operate together flawlessly in order to provide exactly what the customer wants and act exactly when the client wants (and at the latest feasible minute).
4. Align and empower employees: The company must harness the power of exceptional teams to successfully and constantly improve procedures. There are teams of grouped persons, each of whom is responsible for a different component of a project. There are also teams that operate as a leader's extension. The integrated, genuine team is capable of using individual skills to reach outstanding coordination capability - this is the type of team we strive for not just in process improvement projects, but also in client work and service teams.

5. Continuously improve in the quest of perfection: As the business environment evolves, it necessitates the development of new process capabilities and efficiency. We will lose our ability to compete and operate if we do not continue to progress.

In the market, there is a lot of rivalry. To maximise their services and deliver significant cost reductions and efficiency to their clients, law firms must embrace process improvement. You will take a significant step toward accepting the new world order by incorporating Lean into your practise.