

Making Better Use of Information: Aiming Towards “True North”

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**Presented at the APDSI Conference
July 26, 2002**

Introduction

- **Result of our meeting during Welliver Fellowship**
- **Compared experiences in accounting and engineering**
- **Noticed similarities in views**
- **Both saw short shortcomings in present state of many organizations**
- **Paper is our effort at proposing a glimpse of an alternative future**



Introduction

- **Decision-Making Model has not Changed Despite Technological Advances**
- **Present State**
 - Web of relationships overlooked
 - “Part” management
 - Intervention is common
- **Future State**
 - Better management of resources and relationships
 - Flexibility
 - Greater customer loyalty



Combining Two Bodies of Literature

- **Systems Thinking**
- **Ecobusiness Thinking**

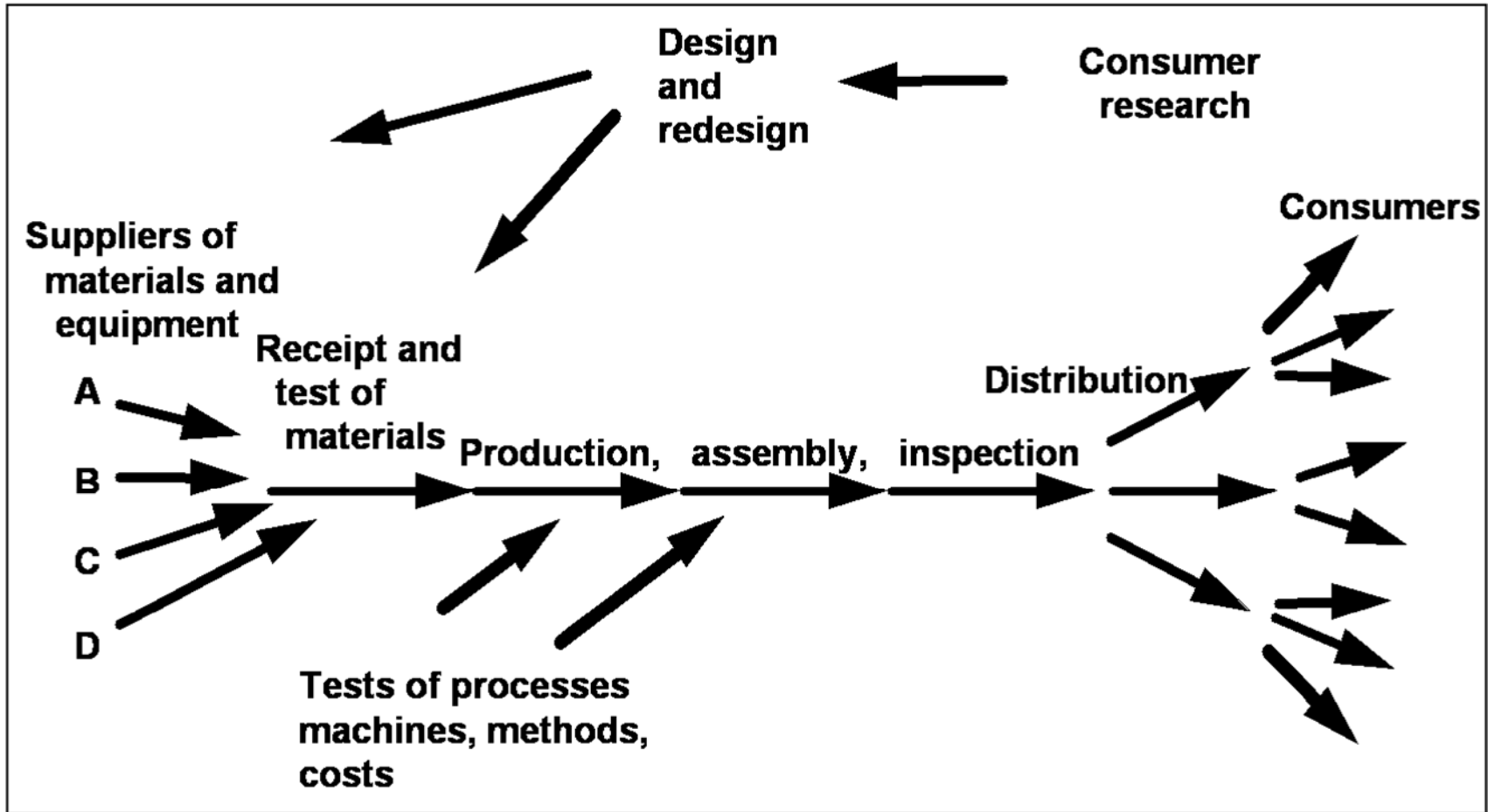


Systems Thinkers

- **W. Edwards Deming**
 - Awareness of non-linear system dynamics
 - Learning model - Plan/Do/Study/Act
 - System of Profound Knowledge
 - Sense of unity, including:
 - Suppliers
 - Customer
 - Other stakeholders



Deming's view of production system





Systems Thinkers

- **Edward de Bono**
 - **Water logic - a discussion of relationships, what could be?**
 - From Where? → **This Part** → Lead To?
 - What is this part of?
 - Where did this come from?
 - What will this lead to?
 - **Rock logic - a discussion of parts, what is**



Systems Thinkers

- Genichi Taguchi

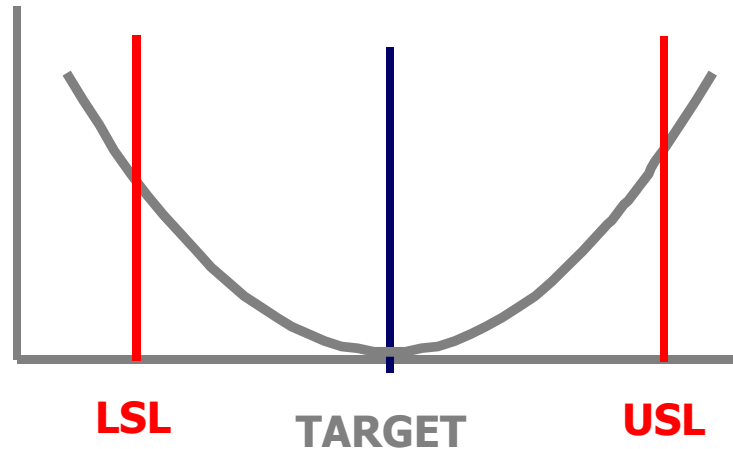
- Wood cutting example



- Quality loss function



Cumulative
Negative
Impact to
Others
Downstream



Ecobusiness Thinkers

- **Tom Johnson**
 - Managerial accounting in present state contributes to linear thinking
 - Recommends abolishing most quantitative measures
 - Leaders are encouraged to nurture relationships

Ecobusiness Thinkers

- **Tom Johnson**
 - **Lessons from Manage by Means practices**
 - Are resources used parsimoniously?
 - Does work attend at all times to the relationship between company and customer?
 - Is money regarded as energy to fuel the union between company and customer, never merely as a commodity to be accumulated for its own sake?

Profit Beyond Measure (2000), p 163

Ecobusiness Thinkers

- Amory Lovins
 - Providing the right products
 - At the right time
 - In the right amount
 - Using the right processes and materials
 - To customers

Ecobusiness Thinkers

- **Amory Lovins**
 - **Four types of capital**
 - Financial
 - Physical (manufactured)
 - Intellectual
 - Natural

Ecobusiness Thinkers

- **Allan Savory**
 - **Holistic Resource Management**
 - **Flaw in decision making process**
 - Disregard for resource base needed to sustain quality of life envisioned
 - Solved by asking seven questions to ensure decision is economically, environmentally, and socially sound
 - Provides compass for process

Ecobusiness Thinkers

- **Karl-Henrick Robert**
 - **The Natural Step**
 - **Identify a sustainability framework**
 - **Apply systems thinking to all decisions**
 - **Compass**

Ecobusiness Thinkers

- **William McDonough**
 - **Redesign design process**
 - Waste must equal food (input or biodegradeable)
 - Shift to consuming current solar energy rather than stored
 - Respect diversity (biodiversity)

Toward Better Decision Making

Kaplan & Norton's Balanced Scorecard

- **Performance Metrics**
 - **Non-financial**
 - **Forward-looking**
 - **Measures that are necessary for ensuring long-term growth**
 - **Traditionally four measures**
 - Financial
 - Customer
 - Internal business processes
 - Learning and growth
 - **Additional measures**
 - Environmental
 - Societal

Toward Better Decision Making

Allan Savory's Decision Model

Holistic Management Model

WHOLE UNDER MANAGEMENT

Decision-Makers - Resource Base - Money

HOLISTIC GOAL

Quality of Life - Forms of Production - Future Resource Base

ECOSYSTEM PROCESSES

Community
Dynamics

Water Cycle

Mineral Cycle

Energy Flow

TOOLS FOR MANAGING ECOSYSTEM PROCESSES

Human
Creativity

Technolog

Rest

Fire

Grazing

Animal
Impact

Living
Organisms

Money
& Labor

Toward Better Decision Making

Allan Savory's Decision Model

TESTING GUIDELINES

Cause & Effect	Weak Link -Social -Biological -Financial	Marginal Reaction	Gross Profit Analysis	Energy / Money Source	Sustainability	Society & Culture
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MANAGEMENT GUIDELINES

Learning & Practice	Organization & Leadership	Marketing	Time	Stock Density & Herd Effect	Cropping	Burning	Population Management
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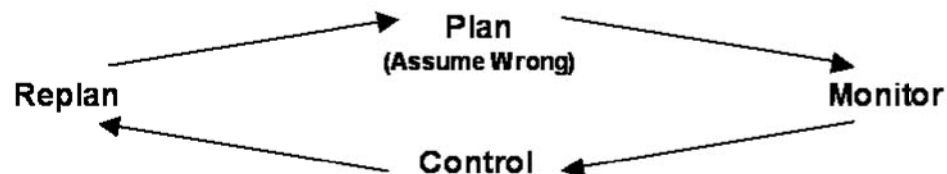
PLANNING PROCEDURES

Holistic Financial
Planning

Holistic Land
Planning

Holistic Grazing
Planning

FEEDBACK LOOP



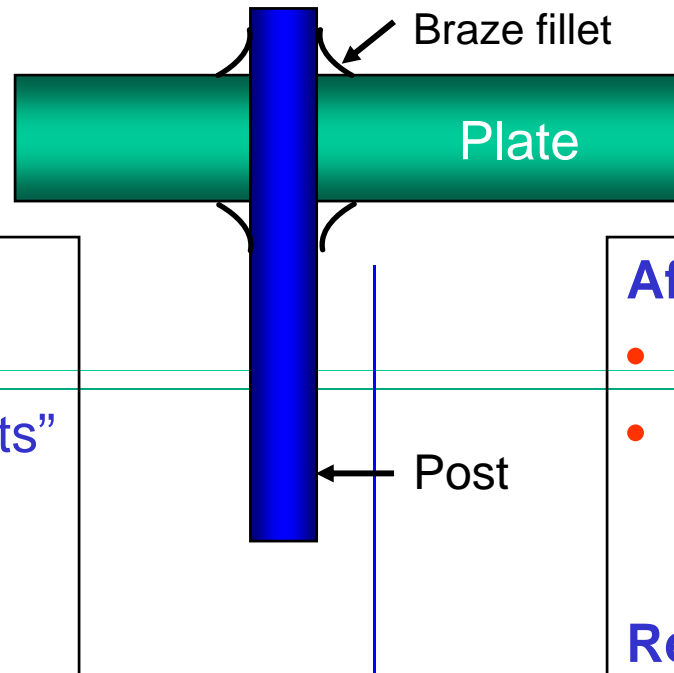


Toward Better Decision Making

“Managing Variation as a System” at Boeing

Major Rocket Engine Component

628 Braze Joints (Posts & Holes) - 1256 Fillets



Before:

- Rock Logic
- Focus: “good parts” (tolerances)

Results:

- Two braze cycles
- \$30,000

After:

- Water Logic
- Focus: relationships (targets)

Results:

- One braze cycle
- \$9,000



Summary & Conclusions

- New technology has created more information
- Better decisions require *better thinking*
- Systems thinking & Ecological thinking
 - Seeing parts and relationships
 - Systems thinking is not systems thinking
 - All relationships matter
 - Is ecology part of the system?
- Individuals in “future state” organizations will use *better thinking* to aim towards “true north”