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

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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
• Edward de Bono
  – Water logic - a discussion of relationships, what could be?
    From Where? $\rightarrow$ This Part $\rightarrow$ 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

![Diagram showing quality loss function with LSL (Lower Specification Limit), TARGET, and USL (Upper Specification Limit). The diagram illustrates the cumulative negative impact to others downstream.](image-url)
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 biodegradable)
    - 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 Source
- Sustainability
- Society & Culture

MANAGEMENT GUIDELINES
- Learning & Practice
- Organization & Leadership
- Marketing Time
- Stock Density & Herd Effect
- Cropping Burning
- Population Management

PLANNING PROCEDURES
- Holistic Financial Planning
- Holistic Land Planning
- Holistic Grazing Planning

FEEDBACK LOOP
- Plan (Assume Wrong)
- Monitor
- Control
- Replan

(Reprinted with Permission, Allan Savory, Holistic Resource Management)
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”