

## Fitting a Square Peg in a Round Hole

### Why Manufacturing Six Sigma Will NOT Work in a Transaction-Based Financial Services Environment

In the late 1970s, most companies that signed on to Quality initiatives did so with their backs up against a wall. The leading U.S. based manufacturers were losing market share to overseas competitors. Companies such as Xerox and Ford were particularly hard hit and found themselves dealing with more competitive products from Japan. At that time Japanese companies were using Total Quality Management (TQM) and Lean methodologies to improve their manufacturing performance and to design “customer-centric” products. In response, US based firms began to adopt TQM as well.

By the 1990’s Jack Welch, former CEO of General Electric, introduced the new Quality game changer - Six Sigma. The world of Quality quickly converged on Six Sigma - based on the benefits delivered and the ability of this methodology to be applied to any functional business area.

Today, facing increasing competitive pressures and a hostile regulatory environment, leading Financial Services firms have embraced Six Sigma. The potential impact on the Financial Services sector (of not adopting this methodology), and ergo the US economy, may very well be similar to that of manufacturing in the 1970s: the transaction processing and back-office functions will be performed overseas if U.S. Financial Services firms do not get their base cost under control.

There are 4 key tenets or truisms Financial Services firms must keep in mind as they undertake the Quality journey. These same tenets are also the reasons why Manufacturing Six Sigma, which is a compilation of disparate, complex tools, cannot be applied - in its original form – to a Financial Services environment:

1. Manufacturing is driven by a visible or tangible product. The critical driver in Financial Services is information.
2. In manufacturing, processes negotiate hundredths of a millimeter to improve a product. There are no such tight “tolerances” in Financial Services at this stage.
3. Manufacturing Six Sigma has matured and has gotten beyond the “detection” stage and is now well on the path to “prevention.” Financial Services Six Sigma is still in its infancy.
4. Manufacturing processes are highly automated. Despite its IT infrastructure, Financial Services relies heavily on human input/manipulation

***What is Financial Services Six Sigma?***

Six Sigma is a methodology that uses human assets, data and statistics to reduce operational cost and risk while increasing customer service. Six Sigma analyzes and measures business processes in terms of defects (rework, wait time, rejects...). The statistical base to this methodology helps organizations understand the magnitude of process deviation from customer expectation or original design intent. Six Sigma helps identify and eliminate the root cause of variation, i.e., lack of process standardization, passing incomplete transactions to the next step, or passing inaccurate information on to the next tier.

The hidden cost of variation -- defects and waste -- is in the millions of dollars. This variation often derives from a lack of information. Six Sigma helps organizations identify what they don't know AND emphasize, what they should know. It then provides a roadmap for taking corrective action to reduce the errors and rework that cost the organization money, opportunities and customers. ***Robust processes, which produce low error rates, have a direct impact on overall productivity, customer satisfaction and profitability.***

***So Why Doesn't Manufacturing Six Sigma Apply to the Financial Sector?***

The table below outlines the key differences between a manufacturing and financial services environment. Furthermore it explains the significance of these differences in terms of its impact to the application of Six Sigma.

<b>Manufacturing (MFG)</b>	<b>Financial Services (FS)</b>	<b>Significance</b>
Product based on very specific and tight manufacturing tolerances (microns or nano seconds)	Primary concern is regulatory compliance and credit risk	Due to very specific manufacturing tolerances, Manufacturing Six Sigma is significantly more complex and statistically based than that of Financial Services
Process based on raw/part flow	Process based on information/data flow	Defective parts can be easily detected. But in Financial Services, incomplete/defective transactions are difficult to identify & are passed to the next phase of processing.
Production based on assembly lines	"Production" based on information flow	Inventory build-up, process bottlenecks and process cycle time easily detected. In Financial Services workflow is hidden amongst hundreds of worker desks & IT infrastructure.
Production lines highly automated	Heavy reliance on human capital	Manufacturing processes are highly standardized with minimal human interaction. Financial Services process integrity is based on its workers who over time "customize" their daily transactions, introducing variation

### ***Conclusion:***

In summary, Manufacturing Six Sigma is a compilation of complex tools designed to address the tight tolerances in the manufacturing process (hundredths of a millimeter in variation). It also inherently assumes that the process being used to develop a product is fully visible and standard among all of its users. And so its goal, in the way that the tools are designed and used, is to **prevent** an error from occurring.

On the other hand, the central goal of Six Sigma in Financial Services is to first develop the infrastructure to **detect** an error and then move on to preventing it. Because Financial Services processes are not as visible as those in manufacturing, and those processes (by default) rely significantly more on human interaction, the central focus of Financial Services Six Sigma is to **stabilize** the process. By stabilizing the process you can begin to detect errors and ultimately move on to preventing them.

For these central reasons Manufacturing Six Sigma will use a different set of tools or methodology than that of Financial Services. In the simplest and most basic terms, we should understand Six Sigma as an ever-evolving set of tools. Ten years ago senior executives in the Financial Services sector may not have considered adopting such a rigorous, data-driven methodology in their daily business operations. But today, simple economics and some forward-thinking practitioners have proven that the methodology will benefit the sector in innumerable ways.