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President's Page

Lean in Financial Services Industry



Dr. R.H.G.Rau

Service management fundamentals are common to all major disciplines, whether finance, marketing, sales or HR. Differences are apparent only when one looks into their functional details. The fundamentals continue to be driven by customers' wants and needs on one side and conspicuous commitment to meet them through deployment of robust processes on the other.

Financial management of any organization addresses to three major decisions: the investment decisions dealing with the allocation of capital to various investment proposals, the financing decisions concerning with the best financing mix, and the dividend decisions addressing to the earnings for the shareholders. Put together, these decisions determine the value of any organization and have high dependency on the application of both theoretical and practical concepts to real time business situations.

Finance management, by its very nature, relies a lot on numbers; more accurately, reading between the numbers. The parameters determining the quality of financial services are too many. While the data speaks for itself, some of the key differentiators for better management are financial target setting and working towards meeting the planned financial ratios. The deficiencies, if any, are quantified real-time and addressed dynamically through well established scientific and structured improvement processes.

However, quality of management of financial services is incomplete without addressing to the four vital components, namely "CASH" covering, Commitment to the impacted including society, Accuracy of data, data integrity and its interpretation, Speed of transactions and Honesty in dealings. When we look at the financial institutions currently tumbling from high public esteem, they surely are falling short on one or more of these CASH attributes.

Can these attributes be also addressed in managing quality in financial services? Ofcourse yes: provided CASH gets appropriate focus in line with the financials, at all levels in an organization through commitment, courage and rigorous reviews for course corrections.

Our next Issue is on : Quality in Education

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Integrating Lean With Six Sigma: Towards Operational Excellence

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Abstract

Lean Sigma is relatively new approach that combines two business improvement techniques, Lean and Six Sigma. Lean Manufacturing focuses on eliminating waste and constantly curbing the cycle time. On the other hand, Six Sigma has a focus on quality and variability reduction. The integration of the two (Lean manufacturing and Six Sigma) helps organizations to improve lead time, cost and quality and thus allowing them to move towards operational excellence. Lean Sigma utilizes Lean Culture infrastructure and tools to engage and empower employees, resulting in sustained continuous improvement.

The present paper discusses conceptual frame-work of Lean Sigma that is more powerful and effective hybrid of two popularly used techniques across business sectors. The Paper details the Lean Sigma process and examines the comparison between Lean manufacturing and Six Sigma.

The paper also describes how some organizations are implementing Lean Sigma and offers insights on the importance of applying Lean Sigma in these organizations.

Lean Sigma is a systematic approach to redesigning business operations to minimize wastes (Lean) and variations (Sigma) that occur through process repetition.

Lean is "A business culture characterized by endless pursuit of eliminating waste, that Lean uses minimum amount of manpower, materials, money, machines, space etc. to get the job done on time." (Definition by: National Institute of Standards and Technology Manufacturing Extension Partnership's Lean Network).

Keywords: Lean Sigma, Six Sigma, Lean Manufacturing, Variations, Waste

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The basic premise of Six Sigma started in 1600 B.C. by Egyptian physicians and is noted on the Edwin Smith papyrus. It essentially says: Make no remedy without first understanding the cause. (<http://www.scribd.com/doc/7200087/Introduction-to-Six-Sigma> p11) Six Sigma is a management philosophy developed by Motorola that emphasizes setting extremely high objectives, collecting data, and analyzing results to a fine degree as a way to reduce defects in products and services. The Greek letter sigma is sometimes used to denote variation from a standard. The philosophy behind Six Sigma is that if you measure how many defects are in a process, you can figure out how to systematically eliminate them and get as close to perfection as possible.

There are two Six Sigma processes; one is Six Sigma DMAIC and the second one is Six Sigma DMADV. Six Sigma DMAIC is a process that defines, measures, analyzes, improves, and controls existing processes that fall below the Six Sigma specification. Six Sigma DMADV defines, measures, analyzes, designs, and verifies new processes or products that are trying to attain Six Sigma quality.

Many companies are familiar with Lean," said Wil Cox, WMEP manufacturing specialist. "Lean Six Sigma is the next step. It's for companies that want to go to the next level. They want to achieve both speed and accuracy."

Lean Six Sigma is a combination of two business improvement techniques, Lean and Six Sigma. Lean focuses on eliminating waste and constantly shortening the cycle time. On the other hand, Six Sigma has a focus on quality and variability reduction. The combination of the two, Lean Six

Sigma, methodology helps improve lead time, cost and quality.

James R. and William M (2005) describes that a leading company 'Xerox' started with this new concept "Lean Six Sigma". This new thrust included a dedicated infrastructure and resource commitment to focus on key business issues. The key components of Xerox's Lean Six Sigma approach included:

1. Performance excellence process
2. DMAIC
3. Market trends and benchmarking
4. Behaviours and leadership

The root of both Lean and Six Sigma reach back to the time when the greatest pressure for quality and speed were on manufacturing. Lean developed as a method for optimizing automotive manufacturing; on the other hand Six Sigma evolved as a quality initiative to eliminate defects by reducing variation in processes in the semiconductor industry. It is not surprising that the earliest adopters of Lean Six Sigma arose in the service support functions of manufacturing organizations like GE Capital, Caterpillar Finance, and Lockheed Martin.

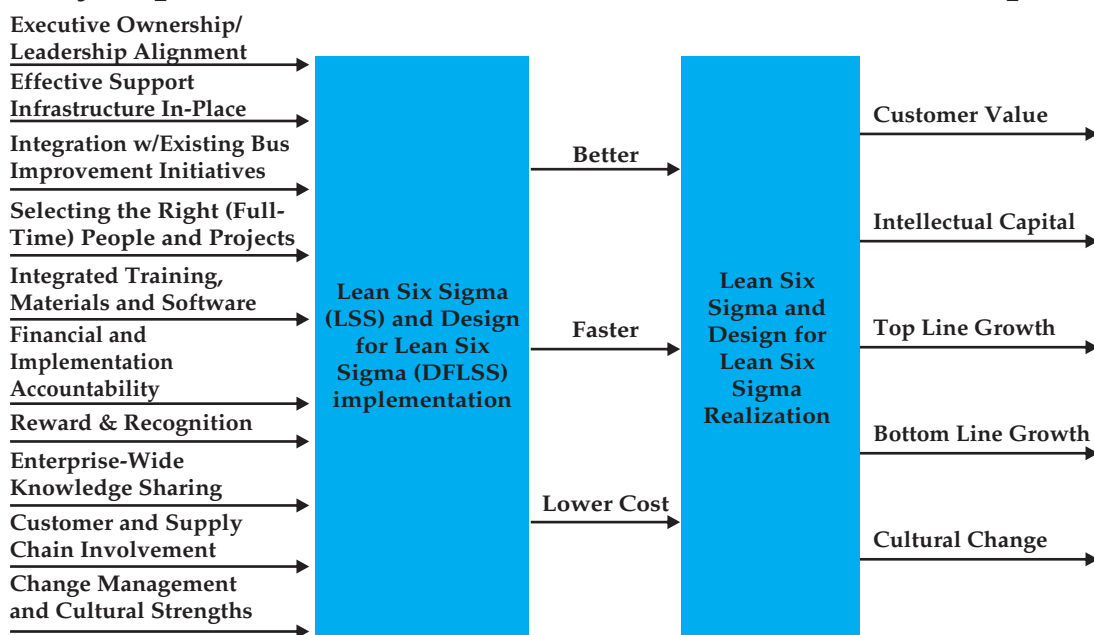
Why Integrate Lean with Six Sigma?

In today's competitive business environment almost every company is searching for ways to gain and maintain an advantage. Lean Six Sigma has a proven track record of delivering massive financial results across all business sectors. Lean Six Sigma has a human aspect too. Leaders who are engaged in Lean Six Sigma implementation process also value the growth and development of their people; they ask better questions, get better data, make better decisions, and lead higher performing teams.

Lean Sigma is defined as "a proven customer focused enterprise-wide improvement strategy. Lean Sigma combines Toyota's Lean Enterprise with Motorola's Six Sigma and current thinking on culture change Lean Sigma delivers accelerated and measurable results by driving out waste & variation". (<http://www.mooreassoc.com>).

Integrating Lean Six Sigma throughout an organization's core business operations to achieve early benefits and full self-sustainability necessitates attention to each of the ten input factors in the dual Input-Process-Output (IPO) diagram, below:

Key Inputs to Maximize LSS / DFLSS Business Impact



Source: <http://www.airacad.com/LeanSixSigmaImplementations.aspx>

The end of the 20th and beginning of the 21st century has seen increasing and continuing pressure from customers and competitors for greater value from their purchases whether based on higher quality, faster delivery, or lower cost (or some combination) in both manufactured products and services. (George, M. 2002)

Implementing Lean Sigma is a three phased process. First phase is initialization process in which top management understands the nature of Lean Sigma. Commitment from top management top management is must. Top management must be convinced that implementation of Lean Sigma will enable the organization to demonstrate a visible commitment to quality and continual improvement.

A series of policies, guidelines and rules must next be developed with involvement of the deployment leader, one or more steering committees and selected corporate functions which include finance, human resources, quality, communications and others. Next is the execution phase. In this phase organizations select right people and initial projects for implementation. It is important that each project must clearly address one or more business goals thereby contributing to one or more core enterprise measures. Last is assessment phase where it is important to ensure that the key elements of the organization's Lean/Six Sigma implementation plan are occurring in a timely fashion.

Lean Six Sigma first principle says that 'Delight your customers with speed and quality'. The second principle says 'Improve process flow and speed'. Lean Six Sigma emphasizes that speed is directly tied to excellence. But if Lean Six Sigma has anything to teach us, it is that we should be looking for opportunities to streamline our core processes. This does not mean we should be compressing already tight schedules. It means that we first determine what our core processes are, and then focus on making them flow smoothly.

However, using either one of them alone has limitations: Six Sigma will eliminate defects but it will not address the question of how to optimize process flow; and the Lean principles exclude the

advanced statistical tools often required to achieve the process capabilities needed to be truly 'Lean'.

Therefore, most practitioners consider these two methods as complementing each other. It is true that each approach can result in dramatic improvement, utilizing both methods simultaneously holds the guarantee of being able to address all types of process problems with the most appropriate toolkit. For example, inventory reduction not only requires reducing batch sizes and linking operations by using Lean, but also minimizing process variation by utilizing Six Sigma tools.

Pyzdek (2008) strongly believes that organizations in tough times have more reason than ever to utilize their resources wisely. According to him they must focus on doing the right things right and doing them efficiently. He argues that "the right things are those things that customers are willing to pay for. Use Lean and Six Sigma to design and build processes to deliver these values with a minimum of wasted effort and resources. This means using lean to identify value streams and moving as close as possible to one piece flow in these value streams."

Pyzdek explained that where one-piece flow can't be achieved, use logic and common sense to identify the reasons keeping you from this goal, then take the appropriate action quickly. When the causes of the problems can't be readily identified by ordinary means, use Six Sigma techniques and rigor to ascertain the root causes. He concluded that "tough economic times may be a dark cloud. But you may well be able to find refuge in the silver lining of process excellence!"

He has developed a useful table to identify his idea of the synergies of Six Sigma and Lean production. The lean approach offers a set of solutions to waste in a high variety production environment. On the other hand Six Sigma applies to the problems common to production.

Six Sigma is about removing variability from processes, often using rigorous statistical methods. Lean, by contrast, is focused on removing waste in all its manifestations and introducing single piece flow, pulled by customer demand.

TABLE 1 SOME FUNDAMENTAL DIFFERENCES BETWEEN SIX SIGMA AND LEAN PRODUCTION METHODOLOGIES

Issues / Problems / Objectives	Six Sigma	Lean Production
Focuses on customer value stream	x	y
Focuses on creating a visual workplace	x	y
Creates standard work sheets	x	y
Attacks work-in-process inventory	x	y
Focuses on good house keeping	x	y
Process control planning and monitoring	y	x
Focuses on reducing variation and achieve uniform process outputs	y	x
Focuses heavily on the application of statistical tools and techniques	y	x
Employs a structured, rigorous and well planned problem solving methodology	y	x
Attacks waste due to waiting, over processing, motion, over production, etc.	x	y

Both Six Sigma and Lean have their unique strengths. Here is a comparison between Six Sigma and Lean indicate some differences:

	Lean	Six Sigma
Goal	Understand process flow and eliminate waste	Improve process capability and eliminate / minimize variation
Application	Primarily high volume processes	Any business process
Approach	Basic principles and “cookbook style” implementation based on accepted practices	Well understood problem-solving approach relying on statistics (DMAIC or DMADV)
Project Selection	Driven by local supervisor	BPM and gap analysis
Length Of Projects	1 week to 2 months	2 to 6 months
Infrastructure	Mostly ad-hoc, minimal formal training	Dedicated resources, broad-based training
Training	Learning by doing	Learning by classroom & doing

The fusion of Lean and Six Sigma improvement methods is required because:

- Lean cannot bring a process under statistical control
- Six Sigma alone cannot dramatically improve process speed or reduce invested capital
- Both enable the reduction of the cost of complexity

The two methodologies interact and reinforce one another, such that percentage gains in Return on Investment Capital are much faster if Lean and Six Sigma are implemented together. (Wurtzel 2008). One interesting thing about both Lean and Six Sigma, however, is their common TQM roots. (Malcolm & Cox)

As a result, many firms should be looking for an approach that allows them to combine both

methodologies into an integrated system or improvement roadmap.

In short, what sets Lean Six Sigma apart from its individual components is the recognition that you cannot do "just quality" or "just speed," you need a balanced process that can help an organization focus on improving service quality, as defined by the customer within a set time limit.

Kewin and Carle (2009) argued that it has been reported that 50% of change programmes fail to deliver or sustain benefits, which is attributed to problems of implementation. A key aspect of any Lean Six Sigma project is the delivery of a mechanism to sustain and build on the improvements for the long term. Thus, an integrated Lean Six Sigma approach, learning and drawing from the best of its historical roots, is the next evolutionary state towards operational excellence.



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Process Approach in Financial Services – Process Improvement, Cost Savings and Revenue Enhancement

(Santosh Khadagade, Dy Vice President – Quality & Knowledge Management, Reliance Money)

The financial services sector has been a laggard in adopting Quality methodologies, tools and practices, because of the manufacturing origins of these practices. As more and more financial services companies discover the benefits of quality operations -- such as clarity of operations, lower costs, fewer errors, faster cycle times and far greater efficiency, a large scale adoption by the financial services companies is just a matter of time.

This article, makes an attempt to understand why the industry is lagging in quick adoption of the quality practices and what the industry can achieve.

A huge Opportunity

Financial services industry is process-oriented by its very nature and therefore holds enormous potential. Streamlined operations and fewer errors are just the beginning. Companies that take on successful quality implementations can easily see a 15% to 25% improvement in efficiency. Financial gains due to cycle time reductions can be even more dramatic, with improvements of additional 10% to 15%. Lean Six Sigma for example can even help management understand which customer groups are most profitable and where service can be enhanced most cost-effectively.

The results of lean six sigma initiatives can be dramatic:

- Analysts using a lean approach in one investment bank reportedly gained 20%-30% in analyst productivity - and a 60% reduction in cycle time -- by redefining credit processes.
- An international commercial bank discovered the potential for 30% more efficiency in processing customer transactions - while improving customer satisfaction through more differentiated service.
- A lean audit of one asset manager uncovered ways to make product pricing 12%-20% more efficient by carefully identifying and

eliminating non-value added activities.

- A Lean Six Sigma project team in a retail lending firm has claimed a 60% reduction in error rate and 300 % improvement in cycle time.

Challenges

So why hasn't the financial services companies not made deep inroads in adopting the quality practices? The reasons could be many. While a large spectrum of service industry such as telecommunication, hospitality and even health care have made considerable progress in this direction, financial services industry has yet to demonstrate significant achievement. Some suggest that human nature blocks progress, and the financial sector is no exception.

Most financial service companies tend to be in denial that some of the advanced tools of quality apply to their industry. Typically, everyone agrees it is great for manufacturing, and then denies it could work in their business. This is not new. A few years back – this was the case with every other service industry. But in each case a strong competitor shows some success with quality methodologies -others jump into the bandwagon.

In fact, process approach or lean six sigma for manufacturing and for finance are not all that different. Finance is just a different kind of factory. It is a processing factory, and there's a big opportunity to improve the processes and reduce a lot of waste.

Becoming improvement oriented involves mastering processes, identifying and eliminating non value adding activities, eliminating waste and practicing a well defined Corrective and Preventive Action(CAPA) process.

Another key principle across the quality methodologies is to focus on what's important, what matters to the customer, what delivers value.

Practices	Tools and Techniques	What does it mean
Process Excellence	SIPOC, BPMS, ISO 9000, Process Audits, CSAT	Defined processes, consistency, identification and prioritisation of key improvement areas
Waste Elimination	Lean	Elimination of over production, waiting, poor transportation/ logistics, over-processing, sub-optimal inventory control, rework, and unneeded movement
CAPA	Six Sigma, Kaizen, RCA	Process metrics tracking, elimination of repetitive complaints, robust processes

Almost everything else should be cut. But understanding what customers value isn't always easy, especially when functional silos isolate employees from the front line or the marketplace. "Very often, employees get ideas about what's important to the customer based on limited knowledge or an incomplete understanding of customer needs," Conducting Customer Satisfaction Surveys on a well defined customer value tree on a periodic basic with corrective actions is a popular and proven practice to align the processes to what is important to customers.

Projects help realise the results in quantified way

Speed, cost, and accuracy are the essential ingredients of success in today's competitive, high velocity marketplace. To achieve these goals, firms have recognized the importance of learning from the success of others, with methods of Six Sigma and "Lean thinking" representing the most powerful tools to date in the quest for excellence.

Financial service firms across the globe have benefitted from Operational Excellence project. Lean Sigma works well in the banking and the financial services industry because they are both process-orientated environments. Given below is a snapshot of projects undertaken by the financial services companies, which the author believes will help the industry to realise the successful application of the quality methodologies in financial industry and also will help in identifying areas in their respective companies. The projects selected below are from published case studies in various journals, newsletters both in print and electronic media.

1. Reduction of Loan Processing Time

Project Description:

Problem Statement:

The Loan Processing Time (application to disbursement) for new loans in the retail channel averages 45 days. The target time is 15 days with theoretical cycle time being 3 days. The increased cycle time results in lost revenue & lower customer service.

Goal Statement:

Reduce cycle time (shift the process average) from 45 days to 15 for loans.

Project Start Date:

Sept '07 Project Completion Date: Jan '08.

Project CTQ's

Turn Around Time-TAT(from date of customer application to Date of disbursement)

	Baseline	Target
TAT	45 Days	20 Days
Sigma	2.41	3.7
DPMO	180610	8692

(CTQ= Critical to Quality)

Project Benefits

Cycle time reduction:

Net Savings of INR 50 Lakhs and Top line improvement of INR 130 Cr. On annual basis.

Soft Savings:

- Application form rejection reduced from 43% to less than 6%
- Increased Customer Satisfaction and retention



Project Accomplishments

- Process streamlining
- Trained over 250 people trained on the process

2. File Defects

Project Description:

Problem Statement:

Defects found in Customer Application Forms by the Post Closing Department exceed 12% each month. The large number of defects results in lost revenue due to rejection of application, poor customer service, increased cycle time, increased risk to the company and significant rework costs.

Goal Statement:

Reduce file defects to less than 3%.

Start Date: Jan'07 **End Date:** Mar'07

	Baseline	Target
File Defects	12%	3%
Sigma	2.65	3.42
DPMO	124396	27154

Project Benefits

Net Savings:

- Direct Savings: INR 45 Lakh

Soft Savings:

- Enhanced customer service

Project Accomplishments

- Defects reduced to 1.5% and still falling
- Checklists written and implemented for Post Closing defect identification
- Functional process map updated.

3. Reduce Customer Attrition

Project Description:

Problem Statement:

During the last one year, the total customers acquired is 6% of the total base while the percentage of lost and inactive customers was 4% effectively bringing down the overall customer base increase rate.

Goal Statement:

Reduce attrition rate to less than the 1%, while fixing the customer issues related to attrition.

Date: Jul'08 **End Date:** Sept'08

	Baseline	Target
Customer Attrition rate	6%	1%
Sigma	3.03	3.7
DPMO	63178	8692

Project Benefits

Net Revenue Enhancement: INR 15 Crore

Direct Savings:

- Processing cost of customer cancellation requests

Soft Savings:

- Improved Sales force morale due to customer retention

Project Accomplishments

- Increase in effective customer base
- Brainstormed and prioritized 10 improvement initiatives

Changing Mindsets and Attitudes

While the basic idea of process approach is familiar to financial services executives, however getting them to follow through the process approach is another matter. Many companies that have applied quality tools and techniques to back-office processing have reaped good benefits. However there is always a steady state followed by diminishing returns. The second stage of opportunity in higher-level processes, such as those that touch the customer in branches or the front-office. Denial of the efficacy of the methods will continue to be a challenge, however it is a matter of time. Part of the reluctance is due to the absence of proven results and improper handholding in the initial periods.

Getting It Right

The best way to begin a quality initiative is to map an entire end-to-end process, then look for ways to streamline it. You're much more likely to be successful carving up and defining specific processes with a beginning point and an endpoint. But analysis and implementation are extremely different. Tools and techniques are pretty simple but the execution - getting to success - is a challenge. It's a people process, and it requires a big change in the culture and in the the initiative is managed. Implementing begins as an operations issue, however it quickly becomes a change management exercise



that requires people to handle activities in an unfamiliar way. For instance, engaging employees in problem-solving means that people involved in a process must be asked how it might be simplified or improved. Managing change and people's behaviors is a continuous process that must be addressed from day one.

Way forward

For many financial services companies, the first item on the agenda may be to increase the value and productivity of a process. Advanced techniques such as Lean Six Sigma would also be moving up the value chain in finance, as it has in other service industries. As an example, lean thinking could be applied to research operations in financial services such as broking, insurance, fund management to streamline processes and speed up decision-making. There is no reason why the quality methodologies can not be used in knowledge based processes within the financial industry leave aside the factory like back office processing centres.

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Applying Common Quality Tools in Services Environment

(Sharad Sharma, Tata Consultancy Services, Mumbai)

Manufacturing has been the subject of interest of the majority of scientific thinkers and improvement evangelists over the last half a century now. Ever since the industrial revolution started in the early 20th century, the manufacturing processes and practices have come a long way.

It is with the advent of the era of mass communication and information technology that service industry is witnessing similar growth opportunities and is significantly increasing its share in the world economy. It has now over the last two decades also been attracting interest for applying the Quality concepts as prevalent in manufacturing.

This article explores the evolution of many quality tools and practices and presents a three step approach for deployment of operational excellence in any service organization.

Services are different

Before we try to explore setting up and improving services, let us understand how a service is defined. Researchers have divided the service offering into two parts – the tangible – functional piece, the core benefit this is the core value of the business, sometimes a tangible product as well – Food from a restaurant, the treatment from a hospital. Then there is the intangible—the experience associated with the service. The ambience at an airport, the facilities at the hospital etc.

The taste & flavor of food in a restaurant is as important as the ambience, décor, staff courtesy & promptness – making the final product inseparable from the service. In other instances there is no tangible product - holiday at a luxury resort leaves nothing tangible with the customer.

Financial services would lie somewhere in the middle of this services spectrum, with a tangible product (a bank account, or an insurance policy) as well as the intangible experience (how the entire transaction was facilitated by the service provider).

These special characteristics of services make it all the more necessary for organizations in this business to extend extra attention to certain aspects (such as visual Quality at workplace) of the quality framework that are otherwise absent in a traditional manufacturing setup. It also requires that organizations do not blindly adopt the tools and methodologies from manufacturing as it may not yield the desired result.

Organizations starting up in the services industry can adopt the three step approach for delivering excellence to their customers and other stake holders.

Step 1 – Get the basics right: Set up and standardize processes then measure and track the performance of these processes. This is the stepping stone for the service organization. It is about developing a service design with clearly defined processes that are expected to give the desired results to the customers. It includes setting up what is commonly referred to as BPMS (Business Process Management System) customized for the services. Along with the BPMS, the services also need a mechanism for ensuring excellent service experience for the customer.

Step 2 – Continuous improvement: Once the infrastructure processes are set, the organization needs to cultivate the culture of continuous improvement. This initiates a systemic process of fine tuning the processes, making improvements, sharing best practices there by riding on the collective wisdom of the organization. Tools and methodologies as Kaizen, 5S and Knowledge Management have to be incorporated as and when required.

Step 3 – Breakthrough Improvements: Every organization would need at some time or the other, a focused initiative to achieve the next level of performance. This is where the commonly used problem solving approach such as six sigma (DMAIC), lean, TRIZ and Design for Six Sigma etc come into play. These are advanced tools

specifically aimed at solving complex cross functional problems and can be applied to services with certain customization.

The Basics

Organizations in service industry typically spend a less time and effort on the design as compared to the manufacturing. We seldom come across a well designed service and more often than not, the service design is an outcome of trial and error by the staff performing it. For Example – Banks do not have a detailed design to handle peak hour rush leading to crowding and chaos. It can very well be factored in while designing so that peak hours have maximum staffing inside the branch. There can be shared responsibilities, sales staff helping out for service and many more ways to address the expected rush, however most banks are capacitated not as per the customer arrival patters but as per some average which leads to over as well as under capacity at the same time.

The basic point is Services need to factor in the variability in the customer demand while designing. Manufacturing never had this problem, because they had something the services does not have – inventory. The fact that services cannot be produced and stored demands special attention to ensure that services are available when customer needs them, and at the same time ensuring high utilization of resources.

All this can be achieved if the services are designed in the same manner manufacturing designs their products – detailed specifications for each process & sub processes.

This detailed design can be clubbed under the umbrella of well known – Business Process Management System (BPMS). A services BPMS would not only include the process maps and sequence of activities, but it should also incorporate – designed or expected TAT, volumes of transactions and resources required so that the dynamics of service delivery are taken into the considerations. This will ensure minimum capacity mismatches and will also facilitate easy ramp up of volumes if required. There are many instances where within the same process one resource is over staffed and other understaffed.

It is also required to build in metrics & dashboards that would highlight immediately if any process needs a design change – for example if the TAT (Turn Around Time) is clearly identified, tracked and monitored between intermediate steps, the organization would be able to take pre-emptive action and would certainly avoid any impact on the end customer.

Continuous Improvement

Once the basic design and specifications of a process are completed, the next step would be to look forward towards improving the services. This requires cultivating throughout the organization a culture of customer focus and business excellence.

One of the basic tools that can be adopted from manufacturing is 5S. It is a workplace management practice that has the potential to dramatically alter the work place dynamics.

It represents five simple principles that originated in Japan for shop floor management. Services need to interpret and implement in a manner that ensures better experience to the customer.

The Quality arsenal has a lot of simple yet effective tools for involving and engaging the masses. Kaizen (Literary meaning – Change for the better)- a Japanese tool is very useful to start with. Deploying Kaizen requires encouraging everyone to make any small or large improvement in their work area and acknowledging the same. The small change that has brought about any improvement is highlighted suitably and rewarded. This encourages others to take up the same (replicate) the change as well as encourage them to take up Kaizen themselves.

Services happen to have a large interface with the customer; hence they offer more opportunity to the staff to conceive and implement these “changes for the better”. For example a call center agent would be in a position to modify the call flow leading to a lesser hold time for the customer; similarly the bank executive sitting on the front desk would be able to decide which frequently asked information can be displayed on the notice board resulting in lesser inquiries. With a large no of people working in customer facing roles, there is

a huge opportunity to device ways for serving the customer better.

Going one step ahead from Kaizen is to ensure that any best practice, devised solution to a problem is disseminated throughout the organization. It is about building together the collective knowledge of the organization, making it available to everyone, enhancing it and preserving it for future - Knowledge Management.

Breakthrough Improvements

Organizations find it difficult to make breakthrough improvements in their processes under the business as usual conditions. At some stage or the other, most organizations reach an entitlement stage of their process performance resulting in stagnation in improvements. They are unable to take advantage of the technological advances and new process methodologies.

What they need to go further is – Breakthrough Improvements. The requirement is to re look at the very purpose of the processes, re-engineer, re-align and re-organize the entire services shop.

This is where the structured problem solving methodologies are required. There are a variety of tools and methodologies that can be adopted for services. One can look at Lean – Waste elimination for quick fixes and solving simple problems where as more technical tools such as six sigma or iTriz can be adopted for more complex issues. The selection of tool as well as its suitable adoption to the services environment is important here.

In the following table, a method for selection of tools is presented, remembers these are not hard and fast rules, but are guidelines to help organizations adopt the suitable approach

Process	Problem	Tool
Well defined Standardized Performed as designed Not very complex No complex relationships	Shop floor chaos Over as well as under utilization of resources Missed deadlines Time & resources spent on fire fighting/non value adding activities	Lean
Well defined Standardized Performed as designed Complex processes Large no of inter relationships of the processes	Defects Customer complaints High variation in output quality New service design Unknown problem	Six Sigma iTriz
Not well defined Ad-hoc activities	Low productivity, No control Large variation in Output	Go to Basics – Set up a BPMS in place

As a tool, it is advisable to start with simple problem solving with Lean methodology. It is important to adopt lean to services environment.

In a service organization, the most efficient method for cutting waste is to attack anything and everything that is not done right the first time. This concept, known as first time right, involves making sure that all activities are carried out in the right manner the first time and every time. Examples include a customer not needing to repeat their order at a take out restaurant and a bank executive handing the customer the correct form the first time.

Measuring the First time Right at each of the critical stage of the process and then working for improving the yield can work wonders for service industry – typically those involving transactions as it directly reduces the volume thereby freeing up resources.

Triz is a pure manufacturing solution – but can also be used within the confines of services. Developed by a Russian engineer after studying more than 30000 patents, Triz is an inventive problem solving methodology. This methodology provides 40 ready made solution principles which can be selectively applied to all the basic problems – contradictions. This technique provides a structured approach to what is typically perceived to be unstructured & more on the creative side – Innovation.

Conclusion

While Services are inherently different from the traditional “products”, still a lot of Quality tools and techniques traditionally developed for manufacturing can be deployed although with suitable adjustments.

Occupational Safety and Health Policy

A tool for improving working conditions of an organization

Y. Mohan Babu, Dr. U. B. Raju, Dr. A. V. Sita Rama Raju

Synopsis of the Paper

Occupational Safety and Health Management has gained importance with the advent of OHSAS 18001 and ILO guidelines. These guidelines aim at continual improvement in working conditions. Defining Health and Safety policy is an important and first step in evolving an effective Health and Safety Management System. Legislation like Factories Act 1948 which regulates working conditions in manufacturing facilities have also cast the responsibility on the management to announce and implement an effective Health and Safety Policy. In this paper a study is made on importance of Occupational Safety and Health, initiatives taken by International Labour Organisation to improve OSH conditions, various available OHS management codes and practices, legislation etc. Role of various important elements in improving working conditions is discussed. The survey conducted among various industries shows that some important elements which are having a bearing an effective health and safety management are missing in the OHS policy.

Introduction

Globalization of the economy has intensified over the recent years and, together with the development of the new information and telecommunications technology, it is bringing about radical changes in society, comparable to those produced during the industrial revolution. Occupational safety and health cannot ignore those changes. And, in this context, the greatest challenges for the countries is the transformation of the difficulties involved in adapting to the new situation into opportunities for the future development of occupational safety and health. (ILO)

Management are adopting various management standards for having a better visibility to their Occupational Health and Safety (OSH) performance. Formulating an OHS policy is an important element in managing OHS. An effective OHS policy is a driving force for an organization in improving OHS performance of an organization

In this paper a study is made on importance of Occupational Safety and Health, initiatives taken by International Labour Organization (ILO) to improve OSH conditions, various available OHS management codes and practices, legislation etc to identify ingredients of an effective OHS policy and their importance in improving the OHS performance. A survey is conducted among various types of manufacturing units to find the extent to which the OHS policy is framed and implemented

in their organization and its importance. The survey indicated that, though it is a statutory obligation, many of the organizations have not fully complied with the requirements of framing an effective OHS policy and communicating the same to the stake holders.

Importance of Occupational Health and Safety

Safety¹ is defined as the “state in which the risk of harm to persons or damage to property is limited to a tolerable limit”.

Occupational Health¹ is defined as “ill health that is judged to have been caused by or made worse by a person’s work activity or environment”.

The International Labour Organization (ILO)² estimates that each year about 2.3 million men and women die from work-related accidents and diseases including close to 360,000 fatal accidents and an estimated 1.95 million fatal work related diseases. This mean that by the end of each day nearly 1 million workers will suffer a workplace accident, and around 5,500 workers will die due to an accident or disease from their work. In economic terms it is estimated that roughly four per cent of the annual global Gross Domestic Product, or US\$1.25 trillion, is siphoned off by direct and indirect costs of occupational accidents and diseases such as lost working time, workers’ compensation, the interruption of production and medical expenses.

to be continued in next issue

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NCQM News

Welcome Aboard - New Members

Member Individual:

MI0484 Mr. G. C. RajuMumbai

Senior Member:

SM0087 Mr. Abhayraj Shankar Kute
.....Navi Mumbai

SM0084 Mr. Moiz A. Merchant - Mumbai

Corporate Member:

CM0527 Tide Water Oil Co. (India) Ltd. Mumbai
Mr. R. Parameswaran

CM0528 Print House India Pvt. Ltd.....Mumbai
Mr. Gopinath M. Kulkarni

NCQM Forthcoming Programmes

- 1) Being Cost Effective Through 5S Principles of Good House-Keeping & 7W Seven Areas of Wastes May 21, 2010
- 2) Delegation to Develop the Team May 29, 2010
- 3) Internal Audit for Occupational Health & Safety Management System (OHSMS) June 4 & 5, 2010
- 4) Root Cause Analysis & Use of QC Tools July 6, 2010

For further details please contact : Programme Co-ordinator, National Centre for Quality Management, Mumbai Or download the brochure from www.ncqm.com

Other Forthcoming Programmes :-

Performance Appraisal
Six Sigma Yellow Belt
Six Sigma Green Belt
Integrated Management System
HACCP Awareness



ACKNOWLEDGEMENTS:

Mr. Hormazd Mody donated books from his personal collection to NCQM Library. NCQM Governing Board is thankful to Mr. Mody for his kind gesture.

BEQET AWARD 2009

- » NCQM as part of promotion of Quality in Education organizes BEQET AWARD every year.
- » BEQET Award 2009 competition was held on February 20, 2010. Ten teams participated.
- » The first prize was bagged by "Canteen Upgradation" Team from Smt. P. N. Doshi Women's College of Arts, Ghatkopar, Mumbai. The second prize winner were "Quality Improvement in Exam Results" Team from Thakur College of Engineering and Technology, Kandivli, Mumbai and Third winner were "General Key Management System" team from Shri M. D. Shah Mahila College of Arts & Commerce, Malad, Mumbai.



Shri D. L. Shah Memorial Lecture Report

- NCQM organized 1st D. L. Shah Memorial Lecture on 21st January 2010 at Hall of Harmony, Nehru Centre, Worli Mumbai. Shri Suresh Lulla, Managing Director of Qimpro Consultants Pvt. Ltd., gave lecture on “From **Managing for Quality to Quality of Management**”. About 100 professional attended the lecture.
- Shri D. L. Shah Trust For Applied Science, Technology, Arts & Philosophy has consented to provide corpus fund to NCQM in organizing D. L. Shah Memorial Lecture annually. This was the first lecture of this series.
- Trustees of Shri D. L. Shah Trust For Applied Science Technology, Arts & Philosophy, Mr. K. K. Nohria and Mr. H. K. Taneja garlanded Late

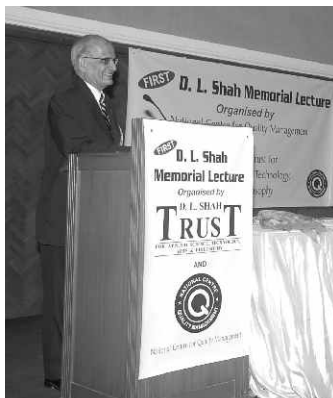
Shri D. L. Shah's portrait and inaugurated the function. The programme further was started with Saraswati Vandana by students of ITM Kharghar.

- NCQM President Dr. R. H. G. Rau welcomed all guests. Mr. Taneja gave updates on Shri D. L. Shah Trust's other activities and it was followed by lecture by Shri Suresh Lulla.
- Shri D. L. Shah Trustees presented a momento to Shri Suresh Lulla.
- NCQM immediate Past President Shri Mahesh Gandhi gave vote of thanks.
- The programme was compared by Shri Santosh Khadagade.

Mr. K. K. Nohria and Mr. H. K. Taneja garlanded Late Shri D. L. Shah's portrait



Shri Suresh Lulla, Managing Director of Qimpro Consultants Pvt. Ltd., gave lecture



Mr. Taneja gave updates on Shri D. L. Shah Trust's activities



Shri D. L. Shah Trustees and NCQM President and Past President presented a momento to Shri Suresh Lulla.

