Strategy for
Quality and Competitiveness of SME's in India

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Current status of competitiveness of Indian SMEs

	Total No# of SME's	Average value of export per company in USD
Singapore	9,296	6.74 million
Malaysia	28,840	2.05 million
South Korea	2.9 million	45,000
India	26 Million	4000

Assets of India

- Abundance of natural resources
- Extensive Industrial infrastructure
- Large pool of technical manpower
- Highly capable entrepreneurs and managers
- Low cost of labor

India's Competitive Advantages

- India is using same type of plant & machinery and technology as used any where else in the world.
- We have the advantage of indigenous sources of raw materials at much cheaper rates than any part of the world.
- We pay ¼ th or 1/5 th of the labor cost compared to South East Asia, USA & Europe.
- We have world class engineers and managers who have proved their mettle in the world and are heading some large international companies.

The great paradox

In spite of so many advantages, our SME's are not able to compete on quality and cost with SMEs in other countries.

WHY ?

Reasons for poor quality and competitiveness

- Lack of interest by the Owner/CEO’s in quality improvement.
- Departmental focus of the company.
- Inefficient system of maintenance of Plant and Machinery.
- Poor technical discipline
- Lack of organized system for quality improvement.
- Poor house-keeping and non-attention to various kinds of waste in the company.

These are explain in the subsequent slides.

Involvement of CEO

- This is beigest single cause for comparatively poor quality and cost competitiveness.
- Most CEOs consider Quality Control department as a minor functional group, and leave it to a junior manager/engineer.

This is due to definite reasons, which are explained in the following slides.

Reasons for lack of interest in quality by the CEOs.

- There is a misconception among managers particularly in Small Scale Units, that quality improvement efforts affect productivity and adds extra costs, making the products noncompetitive.
- A number of studies abroad and recently carried out even in India, has broken this myth and shown the opposite effect.
- The studies have shown that planned quality improvements, not only enhances the product quality, but also results in cost savings, which helps the bottom-line of the company.
- Summery of two such case studies in SMEs are given in the next slides.

Studies carried our by Mr. A.N. Singh

Case Study – 1

- Name of the Company – Auto comp PVT
- Products- Brake components for Auto Mobiles.
- Increase in productivity ---- 6 % monthly
- Estimated Annual savings ---- Rs 10 Lakhs

Study completed in 6 Months

Studies (cont……)

Case study – 2

- Name of the company – Russal Tools
- Products – Automotive cold formed components
- Reduction in Setup Time --- 20.5% (11 Minutes.17 Seconds)
- Total number of Die Changes/year--- 325 X12= 3900 (in 13 Presses)
- Increased Availability of Power Presses--- 754 Hrs./Yr.
- Estimated increase in production due to reduced setup time --- 357600 pcs/yr
- Estimated increase in profitability of @ Rs.5/Pc.--- Rs. 17.88 Lakhs/yr

This study was completed within 6 months

Present system of Management

- Most companies are managed by through various functional departments.
- The departments mainly focus on the criteria, based on which their performance will be judged. This is illustrated in following slides.

Production

- Normally concentrates on maximising the quantitative output of the product. Even when there is sufficient stock of unsold goods, the production will continue.
- They will tend to approve deviations in the specifications which may have some impact on product quality or continue production even when some specified process conditions are not fully complied with.

Marketing

- Normally concentrates on fulfilling or even exceeding their allotted targets by giving all kinds of incentives and concessions with in the power of the marketing executives.
- Some times, they may even promise tight delivery schedule to get a large order. This may necessitate the Production to put personnel on overtime or resort to emergency purchase of material at higher cost.
- Such orders may cause loss to the company rather than profit.

Material Management

- Focuses on saving on cost of purchased material by pressurising the vendors.
- The vendor may accept the order at lower price, because he may be short of orders at that time. However since he is not getting much margin on this order, he will give it a low priority and there is a strong possibility of delayed supplies, which may result in stoppage of production or buying the part on emergency basis by paying a higher price.
- Both eventualities may cost more than the anticipated savings due to lower purchase price, thus eating into profitability.

Equipment maintenance

- Normally Equipment Maintenance department is not given its due importance.
- Generally there is a tendency that if a manager is not dynamic enough to get higher production, he is shunted to maintenance.
- Because of his low profile, he may not be able to resources or money to ensure planned preventive maintenance, which may need shut down of some machines affecting overall production schedule and waste due to idle machines.

Quality Control department

This department is mainly responsible for:

- carrying out inward goods inspections, stage inspection and final inspection.
- Monitoring process control in production processes.
- Carrying out various tests required in their laboratory.
- Very rarely it takes up quality improvement project or analyzing the causes of defects occurring in the production.

Lack of technical discipline

- Non adhering to the tolerances in the drawing or the specifications by the operators or giving deviations against the tolerances specified in the drawings, to meet the delivery schedule. This is likely to affect the quality of the component or assembly. Interestingly, such deviations are given by the senior engineers, without any written authorization.
- Taking liberties with the plant operating instructions given by the plant supplier, often with tacit approval of the production manager.
- Non adherence to preventive maintenance schedule recommended by the supplier of plant and machinery.

Efforts required to improve Quality and reduce cost by various departments are given on the following slides

Production

- Improve general house-keeping of production area.
- Maintain proper documentation system of standards, drawing and specifications.
- Establish Process Planning section for developing process procedure, Develop tools. Jigs & fixtures.
- Conduct of process capability studies of important machines
- Institute process controls to ensure that products conform to specifications.
- Ensure proper maintenance of plant and machinery.

Material Management

- Establish vendor evaluation system and their empanelment
- Developing specifications and acceptance criteria to be given to the vendor with orders.
- Arranging proper inspection of incoming material though QA group.
- Carryout annual performance evaluation of vendors.
- Planning optimum inventory level by shortening the procurement cycle.
- Proper storage and maintenance of procured martial.

Quality Assurance

- Inspection of incoming martial, in-process inspection and final inspection and generating data on trend of rejections for the information of the management.
- Checking effectiveness of process control.
- Assisting production in analyses of processing defects to find the root causes and taking corrective actions.
- Determining the cost of poor quality in the company in financial terms and submission of report to the management.

Implementation of quality improvement plan

- The changes in the organizational procedures discussed so far cannot be implemented by SMEs by themselves. They will need external expert assistance to plan and implement the new strategy for reorganization of the company and taking up quality improvement projects.
- They are advised to select a competent consultancy organisation having good knowledge in the domain in which the company is operating. There is risk in approaching private consultants, who may promise quick results, but may not be able to deliver. It is advisable to approach reputed non- profit organisations who will be more reliable and economical, being quality promotion bodies.

Methodology of organizing Quality improvement projects.

- Select the competent consultancy organization.
- Request consultancy organization to conduct an awareness seminar for the Management and senior staff of the company on strategy for quality improvement and cost reduction.
- Arrange a diagnostic study by the consultants to identify the weaknesses of the company and major areas of waste.
- The diagnosis should also assess rough estimate of cost of the waste due to poor quality management.

Methodology [cont..]

- After diagnostic study, the management should have detailed discussions with the consultancy organisation about taking up a pilot project for quality improvement and cost reduction.
- Define the scope of the project which includes training of staff and hand holding during implementation of the project.
- It should be clearly understood by the management, that actual implementation of the project will be carried out by a selected team from the company. The consultants will provide guidance at every step. The CEO will have to be fully involved and help in solving operational problems faced by the project team.
- Acceptance of the project with well defined scope and the financial terms and signing of the contract.
- Evaluate the results after completion of pilot project and plan further action

Thank you