

Service Process Improvement: Ten Lessons from Japanese Manufacturing

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Demand for steel worldwide has grown so much that prices have gone up. Toyota apparently has a very aggressive program called CCC21 (Construction of Cost Competitiveness for the 21st Century) to cut costs by 30% over 5 years. With the rising prices of steel, you can imagine what Toyota or any other car maker in the world is up against. You can replace steel in a car with other materials only up to a certain extent without compromising safety. Given the rapid advances in Japanese manufacturing techniques, as embodied in the Toyota Production System (TPS) and others, and with the last three or four decades of **increasing quality and at the same time reducing costs**, my guess is that they might be successful doing this also.

Service Processes, such as Mortgage Loan Processing, Insurance Claims Processing, or Accounts Payables Processing, **offer just as much opportunity** for improvement as manufacturing processes did a few decades ago. There are quite a few lessons to be learned from Japanese manufacturing techniques and their application to service processes. Here are ten lessons from Japanese Manufacturing that can contribute to improvement in service processes.

Lesson 1: Service process quality improvement increases revenues and at the same time reduces costs. Japanese manufacturing techniques have proven that you can increase quality and, at the same time, cut costs.

Operating expenses in different industry verticals vary from 30% to 80% of revenues¹. A large portion of operating expenses in any organization is spent on service processes. Making service processes more efficient and effective delights customers, increasing revenues. Making them more efficient and effective cuts costs. Improving service process quality has the potential of doubling or even tripling profits given the large portion of operating expenses spent on them.

Lesson 2: Service process improvement is a continuous and never-ending effort.

Setup times for machine presses in Japanese automobile manufacturing have been reduced from **a couple of days to a few minutes** over a couple of decades through continual improvement (**Kaizen**). Service processes also offer such possibilities. In automobile insurance claims processing, repair shops used to take pictures of the damage to a car and send them to the insurance company by courier or regular mail. Many of these repair shops now use electronic cameras instead, to take the pictures and upload them directly to the Insurance company computers, cutting two or three days out of the cycle. The Internet, document imaging, and digital photography offer endless ways for improvement. The very concept of **acceptable quality** prevents service processes from reaching their full potential. Just as in manufacturing, quality could be a never-ending goal in service processes also.

Lesson 3: Reducing Muda – Wasteful Activity.

One of the cornerstones of Japanese Manufacturing is reducing **Muda**, Japanese for “wasteful activity.” Waste in Service Processes happens in a number of ways – waiting for someone to take action, papers or information traveling distances between floors or offices, and, worst of all, rework. If mistakes are made, time and effort are wasted in correcting mistakes, delaying completion of the process. Reducing Muda makes processes more efficient and effective. Many

¹ Almanac of Business and Industrial Financial Ratios – 2002 Edition. Prentice-Hall

service processes still use groups of specialists to work on portions of a service process, creating excessive waiting times in between process steps. A careful analysis of most service processes would reveal ***an alarmingly small proportion of time actually spent working on the process compared with the time spent waiting for someone to take action***. All you have to do is to think about the time you spent waiting for the doctor in your last appointment, compared to the time he or she actually spent talking to you about the reason for the visit, to get a sense of this ratio.

Lesson 4: Reducing Mura – Inconsistencies.

On-line Mortgage Loan processing companies, like E-Loan, promise a processing time of 10 to 12 days. In cases like this, it is not hard to imagine the havoc that inconsistencies in either processing time or quality would play on keeping customers happy. Japanese automobile manufacturing manages this by a curious combination of rigidity and flexibility, serving as a valuable lesson for service process improvement. Every shift has targeted output, and the entire shift works overtime till the production quotas are completed. However, if a mistake is made, the entire line comes to a halt till ***the root cause of the problem is fixed, eliminating rework***. Statistical Process Control methods are just as applicable to service processes, whether analyzing inconsistencies in quantitative factors – such as execution time, accuracy, or error rates – or qualitative factors, such as customer satisfaction. Statistical process control techniques have the potential of indicating whether a process is stable and predictable, as do instances when the process was out of statistical control, warranting some kind of corrective action. If your normal service call varies from 10 minutes to 15 minutes, a specific call that takes 25 minutes may warrant a closer look, but a call that takes 12 minutes may not. Statistical process control can highlight these cases when some kind of corrective action is needed to fix root causes.

Lesson 5: Reducing Muri – Physical Strain.

In the context of manufacturing, reduction of **Muri** usually addresses unnecessary motion – working harder than necessary, leading to the reduction of repetitive actions, and so on. In the context of Service Process Management, Muri applies more to convoluted and unnecessary routings, physical transfer, and distances paper files may have to travel for a process to be complete. Process mapping and workflow analysis could help identify ***unnecessary process steps*** that can be eliminated or shortened in any service process.

Lesson 6: Genchi Gembutsu. In Japanese, this means ***go to the actual scene (genchi) and confirm the actual happenings or things (gembutsu)***.

Observation of service processes at the point where it is actually delivered may unearth a host of problems such as lack of training in specific skills or subjects, outdated or unnecessary process steps, or a number of other areas that would benefit from small but significant process improvement ideas. Many of these process improvement ideas may be outside the scope of general process mapping and analysis activities. Small improvements eventually add up to significant gains in efficiency or effectiveness. Looking at and addressing, say, a claims processing process at a process level, may not reveal many small improvements that direct observation may suggest.

Lesson 7: Multi-skill Development and Job Rotation.

In Japanese manufacturing, they have found that developing workers' skills in multiple areas or functions of the company had a number of benefits for both the company and the employee. For the company, they get employees who can perform multiple functions and can fill in for people on vacations or during a work surge in any particular area. For the employees, it relieves the monotony of doing the same kind of work over and over again, increases their value to the company, and ensures that they can be reassigned to other areas of the company in case of

cutbacks necessary in any one area. Multi skill development and job rotation have the same benefits when it comes to service processes. Training a claims adjuster in multiple kinds of claims may be good for both the employee in terms of career skills and growth and the company in utilizing the employee's skills in multiple areas.

Lesson 8: PokaYoke Methods.

PokaYoke is Japanese for **fool proofing**. Mistakes in manufacturing are avoided by making the work-cell and tools mistake proof. Die designs are done in such a way that they can be mounted only one way, avoiding mistakes in setup. Manual processes as well as computer application software can be made mistake proof in service processes. Mistakes and rework can be avoided by carefully mistake proofing every step of a service process and how each process is performed by the company's representative. Extensive data validation and crosschecking of data fields in service applications is one way PokaYoke can be practiced.

Lesson 9: Fixing root causes rather than symptoms.

Fishbone diagrams (also known as Ishikawa Diagrams), FMEA (Failure Mode and Effect Analysis) and why-why-why diagrams have been used in manufacturing processes to trace back problems to their root causes, fixing the root causes rather than the symptoms. The same principles and techniques are just as applicable to service processes as they are to manufacturing. Root cause analysis has the capability of identifying root causes such as lack of training, lack of knowledge, lack of automated, and the need for more efficient systems because of holes in the process definition itself. Process modeling should include failure modes and the reasons for failure for each process step. **When you are analyzing process execution results, these will be helpful in not simply designing some band-aid solutions, but in really addressing root causes.**

Lesson 10: Address non-value-adding activities.

Attaching a bumper in a car assembly is a value-adding activity in that it adds direct value to a customer. Filling out an internal form for the company's use does not add any value directly to the customer. It may be valuable to the company for management of internal operations. Value added analysis helps identify and separate value-adding activities from non-value-adding activities. You then **try to eliminate completely, or shorten as much as possible, non-value added activities**. *Service processes have steps that could be either value-added, mandatory, or non-value added.* For example, in a Bill Collections Process, collecting the check is a **value-adding** activity for the customer (on whose behalf, the collection is done); sending out the appropriate legal notices could involve **mandatory** steps; while completing an internal form might be a **non-value adding** activity. Non-value adding activities are candidates for elimination. Mandatory steps may not be eliminated but speeded up. Value-adding activities are also candidates for speeding up or appropriate other quality improvements.

Japanese manufacturing techniques have proven themselves by the results they have achieved in product quality as well as in numbers over the past three decades. They have proved consistently that improving quality relentlessly actually reduces costs, in addition to delighting customers. Japanese manufacturing has taken quality lessons from American Quality gurus like Edwards Deming, Joseph Juran, and Armand Feigenbaum, but has adapted and improved upon them for use in manufacturing, with great success. The same kind of opportunity exists now for their use with service processes. This has the potential of greatly increasing the profitability and competitiveness of organizations across many industry verticals.

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