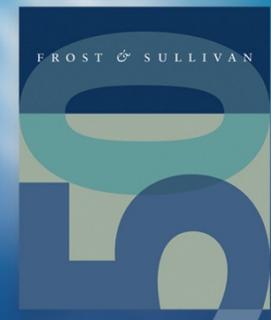


Sustainable Manufacturing Growth through Quality Systems



FICCI, Jan 19th 2012- New Delhi

The Agenda

About Frost & Sullivan

Quality systems & Sustainable manufacturing

Case Studies

Summary

The Frost & Sullivan Story

Helping Our Clients Accelerate Growth
Through Best Practices in
Growth, Innovation and Leadership



The Frost & Sullivan Story



Pioneered Emerging Market & Technology Research

- Global Footprint Begins
- Country Economic Research
- Market & Technical Research
- Best Practice Career Training
- MindXChange Events

Partnership Relationship with Clients

- Growth Partnership Services
- GIL Global Events
- GIL University
- Growth Team Membership™
- Growth Consulting

Visionary Innovation

- Mega Trends Research
- CEO 360 Visionary Perspective
- GIL Think Tanks
- GIL Global Community
- Communities of Practice

Our Global Client Base

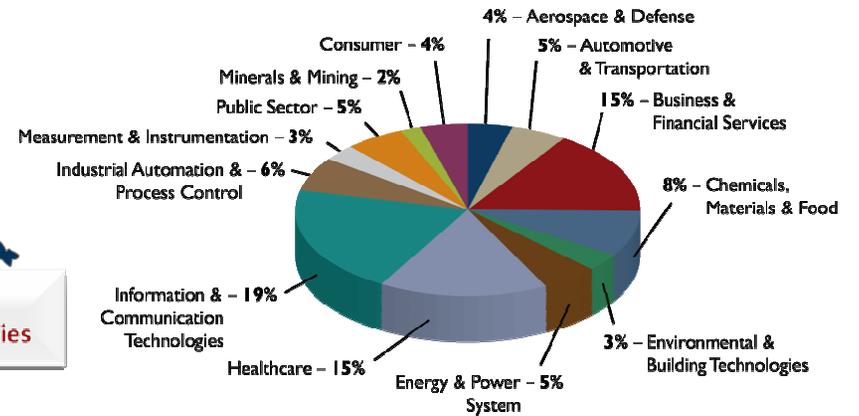
40+ Offices Provide Perspective, Coverage & Service

By Region

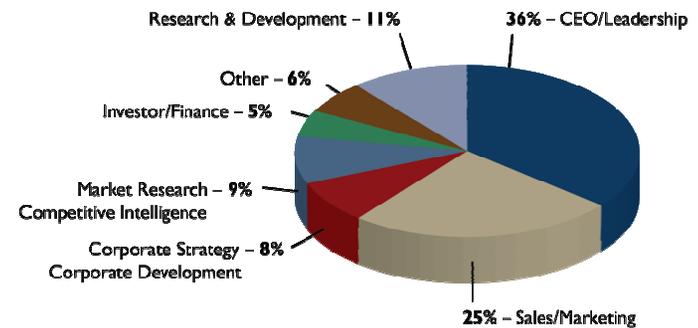
250,000 SME & Global Companies, 2 million executives



By Industry



By Career



Our Industry Coverage



Aerospace & Defense



Measurement & Instrumentation



Consumer Technologies



Information & Communication Technologies



Automotive Transportation & Logistics



Energy & Power Systems



Environment & Building Technologies



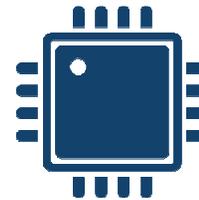
Healthcare



Minerals & Mining



Chemicals, Materials & Food



Electronics & Security



Industrial Automation & Process Control

Our Services

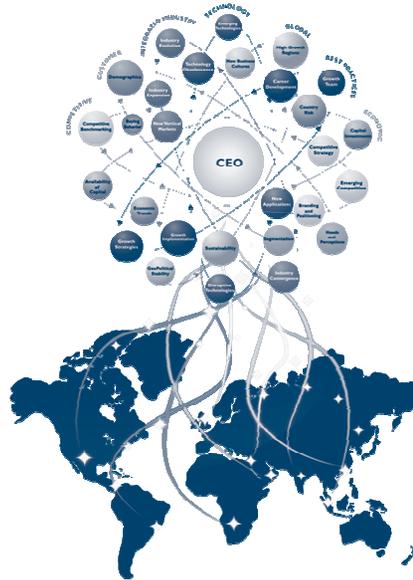


Growth Partnership Services



Growth Consulting

GIL Global Community



GIL University



Events



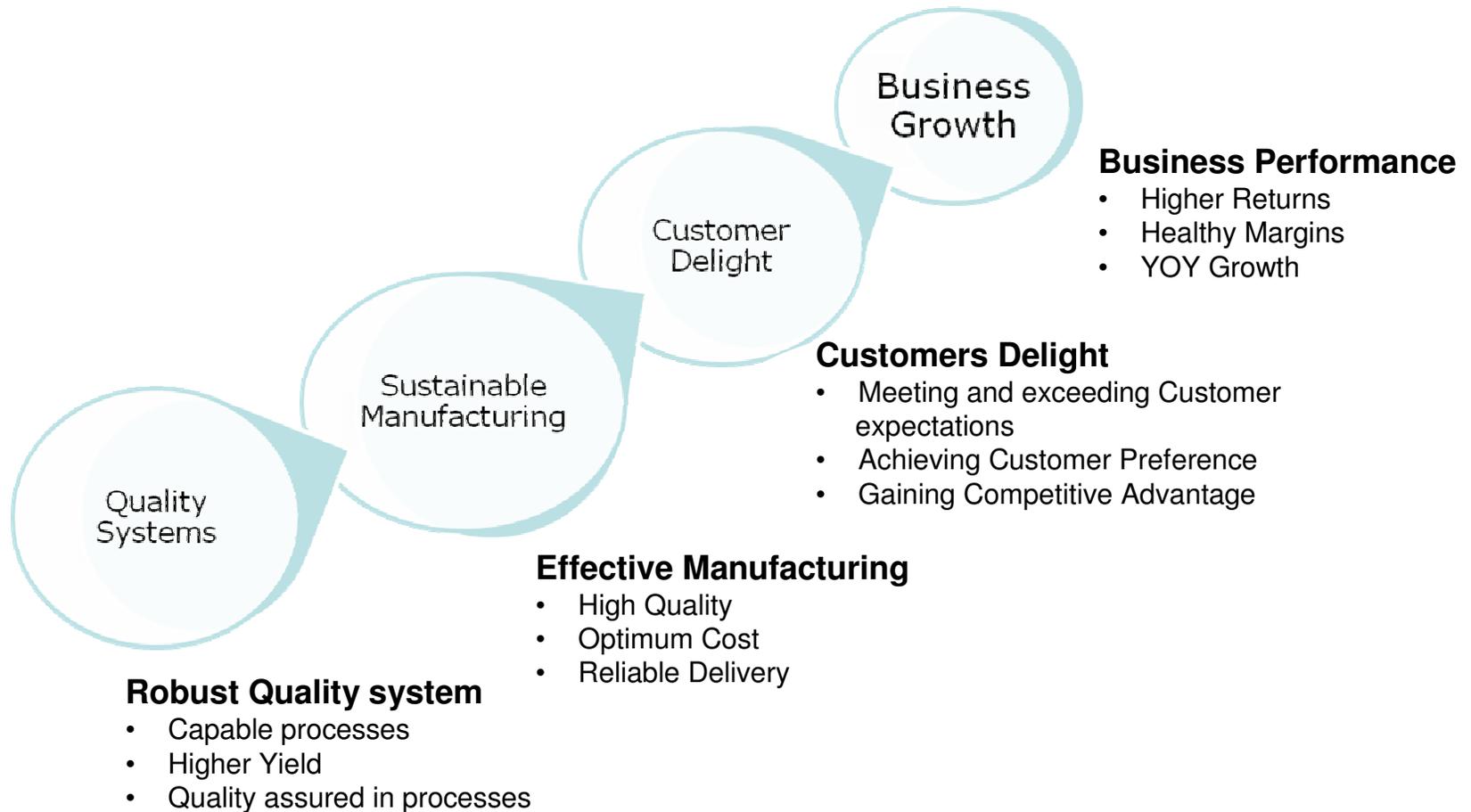
*Sustainable Manufacturing Growth
through
Quality System*

Sustainable Manufacturing through Quality Systems

Quality systems - Sustainable Manufacturing – Business growth
Understanding the linkage and relationship

Sustainable Manufacturing through Quality Systems

Business Growth – Manufacturing - Quality Systems



Sustainable Manufacturing through Quality Systems

Quality Systems & Manufacturing

Quality systems and its effective implementation enable optimum performance of manufacturing processes.

Effectiveness of manufacturing processes is proved in its ability to meet and satisfy customer requirements.

Earning the loyalty of its customers is critical to sustaining Business Growth.

In a competitive scenario retaining customers and earning their preferred status can also be seen as possessing needed competitive strength .

Sustainable Manufacturing through Quality Systems

Hence

Sustainable Manufacturing

Is the ability of manufacturing processes to consistently perform so as to enhance Customer satisfaction and build competitive strength to Business.

Sustainable Manufacturing through Quality Systems

Manufacturing processes & Quality Systems



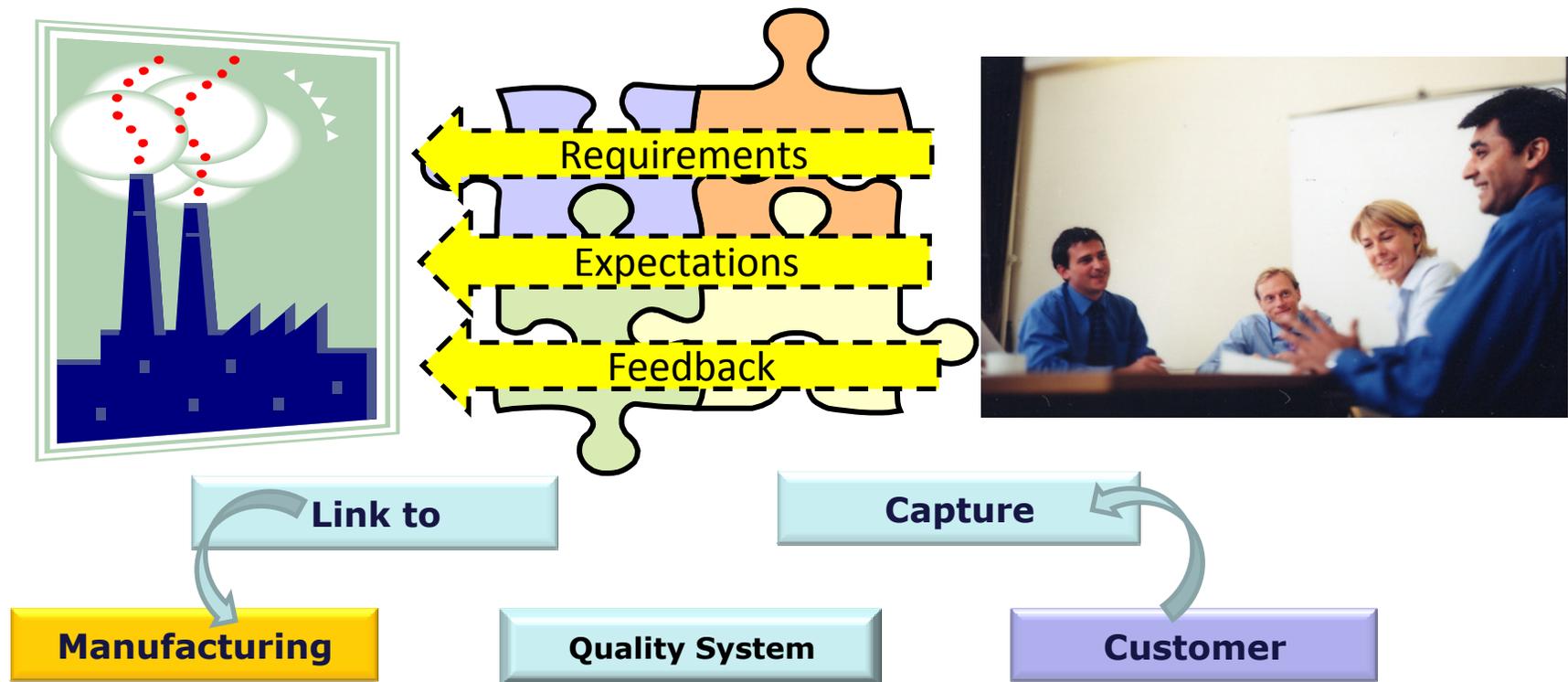
Theme :

Effective use of Customer feedback for developing Sustainable Manufacturing Growth.

Sustainable Manufacturing through Quality Systems

Business Growth – Manufacturing - Quality Systems

Role of Quality System in Sustainable Manufacturing



Sustainable Manufacturing through Quality Systems

Role of Quality systems to achieve Sustainable Manufacturing

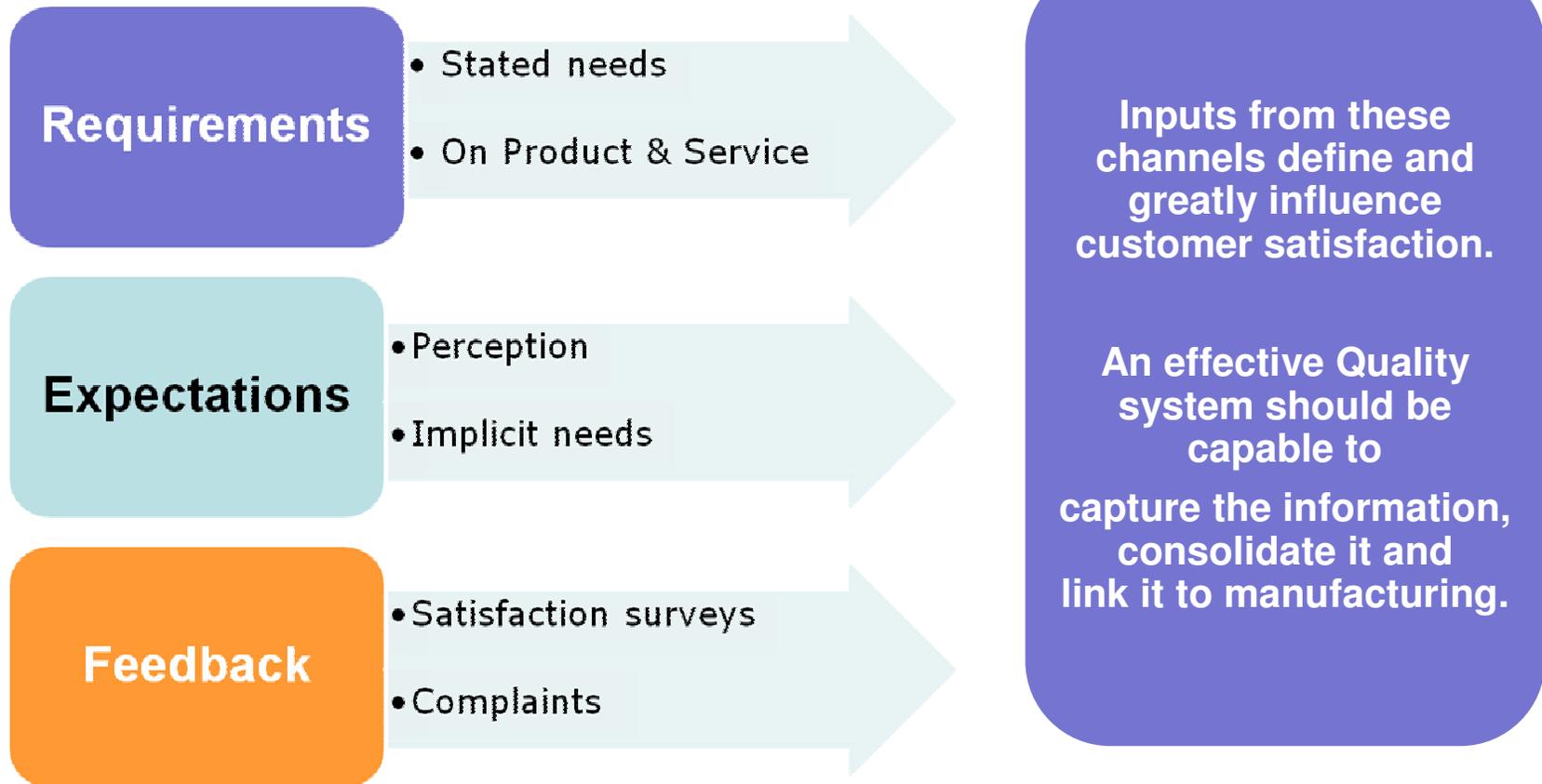
Capture customer expectations, requirements and feedback without ambiguity and on a timely basis.

Link the information back to manufacturing to help it align its processes to meet the stated and unstated needs.

Build a system that is Capable (*ensure quality of information*) and Reliable (*perform consistently*) in meeting the above.

Sustainable Manufacturing through Quality Systems

Inputs and Channels of Customer related information



Sustainable Manufacturing through Quality Systems

Points on capturing feedback and using for enhancing manufacturing.

Satisfaction surveys are conducted but they lack quality and depth to provide any meaningful feedback

Outcomes from Satisfaction surveys are not validated

Complaints are selectively recorded.

Analysis of complaints towards identifying root cause is weak.
Solution to resolve are more of Corrective actions in nature.

In many cases manufacturing is isolated and feedbacks do not reach manufacturing.

Perception of customers is not captured.

Sustainable Manufacturing through Quality Systems

Case Study -1

Effective use of customer feedback in improving product.

Sustainable Manufacturing through Quality Systems

Case Study #1 : Effective use of Customer feedback for improving product.

A leading manufacturer of Plastic Bins and storage systems wanted to improve its products and product variety.

Being a commodity product it had a variety of applications and a range of customers covering industries to small time vendors selling vegetables.

Approach :

Conduct a survey at actual points / situations where product is used.

Method :

They deployed a team with an agenda to **visit the actual place of use, observe , and interact** with the users.

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Case Study #1 : Effective use of Customer feedback for improving product.

Observation : In actual use customers were stuffing the bins with excessive material.



Current limitation in the product : Due to warp of the side walls usable volume of bins were getting reduced.



Feedback to plant : Eliminate warpage in side walls.

Action & Outcome : Side walls were strengthened.
Usable volume increased by 10%.



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Case Study #1 : Effective use of Customer feedback for improving product.

Customer Application		
Use	Misuse	Abuse
		

Observation : Bins were put to use and abuse.

Feedback to plant : Make the product suitable to withstand different usage patterns.

Action & Outcome : Thickness at critical areas were focused and was monitored as a CTQ.

Sturdier bins capable to take loads produced.



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Case Study #1 : Effective use of Customer feedback for improving product.

- ❑ **From Customer Need To Customer Application**
- ❑ **Insights on Actual customers Usage (Use, Misuse, Abuse) through Survey**
- ❑ **Benchmarked our product vis a vis Competitors w.r.t QCD.**
- ❑ **SWOT Analysis.**



Observation and interaction on site of use.

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Case Study #1 : Effective use of Customer feedback for improving product.

Overview of gains

Improved acceptance of product in the market

Enhanced brand image

Increase in sales.

Learning

The outcome of the survey revealed a bitter truth

“ The product aspects that were considered as Non Value by the organization were actually expected by its customers and they held it important.”

Understanding the product from its actual use and application gives valuable inputs on customer requirements and opportunities for product improvements.

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Case Study -2

Deploying Voice of Customer at Manufacturing.

Sustainable Manufacturing through Quality Systems

Case Study #2 : Deploying Voice of customer in Manufacturing.

The organization is manufacturer and exporter of ready made garments.

It manufactures ready made garments for some of the leading garment brands in the world and is a 100% export oriented unit.

The market and its customers demand a high order on quality of products. Other than the quality of fabric, details such as fit and finish and packing are of critical importance to the product quality.

Garment manufacturing is a mass production and highly labor intensive industry and calls for robust and capable processes, skilled manpower to meet stringent quality requirements of exports.

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Case Study #2 : Deploying Voice of customer in Manufacturing.

Need :

Customers are unable to check their products before it leaves the factory.

To put in a process which will achieve the objective in a equivalent manner.

Solution :

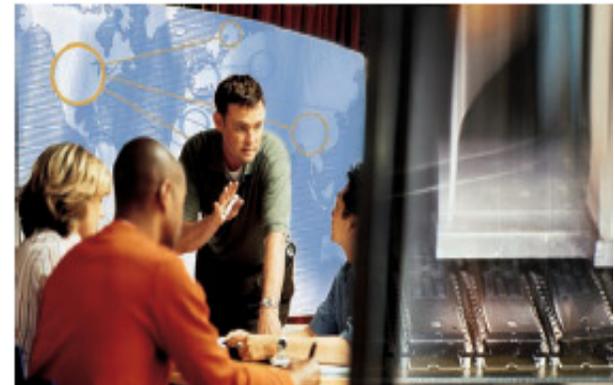
To create a replica of customer at the manufacturing site and ensure that products leaving the site are inspected and approved by the end customer.

Approach :

The organization created a position titled “**Customer Satisfaction Officer**” (CSO).

The CSO although appointed by the organization, represents for all practical purposes the customer.

The CSO is treated as a representative (agent) of the customer.



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Case Study #2 : Deploying Voice of customer in Manufacturing.

Implementation : (Highlights of the system)

The CSO is trained by the end Customer on their requirements.

All feedbacks from end Customer is routed to CSO and through it to respective manufacturing process.



The CSO does not report to manufacturing or plant.

Reports to either Customer or to the Merchandising / marketing function who are close to the customer.

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Case Study #2 : Deploying Voice of customer in Manufacturing.

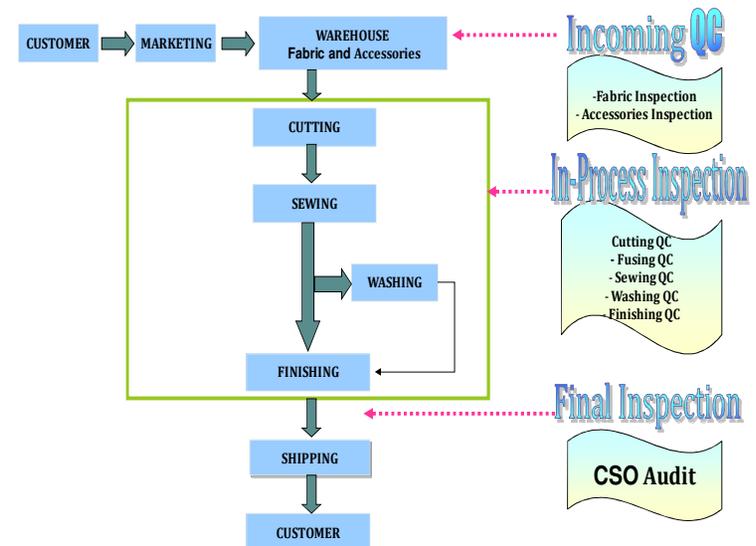
Implementation : (Highlights of the system)

The CSO will inspect products at all stages of garment manufacturing - Incoming, in process and Final.

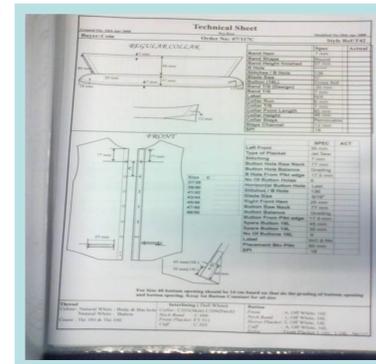
Ensures conformity of respective customer requirements in all dispatches made.

CSO is authorized to put on Hold / Reject products in case of non conformances.

QUALITY SYSTEM FLOW CHART



CSO follows an independent check list and sampling plans for inspection and quality assurance.



Sustainable Manufacturing through Quality Systems

Case Study #2 : Deploying Voice of customer in Manufacturing.

Overview of gains :

Satisfaction of meeting customer's quality requirements at plant

Building reliability in processes and hence enhancing quality in the products produced and dispatched.

Increase in business tie ups.

Reduction in Rejections / Claims from customers.

Sustainable Manufacturing through Quality Systems

Summary points

Sustainable manufacturing growth needs to aid in enhancing customer satisfaction and earning the preferred status.

Developing and implementing an effective quality system to capture feedback and changing expectations of customers is critical to manufacturing growth.

System to route Feedbacks and customer expectations to manufacturing has to be ensured.

A cross functional team approach is necessary to analyse feedbacks and identify improvement actions.

Innovation plays a key role for manufacturing growth and sustenance. Innovation should be directed to improve effectiveness of manufacturing processes to in turn to enhance QCD performance.



Thank You