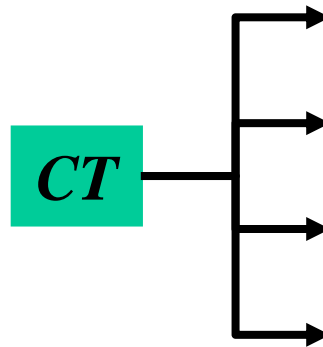# Continuous Improvement Toolkit

Critical-to Tree (CTQ)

CT

Managing Risk

PDPC
FMEA
RAID Logs
Fault Tree Analysis
Risk Assessment*
Traffic Light Assessment

Deciding & Selecting

Pros and Cons
Importance-Urgency Mapping
Break-even Analysis
Cost -Benefit Analysis
Force Field Analysis
Voting
SWOT
Pugh Matrix
Decision Tree
QFD
Matrix Diagram
TPN Analysis
Kano Analysis
Prioritization Matrix
Paired Comparison

Critical-to Tree

Planning & Project Management*

RACI Matrix
Stakeholders Analysis
PEST
PERT/CPM
Activity Diagram
Roadmaps
Project Charter
Gantt Chart
PDCA
Control Planning
Gap Analysis
Hoshin Kanri
Kaizen
How-How Diagram
Tree Diagram**
Standard work

Identifying & Implementing Solutions***

Lean Measures
KPIs
OEE
Capability Indices
Cause & Effect Matrix
Pareto Analysis
Simulation
TPM
MSA
RTY
Descriptive Statistics
Confidence Intervals
Mistake Proofing
Cost of Quality
Probability Distributions
ANOVA

Understanding Cause & Effect

Pull Systems
JIT
Ergonomics
Reliability Analysis
Graphical Analysis
Hypothesis Testing
Design of Experiments
Work Balancing
Automation
Run Charts
Scatter Plot
Correlation
Regression
Bottleneck Analysis
Visual Management

Understanding Performance

Control Charts
5 Whys
Chi-Square Test
Multi-Vari Charts
Flow
5S
Benchmarking
Sampling
Relations Mapping*
Value Analysis
Fishbone Diagram
Wastes Analysis
SMED

Focus groups
Interviews
Brainstorming
Analogy
TRIZ***
SCAMPER***
Time Value Map
Process Redesign
Photography
Nominal Group Technique
Mind Mapping*
IDEF0
Value Stream Mapping
SIPOC
Check Sheets
Measles Charts
Surveys
Affinity Diagram
Attribute Analysis
Flow Process Chart
Process Mapping

Data Collection

Critical Incident Technique
Lateral Thinking
Visioning
Flowcharting
Service Blueprints

Observations

Creating Ideas**

Designing & Analyzing Processes

Continuous Improvement Toolkit . www.citoolkit.com

- Critical-to Tree

- ❑ Also called a Critical to Satisfactory Trees.
- ❑ A translation of the VOC.
- ❑ **"Improve Customer Service"** is too broad.
- ❑ Translates broad customer needs into specific, actionable and measurable **performance requirements**.
- ❑ Moves team from high-level customer needs to a detailed level.
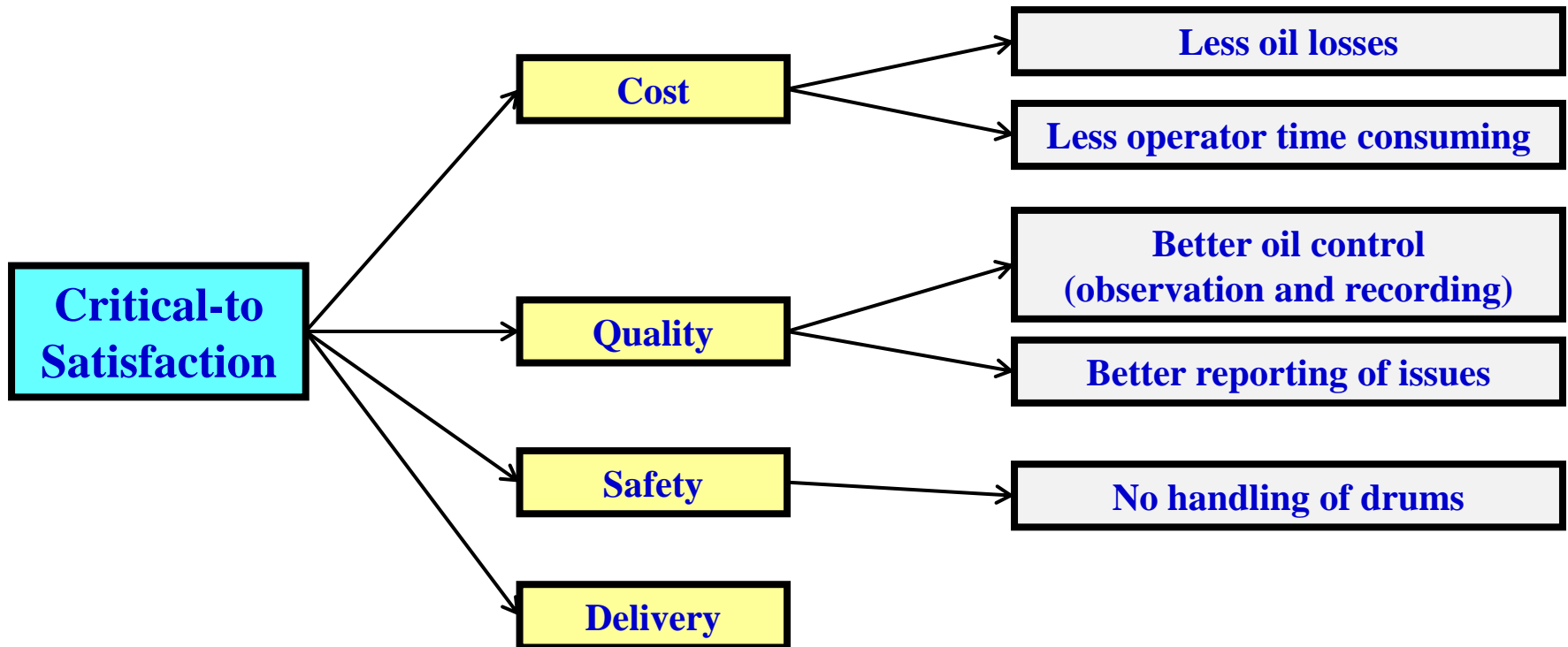- ❑ Establishes a visual layout connecting customer needs to the project.
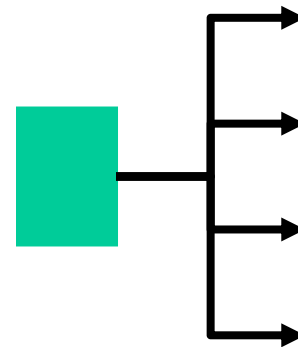
- Critical-to Tree

❑ **Critical to Satisfaction can include:**

    ❑ **Critical to Quality:**
        E.g.: Pizza must be hot and properly made.

    ❑ **Critical to Cost:**
        E.g.: Pizza price must be affordable.

    ❑ **Critical to Delivery:**
        E.g.: Pizza must be served on time.

Critical to Satisfaction

Quality   Cost

Delivery
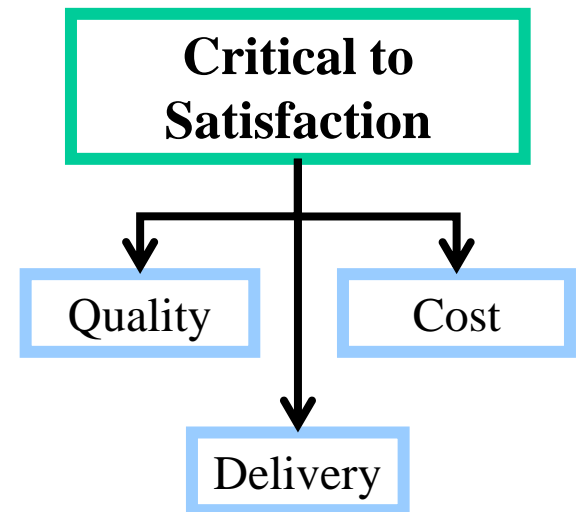
- Critical-to Tree

Example – Management Wants Better Oil Management:

- Critical-to Tree

Example – Customer wants Better Store Services

Critical to Satisfaction

Delivery

- All phone calls answered within 20 seconds
- 90% of the purchases & refunds processed within 3 minutes

Quality

- All customers greeted within 30 seconds of entering the store
- All staff to smile genuinely when interacting with customers
- 80% of customers satisfied with refund policy