



Gies Business

BADM 567: Process Management

Module 5: Quality Management and Process Improvement

Gopesh Anand

Today's Session

Introduction to Process Improvement

Paul Chesler, Director, Quality Assurance

Impact of Quality

The Ritz Carlton Hotel Company: The Quest
for Service Excellence

Learning Organization

Systematic Process Improvement

Process is a set of activities for transforming inputs – material and information – into outputs – goods, services, and transactions

(Upton, 1996)

Process improvement consists of focused and systematic changes in processes

(Anand et al., 2009)

Anand, G., Ward, P. T., Tatikonda, M. V., & Schilling, D. A. (2009). Dynamic capabilities through continuous improvement infrastructure. *Journal of operations management*, 27(6), 444-461.

Upton, D. (1996). Mechanisms for building and sustaining operations improvement. *European management journal*, 14(3), 215-228.

Case Analysis: Paul Chesler

Breakout Session



How would you describe what happened?

What are the consequences and what could they be?

What are the potential causes of the problems and what needs to be done to resolve them?

Bonus Question:

How does the working of this plant compare with the working of Ritz Carlton hotels?

What Happened? - I

Inspection revealed defective cans –
pressurized beyond upper specification limit

What did the Quality Inspector do?

- Put “hold” tags

- Did not write it up; instead, told quality control manager

What Happened? - II

What did the First-line Supervisor do?

Removed tags, repaired cans in 8 “rejected” cases, and packed them, appeasing production control

Promised to “get on the operator to run the equipment right the next time”

What Happened? - III

What did the Quality Control Manager do?

Told inspector to check with maintenance, and get filling machine adjusted.

Told first-line supervisor that he “ought to send the stuff through rework next time”.

Consequences



Immediate

Long term

Causes of the Problem

Product design – Marketing, Engineering, R&D

Process design – Industrial Engineering, Quality Control

Manufacturing – Workers, Supervisors

Supply chain – Materials, Equipment, Distributors

Sales and Services – Sales force, After-sales

Top Management – Strategic goals, Culture

Resolving the Problem(s)

Paul Chesler's Responsibility



What should he do?

What would you do?

Why was he hired?

How does this situation relate to others you have experienced or read about?

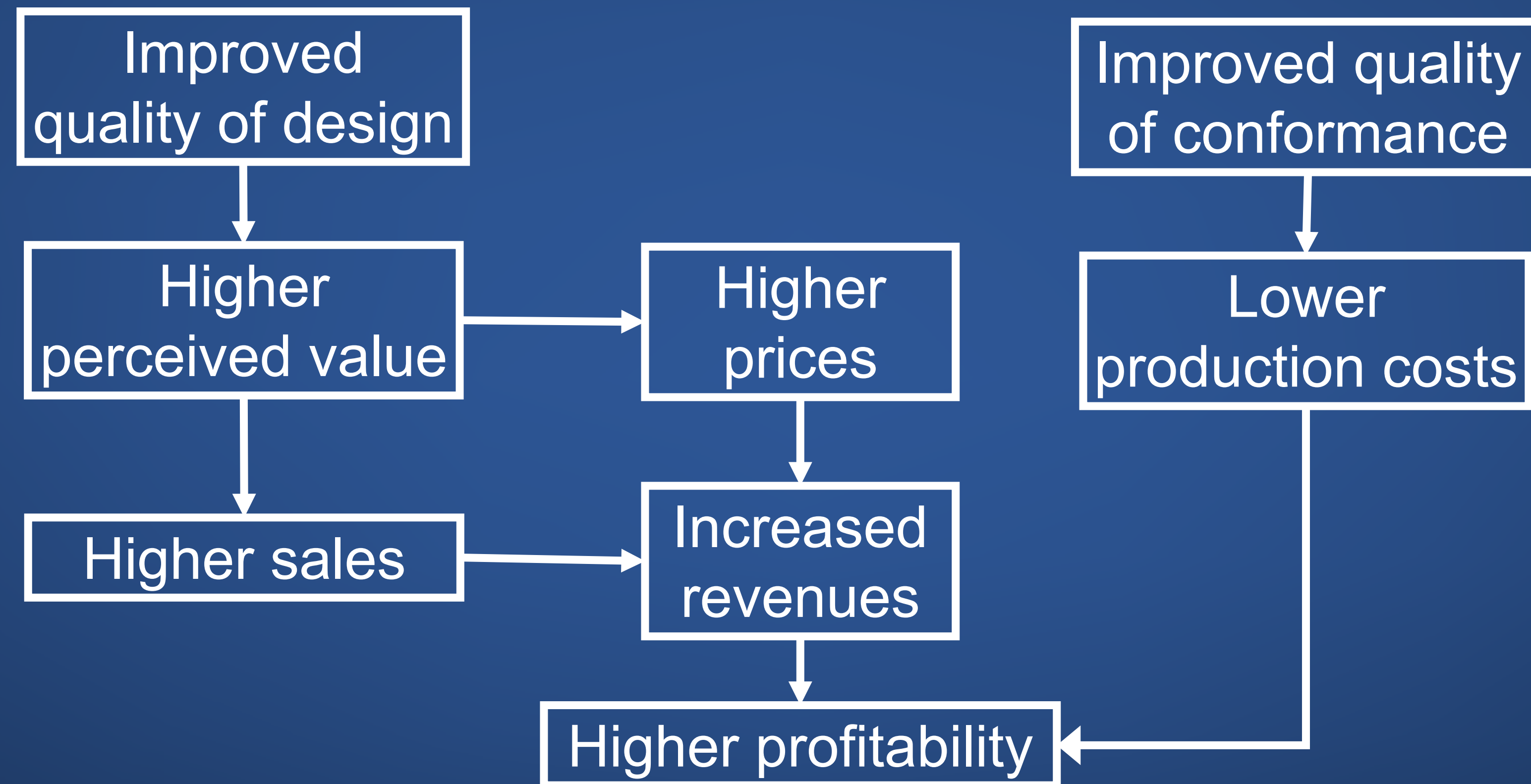
Do you think this happens? If yes, why?

Quality Management for Paul

- Alignment among business strategy and functional (marketing, manufacturing, human resource management, finance, etc.) goals
- Structured Problem Solving
 - Study existing process
 - Consider possible causes
 - Collect and analyze data
 - Make changes to processes
 - Monitor processes

Impact of Quality

Impact of Better Quality



Profit Impact of Market Strategy (PIMS) Study <http://pimsonline.com>

Atkinson, J. H., Hamburg, J., & Ittner, C. (1994). *Linking quality to profits: Quality-based cost management*. ASQ Press.

Jacobson, R., & Aaker, D. A. (1987). The strategic role of product quality. *The Journal of Marketing*, 31-44.

Continuous Process Improvement

Reducing need for fire fighting, better containing effects of errors, and learning from errors

(Spear and Schmidhofer, 2005)

To be good at improvement, organizations need to create environments in which doing day-to-day work is combined with learning how that work can be done in a better way.

(Spear, 2008)

Spear, S. J., & Schmidhofer, M. (2005). Ambiguity and workarounds as contributors to medical error. *Annals of Internal Medicine*, 142(8), 627-630.

Spear, S. J. (2008). Chasing the Rabbit: How Market Leaders Outdistance the Competition and How Great Companies Can Catch Up and Win, Foreword by Clay Christensen. McGraw Hill Professional.

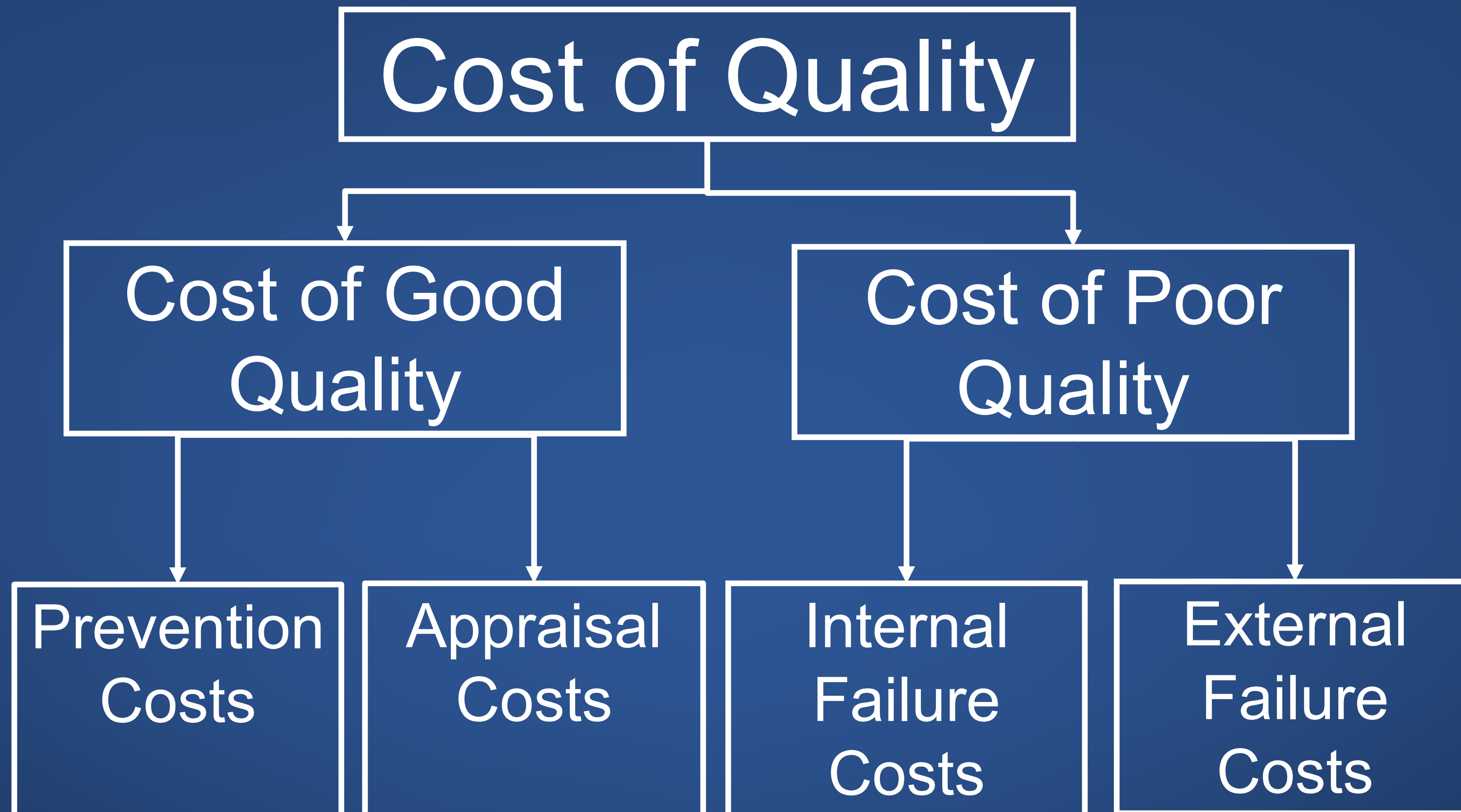
Product Recalls Example February 3, 2023

I

“Eye Drops Recalled Due to Potential Bacterial Contamination”

“Some people have lost their vision permanently and one person has died.”





Crosby, P. 1979 Quality is free: the art of making quality certain. New York, McGraw Hill

Crosby, P. 1996 Quality is still free: making quality certain in uncertain times. New York/London, McGraw-Hill

Feigenbaum, A. V. (1956). Total quality-control. Harvard Business Review, 34(6), 93-101.

Juran, J.M. 1999 Quality Control Handbook, Fifth Edition (New York: McGraw Hill)

Prevention Costs

Prevent defects and errors in products and processes

Also aimed at limiting appraisal and failure costs

Examples:

Quality planning, Product design, Process design,
Supplier selection, Employee training

Appraisal Costs

Control quality at all stages of products and processes

Examples:

Inspection of purchased materials and services, In-process checks, Final inspections, Field tests

Internal Failure Costs

Non-conforming goods and services

Found before delivery to external customers

Examples:

Scrap, Rework, Retesting, Downgrading, Delays

External Failure Costs

Defects found after delivery to customers

Examples:

Complaint handling, Goods repairs, Service recoveries, Warranties – Returns and Replacements, Customer dissatisfaction

Reflect on What Else

Additional benefits of prevention

- Better employee morale

- Ability to offer product guarantees

Additional costs of external failure

- Employee frustration and discouragement

- Lost customers

Challenges for Process Improvements

More complex products and customers

Sophisticated customers – more informed about choices

More complex supply chains

Outsourcing / Off shoring

More complex process designs



Ritz Carlton

Quality Management at Ritz

Definition of quality?

Responsibility for quality management?

Information and data collection and use?

Type of process improvement training?

Structure of quality management?

Is Yours A Learning Organization?



Building Blocks

Supportive Learning Environment

Concrete Learning Processes and Practices

Leadership that reinforces learning

Moving forward

Is Yours A Learning Organization?



Moving Forward

Explicit interventions in addition to leadership

Not a one-size fits all strategy

Benchmarking

Multidimensional building blocks

Lessons from Ritz

Standardization and
Customization

through

Training and Autonomy

Looking Forward

Six Sigma

Toyota Production System (TPS) / Lean

Thank you!