# Case Studies to bring the principles, practices and tools of lean accounting to the classroom

For the first joint meeting of EdNet & Lean
Linking Lean Thinking to Education
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by

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# Lean Accounting Vision

- Provide accurate, timely, & understandable information to motivate lean transformation throughout the organization.
- Support the lean culture by providing information that is relevant and actionable, and that empowers continuous improvement at every level of the organization.
- Provide accurate, timely, & understandable information for decision-making leading to increased customer value, growth, profitability, and cash flow.
- Use lean tools to eliminate waste from the accounting processes while maintaining thorough financial control.
- Develop lean accounting methods that fully comply with GAAP, external reporting regulations, and internal reporting requirements.

# Lean accounting: principles, practices & tools

| PRINCIPLES | PRACTICES | TOOLS OF LEAN ACCOUNTING |
|---|---|---|
| **A. Lean & simple business accounting.** | 1. Continuously eliminate waste from the transactions processes, reports, and other accounting methods. | a. Value stream mapping; current & future state.<br>b. Kaizen (lean continuous improvement). |

# Lean accounting: principles, practices & tools

| PRINCIPLES | PRACTICES | TOOLS OF LEAN ACCOUNTING |
|---|---|---|
| **B. Accounting processes that support lean transforma -tion.** | 1. Management control & continuous improvement. | a. Performance Measurement Linkage Chart; linking metrics for cell/process, value streams, plant & corporate reporting to the business strategy, target costs, and lean improvement.<br>b. Value stream performance boards containing break-through and continuous improvement projects.<br>c. Box scores showing value stream performance. |
| | 2. Cost management. | a. Value stream costing<br>b. Value stream income statements |
| | 3. Customer & supplier value and cost management. | a. Target costing |

# Lean accounting: principles, practices & tools

| PRINCIPLES | PRACTICES | TOOLS OF LEAN ACCOUNTING |
|---|---|---|
| **C. Clear & timely communica-tion of information** | 1. Financial reporting. | a. "Plain English" financial statements<br>b. Largely actual cost-based accounting |
| | 2. Visual reporting of financial & non-financial performance measurements. | a. Primary reporting using visual performance boards; division, plant, value stream, cell/process in production, product design, sales/marketing, administration, etc. |
| | 3. Decision-making | a. Incremental cost & profitability analysis using value stream costing and box scores. |

# Lean accounting: principles, practices & tools

| PRINCIPLES | PRACTICES | TOOLS OF LEAN ACCOUNTING |
|---|---|---|
| **D. Planning from a lean perspective** | 1. Planning & budgeting | a. Hoshin policy deployment<br>b. Sales, operations, & financial planning (SOFP) |
| | 2. Impact of lean improvement | a. Value stream cost and capacity analysis<br>b. Current state & future state value stream maps.<br>c. Box scores showing operational, financial, and capacity changes from lean improvement. Plan for financial benefit from the lean changes. |
| | 3. Capital planning | a. Incremental impact of capital expenditure on value stream box-score. Often used with 3P approaches. |

# Lean accounting: principles, practices & tools

| PRINCIPLES | PRACTICES | TOOLS OF LEAN ACCOUNTING |
|---|---|---|
| **E. Strengthen internal accounting control** | 1. Internal control based on lean operational controls | a. Transaction elimination matrix.<br>b. Process maps showing controls and SOX risks. |
| | 2. Inventory valuation | a. Simple methods to value inventory without the requirement for perpetual inventory records and product costs can be used when the inventory is low and under visual control. |

# Creating a Lean Enterprise:
## The Case of the Lebanon Gasket Company

- Peter Brewer & Frances Kennedy, *Strategic Finance*, September 2005, p. 45-53.
- 18 months into a lean transformation, financial performance is stagnant despite operational gains.
- Lean Principles and Practices Coverage – B1, B2, C1, C2, C3
- "Lean Accounting: What's it all about?" Peter Brewer & Frances Kennedy, *Strategic Finance*, November 2005, p. 27-34.
  - A natural supplement to the case

# Aero Gear, Inc.: Performance measurement, cost management & product costing in a lean transition

- Lawrence Grasso, unpublished.
- As they transition from a traditional job shop to lean management, Aero Gear's managers no longer trust their performance measures and product costs.
- Lean Principles and Practices Coverage – A1, B1, B2, C1 (in epilog), C2, C3

# Performance Measurement in a Lean Organization:
# The case of The Wiremold Company

- Lawrence Grasso, unpublished.
- Describes Wiremold's approach to performance measurement during their lean transformation under Art Byrne, 1991 – 2001.
- Lean Principles and Practices Coverage – B1, B2, C2 (Balanced Scorecard in epilog)

# Focused Cases: Target Costing – B3

- *Target Costing & Value Engineering*
  - Robin Cooper & Regine Slagmulder
  - Productivity Press/IMA © 1997
- Nissan Motor Co. Ltd.: Target Costing System (Cooper, HBSP 194040)
- Toyota Motor Corp.: Target Costing System
  - (Cooper & Tanaka, HBSP 197031)
- Komatsu, Ltd. (A) Target Costing System (Cooper, HBSP 194037)
- Olympus Optical Co. Ltd. (A): Cost Management for Short Life Cycle Products (Cooper, HBSP 195072)
- Sony Corporation: The Walkman Line (Cooper HBSP 195076)
- Topcon Corporation (Cooper HBSP 195082)
- Isuzu Motors Ltd: Cost Creation Program
  - (Cooper & Yoshikawa, HBSP 195054)
- **Rich detail, but all are descriptive cases**

# Focused Cases: Target Costing – B3 Supply chain cost management

- *Supply Chain Development for the Lean Enterprise: Interorganizational cost management*
  - Robin Cooper & Regine Slagmulder
  - Productivity Press/IMA © 1999
  - Cases listed on next slide
- Emphasizes the system (value stream) focus. Depicts lean buyer-supplier relationships. Significant overlap with the target costing book.
- *When Lean Enterprises Collide*
  - Robin Cooper
  - Harvard Business School Press © 1995
- Less comprehensive treatment of the topics covered in the two Cooper & Slagmulder books. References but does not include the cases.

# Focused Cases: Target Costing – B3 Supply chain cost management

- Citizen Watch Company Ltd.: Cost Reduction for Mature Products (Cooper, HBSP 194033)
- Miyota Company, Ltd. (Cooper, HBSP 199022) a Citizen Watch subsidiary
- Kamakura Iron Works Company, Ltd: (Cooper & Yoshikawa, HBSP 195056)
- Yokohama Corporation, Ltd. (A): The Yokohama Production System (Cooper & Yoshikawa, HBSP 195070)
- Tokyo Motor Works, Ltd.: Target Costing System in supply chain with Kamakura & Yokohama
- Komatsu, Ltd. (A) Target Costing System (Cooper, HBSP 194037)
- Toyo Radiator Company, Ltd. In supply chain with Toyota and Komatsu
- Olympus Optical Co. Ltd. (A): Cost Management for Short Life Cycle Products (Cooper, HBSP 195072)
- Omachi Olympus Company, Ltd. (Cooper HBSP 199023)
- **Rich detail, but all are descriptive cases**

# Focused Cases: Financial Reporting – C1

- The Wiremold Company: Ensuring Shareholder Commitment
  - Lawrence Grasso, Bob Emiliani & Martha Fransson, unpublished.
- The problem of communicating lean strategy to shareholders. Traditional financial reports do not have the most critical information.

# Visual reporting & Performance measures – C2

- Peoria Engine Plant (A)
  - Robert Kaplan & Amy Hutton
  - Harvard Business School Press 9-193-082
  - Also a 1 page case (b) addendum
- Romeo Engine Plant (Abridged)
  - Robert Kaplan & Amy Hutton
  - Harvard Business School Press 9-197-100
- Nice contrast between a traditional, budget-based control system and a visual control system.

# Cultural Control

- Kyocera Corporation: The Amoeba Management System
  - Robin Cooper
  - Harvard Business School Press 9-195-064
- One of the cases Robin Cooper presents as an example of the use of profit centers to drive performance in Japanese companies. I used it to show Kyocera's investment in creating a corporate culture empowering all employees.
- Kyocera Corporation
  - Nancy Rothbard & John Kotter
  - Harvard Business School Press 9-491-078

# Experiential Lean Demonstrations

- Work Flow Case: Linking Accounting, Marketing and Production in an Experiential Exercise
  - Spoede, Cooper & Holt
  - IMA Case Study: Volume 16, #9 available on IMA web site.
  - Illustrates TOC drum, buffer rope system and throughput accounting. Could be expanded to cover lean concepts.
- Lean vs. Mass Production Simulation
  - Ansari, Bell & Klammer
  - Pinwheel production environment
  - Presented at a AAA Managerial Accounting mid-year meeting
  - Students generate ideas to improve production.
  - Can be used to illustrate problems traditional standard costing causes in a lean transformation.
- I'm working on adding accounting coverage and more extensive teaching notes to a simulation with a simpler production setting.

# Adapting non-accounting cases

- Doré-Doré
  - Audris Wong & Janice Hammond
  - Harvard Business School Press 9-692-028
- A case on cellular manufacturing that includes performance measurement and accounting issues.
- Anderson Brinkley
  - Michael Spencer
  - Business Case Journal (1993)
- The case asks students to evaluate JIT, MRP, TQM, CIM, and TOC in high and low volume production settings in a single factory.

# Adapting non-accounting cases

- The Wiremold Company: Listening to the Voice of the Customer
  - Martha Fransson, Peter LaPlaca, and Steven Maynard, 2004, Business Case Journal
- Covers QFD, new product development
- The Wiremold Company: Wiremold® Distributor Incentive Program
  - Martha Fransson, Robin Chase, Scott Bartosch and Edward Miller, 2005, Business Case Journal
- Developing and implementing win-win strategies with partners in the supply chain
- The Wiremold Company: The Field Sales Organization
  - Martha Fransson, Robin Chase, Scott Bartosch and Edward Miller, 2005, Business Case Journal
- Issues related to sales force organization. Least promising case of the three from an accounting persepctive.

# Related Topics: Cost of Quality

- Texas Instruments: Cost of Quality (A) & B
  - Christopher Ittner & Robert Kaplan
  - Harvard Business School Press 9-189-029 & 9-189-111
- Two different attempts to measure cost of poor quality. Raises the question of the value of these efforts in informing or motivating quality improvement.
- Texas Eastman Company
  - Robert Kaplan
  - Harvard Business School Press 9-190-039
- Ad hoc quality charge in a daily profit report.
- These are not lean companies.

# Related Topics: Supply chain links, Total cost of ownership, Process view

- Supplier management at Sun Microsystems (A) & (B)
  - David Farlow, Glen Schmidt, & Andy Tsay
  - Stanford University GSB Cases S-OIT-16 A & B
- Developing long term supplier relationships, computing total cost of ownership to evaluate suppliers. (Cooper's supply chain cases may be better from a lean perspective).
- Pillsbury: Customer Driven Reengineering
  - Robert Kaplan & Ken Kaga
  - Harvard Business School Press 9-195-144
- Developing a customer focus and process orientation. But not a lean environment.

# Related Topics: Theory of Constraints

- California-Illini Manufacturing (A) and (B)
  - Walter Adams II
  - Cases From Management Accounting Practice, Volume 8 (1992) pages 17-28 and 29-38.
- Wharton Manufacturing Co. (A) and (B)
  - David Koziel
  - Cases From Management Accounting Practice, Volume 8 (1992) pages 39-42 and 43-47.
- The theory of constraints and throughput accounting are compatible with lean management.
- The Constraint Theory, Robert E. Fox, p. 1-16 can be assigned as supplementary reading.

# Related Topics: ABM, Business Process Reengineering & Balanced Scorecard

- ABM & business process reengineering, using cost data to inform & motivate process improvement.
  - For Business process reengineering, ITT Automotive North America: A case study requiring use of benchmarking, activity/process analysis, and reengineering concepts
    - Richard Palmer & Leland Green *Issues in Accounting Education*, (14:3) August 1999, p. 465-496
  - ABM cases too numerous to mention
  - Not lean thinking, (see *Relevance Regained* H.T. Johnson for a discussion)
  - Cases aren't in lean companies
- Balanced Scorecard, using non-financial performance measures, customer and process performance
  - Cases too numerous to mention
  - Cases aren't in lean companies (except my Wiremold Case)

# Background Reading

- *Practical Lean Accounting*, Brian Maskell & Bruce Baggaley, 2004 (Productivity Press: New York, NY)
- "Lean Accounting: What's it all about?" Brian Maskell & Bruce Baggaley, *Target*, Vol. 22 #1, 2006, p. 35-43.
- "Lean Accounting: What's it all about?" Peter Brewer & Frances Kennedy, *Strategic Finance*, November 2005, p. 27-34.
- *Accounting for the Lean Enterprise: Major Changes to the Accounting Paradigm*, Frances Kennedy & Brian Maskell, 2006, forthcoming SMA (IMA: Montvale, NJ)
- *Lean Enterprise Fundamentals*, Frances Kennedy & Brian Maskell, 2006, SMA 4KK (IMA: Montvale, NJ)
- *Lean Production Fundamentals*, Arthur Andersen, LLP. And C.J. McNair, 2000, SMA 4KK (IMA: Montvale, NJ)
- Several articles in the January-February and March-April 2006 issues of Cost Management

# Conclusion

Case resources are available to cover ...

A. Lean and simple business accounting
B. Accounting processes supporting the lean accounting
C. Clear and timely communication of information

Some cases are unpublished, many are descriptive.

Non accounting cases or accounting cases in non-lean environments can also be used to introduce lean accounting topics.

I'm not aware of any cases covering ...

D. Planning from a lean perspective
E. [The lean accounting approach] to strengthening internal accounting control