Thoughts and Ideas

By Vivek Dixit

1)Who is your Customer

2) Quality Management

3) Management concepts

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Who is your customer?

Agenda

- How will business improve?
- Who is your customer?
- Importance of having customer driven approach
- Requirements and Expectations of customers
- Continuous improvement – order of the day
- Improve quality of your own work
- Management must raise it's expectations from employees
- Measurements and objectives
- Certifications
- Suggested approach

Who is your customer?

How will business improve

- Customers look for Quality and price
- First customer may buy on price factor, but subsequent customers will also look at the product quality, features, functionality and the support services offered
- Better your previous product or service benchmark
- Provide more features and functionality in your products
- Provide better, and easily accessible service

Who is your customer?

Who is your customer?

- Internal customers
  - At all stages of the development process or service process, there are internal customers
- External customers
  - The external customer pays for the product or service

Who is your customer?

- Importance of customer driven approach
  - If internal customers are satisfied then at every stage your quality improves
  - If external customers are satisfied then they become your ambassadors in spreading the word about your products and/or services

Who is your customer?

Requirements and Expectations

- Every customer has requirements and expectations
  - Requirements are stated. For e.g. features, functionality, services required etc..
  - Expectations are not stated. For e.g. functionality provided must work satisfactorily, a service centre (call centre) must answer a call within 3 telephone rings
  - Try to convert the Expectations to Requirements by asking sensible questions
- Requirements and Expectations keep changing, more and more is expected.

Who is your customer?

- Importance of Expectations
  - Customer satisfaction
    - Achieved if Customer requirements are met
  - Customer delight
    - Achieved if customer expectations are met
- Aim must be to achieve Customer Delight

Who is your customer?

- Continuous improvement – order of the day
  - Continuous improvement is expected in all products and services.
  - No continuous improvement means No further growth, stagnation and subsequent downfall

Who is your customer?

- Improve quality of your own work
  - Better your output every time
  - Raise your customers expectations from you
  - Convince your customer that you're capable of delivering better
  - Establish minimum acceptable standards for yourself, and don't compromise these standards

Who is your customer?

- **Management must raise it's expectations from employees**
  - Management must demand better and better from their employees, and, not be satisfied with same levels of output
  - Employees must be clearly told of new expectations
  - All expectations of management from employees must be realistic and practical

Who is your customer?

Measurements and objectives

- Establish metrics
- Collect measurements based on metrics
- Have transparency in measurement process
- Measurements only aid in comparing results and showing current status vis-à-vis targets
- Measurements are to be used as baselines and analysis, and to determine How much improvement is needed
- Collecting and presenting measurements is not the objective.
- Focus on the objective, which is different from the measurements.

Who is your customer?

- Certifications
  - Certifications are like Bus-stops on the way to continuous improvement
  - Certifications give a sense of accomplishment that a certain stage has been achieved
  - Certifications act as a morale booster
  - Certifications should not be the objective. The End objective must always be Continuous Improvement.

Who is your customer?

Suggested approach

- Identify "Continuous improvement" as end objective
- Identify limited areas, improvise them and then select fresh areas for improvement
- Establish good metrics and measurement process
- Commitment of all stake holders is essential
- Management commitment is vital for success
- Identify and achieve certifications on the path of continuous improvement
- Create an environment for Continuous improvement
- Create a mechanism for continuous improvement

Quality Management

By Vivek Dixit

Quality

Agenda

- Discussion on Quality
- Quality principles
- Quality culture
- Quality concepts
- Quality function deployment
- Quality control and assurance
- Quality costs
- Quality Management system
- Quality history
- Quality certifications
- Quality cultural changes

Quality

- What is Quality ?
- -- Meeting users requirements and expectations (functionality, usability, cost, time schedule,etc…).
- -- Fit for use

Quality principles

- Management responsibility for final product in any organization
- All involved in production must be also involved in controlling the quality of the product
- Objective must be Satisfied end users

Quality culture -- 1

- What is Quality culture
- -- Listening to end users to determine their requirements
- -- Identifying cost of quality, & focusing on prevention of errors
- -- Doing the right thing right the first time, and in time
- -- Continuous process improvements
- -- Taking ownership and showing commitment at all levels of the organization
- -- Respect for time (self and others)

Quality culture - 2

- What is not a Quality culture
- -- Not listening to users. Assuming that you know your end user's requirements
- -- Overlooking the hidden cost of poor quality
- -- Doing it over and over again to get it right
- -- One time fixes
- -- Assigning responsibility for quality of your work to others
- -- NO respect for time

Quality concepts

- Good enough for End user's is not Good Enough.
- Raise the End user's expectations and deliver better every time.
- Management must also change their expectations which requires the employee's to improve their performance and strive for Error-Free performance.
- Measurements --- Information used to understand status, used for analysis, and to determine steps how to improvise and better the performance.
- Internal customer and External customer
- Continuous improvement
- Root cause analysis

Quality function deployment

- System of translating consumer (customer) requirements into appropriate company requirements at each stage. For e.g. – Start up, Research, development, marketing, sales, distribution.
- Important to establish clearly defined relationships between characteristics demanded or expected by the customer and quality characteristics evaluated by the process. If substitute characteristics are going to be applied, then it is essential that these substitutions are very clearly defined and accepted by both parties.

Quality function deployment - pitfalls

- -- Priorities uncertain
- -- QFD on everything may not be possible, practical view required.
- -- Lack of teamwork
- -- Want it now, Trade off's accepted
- -- Too much internal focus (my internal process demands …, so what if this doesn't help the customer or delays the project)
- -- Failure to integrate QFD

Quality function deployment - questions

- -- How did you hear customer's voice/expectation?
- -- Have you challenged usual in-house standards to obtain a better product?
- -- How do we compare with competition?
- -- What opportunities have you identified to gain a competitive edge? What additional information do you need? How do you plan to obtain it?
- -- How can you proceed with what you have? What trade-off decisions are needed? Have you obtained concurrence?

Quality Control and Assurance

- Quality control
  - Line responsibility
  - Mechanism to ensure that product meets requirements
- Quality Assurance
  - To assure the management by way of processes, methods, standards, which if followed will ensure the product quality
  - A catalyst to nurture quality through others

Quality Costs

- Cost of maintaining Quality (Prevention costs)
  - Process for e.g. reviews, testing..
- Cost incurred for not maintaining Quality (Maintenance cost)
  - Re-work, re-reviews, re-tests,
  - The later the problem is noticed, the higher the cost
  - Problem noticed at customer site – high cost, damage to reputation and impact on business

Quality Management System

- Processes to direct and control the organization
- Processes which result in development of Quality products and services
- A good QMS meets two critical requirements
  - Customer requirements
  - Organization requirements
- Focus on Continuous improvements
  - Create an environment
  - Work towards continuous improvements

Quality history-1

- Americans who went to Japan
  - Deming
    - Believed management is responsible for 94% quality problems
    - 14 point program
    - Plan, Do, Check, Act also known as PDCA cycle was developed by Dr.Shewhart, but accredited as Deming cycle
  - Dr.Juran
    - Quality triology – Quality planning. Quality control and Quality improvement
    - Believed Quality is associated with customer satisfaction and dissatisfaction
    - Emphasised successive small improvement projects
  - Armand Feingenbaum
    - Originator of Total Quality control
    - Saw it as a business approach and proposed 3 steps to quality viz. Quality leadership, quality technology and management commitment

Quality history-2

- Japanese
  - Dr.Ishikawa
    - Statistical Quality control viz. 7 tools of SQC like Pareto analysis, Cause and Effect diagram, Stratification, Check sheets, Histograms, Scatter charts, Process control charts
    - Emphasis on total quality viewpoint, company wide quality control and human side of quality
  - Dr. Taguchi
    - Optimization of product and process before manufacture rather than quality through inspection
    - Believed better to design a product that is robust rather than control variations subsequently
  - Shigeo Shingo
    - Just in time
    - Inventor of single minute exchange of die system by which setup time reduced from hours to minutes
    - Inventor of Poka-Yoke system
      - Defects are examined, production stopped, root cause analysis done

Quality history-3

- Western
  - Philip Crosby
    - Quality if free
    - Zero defects
  - Tom Peters
    - Viewed that Leadership was central to Quality improvement process
    - Viewed that When a effective leader walks 3 activities happen viz. Listening, Teaching and Facilitating.

Quality approaches

- Develop processes and follow processes for all areas or by specific area

(talk the walk, walk the talk – ISO)

- Total Quality Management (focus on internal/external customer satisfaction)
- Six sigma (continuous improvement to ensure opportunities to have only 3.4 defects per million possibilities)
- Capability Maturity Model

Quality Certifications

- ISO
- SEI-CMM, Tick IT for software
- People CMM
- Malcolm Baldridge Award for US companies
- Tata Quality Excellence Award for Tata companies

Management concepts

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Management concepts

- Participative style – best approach with today's educated masses
- Respect the individual for his/her knowledge and individualism
- Give them the best environment and the direction, and see them work
- Focus of deliverables
- Encourage the team to come up with new ideas
- Give credit where it needs to be given
- Encourage Meritocracy – never encourage Mediocrity

Management concepts

I believe in --
LUCK - Labouring Under Correct Knowledge.
TEAM work - Together Everyone Achieves More work.
Never A S S U M E anything and take anything for granted.
Have an eye for details.
Maintain a Positive approach.
Excellence, strive for the best.
Focus on Continuous Improvements

Management concepts

Category	Previous state	New culture (Quality culture)
Mission	ROI / MBO	Ethical behaviour, End user satisfaction, climate for continuous improvement, ROI is a performance measure
End user requirements	Incomplete, ambiguous,	Use of systematic approach to seek out, understand, and satisfy internal and external end user requirements

Management concepts

Category	Previous state	New culture (Quality culture)
Suppliers	Unidirectional relationship	Partnership
Objectives	Orientation to short term objectives and actions with limited long term perspective	Deliberate balance of long term goals with successive short term objectives
Improvement	Acceptance of process variability and subsequent corrective actions	Understanding and continually improving the processes

Management concepts

Category	Previous state	New culture (Quality culture)
Problem solving	Unstructured, individualistic, problem solving, and decision making	Predominantly participative and inter disciplinary problem solving and decision making based on substantive data
Jobs and people	Functional, narrow scope, management controlled	Integrated functions, work teams, management and employee involvement
Rewards and recognition	Pay by job, few team incentives	Individual and group recognition awards,

Management concepts

Category	Previous state	New culture (Quality culture)
Management style	Uncertain objectives that instills fear of failure	Open style with clear and consistent objectives which encourages group derived continuous improvement
Role of Manager	Plan, organize, assign, control, enforce	Communicate, consult, delegate, coach, mentor, remove barriers, establish trust
Measurement	Data gathering for problem identification	Data used to understand and continuously improve processes

Challenges of Project Management During life cycle of R & D projects

Vivek Dixit
(Copy of presentation made by Vivek at PMI-PCC conference)

Agenda

- Project definition
- Challenges faced in a R & D project
  - Management
  - Operational
- Measurements in a R & D projects
- Approach to handle R & D projects
- Idea management
- Hero approach
- Responsibilities in a R & D project
  - Common
  - Management
  - Operational
- Requirements from Decision makers

Project definition

- Performed by people
- Has resource constraints
- Needs to be planned, executed and controlled
- Temporary assignment or activity
- Results in a product or service

Management challenges in a R & D project

- Management
  - Too many stakeholders
  - Delegating insights of senior management
  - Passing judgements from higher seats
  - View all ideas as possible contributions to market shares, volumes, profitability etc..
  - Uncertain direction (lack of direction)
  - Blame game (Who should be blamed for failure)

Operational challenges in a R & D project

- Operational challenges
  - Too many stakeholders
  - Uncertain direction (lack of direction)
  - Work not felt as an intellectual challenge
  - Uncertain schedule
  - Uncertain cost
  - Uncertain or undetermined Quality
  - Uncertain deliverables
  - Blame game (Who should be blamed for failure)
  - Adherence only to processes
  - Focus given to budgets and targets

Project management in R & D projects

- Purpose
  - To ensure a project is planned, executed, controlled, completed and closed by managing time schedules, resources within allotted costs
- Strategic need
  - Assigning of individual to coordinate, plan, execute, control, communicate, complete and close the project

Measurements in a R & D project

- Schedule progress
- Quality
- Resources
- Cost
- Development performance
- Technical adequacy

Approach to handle a R & D project

- Identify stake holders
- Idea management
- Make it intellectually challenging
- Manage the project
- Think outside the box (unconventional thinking required)
- Communicate
- Keep looking for hero (individual or group of individuals with common vision) approach

Idea Management

- Most essential for any R & D project
- What is Idea management?
  - Be open to receive ideas
  - Keep all ideas alive
  - Filter ideas to have a winner
  - Common vision
  - Management and cooperation
  - Focus on individuals and teams
- Not having idea management will result in
  - Good creative ideas will die if no flexibility is shown to respond to such creativity

Hero approach

- Going beyond borders and returning with booty
- Requirements of a Hero
  - Commitment
  - Ability to take risks
  - Good sense of judgement

  Heroism
  - Cannot be automated
  - Cannot be pre-determined
  - No way to teach it or evaluate it

Common responsibilities in a R & D project

- Manage ideas- responsibility of all individuals

Management responsibilities in a R & D project

- Encourage ideas, drive ideas, challenge traditional approach
- Make it intellectually challenging
- Ability to know a winning idea when you spot one
- Encourage purposeful organized search for change
- Align people, look for creative individuals / heroes and establish direction
- Realize that research is a product of people and not a prescribed process
- Work with your team to change attitudes - assume personal responsibility
- Have a genuine desire to make others great, so they make you great
- Inform requirements, suggest expectations
- Under re-act to crisis

Operational responsibilities in R & D project

- Test all new concepts
  - Organize rapid experimentation with short life cycles
  - Accept early failure, but avoid mistakes
  - Combine available technologies
- Under re-act to crisis
- Manage dependencies
- Manage risks

Requirements from Decision makers

- Change required in mind set of Decision makers
  - To accept new ideas
  - To encourage new ideas
  - To give control to others
  - Support people through an environment that is entrepreneurial in spirit

Questions

Questions

for future contacts
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