In my previous column, I shared that a definition of insanity is “Doing the same thing repeatedly, yet expecting the results to differ each time.” As a principal in a global document management consulting practice, I often see organizations attempting to address their document management needs, perceived or real, through a request for proposal (RFP) process and focus their efforts on learning about software features and benefits or licensing fee structures, rather than identifying the root cause of the organization’s problem and aligning the solution to the business strategy. The question that begs to be asked is “What is different about your RFP process that is going to give you not only the lowest procurement costs upfront, but also deliver continuous cost improvements over the lifecycle of the technology and facilitate non-technological improvements for your firm, too?”

One of the major challenges with RFPs is that the specification offered by the purchasing firm is likely representing only a snapshot in time of a business condition that needs to be addressed. More often than not, the technology will be implemented but not fully adopted by the targeted user community, and the projected return on investment is never realized. This is often a result of an RFP process that failed to recognize a simple fact of life: business issues change over time, quite unpredictably and swiftly in many industries. Technology investments must continue to be aligned with business strategy. That adaptability is critical, and to achieve it one must first understand the processes underlying the technology about to be acquired and have a mechanism by which to measure the technology’s impact on that process. Without a clear methodology, one may quite easily replace inefficient paper-based processes with highly automated alternatives that do nothing more than very efficiently stuff your content into a sort of digital landfill, where the contents become just as valueless as their paper predecessors and the anticipated benefits to the business are lost.

There are certain methodologies being deployed on solving business problems via document management. In this article, we’ll take a closer look at how organizations have gotten “SMARTer” with their document management projects:

- **Specific**:
- **Measurable**:
- **Achievable**:
- **Relevant to the business**:
- **Time-bounded**

Many organizations have started by investing greater attention on the problem, or the current state. The first step to getting a handle on the problem is to assess the external versus internal forces over a representative period of time. Once the root causes of the problem are identified, they can be prioritized. With a prioritized list of opportunities and basic estimates of their respective returns to the business, many businesses then evaluate “fit.” That is, would addressing these opportunities dovetail with the organization’s top goals? If so, the construction of a
compelling business case will garner executive sponsorship to move forward. If not, the initiative can be disqualified—even though it may have originally looked promising. Organizations simply do not have the resources to entertain engagements that do not deliver quantifiable results to the bottom line, regardless of the features and bargain basement prices that may be outlined in the responses to an RFP.

**Six Sigma Explained**

With an increased frequency, organizations are turning to a Six Sigma methodology to prioritize and guide investments in the document management space. A primary goal of all Six Sigma projects is to reduce process variability and improve consistency of output. Emerging from manufacturing at Motorola and honed by General Electric, Honeywell, and others, leading non-manufacturing companies are now also concentrating more on their process excellence and less on implementing technological tools that address a relatively simplistic view of the business issues at hand. In fact, Larry Bossidy of Honeywell once noted that their “experience shows that the average savings for a service project is double that of a manufacturing project.” Clearly, the Six Sigma approach of defining, measuring, analyzing, implementing, and controlling new, improved business processes—often, but not always—facilitated with technological improvements is applicable beyond the manufacturing community.

**Six Sigma** is a comprehensive and flexible system for achieving, sustaining, and maximizing business success. Six Sigma is uniquely driven by close understanding of customer needs, disciplined use of facts, data, and statistical analysis, and diligent attention to managing, improving, and reinventing business processes.

The goal of Six Sigma is to design processes that do what they are supposed to do with very high reliability, ultimately producing very consistent products and services. Six Sigma applies to all company operations, including business transactions, services, product development, and manufacturing processes. The term Six Sigma refers to a product or process that produces only three defects (or errors) out of every million opportunities.

Few, if any, companies have attained this level of near-perfection across the board. But many individual products or service delivery processes have reached this high level of performance. Most companies operate somewhere between two and three sigma, which means they produce between 300,000 and 65,000 defects for every one million opportunities. Improving performance closer to Six Sigma can provide more of what all of the company’s diverse stakeholders want:

- **Customers** receive more quality, more reliability, and more value
- **Employees** obtain more job security, more teamwork, and more participation
- **Shareholders** gain more profitability, more market share, and more return on investment

Each step along the path to higher performance benefits all stakeholders: customers, employees, and stockowners, even if every process does not reach the Six Sigma level. The purpose is business success. Business success may be defined in one or several different terms, including:

- Reduced cost
- Increased market share
- Improved customer satisfaction
- Faster time to market
- Increased revenue and profits

Having discussed Six Sigma in general terms, let’s move on to understand the specific process employed by Six Sigma to achieve results—a structured, closed-loop, team-oriented application of the scientific method. If you are familiar with Deming’s Plan-Do-Check-Act/Adjust cycle, you will see a similarity in the basic thought

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**Lean Six Sigma is the Integration of Two Powerful Business Improvement Approaches**

<table>
<thead>
<tr>
<th>Lean</th>
<th>Six Sigma</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speed + Low Cost</strong></td>
<td><strong>Culture + Quality</strong></td>
</tr>
<tr>
<td><em>Goal</em>—Reduce waste but increase speed</td>
<td><em>Goal</em>—Improve performance on Customer CTQs</td>
</tr>
<tr>
<td><em>Focus</em>—Identify non-value-added steps and cause of delay</td>
<td><em>Focus</em>—Use DMAIC with TQM tools to eliminate variation</td>
</tr>
<tr>
<td><em>Method</em>—Kaizen events</td>
<td><em>Method</em>—Management engagement, 1% dedicated as champions and Black Belts</td>
</tr>
</tbody>
</table>

**Lean Speed Enables Six Sigma Quality**

(Faster Cycles of Experimentation/Learning)

**Six Sigma Quality Enables Lean Speed**

(Fewer Defects Means Less Time Spent on Rework)
content, broken down to a greater level of detail.

The five-step Six Sigma process uses data to drive decisions. The steps applied to specific improvement projects are:

**Define—Measure—Analyze—Improve—Control (D-M-A-I-C).** Before embarking on a project, however, a preliminary activity is also necessary to Prioritize projects based on business performance (sometimes included with the Define phase).

**Define:** Prioritize projects based on business impact and alignment with performance excellence plan. Six Sigma projects start by capturing the voice of the customer.

**Measure:** Measurements drive the Six Sigma process—what gets measured gets done!

**Analyze:** Analytical tools are used to dissect the root cause of process variability and separate the vital few inputs from the trivial many.

**Improve:** The Improve phase turns analysis into action. Control: After implementing improvement actions, the Control step verifies results and consolidates the gains.1

**Lean Production**

Most readers are probably familiar with the old adage, “Time is money.” In business, the cost of time manifests itself in many forms, such as: full time employees (FTEs), slow moving inventory, or staged events waiting for some value-add task to be completed. Where Six Sigma addresses the issue of consistent quality, Lean Production addresses the other critical business element of time. Michael L. George, chairman and CEO of the George Group, explains in his book *Lean Six Sigma:* Lean is a process philosophy with three purposes:

1. To eliminate wasted time, effort, and material.
2. To provide customers with made-to-order products.
3. To reduce cost while improving quality.

Lean is a methodology that is used to accelerate the velocity and reduce the cost of any process (be it service or manufacturing) by removing waste. Lean is founded on a mathematical result known as Little’s Law:

\[
\text{Average Completion Rate/Unit Of Time} = \frac{\text{Quantity Of Things In Process}}{\text{Lead Time Of Any Process}}
\]

The lead-time is the amount of time taken between the entry of work into a process (which may consist of many activities) to the time the work exits the process. Things in Process:

- in Procurement are the number of requisitions.
- in Product Development is the number of Projects In Process.
- in Manufacturing is the amount of Work In Process.

Lean contains a well-defined set of tools that are used to control and then reduce the number of Things in Process, thus eliminating the non-value add cost driven by those Things in Process.2

**A Symbiosis: Lean Six Sigma**

By integrating these two powerful business process approaches, Lean and Six Sigma, we end up with Lean Six Sigma. George goes on to further explain, “The payoffs of Lean Six Sigma have an interesting phasing. Projects that are primarily Lean concerned with process velocity and efficiency pay off very quickly in inventory and manufacturing cost reductions. Then Six Sigma projects that are working to improve quality (reduce defects) provide a mid-range addition, aided by faster process cycle times achieved by Lean efforts. Design for Lean Six Sigma efforts have much larger payoffs, as they impact 50% of the product or service cost determined by design.”

Putting it another way, the principle of Lean Six Sigma says: Fix the processes first that are causing the longest delay times with respect to your identified Critical To Quality (CTQ) issues. If you do this, you will be working on the right projects in the right order. This principle was the key breakthrough of Lean Six Sigma that was not, nor could not, have been understood by those who advocated either Lean or Six Sigma alone.

**Determining Value**

As stated earlier, the challenge with RFPs is that RFPs are snapshots of a specific instant in the life of a business. Business issues change over time, morphing fluidly as the dynamics that govern the underlying business processes change. Technology investments must stay relevant and change with that type of dynamic business climate. Aligning technology investments with business strategy is critical—as critical as identifying the root technological issues. In many cases, the dynamic nature of the business climate is the source of competitive advantage over time.

In his book *Value Migration*, Adrian J. Slywotzky describes the flow of profit and shareholder wealth across the business chessboard. Value leaves economically obsolete business designs and flows to other, new business designs that more effectively create utility for the customer and capture value for the producer. The first step in mastering patterns of value migration is to understand the interaction between customer priorities and the business design. Slywotzky summarizes this in writing, “Technology alone, not embedded in an effective business design, is no longer a viable approach to generating sustained value growth.”

Slywotzky concludes that in order to create and capture persistent value the technologies and products that companies purchase must be linked to successful business designs. Those business designs need to focus on the firm’s customer’s value. The business designs must demonstrate to customers that the superiority of the firm’s product(s) is a critical element in the ability to maintain continual business momentum. While most business people would likely consider this common sense and further suggest that their organizations already work in this way, very few consistently demonstrate an aptitude to selecting the technology-related projects they will work on in a manner consistent with these concepts.
Fewer yet are able to procure and implement technologies, including document and content management systems, in a manner that supports these ideals. However, a strong methodology, like Lean Six Sigma, can ensure the wants and needs of a company’s customers directly impact and guide the projects and processes created, deployed, and innovated upon.

Case in point: recently a state department of transportation decided to approach a document management initiative with Lean Six Sigma methodology. They started by assessing the current process of creating the necessary documentation to support their Bid/Let process. Their goals were to:

- Document current state process and define opportunities for improvement.
- Define functional requirements for realization of improvements.
- Identify financial impact of changes.

The opportunities for improvement they found were decreased cycle times, reduced costs, and quality improvements. By providing an electronic means of the distribution of plans (via the Web), costs associated with paper document creation and distribution were drastically reduced. The time associated with non value-add tasks will be reduced as well, allowing them to refocus that time on collaboration across project teams to create real value. Lastly, productivity increases will be facilitated through the implementation of an electronic repository inside the core department of transportation IT infrastructure. By starting with the process instead of the technology, the organization is linking the technological changes to the changes in work process for the individuals performing the work, and providing a platform for long-term growth throughout the department.

The combined potential savings internally (printing/copying), to consultants and to contractors is almost a million dollars each year. The project will not only pay for itself quite quickly, as most Lean Six Sigma engagements do; it will continue to provide additional cost savings opportunities on an ongoing basis while providing the flexibility to adapt as business conditions change.

Cost savings like these are being seen consistently by those that embrace Lean Six Sigma and a focus on getting to the question of “Why?” that so often goes unasked when technology is being procured. The savings are on the table across many industries, and they may be yours for the taking. For example, if you’re a mortgage company that is processing loans the old-fashioned way by passing folders from one out-box to another in-box, what is implementing imaging and workflow going to do for your organization if future growth via mergers and acquisition is not taken into consideration? How can you turn a high degree of accuracy of the data into a premium paid by investors for the loan portfolio? Can you enter new segments of your markets by managing the content of the files more effectively than your competitors?

Similarly, a health insurance company may believe that image-enabling their customer relationship management system will drive down their call center costs, and that may in fact be true. However, why are the customers calling in the first place? Are there larger gains to be garnered by driving down the number of incoming calls rather than serving up images to the customer service representatives? Is there a root cause that needs to be assessed, for example a confusing format to the explanation of benefit documents being mailed out, rather than focusing on the features and integration potential of an imaging system?

If organizations incorporate Lean Six Sigma into their corporate cultures and way of conducting business, then their projects conducted with the methodology will align directly with existing business strategy and needs. Organizations are becoming “SMART” (Specific, Measurable, Achievable, Relevant to the business, Time-bounded) by using Lean Six Sigma methodology on solving business problems with their document management projects and saving big money while doing so.

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Notes