

An example of an ineffective presentation on root cause analysis

Disturbance Problems

- ◆ Deviation from expected or historic levels of performance.
- ◆ Root cause analysis helps us to (1) understand the deviation and then (2) determine its root causes.

General Principles of RCA

- ◆ First gain clearer understanding of deviation and then look for root causes.
- ◆ Begin diagnosis with a clear statement of **what** the deviation is – the IT
- ◆ Complete the entries in column 2 on next slide.
- ◆ If you use adjective or adverb in cell entry, must get more information.

Root Cause Analysis Diagnostic Table

The <u>It</u> is	Data Source
Where (and Where Else) Is the Location of the <u>It</u> On the Object is the <u>It</u> In the Process/Chain is the <u>It</u>	1. Trustworthy 2. Reliable 3. Accurate
Who (and Who Else) Experiences the <u>It</u>	
When (and When Else) Has the <u>It</u> Happened	
How Much or Often the <u>It</u>	
Significance of the <u>It</u>	10

Solution Questions

- “Due-to questions”
- **Why** or **how** did deviation occur?
- What **changes** have happened that could explain the where, when, who, pattern, magnitude of the problem?

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Solution phase: 4Ms, 4Ps, 4Ss

How

→

Why

→

Due to

BACKGROUND

Electrodoor manufactures a line of garage door openers. All three products are electronically powered by a tiny transmitter in the car. The openers lower the garage door if it is raised and raise it if it is lowered. All three openers have a very short range so that one opener cannot open other garage doors on the same block. With the exception of the weight of the door that it will open, the three products in the line are identical.

THE DEVIATION

Electrodoor introduced its line to the San Francisco area in April 1982. Until that time, it had sold its products exclusively in Arizona and New Mexico. At first, sales in the San Francisco area exceeded expectations. However in September, complaints began to roll in. One customer complained that “without touching the transmitter, his garage door opened”. Another complained that “the damn door came down in the middle of the car as she was backing out of her garage and almost took off her head”. These were not isolated complaints. In the last quarter of 1982, over 60% of the door openers in the San Francisco area had exhibited the same problem.

An analysis revealed the following data. No customers in Arizona and New Mexico had filed any complaints. All three products in the line were experiencing the problem in the San Francisco area. The unusual behavior did not occur every day but when it did, it tended to be in the late afternoon or early evening. Only customers who lived in a wedge between the ocean and the bay were complaining. It appeared that the area of complaints was wider at the ocean end and narrower at the bay end.

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Major Problems in Solving Disturbance Problems

- ◆ Immediately looking for root causes of disturbance problem even before we understand it. "Jumping to conclusion" bias
- ◆ Use root cause analysis method.

Learning objective for module

Apply



principles to presentations.

Why Important Structure Expectations

Introduction

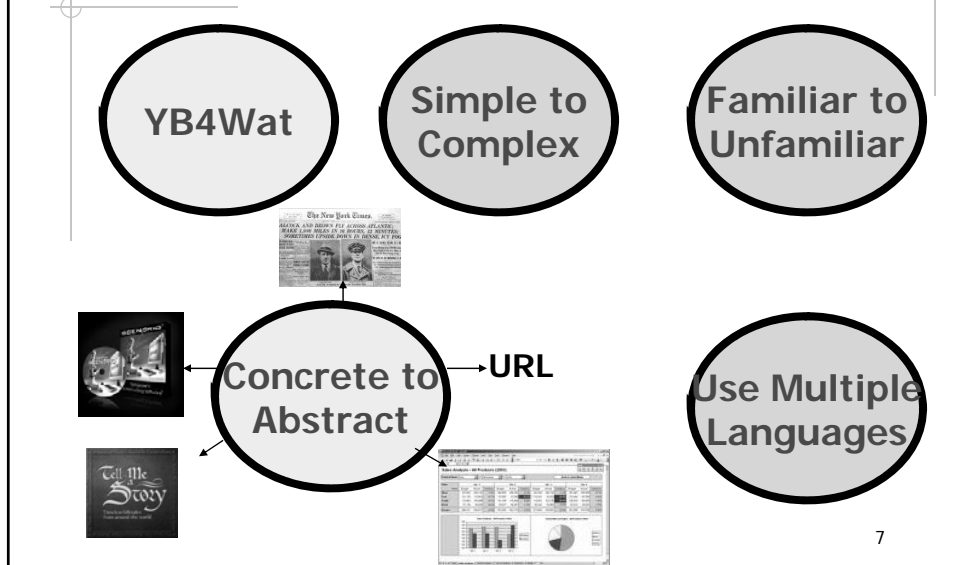
Hooks, TAPPS, JIT or Big Picture Learning Objectives

Tell them and have them tell each other

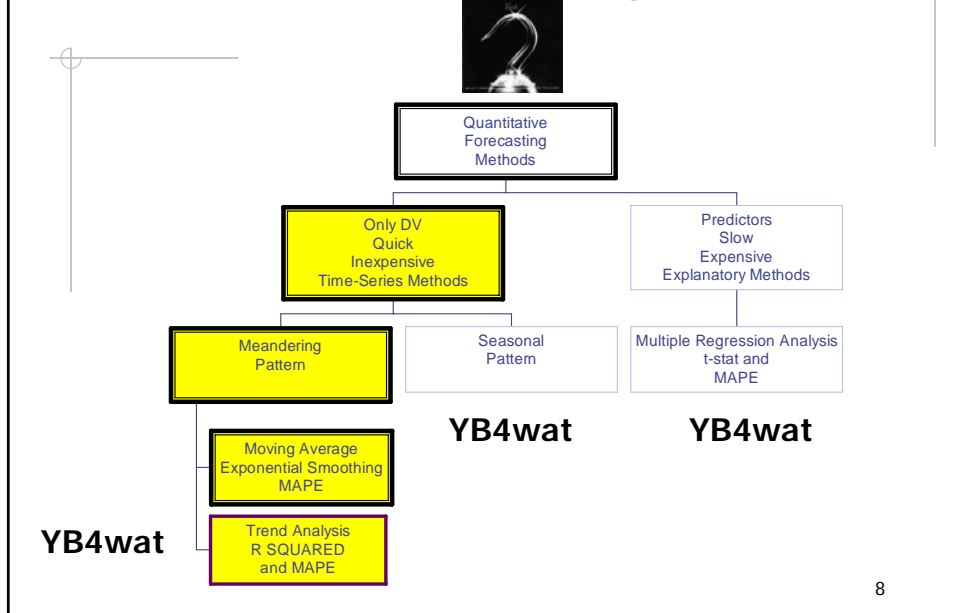
Body

Big Five Cooperative Groups

Here are the “Big Five” principles to make complex material simpler to understand.



The difference between “hook” and YB4wat applied to forecasting presentation



Here is a more effective root cause analysis presentation.

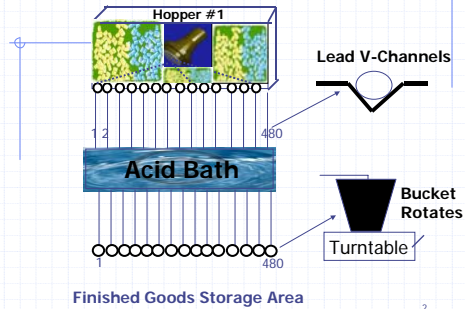
Two Types of Problems

Radiation dosimeters produce incorrect readings at nuclear plant. If not solved within 48 hours company subject to huge daily fines and shutdown.

Manager decides she must improve safety training of new workers in her division. Lost hours due to accidents have been stable but too high over the past four years.

How do problems differ?

Top-Down View of Plant Floor



Continuing the more effective root cause analysis presentation.

Definitions to two types of problems

Diagnostic



Solution



Results of exercise and why we are not effective

Results of black filament case:

Diagnostic ____ vs. Solution ____



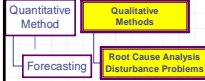
solution phase even before we understand problem.

Need



Continuing the more effective root cause analysis presentation.

Here is where we are in course



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An ineffective 50-minute lecture on brand management and price elasticity of demand

1. Stretch rubber band.
2. Product X: 1000 units @ \$300 and 950 units @ \$350

$$-\frac{\frac{\Delta Q}{Q}}{\frac{\Delta P}{P}}$$

3. Compute price E of D
4. Define inelastic demand.
5. Describe factors affecting elasticity
6. Compute total revenue.
7. Change above numbers for elastic product.

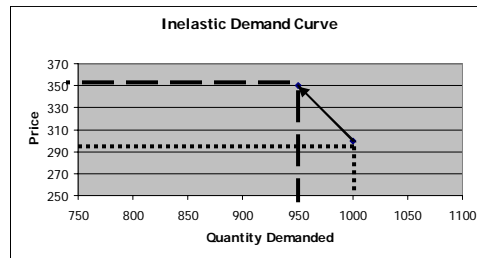
A more effective presentation on brand management and price elasticity of demand

Rules

- 1. Nike brand manager: increase profit margin for Jordan shoe. Raise price from \$300 to \$350. Now at 1,000 pairs/month@ \$300.**



- 2. Run test study. Demand drops to 950. Show demand curve. Then compute total revenue.**



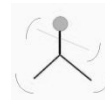
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A more effective presentation on brand management and price elasticity of demand.

Rules

- 3. Ask class – compute percentage change in (1) price and (2) demand.**

- 4. Physically show percent changes._**



- 5. Show formula for price elasticity and then define inelastic demand in pictures and words.**

- 6. Why inelastic demand for Jordan shoe? Take students' answers and relate to theory.**

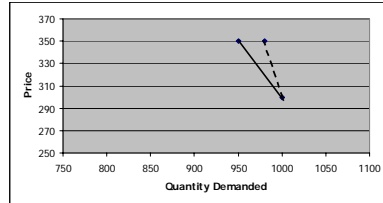
Students	Theory

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A more effective presentation on brand management and price elasticity of demand.

Rules

7. Based on theory, other strategies to make demand for shoe more inelastic – show demand curve.



8. What-if demand were elastic and Nike raised price. Show impact on total revenue and graph

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Here are some other secrets to an excellent presentation

Summarize frequently.

Subject-based humor effective.

Slide sequencing – what's the logic?

Allow students to lecture.



or



your

Powerpoint slides: "less is better." Leave lots of white space on slides. Guided notes -Lawrence Livermore notes method

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Complete Notes

QUARTER (t)	NEW CUST (t)	Damping 0.2	Formula
1 2001	340	#N/A	
2 2001	290	340.00	
3 2001	190	228.00	$(1-.2)*B3 + .2*C3$
4 2001	320	197.60	$(1-.2)*B4 + .2*C4$
1 2002	480	295.52	$(1-.2)*B5 + .2*C5$

$Q3F = .8*Q2 + .2*Q2F$ $Q4F = .8*Q3 + .2*Q3F$
 $228 = .8*200 + .2*340$ $Q4F = .8*190 + .2*228$
 $Q4F = .8*190 + .2*[.8*200 + .2*340]$
 $Q4F = .8*190 + .16*200 + .04*340$

Forecast 117

Guided Notes Version

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$Q3F = .8*Q2 + .2*Q2F$

Forecast 118

Complete Notes

- ◆4Ps
- ◆Marketing process
- ◆Brand equity vs. customer equity
- ◆Undifferentiated vs. differentiated marketing
- ◆Nature of market offering

Guided Notes Version

- ◆4Ps
- ◆Marketing process

Traditional Slide

Digital Acquisition System

- Accelerometer outputs an analog voltage.
- Hardware converts analog signal to digital.
- Computer samples a number of points.
- Data is exported to popular applications.
 - Excel
 - Matlab

Lawrence Livermore Slide: Digital data acquisition changes the data's form.

In-place shale oil resources (million barrels)

Bad slide

•Africa	159,243
•Asia	45,894
•Europe	368,156
•Middle East	38,172
•North America	2,602,469
•Oceania	31,748
•South America	82,421

Amount of reserves of oil shale in million of barrels: better slide

Region	Reserves (Million of Barrels)
North America	2,602,469
Europe	368,156
South America	82,421
Africa	159,243
Oceania	31,748
Middle East	38,172
Asia	45,894

Bad

Open Source Software vs. Closed Source Software

- When licensing closed source software, users do not receive the source code. Users only receive an executable copy with an installation program.
- All users must license the software from the software company or a licensed distributor.
- Users can obtain open source software from the web, via distributors, or from other users.
- With open source software, users do get the source code.
- Users can view and modify the source code.
- Users can redistribute the software as they like, even charging others for it (although this behavior is chilled by the availability of free alternatives.)

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Better

Closed Source

Software Vendor

Open Source

Linux Online!
<http://www.linux.org>

© Owerly 2006 Slide best viewed in Slide Show mode due to builds.

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Reading list

- ◆ <http://www.indiana.edu/~teaching/lectskills.html>
- ◆ <http://teaching.berkeley.edu/compendium/sectionlists/sect7.html>

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Use the matrix below to assess a first day Marketing presentation.

	Simple to	Familiar to	Multiple Languages	Concrete to	YB4WAT
Introduction					
Alternative approaches					
Keeping score					

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Understanding Marketing

- ◆ Core marketing concepts
- ◆ Alternative approaches to marketing
- ◆ Keeping score

What is Marketing

Marketing is a philosophy of doing business, not a business function

Core Concepts

- ◆ Marketing .. Blah blah blah blah
- ◆ The Marketing Concept .. The purpose is blah blah blah blah

Alternative Approaches

- ◆ 4Ps
- ◆ Marketing process
- ◆ Brand equity vs. customer equity
- ◆ Undifferentiated vs. differentiated marketing
- ◆ Nature of market offering

4Ps

- ◆ Marketing is ... blah blah blah
 - Product
 - Price
 - Promotion
 - Place

Selling vs. *Marketing* Process

Factory	Product	Promotion	Profit from sales volume
→			
<i>Target market</i>	<i>Customer Needs</i>	<i>Integrated marketing</i>	<i>Profit from customer satisfaction</i>
→			

Brand Equity

Brand equity is ... blah blah blah

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