

Banking Industry Leverages Lean Principles to Eliminate Waste

Lean Thinking in Financial Services



A White Paper by

Chad Carmichael | Principal | Charlotte, U.S.

Scott Mullen | Principal | San Antonio, U.S.

Ernst-Jan Mante | Executive Consultant | Australia

 Litmus
group

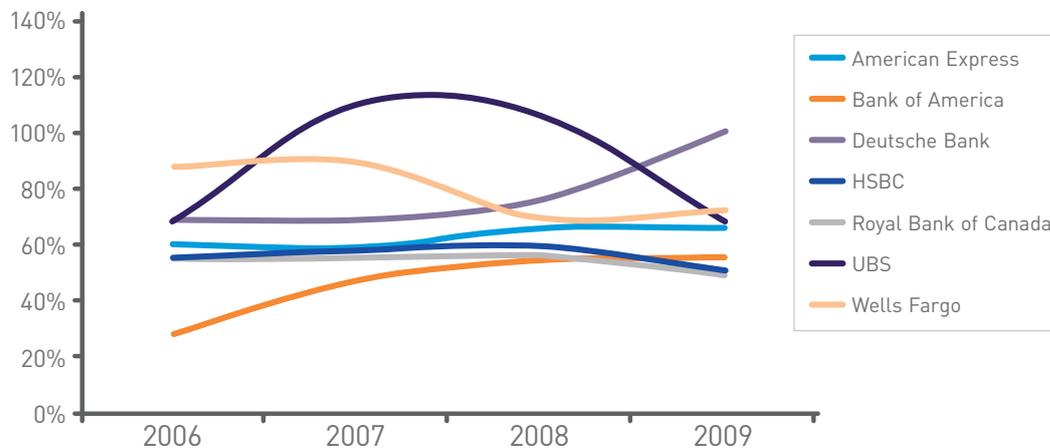
Not since the Great Depression has the financial services industry seen such disruption and upheaval as it has in recent years. Caught in such dire straits, firms often turn to drastic cost reduction measures to shore up the bottom line. Unfortunately, doing so often means major reductions in workforce or a delayed start of strategic initiatives that could lead to new sources of revenue. In 2009, companies in the S&P 500 displaced over 630,000 employees—19%, or 121,000, were in the financial services industryⁱ.

In the past, large financial institutions were able to increase revenues through increased market share fueled by mergers and acquisitions, and through total market growth. In today's economy, however, firms no longer have the luxury of improving profit simply by increasing revenue. In addition, due to the significant head-count reductions in the financial services industry, these firms will need to improve operational efficiencies to merely support existing processes with fewer resources.

As a key indicator of operational cost in comparison to the revenue it generates, efficiency ratios at large financial institutions are flat at best. Efficiency ratio is generally calculated by dividing non-interest expense by total revenue less interest income. The target or ideal ratio is < 50% (lower is better).

The graph below depicts efficiency ratios for several large financial firms, including American Express, Bank of America, Royal Bank of Canada, Deutsche Bank, HSBC, UBS and Wells Fargo. As we can see, none of these large financial services companies have been able to sustain the ideal efficiency ratio. The ratios have been flat or trending upward, even before the global economic crisis started in 2008. Many view this fact as evidence that non-interest expense or true operational costs are actually increasing.

Efficiency Ratios for Selected Financial Companies



In order to continue to meet shareholder expectations, financial services firms must take a focused look inward to eliminate waste and reduce operational costs.

A proven, effective way of doing this is to employ the same Lean techniques used by manufacturing firms for years. A 2007 study conducted by Technology Forecasters Inc. documented that 63% of the manufacturing companies surveyed reported lower overall costs as a benefit of Lean. In addition, 75% of the companies with advanced Lean programs enjoyed net profit margins greater than 5% of revenue, as compared to only 28% of non-adopters of Lean. Net profit margins at most global financial companies hover between 5% and 10%. With a fully developed Lean culture, it follows that these companies could see 10-15% margins.

So why have so few financial services firms tapped into the power of Lean to achieve this advantage? Possible reasons include misconceptions about Lean's applicability outside of the manufacturing environment, or a perception that Lean may be a "bridge too far" for an organization gutted by lay-offs. Regardless of their reasons for hesitating, financial services firms should no longer wait to embrace Lean transformation.

IDENTIFY THE OPPORTUNITIES...

Organizational leaders in financial institutions may be wondering, “How do I identify opportunities where an effective application of Lean could yield significant results?” Fundamentally, Lean is about eliminating waste. Some waste is unavoidable, but the objective is to identify all activities that are non-value-added, and reduce as many as possible. General examples of waste include over-producing, waiting, defects/ rework, over-processing, inventory, motion, and transport. A few specific examples of waste sometimes found in financial services include:

- Rework due to lost files or processing errors
- Over-processing due to duplicate client records, or redundant data entry requirements
- Movement due to physical dispersion of process participants
- Printing, copying, and transporting of documents instead of transmitting/storing electronically

Identifying, eliminating, or reducing such waste will enable firms to improve productivity, redeploy resources, increase customer satisfaction, and reduce costs. But waste can be pervasive and not easily identified. One Lean technique that can help uncover waste is Value Stream Mapping. A Value Stream Map (VSM) provides an end-to-end view of a process, as well as the availability, capacity, and performance of each step in the process. The VSM should include both physical flows and information flows. A Current State VSM shows the process as it is today and highlights opportunities to reduce waste in the current process. Future State VSMs depict how the process may look in the future, after improvements are implemented. This makes Value Stream Mapping a powerful visioning and communication tool.

An online survey of 920 executives of U.S. manufacturing and wholesale distributors, determined that 61% of companies surveyed are implementing Lean operating principlesⁱⁱ.

Value stream mapping can help uncover the process bottleneck. The bottleneck is the process step with the longest cycle time and is the step that determines the total output of the process. For example, common bottlenecks in a mortgage application approval process are the home inspection and/or appraisal. To increase output, either the cycle time of the bottleneck must be reduced or the available working time of the bottleneck must be increased.

In addition, bottlenecks should be protected from defects to maximize the usable output of that process. This may be achieved by implementing a test point, quality gate, or error-proofing, just ahead of the bottleneck, to ensure that defective material does not exacerbate the bottleneck. By identifying, improving, and protecting bottleneck processes, financial services firms can improve their total operational efficiency and essentially “do more” with fewer resources.

Even after improving bottlenecks, we must understand the takt time to determine whether the process can meet customer demand. Takt time represents an increment of time used to demonstrate the frequency of customer demand. It is the cadence of customer demand.

To some, calculating takt time for processes inside a financial services company may seem unrealistic. However, many key functions such as bank teller services or delivery of investment advice by a call center are both measurable and somewhat predictable. By determining takt time—total demand for a product or service divided by the working time available to produce that product or service—and tuning processes using Lean techniques to eliminate waste, work is performed more efficiently to a consistent pace of the takt.

Due to the nature of customer demand for financial services, a value stream will have various takt times depending on the month, day of the week or hour of the day. Companies that learn to leverage the concept of takt time to build capable processes that scale efficiently with the ebb and flow of demand will dramatically increase customer service levels and lower operational cost.

- **Definition**

Takt time can be first determined with the formula:

$$T = \frac{T_a}{T_d}$$

T = Takt time, e.g. [minutes of work / unit produced]

T_a = Net time available to work, e.g. [minutes of work / day]. This excludes break times and expected stoppages

T_d = Time demand (customer demand), e.g. [units required / day]

If the cycle time of any step in the process is greater than the required takt time, then the process cannot meet customer demand. If the cycle time of the bottleneck is greater than the required takt, then reducing the cycle time of the bottleneck step will improve efficiency, increase output, and possibly reduce costs. Until the cycle time of every step in the process can be performed within takt, there still will be unmet demand and potentially unrealized revenue. Identifying unrealized revenue, and then responding to that opportunity, is another way that financial services firms can utilize Lean to improve profitability.

ACHIEVE AND SUSTAIN MEASURABLE RESULTS...

One way to protect the valuable limited capacity of a bottleneck is to poka-yoke the feeding process step(s).

Lean thinking can be a great tool in helping with Production, Fulfillment, and Sales/Service processes at financial institutions (FIs). Delivering financial services requires a tremendous amount of data. It's critical that all the data entering the value stream is complete and accurate.

Poka-yoke is the Lean term for mistake/error proofing. It seeks to prevent the occurrence of defects, or at least ensure that mistakes are detected when they occur. Since anyone can make mistakes, error proofing often relies on mechanisms built into tools or systems that automatically signal when problems occur or prevent the process from continuing until the proper conditions are met.

A few examples of poka-yoke techniques for financial companies are:

- Require field validation logic for all data entry activities to ensure accuracy and completeness of initial information capture
- Automate form generation using source data and limit the use of free form fields
- Employ workflow technology to ensure that process steps are completed in the proper sequence and with accuracy, to reduce rework
- Use data encryption technology at all layers to prevent data corruption and hacking

Lean methods are highly effective in helping across areas that range from Statement Production and Deposit Support to Card Operations and Credit Support. The efficiencies gained through Lean improvements not only reduce FI expenses and enhance throughput, but often increase

customer and employee satisfaction through the streamlining of process handling. Once a process is improved, standard work helps sustain that improvement.

This makes standard work an essential building block of a Lean enterprise. Standard work ensures that each step in the process is clearly defined so that work can be performed repeatedly in the same manner and within the calculated takt time. Here are some ways to apply standard work:

- Document common transaction types into summarized one-page references, and include decision trees for frequently encountered situations
- Standardize document transfer to reduce lost files, improve visual management of work in process, and reduce delays
- Provide simple rules/checklists to ensure that required docs/information are present before packet submission/hand-off

Without documented standardized processes and a program to audit the use of those processes, it can be very difficult to achieve the expected benefits of a Lean program.

However, once standard work is in place, it is much easier to develop, communicate, and implement continuous process improvements. This means process improvements can be performed more quickly and impacts can be measured more accurately. This can result in larger gains and long-term sustainability for firms that employ Lean.

STANDARD WORK IS ONLY ONE COMPONENT OF A 5S SYSTEM

5S stands for sort, set in order, shine, standardize, and sustain. It is a methodology for organizing, cleaning, developing, and sustaining a productive work environment.

A 5S environment has “a place for everything and everything in its place,” with all the required resources ready where and when they are needed. Many experts believe that 5S is the first step in pursuing a Lean culture. This is because it is a visual reminder that something has changed and it is a constant indicator of the health of the Lean program.

To integrate 5S into a financial services process, you should not only develop standard work for the process, but also establish standards for desk organization. These standards may include distinct and labeled areas for each type of work in process (new files, files on hold for questions, files ready for review), and/or a process to ensure that files are processed first-in-first-out. Every day more and more firms are turning to workflow technology because it virtualizes the flow of documentation and gains control over their processes. **Standard work and 5S concepts are intrinsically an integral part of workflow.**

In a Lean approach, the combination of change management and an integrated strategy and approach, across all elements that influences employee behavior in a financial services organization, is the only way to work effectively to achieve sustainable results.

NEXT STEPS...

The bad news is that growth in the financial sector has dramatically slowed, and the industry as a whole has not demonstrated the same productivity gains seen in other industries. Most firms in the industry are no more efficient today than they were four years ago. Financial institutions can no longer merge their way to profitability, and layoffs can go only so far. **In fact, further headcount reductions may hinder the capacity to seize future opportunities.**

The good news is that there are untapped savings and performance improvements waiting for diligent leaders. By utilizing well-proven Lean techniques, financial services firms can eliminate waste, reduce operational costs and even improve customer satisfaction. Lean can also complement other process improvement programs, such as Six Sigma, which already may be active in financial services firms. The existence of such programs will only help the adoption and sustainment of a Lean deployment. Short-term gains can be achieved even in the worst economy, but long-term success will depend upon the fortitude of leaders to remain committed to achieving a Lean culture, even after economic factors improve.

ABOUT THE AUTHORS

Chad Carmichael

Principal, Charlotte, U.S.

Chad Carmichael has 12 years of experience in consulting and the financial services industry. His specific areas of subject-matter expertise include wealth management, retirement services, merger-integration events, program/project management, and process improvement methodologies—Lean and Six Sigma. After working in financial services both as an operations manager and as a consultant, he has seen tremendous opportunities for applying Lean techniques in the industry.

Scott Mullen

Principal, San Antonio, U.S.

Scott Mullen has almost 30 years of experience in financial services, both in the U.S. and abroad. Specific areas of expertise include financial services process improvements, channel strategies, efficiency initiatives, new product design, debit and credit card operations, reporting and advanced statistical analysis, branch and call center strategy, customer segmentation and integration, electronic payments strategies, leadership/management consultation, and strategy/planning development. Scott holds a Ph.D. and an MBA from Our Lady of the Lake University, and a BSBA from Southern Illinois University.

Ernst-Jan Mante

Executive Consultant, Australia

Ernst-Jan Mante has over 14 years of experience in consulting and financial services. He is part of the Litmus and Highland Worldwide financial services team. Ernst-Jan has delivered expert advisory services for setting up programs, facilitating process mapping, and fine-tuning and designing new processes for Marketing and Sales departments in new organizations, including design of coordination mechanisms, implementation plans, and change management approaches. Ernst-Jan holds a degree in International Law from State University Utrecht and a Masters in Marketing from Tilburg University.

Asia Pacific contact information

Jerry Dimos

Partner, Singapore
jdimos@litmusgroup.com
HP: +65 9336-9000

Christian Rahnsch

Executive Consultant, Singapore
crahnsch@litmusgroup.com
HP: +65 8161 9370

Ernst-Jan Mante

Executive Consultant, Australia
emante@litmusgroup.com
HP: +61 3 9005 4360

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ⁱ www.emsnow.com “Trends in Lean Implementations”, By Bruce Rayner, VP Consulting and Research, Technology Forecasters Inc., April 12, 2007

ⁱⁱ Source: RSM McGladrey, March of 2009,