



Lean Cost/Managerial Accounting and Management-by-Means

**Establishing Flow Enables Simple, Cost Effective
Manufacturing: *Lean Cost Management***

Jim Huntzinger



**Wabash Valley Lean Manufacturing Network
March 3, 2005**

Background & Experience

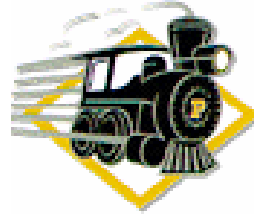
Jim Huntzinger

◆ Background

- B.S. in Mechanical Engineering Technology from Purdue University, 1988
- M.S. in Engineering Management from Milwaukee School of Engineering, 2005
- Began career as a manufacturing engineer with Aisin Seiki, a Toyota Group company and manufacturer of automotive components
- Extensive experience in engineering, operations, and Toyota Production System

◆ Experience

- Transplant and plant start-up for a Toyota Group company in North America
- Eight years of lean implementation with World's largest air-cooled engine manufacturer
- Eight years of working with manufacturers on lean transformation and implementation ranging from small private companies to large global corporations
- Extensive research into the history of TPS/Lean and its development and impact on industry



Purdue
BOILERMAKERS



AININ
SEIKI

JBD Engineering, LLC

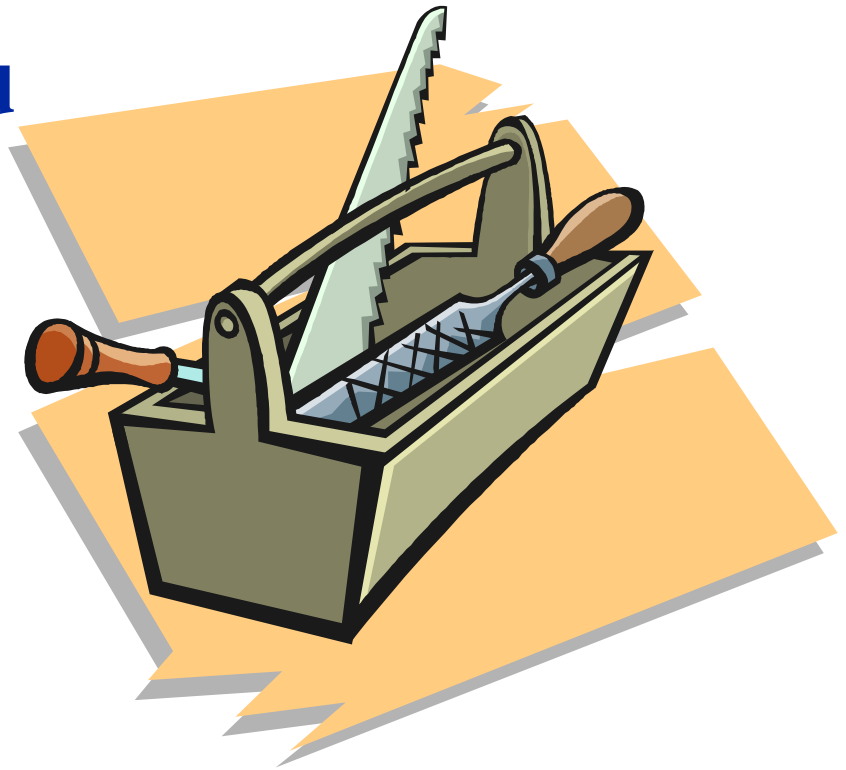


Questions

Answer these Questions...

- ◆ How many of you use a Standard Costing System?
- ◆ How many of you review Variances each month?
- ◆ How much confidence do you have in your Costing System?

- ◆ How much help does your Standard Costing System give you to support and improve your operation?



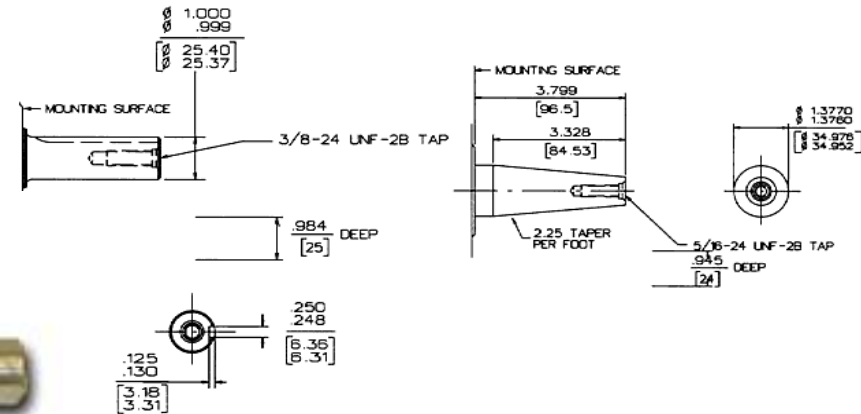
Background for Interest

Why Lean Cost Management?

◆ I have a personal interest in this topic because of my background with

- TPS (and Lean)
- Manufacturing & operations
- Manufacturing enterprise
- And;

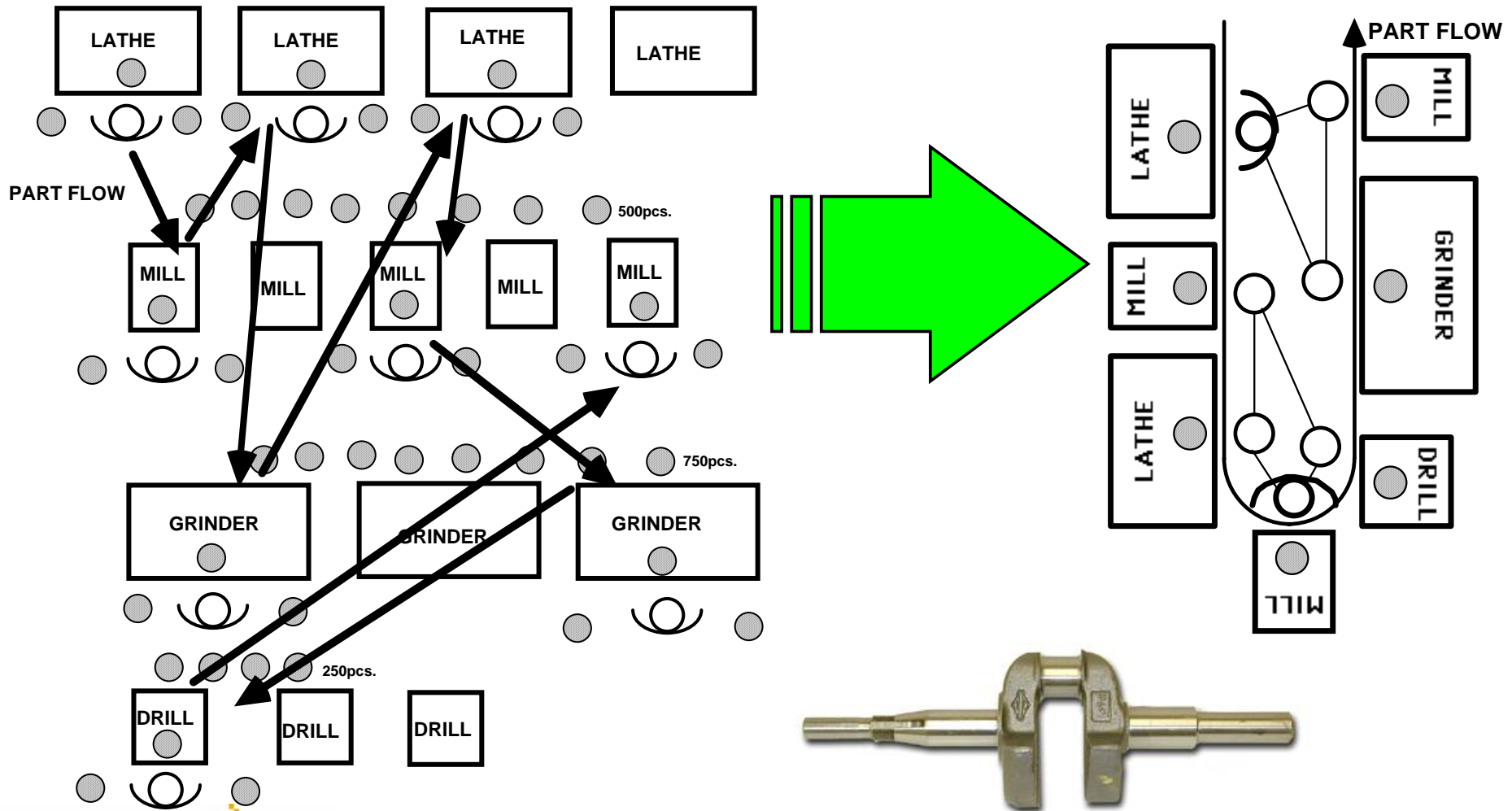
◆ Fifteen years ago in Department 168, crankshaft machining.....



Background for Interest

The Department 168 Story

- ◆ Transformation from traditional “batch” manufacturing to lean “cellular” manufacturing:



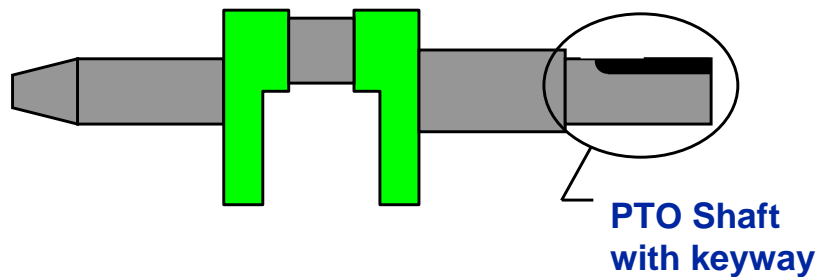
Background for Interest



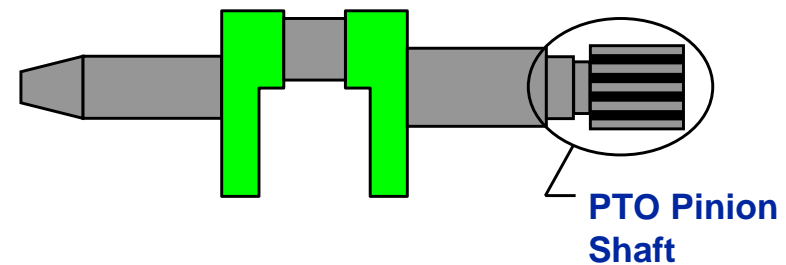
The Department 168 Story

◆ One aspect was “Cost” justifying the transformation

- Model 13 (5-HP) crankshaft, over 30 versions, over 1,000,000 annual volume
- Cost per 100 sheets
- Used traditional standard cost accounting
- What I found:



- ◆ Nearly 70% of overall volume
- ◆ Straight-keyed PTO shaft
- ◆ Simplest processing



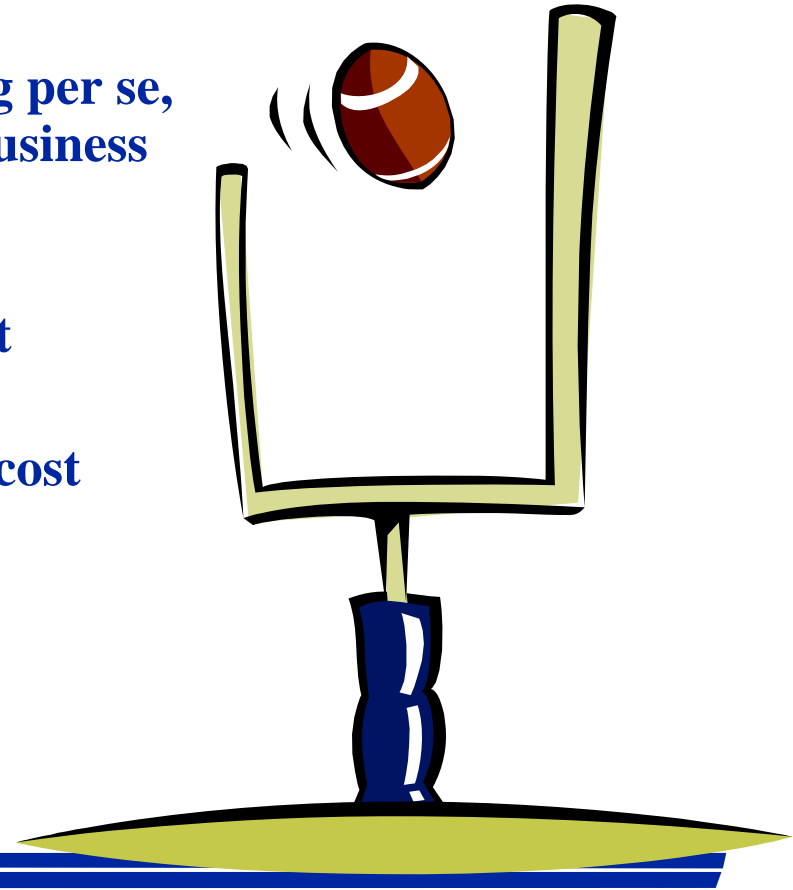
- ◆ Under 3% of overall volume
- ◆ Pinion-gear shaft
- ◆ 5 extra processes
 - Extra turning operation, Grooving operation, Gear-shaping operation, Extra grinding operation, Hardening operation

- *The keyed crankshaft cost approximately 10-20 % more than the pinion crankshaft according to our cost accounting system!*
- *This situation has fueled my interest ever since.*

Objective

What this presentation intends to prove is (“My Belief”) that current managerial-cost accounting practices are not optimal and, in fact, useless and misleading. The information reviewed will reveal:

- ◆ How current managerial-cost accounting practices fail.
- ◆ The original purpose of managerial-cost accounting practices by early industry.
- ◆ How Lean Cost Management is not about accounting per se, but about designing, executing, and improving the business system.
- ◆ How becoming a lean enterprise is the foundation to achieving superior performance and managerial-cost accounting (referred to as cost management).
- ◆ What three factors are key to developing a superior cost management system.



A Brief History of Accounting

How Accounting Got to the Current State

◆ Accounting History

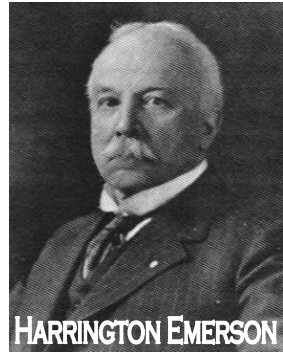
- *Today's accounting methods have their roots derived from the 14th-Century Venetians*
 - *Luca Pacioli of Venice, Italy (Double-Entry)*
- *The industrial environment prior to 1870 was manufacturers of single products and single processes*
 - *The marketplace determines costs via the price in the marketplace*
 - *Even if a manufacturer had a second activity, the size was insignificant enough to require any system to understand cost or the system*
 - *Even labor was determined by the open market – many labors were simply contracted*
- *The Industrial Revolution drove significant changes in accounting methods*
 - *Primarily during the period of 1870 to 1915*
 - *The result of the proliferation of products and processes within a single manufacturer*
 - *Changes and developments were the result of engineers, not accountants*
- *Need drives change*
 - *The engineers were simply developing methods for internal information purposes; better information for better decisions*



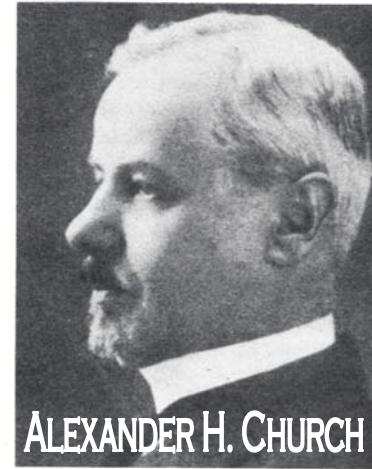
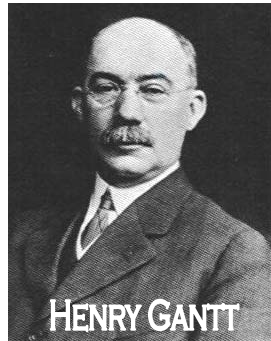
FORD'S HIGHLAND PARK PLANT

Management Accounting History

Development of Management Accounting Methods



CHARLES BABBAGE



- ◆ During the period between 1870 and 1915, engineers-managers in the United States working in metal-working firms developed a host of new cost measurement techniques
- ◆ The main focus was to analyze task productivity and to link profits to products (Multiple product companies were increasing in number)
- ◆ These techniques had a profound impact on twentieth century accounting practices
- ◆ *BUT the engineers and managers who developed them had NO intrinsic interest in accounting*
- ◆ *Their interest lied in measuring and managing internal activities that evolve by the growth of multi-product and process firms*
- ◆ *Alexander Hamilton Church had perhaps the most innovative ideas and his ideas form a foundation for this thesis*



FREDERICK TAYLOR

Accounting's Failure

Accounting's Failure & Its Lost Relevance

Relevance Lost!

- ◆ Today's cost-managerial accounting has failed to fulfill its intentions. Its use has evolved from its original objectives to a purpose it was not intended for and utterly falls short to achieve.
- ◆ While actual organizations attempted to manage with antiquated systems in settings that had little relationship to the simplified model researchers assumed for analytic and teaching convenience (Johnson and Kaplan 1987, *Relevance Lost: The Rise and Fall of Management Accounting*, pp. 14-15)
- ◆ The unfortunate result (the relevance lost) is that the return to the factory floor systems are still in the form of the overall financial methods and thus incapable of supplying beneficial information for managing the shopfloor. (M.C. Wells, 1978, *Accounting for Common Costs*, pp. 19 and 34.)

Accounting's Failure

The Evil of Overhead

Relevance Lost!

- ◆ **The biggest culprit of today's cost-managerial accounting irrelevancy is the overhead methods of standard costing**
 - **Some products appear to cost more than they *really* do and other products appear to cost less**
 - **The allocation of overhead distorts product costs**
 - **Often direct labor is used to allocate overhead, but today direct labor is generally below 15 percent of product costs and typically down in the 3 to 8 percent**
- ◆ **The issue with overhead allocation is that it achieves wonderfully, *exactly what used to exist over one hundred years ago, but does not exist today* in the vast majority of manufacturing enterprises – single process and product operations**

Accounting's Failure

What should happen?

◆ **Information** (cost information & any other) *must* reflect what is happening on the shopfloor:

- **Accurately**
- **Timely**
- **Relevantly**
 - Only information that is needed
 - Needs of the factory floor, not the needs of accounting



Relevance Regained!

What about Activity-Based Costing (ABC) or Activity-Based Management?

- ◆ *ABC does greatly improve the accuracy of cost accounting during the allocation process*

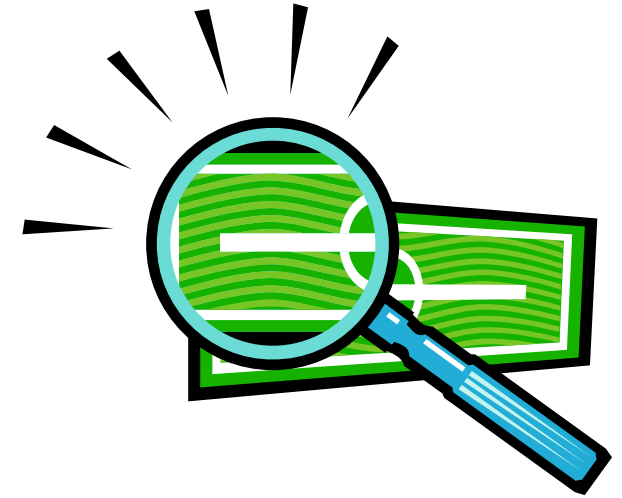
BUT!

- ◆ **The PROBLEM is: allocation is the very concept that needs to be eliminated**
- ◆ **The key is to implement Flow and align activities along the value stream**

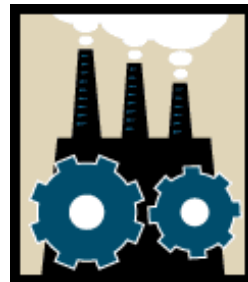
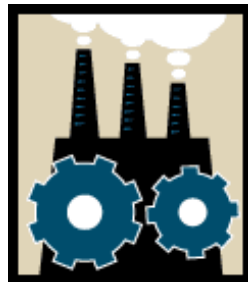
Glenn Uminger (of Toyota) states, *“Creating excellent flow is much more important.”*

Orry Fiume (of Wiremold) opines, *“It was just another method of allocating costs.”*

What is ABC or ABM?



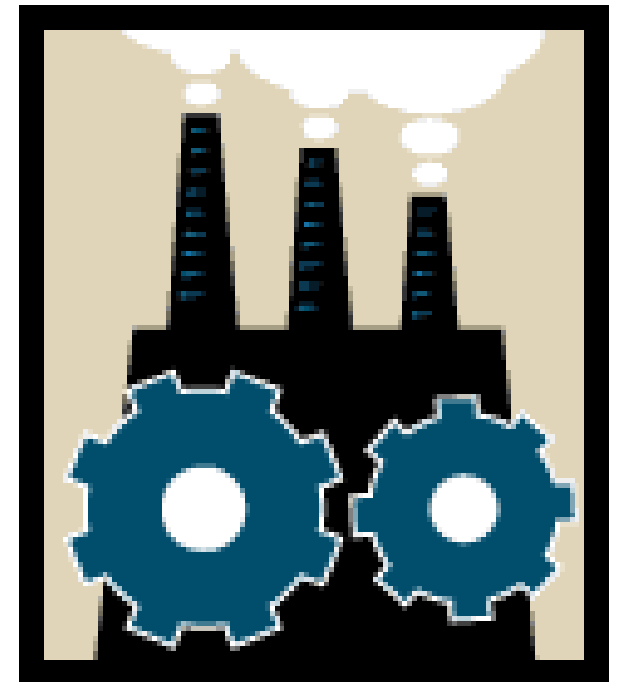
- ◆ Most companies (particularly batch manufacturers) use their cost systems to *control* and *drive* change in their operations:
 - Focus on cost cutting and;
 - Cost information (variances)
- ◆ ABC is little more than an extension of conventional cost accounting (allocation). (Johnson & Bröms, *Profit Beyond Measure*, p. 166)
- ◆ ABC product cost information is simply used to improve doing *business as usual*;
- ◆ That is seeking economies of scale and speed in decoupled processes;
- ◆ OR doing better *what should not be done at all!* (Johnson, *Relevance Regained*, p. 149)



Why Accounting Must Change

What is Economies of Scale:

- ◆ **Defined:** *costs per unit falling as the speed and volume of output rise.*
- ◆ **Economies of Scale**
 - Demands speed and scale (The more produced the more costs decrease)
 - Ever demanding increase in volume mentality
 - Cost reduction at point locations, not system improvements
 - Drives increase volume through individual machines
 - Drive increased volume through departments
 - Ties to Overhead allocation – the more produced, the more costs can be allocated or *absorbed*
- ◆ **Batch production is the result of *Economies of Scale***



Why Accounting Must Change

“Learning to See”

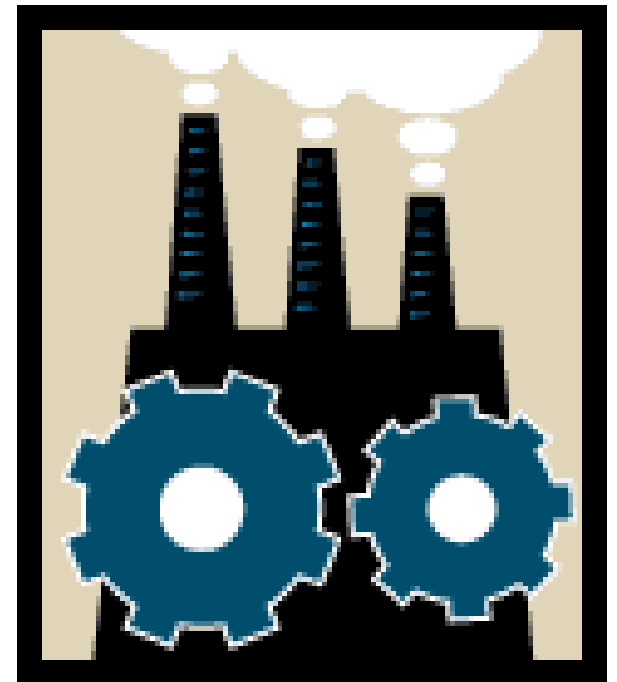
- ◆ From the book, *Learning to See* (p. 39):

“Mass (batch) production thinking says that the more and faster you produce the cheaper it is to produce.”

- ◆ **Overproduction**

- One of the Seven Wastes and
- According to Taiichi Ohno, the worst of all Wastes

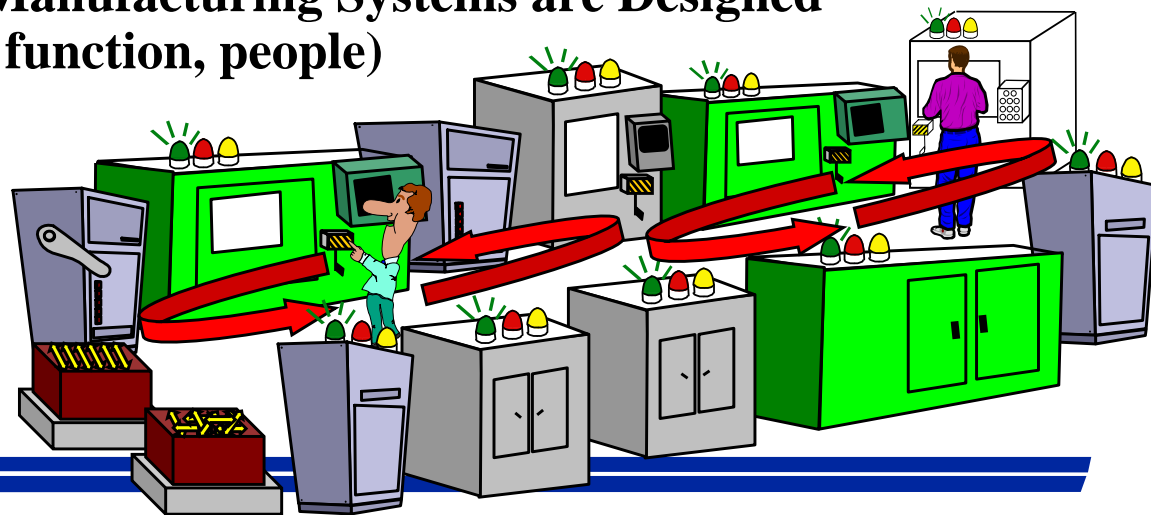
- ◆ *Overproduction is simply the manifestation of Economies of Scale*



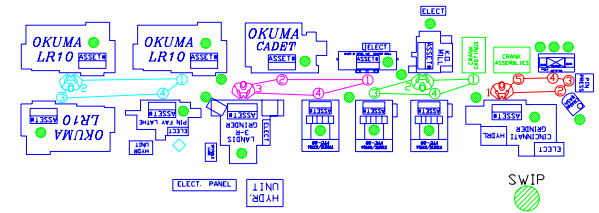
Why Accounting Must Change

Economies of Scale is Dead!

- ◆ As companies move toward becoming lean:
 - The economies of scale mentality is shed
 - The need for overhead and standard cost methods is destroyed
- ◆ Systems are designed for *flow, not scale* (speed & volume)
- ◆ **Flow**
 - Ties directly to customer demand/needs
 - Aligns **EVERYTHING** to meet *only* what the customer requires
 - Change in *Thinking* of how Manufacturing Systems are Designed (machines, process, systems, function, people)



It's All About FLOW

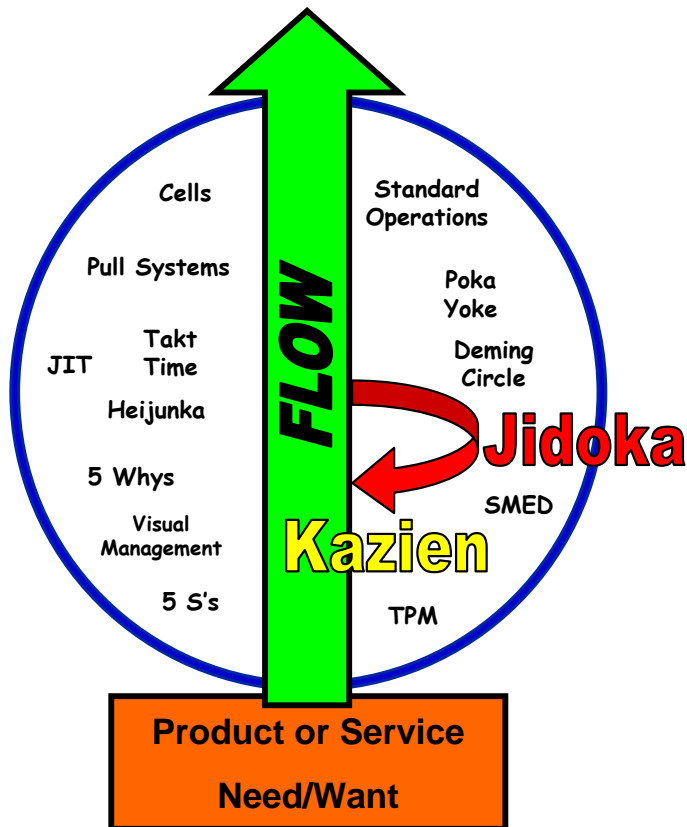


It is all about....

Flow Production

Producing one piece at a time following the sequence and rules of the Takt Time

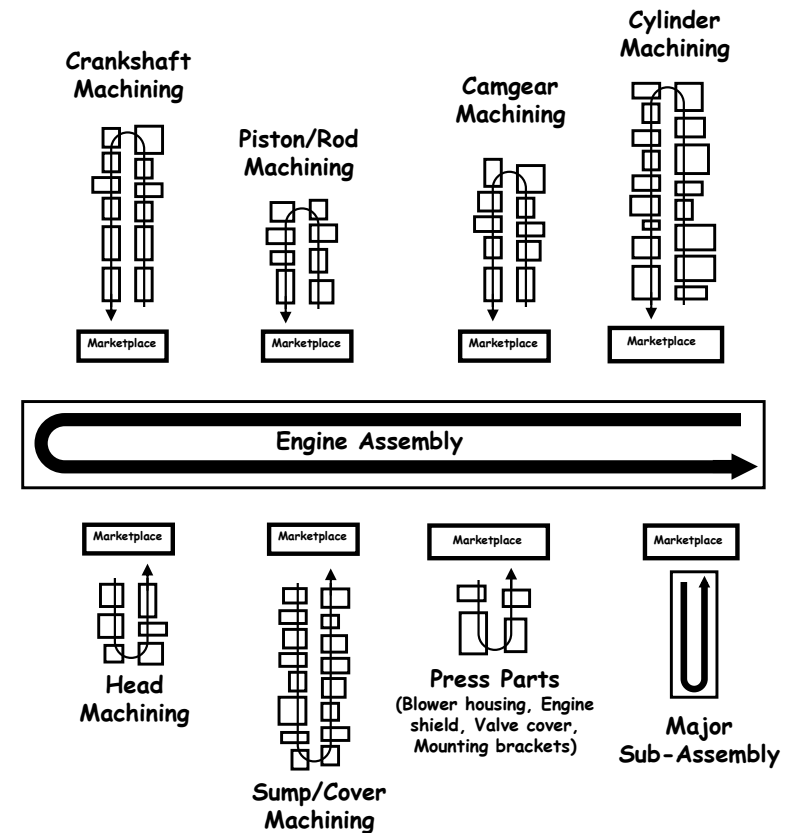
- ◆ Place machines in the process sequence.
- ◆ Design the cell in a U-shape.
- ◆ Make one piece at a time within the cell.
 - Continuous flow of the product *and* the components used to make the product.
- ◆ Train workers to handle more than one process.
- ◆ Produce according to Takt Time.
- ◆ Have operators work standing up and walking and balance to Takt Time.
- ◆ Use slower, dedicated machines that are smaller and less expensive.



Flow!

A Change in Thinking

System Design



◆ W. Edwards Deming

“A system can only deliver what a system is designed to achieve.”

◆ Glenn Uminger, Toyota

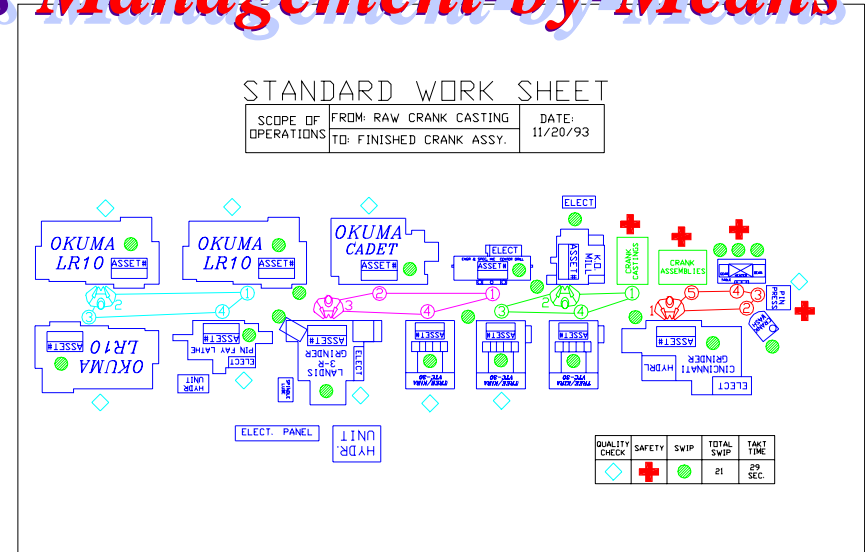
“The best way to eliminate muda is not create it in the first place.”

“If you have a stable system, then there is no use to specify a goal. You will get whatever the system will deliver. A goal beyond the capability of the system will not be reached. If you have not a stable system, then there is...no point in setting a goal. There is no way to know what the system will produce: it has no capability.”

(Deming quoted on page 2 of Johnson and Bröms' *Profit Beyond Measure*.)

Management-by-Results versus Management-by-Means

- ◆ Traditional Companies
- ◆ Setting targets for managers
- ◆ Targets based on financial results or accounting targets
- ◆ Only the Results matter, not the method in which the results are achieved
- ◆ Creates a dysfunctional environment
- ◆ Managers focus on their own departments efficiency, not the effectiveness of the whole system
- ◆ Point Improvement



- ◆ Lean Enterprise (TPS)
- ◆ Managers strive to develop and implement continuous Flow
- ◆ Results are the result of *implementing, executing, and continually improving Flow*
- ◆ Managers are focused on improving the *entire system*
- ◆ The effectiveness of the system via Flow and *customer needs* are key

Execution

Management-by-Results verses Management-by-Means

See writings of H. Thomas Johnson

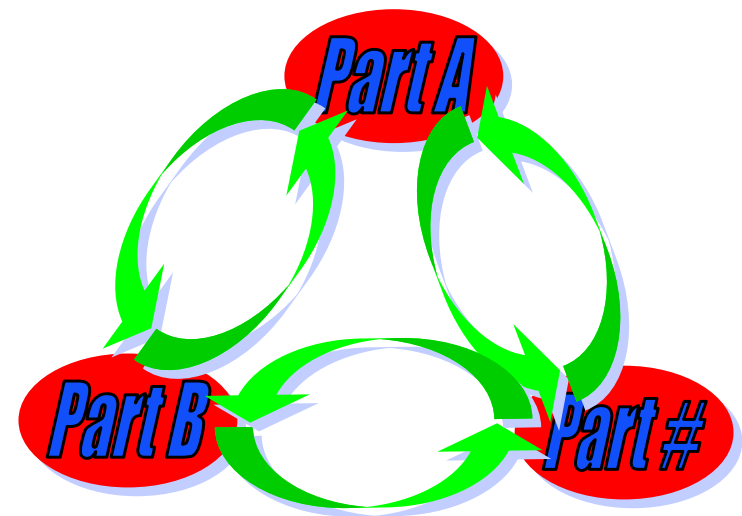
MBR

A (traditional) business enterprise is the quantitative sum of its parts

Part A + Part B + ... Part #
= \$ Results

MBM

A (lean/TPS) business enterprise is like a living entity, which is dependant on individual parts effectively functioning in conjunction with other individual parts of the system via interconnected links (interdependence)



Execution

Management-by-Results (MBR) verses Management-by-Means (MBM)

Management By Means

- ◆ The Lean Enterprise manifests MBM by focusing on the Development, Implementation, Sustainment, and Improvement of *Flow*
- ◆ *Flow* is key to achieving low cost, high quality, and shorten leadtimes
- ◆ *Flow* (1 x 1) is the focus of the Lean Enterprise's system and execution to reach a World-Class level
- ◆ *Flow* is as much a principle as a technique, which underlies the principle of *MBM*



Execution

Rules-in-Use

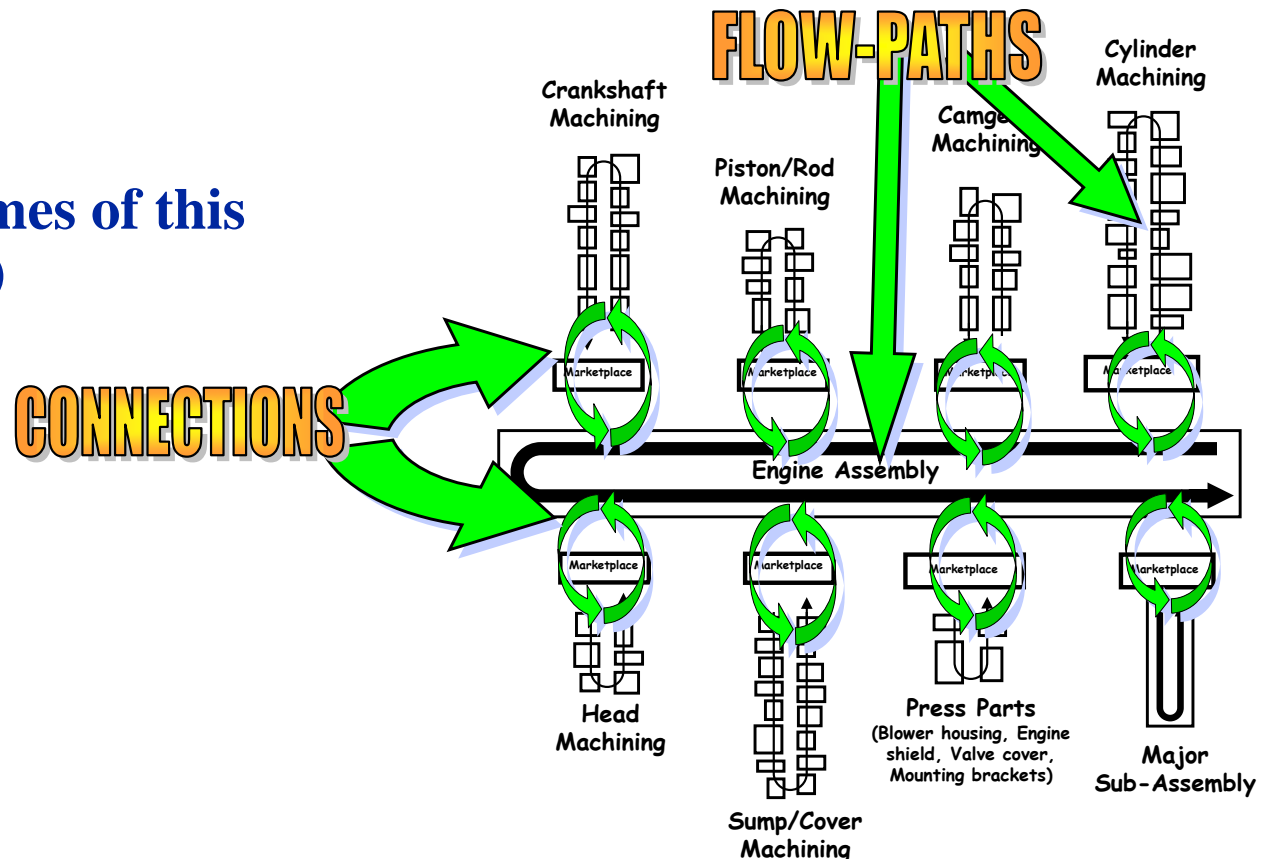
(Developed by Steven Spear during the research for his Doctorial thesis and summarized in the HBR article *Decoding the DNA of the Toyota Production System* by Steven Spear and H. Kent Bowen)

- ◆ Emphasizes that “connections” must be *direct, binary, and self-diagnostic*....
- ◆ and that they attach “flow-paths” that must be *simple, pre-specified, and self-diagnostic*

- ◆ Corresponds to MBM

- ◆ Corresponds to the themes of this presentation (my thesis)

- ...5 Rules for *designing, operating, and improving* activity-connections and flow-paths
- (Taken directly from the title of Spear’s thesis)



Execution

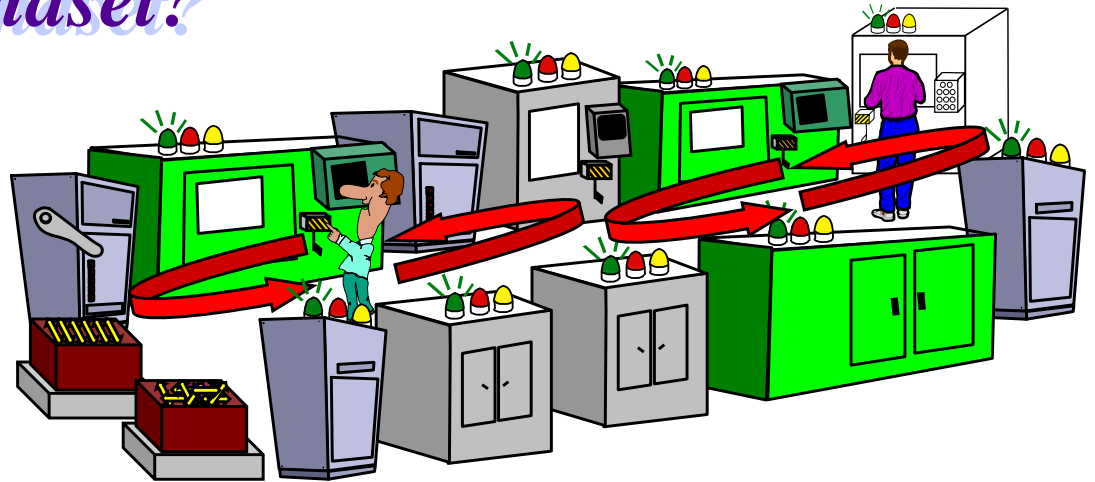
What is the 1 x 1 Mindset?

- ◆ **More than just applying some different tools!**
 - **Just like truly changing your health is a life style/philosophy change**
 - **You don't become healthy by just eating something different for breakfast for a while**
 - ***You must change every aspect of your life!***
- ◆ **Change in Thinking (Book title: *Lean Thinking*)**
- ◆ **Change in Life Style**
- ◆ **Change in Business Life Philosophy**
- ◆ **Change in Action**
- ◆ **Change in Habits**
- ◆ **Change in What you Do Each and Every Day!**



What is the 1 x 1 Mindset?

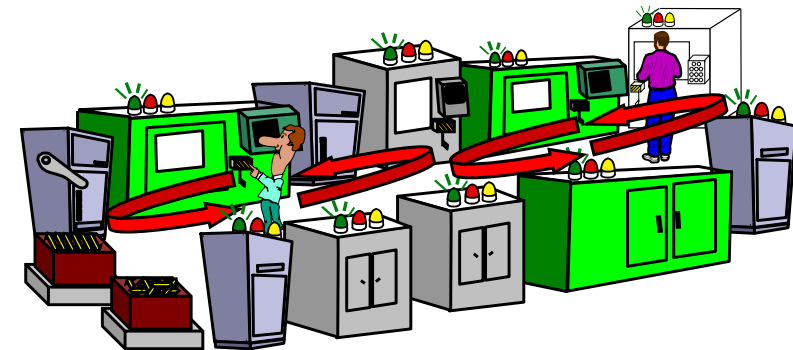
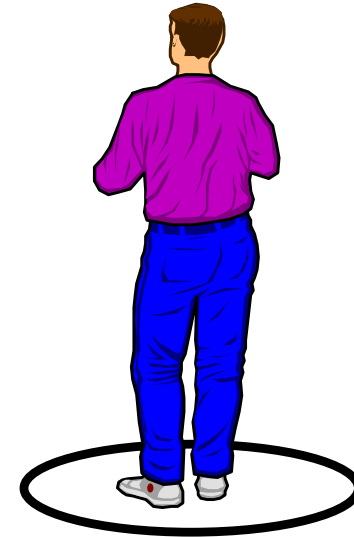
- ◆ Flow
- ◆ One-Piece Flow
- ◆ 1 x 1 manufacturing
- ◆ Flow manufacturing
- ◆ Continuous Flow
- ◆ Batch Size of 1
- ◆ Kaizen (LEARN BY DOING!)
 - Implementing flow where it currently does not exist
 - Implementing *countermeasures* where flow breaks down via *Scientific Method* (PDCA/Problem Solving)
 - It MUST be learned via action; making changes in the Gemba; with “Thinking/Mindset” ever present



A Change in Thinking **It's All about FLOW**

Learn By Doing

- ◆ Ohno's Circle on the Floor
- ◆ Go to Gemba Attitude
- ◆ Take the time to Observe
- ◆ Try it yourself
- ◆ Review Results
- ◆ Develop *Standard Operations!*
 - A repeatable process which are done by everyone within Takt Time
 - All improvements come out of established Standard Operations
 - Standard Operations have their Roots in Training Within Industry, TWI



Execution

- ◆ Shopfloor Methods develop during WWII to support the War effort
- ◆ Focused on the Supervisor and Operator interface
- ◆ TWI was deployed to Japanese Industry during the Post War Occupation
 - Toyota's Standard Operations developed *directly* from the TWI methods
 - TWI is still practiced today at Toyota



- ◆ John Shook's encounter with TWI when working for Toyota to transfer their Manufacturing Operations to North America

"To my amazement, the program Toyota was going to great expense to "transfer" to NUMMI was exactly that which the Americans had taught the Japanese decades before."

John Shook, "Bringing the Toyota Production System to the United States: A Personal Perspective," in Jeffrey Liker (ed.), 1997, *Becoming Lean* (Portland, OR: Productivity Press), p. 69.



Execution

TWI at Toyota Today

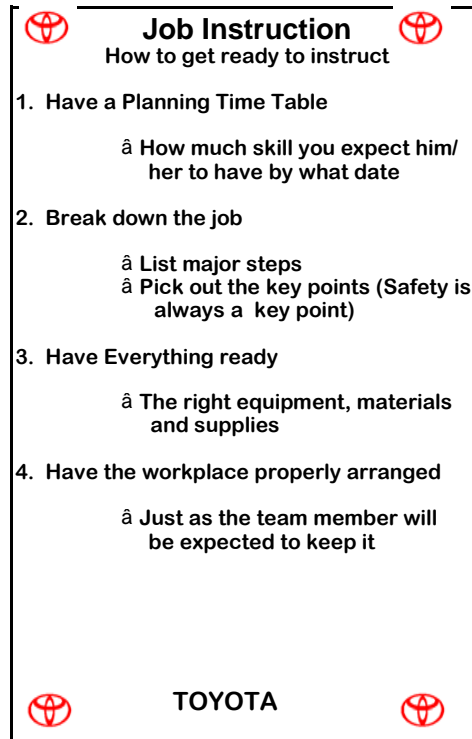
◆ Job Instruction has not changed at Toyota in 60 years!

TWI, 1944



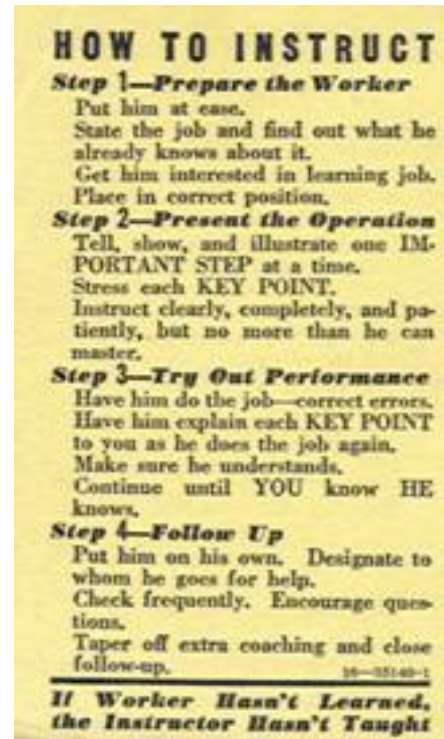
Front Side of the Cards

Toyota, 2003



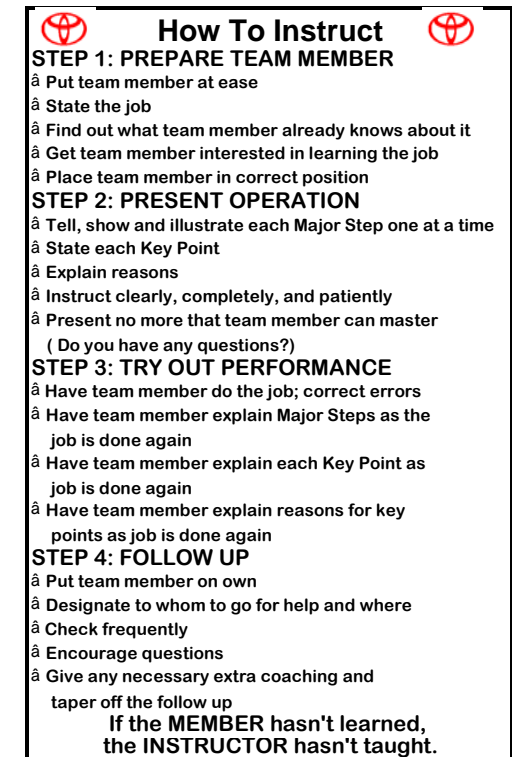
◆ An example of TWI's robustness

TWI, 1944



Front Side of the Cards

Toyota, 2003



SOURCE: The Original Job Instruction card is from 1944 Job Instruction training manual. The Toyota Job Instruction card is courtesy of the Toyota Motor Corporation, Toyota Motors Manufacturing, Kentucky, TMM-K.

Lean Cost Management System

The Three Factors of Lean Cost Management

1) All Costs to be Direct Costs

- Actual and Accurate Incidence of Cost
- Church's Concept/Philosophy

2) Flow Production

- Alignment of Products
- Flow across the value stream
- One-piece flow

3) Computer Systems

- Easy and Cost Effective Information Gathering Systems
- Desktop computers
- Today's software

**Note: A.H. Church was missing
Factors 2 & 3.**

Lean Manufacturing



Physical Operations (Layout & Equipment Design)

Desktop Computers and Today's Software



Design, Execution & Improvement

How to Apply the Three Factors: *Designing (Right-Designing)*

◆ Systems

- Operations
- Support functions

◆ Processes

- Value stream
- One-piece flow

◆ Connections

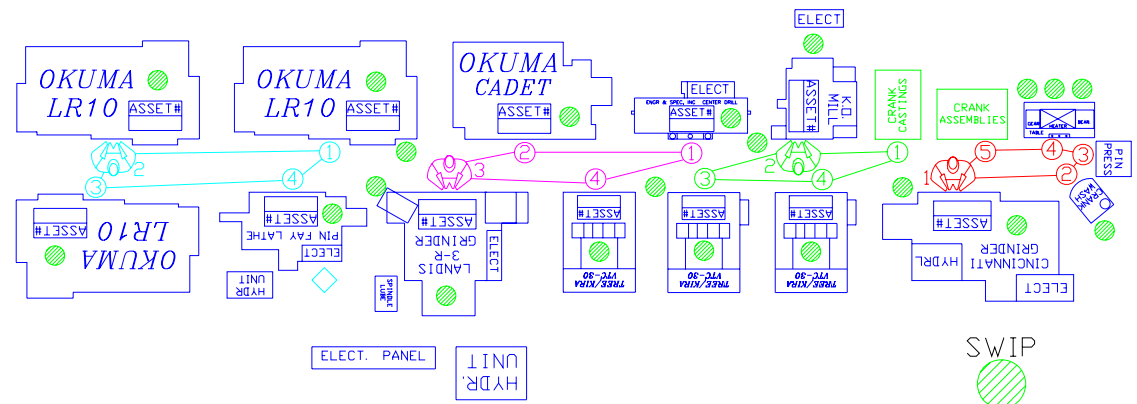
- Pull systems
- Feedback

◆ Equipment (Right-sizing)

- Machine Tools
- Support equipment

◆ Management Structure

- Support
- Kaizen



Based on:

- Economies of Scale is Dead
- Management by Means
- Rules-in-Use
- and of course, TPS

Design, Execution & Improvement

How to Apply the Three Factors: *Execution*

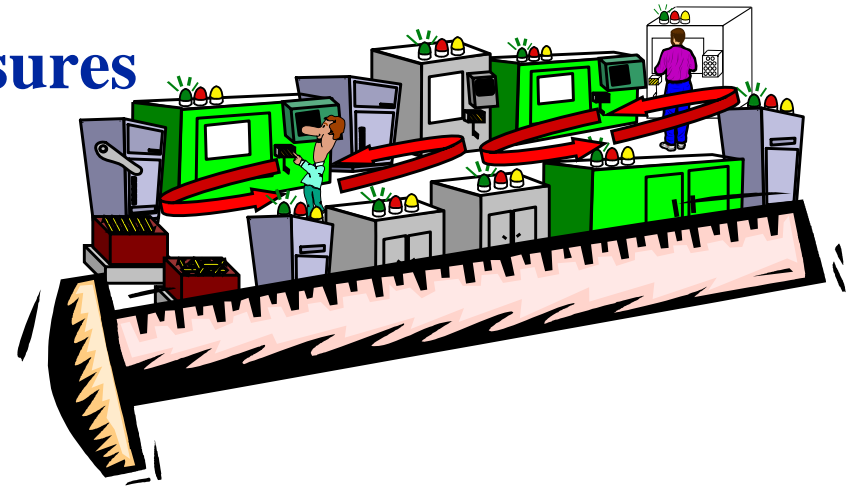
◆ No Money Measures

- Direct ties to customer demand/needs – *Meeting Takt Time*
- Continually implementing FLOW – *Value Stream (Flow & Pull)*
- Continually improving FLOW – *Kaizen (Pursuit of Perfection)*



◆ Value Stream/Cellular (Flow) Measures

- *Simple, Understandable Measures*
- Productivity (**output/operator/cell**)
- WIP Reduction/Control
- Throughput Time
- Supply the customer with only what is needed, when it is needed



◆ *All in accordance with Lean/TPS Principles*

Design, Execution & Improvement

How to Apply the Three Factors: *Improvement*

◆ Feedback Loops

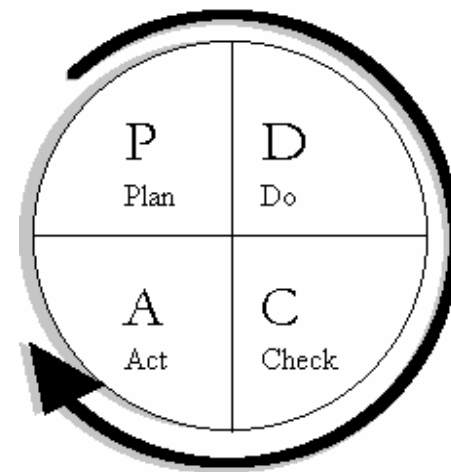
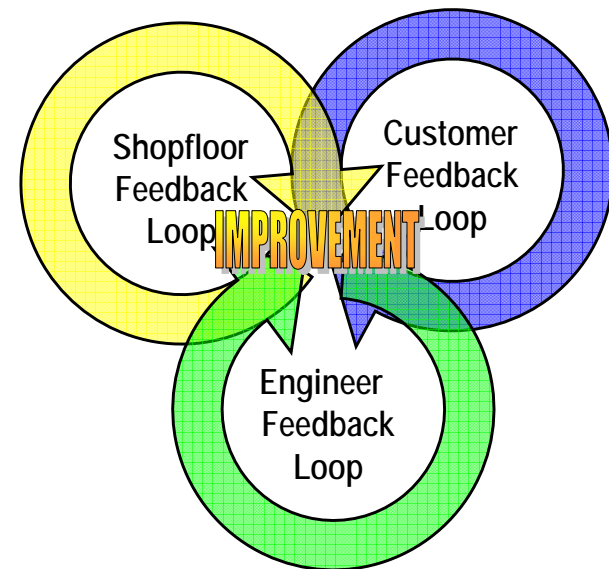
- Shopfloor
- Customer
- Engineering

◆ Kaizen

- For flow (System re-design)
- Jidoka (System breakdown)

◆ Scientific Method

- PDCA cycle
 - Develop a thesis (idea for improvement)
 - Conduct experiment
 - Review results
 - Implement if successful



Design, Execution & Improvement

Summary: Focusing on the Means, not the Results

◆ **Three Concepts that focus on “Actions”, not the “Ends”**

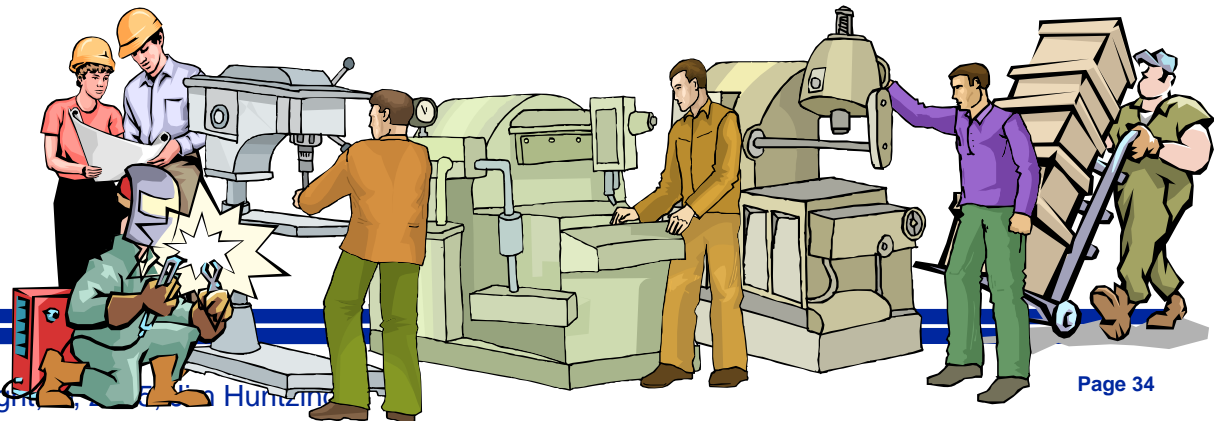
- **Flow (Economies of Scale is Dead!)**
- **Management by Means**
- **Rules-in-Use**

◆ **No focus on Accounting!**

- **Cost-Managerial**
- **Overhead, Variances, Allocations**

◆ **Focus of this Presentation**

- **Design (systems)**
- **Execute (operation)**
- **Feedback (improvement)**
- **Back to manufacturing origins (history)**



Design, Execution & Improvement

Sports Analogy: Football

Measures & Execution

✦ Which is a better measure to help you execute during the game?



➤ Watching the scoreboard?

Or...



A cartoon illustration of a coach wearing an orange shirt and cap, holding a clipboard and talking on a mobile phone. This illustration is positioned to the left of the scoreboard.

GUEST	14:03	HOME	
24	TIME	31	
DOWN	TO GO	BALL ON	QTR.
3	7	45	4

MBR

➤ Watching the passing, route, and catching techniques?



MBM

➤ Which do the best coaches focus on?

Design, Execution & Improvement

Business Analogy: Operations *Measures & Execution*

✦ Which is a better measure to help you execute during the workday?

➤ Reviewing your variances (scoreboard)?
Or...

➤ Watching the line operate (executing Std. Op.)?



➤ Which do Lean Organizations focus on?

Design, Execution & Improvement

Business Analogy: Operations

Measures & Execution

✦ If you become *excellent at MBM* (passing, route, & catching techniques or Standard Operations), **then...**

...the desired Results will happen on its own and much more effectively, which translates to...

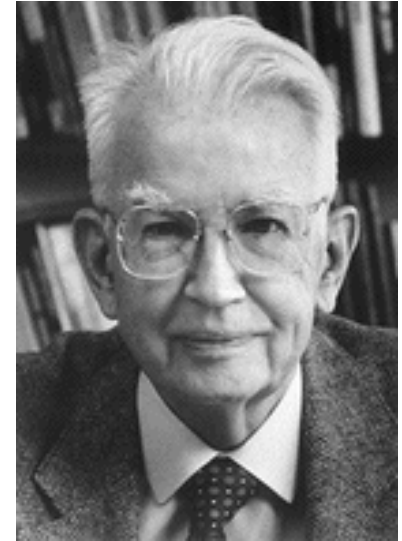
...improved quality, reduced leadtimes, higher productivity, improved customer satisfaction and *more profit!*



Coase's Theorem

Transactions!

Transactions are primarily the exchange of material and information



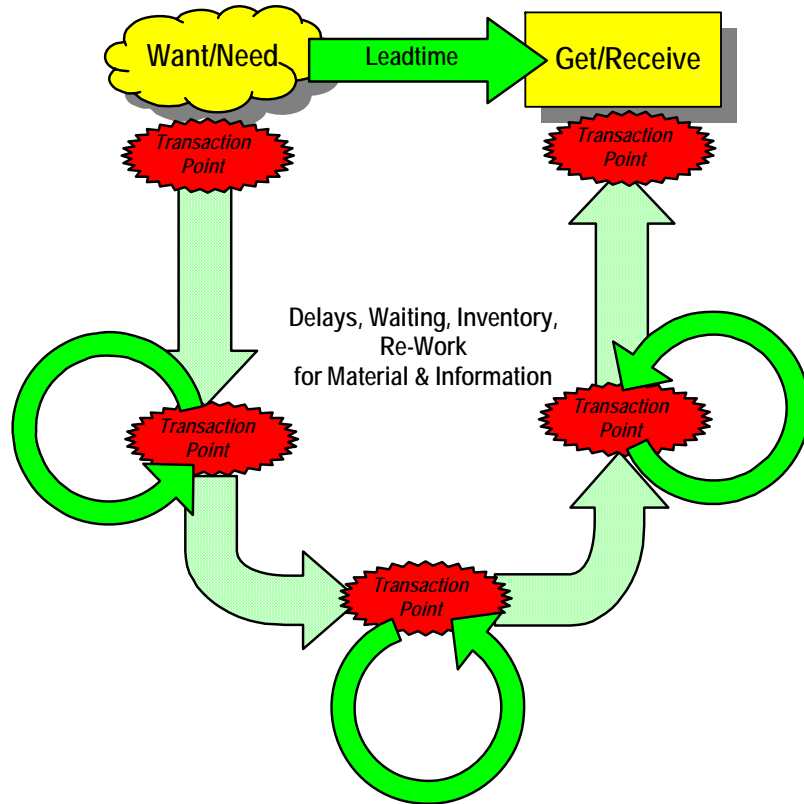
Ronald Coase

- ✦ *The Nature of the Firm* (1937, Nobel Prize in Economics 1991)
 - Answers two questions
 - Why are firms formed?
 - Why are firms a certain size?
 - A firm represents an alternative to organizing production through market transactions
 - **Firms grow to the point where it is more cost effective for them to have transactions accomplished *internally* than have transactions made *externally* or out in the market.**
- ✦ These two questions are some of *the very activities* that A.H. Church and his contemporaries *were trying to resolve* for internal information purposes when they *developed their solutions* for the growing internal processing and product *proliferation* during the 1885 to 1925 period
- ✦ Lean manufacturing converts the enterprise into a *transaction eliminating, consolidating, and simplifying entity*
 - Reducing and eliminating the cost of transactions

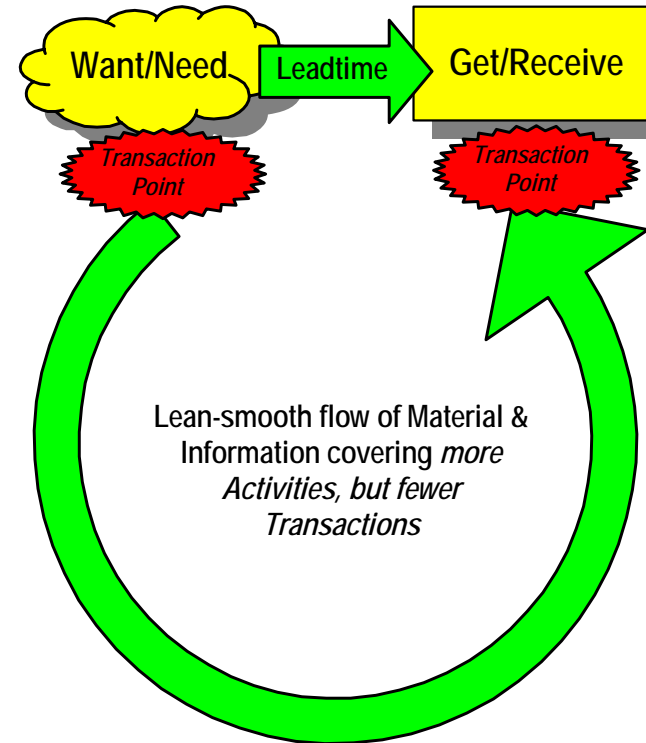
Coase's Theorem

Transactions!

Customer
of the Traditional Enterprise



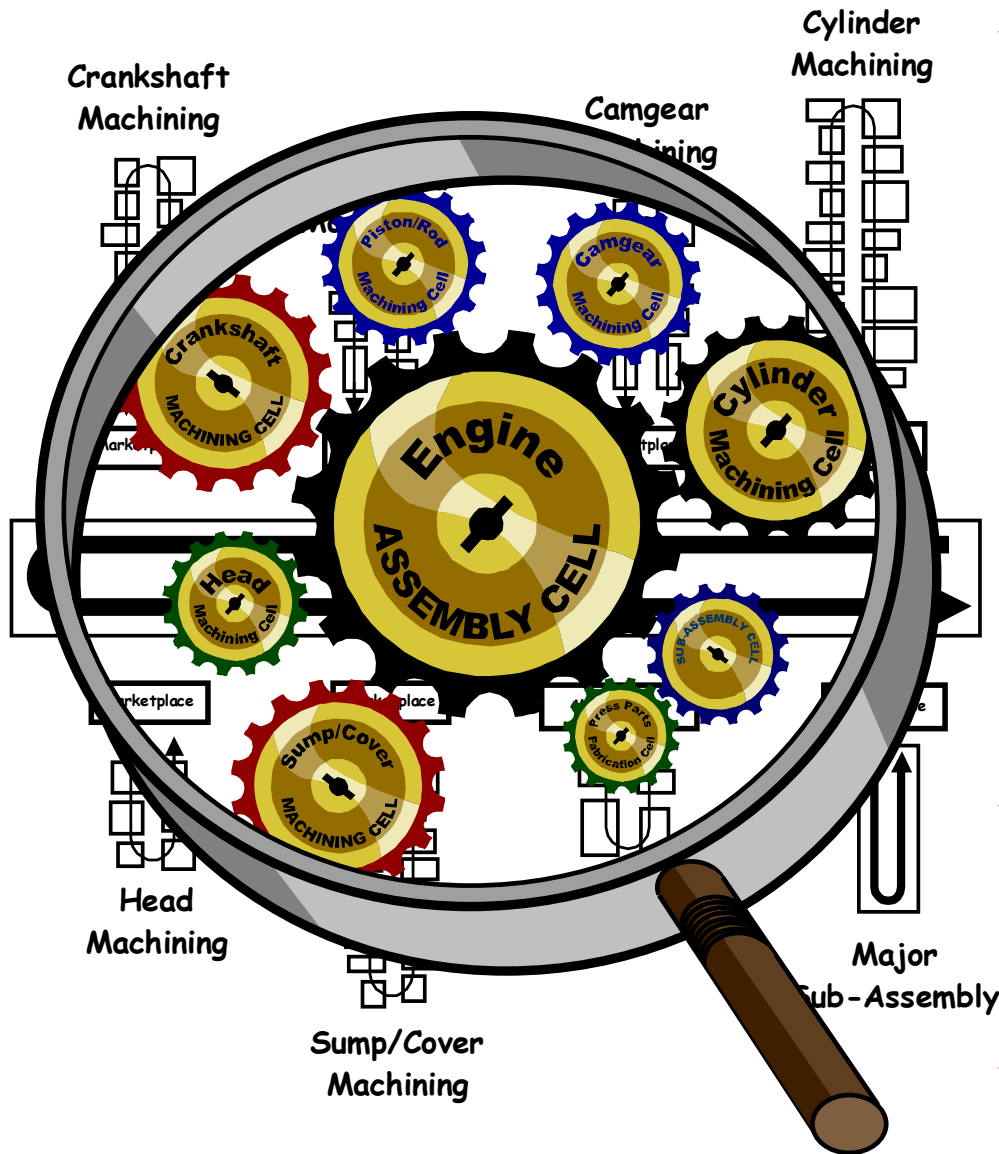
Customer
of the Lean Enterprise



Internal Transactions of Manufacturing Firms

Butt's Theorem

Gear Train



◆ Gear Train instead of a Linked-Chain

➤ Gear train shows the multi-dimensional situation that exists in a manufacturing operation

- Connecting subassemblies
- Connecting component lines
- Connecting components with different takt times

➤ The system is synchronized via:

- Flow
- Pull
- Takt time

◆ Butt's and Ohno's Pull system formula

➤ Is derived from a driven conveyor or gear train

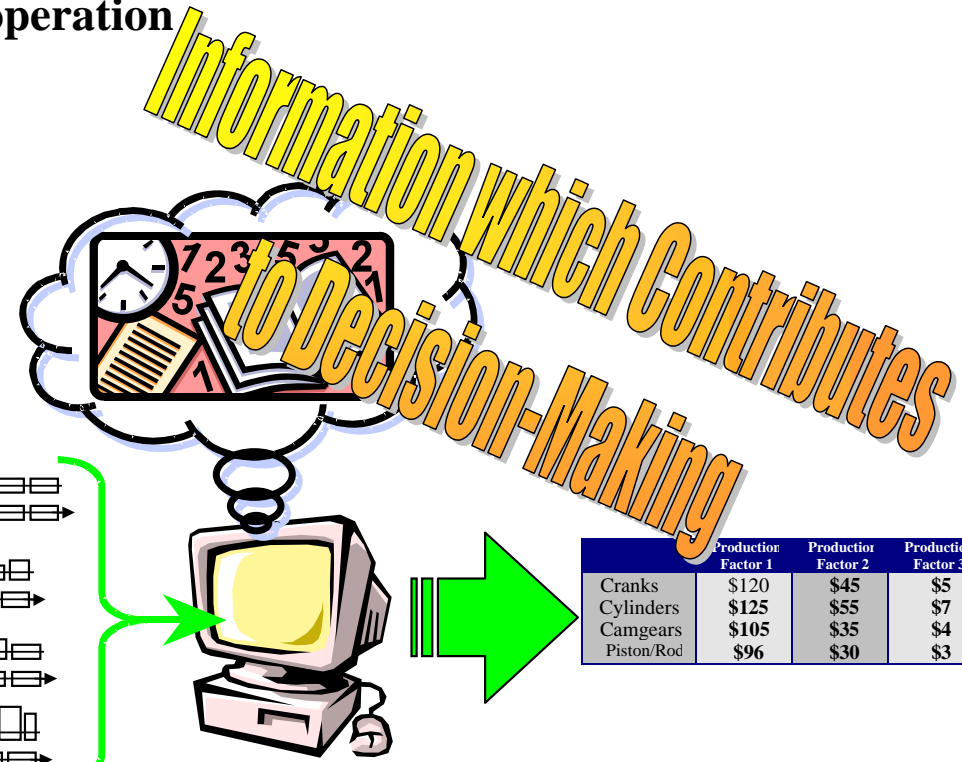
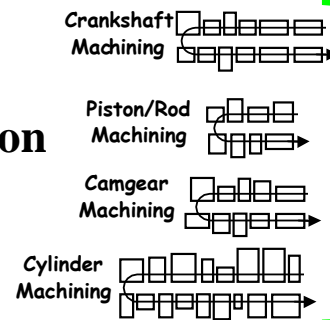
➤ Formula for synchronization

◆ *Ties to Church, Coase, MBM, and the Rules-in-Use*

Church's Method Applied

Useful Tool for the Lean Cost Management System: *Production Factors Spreadsheet*

- ◆ **Costs become direct costs**
 - The incidence of costs are aligned to value streams – products
 - Information is simple to collect
- ◆ **Costs are accurate (not precise)**
 - Eliminates the disparate allocation of traditional standard costing – Overhead
 - Cost information reflects directly from the operation
- ◆ **Lean implementation must precede this ability**
 - Without flow development and execution the method cannot be applied
 - The very nature of the physical implementation of lean provides the environment
- ◆ **Personal computers**
 - Inexpensive tools for information collection
 - Simple to set-up and use



	Production Factor 1	Production Factor 2	Production Factor 3
Cranks	\$120	\$45	\$5
Cylinders	\$125	\$55	\$7
Camgears	\$105	\$35	\$4
Piston/Rod	\$96	\$30	\$3

Summary of Thinking

Business Thinking for Today

◆ History: The Industrial Revolution (1885-1925)

- Developed for informational needs, not accounting needs
- Product & process proliferation

◆ A.H. Church

- Costs directly linked to its incidence
- Production Factors concept

◆ Economies of Scale

- Drives speed & volume, not customer demand alignment

◆ MBR, MBM, and Execution

- Driven towards desired objectives
- Driven towards desired method

◆ Rules-in-Use

- Develops and actuates superior design, operation, and improvement
- Focus on *flow*

◆ Coase's Transactions

- Elimination & simplification of transactions

◆ Butt's Gear Train

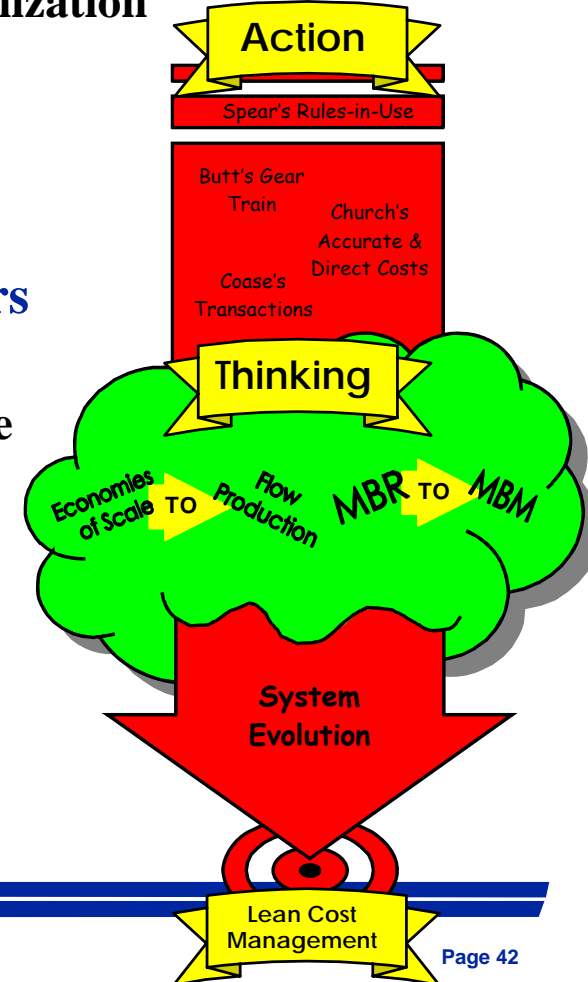
- Interlinks system(s)
- Connected organization

◆ System Evolution

- Feedback & Improvement

◆ Production Factors Spreadsheet

- A result of Value Stream (lean) application



Summary of Thinking

Recall the Premise to my Thought:

- ◆ My belief that traditional cost-managerial accounting methods *were useless!*
- ◆ The conclusion to “my belief”...



Summary of Thinking

In Conclusion:

".....lean accounting for the manufacturing enterprise, i.e., **cost management**, is about **design, function (execution)** and **continuous improvement**, *not about accounting.*"

A Change in Thinking

What to Do?

...with your current Traditional Internal Accounting System?

Kill it! ...throw it in the trash can!

It may feel like you are throwing away money, but you will be throwing away dysfunctional and inaccurate information.

...so the accounting system cannot be changed over night, so what do you do!!!??



What to Do?

Items that accounting and executives might Attack and how to address them



◆ GAAP

- *Everyone is worried about this one! But...*
- *GAAP is for **External (Financial)** Accounting!!*
- *Internal (Cost-Managerial) Accounting can be ANYTHING you want/need*

◆ Standard Costing/Overhead/Absorption

- **Much was covered about this in the presentation**
- **Decisions must be made with *accurate* (not precise, \$00.0000 decimals) information**

◆ Need for immediate feedback

- **Standard costing cannot supply this – it is delayed information**
- **Decisions must be made with current information**

What to Do?

Items that accounting and executives might Attack and how to address them



◆ **A drop in WIP/Inventory will hit the Balance Sheet**

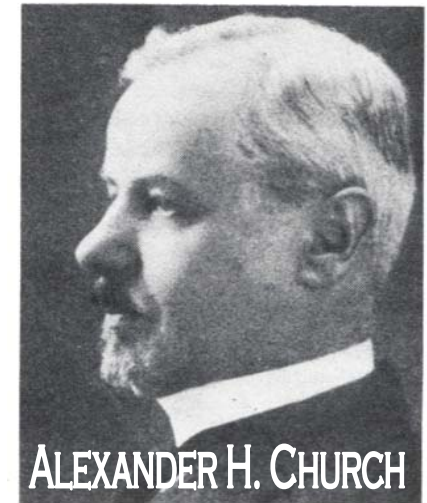
- Will hit the bottom line on the Balance Sheet because deferred labor and overhead move from the inventory account to the expense section of the income statement, lowering profits
- Cash Flow is dramatically improved because the velocity through the system is greatly increased (This was Toyota's original driving crisis)
- Sections in the books, *Real Numbers*, *Who's Counting*, and *Practical Lean Accounting* address this issue in detail

◆ **Reduction in Direct Labor impacts Absorption**

- See bullet on previous slide – this is the *Relevance Lost!*
- Labor is only a small percentage of a products costs so...
- Why are we spreading “non-incidence” cost using an item not aligned with resources used (labor)?
- This gives a “double-dip” of inaccuracy

What to Do?

Items that accounting and executives might Attack and how to address them



◆ Set-up Frequency hits absorption

- Implement SMED wherever it is needed!
- Set-ups become incidental
- It's about Flow, not absorption

◆ Standard Costing Information is Inaccurate

- The Lesson from A. H. Church:

“My own view is that it is the business of organization to regulate production, and the business of costs to represent facts and *nothing but facts.*” (Italics added)

“This statement may seem to be a truism, but unfortunately many people believe that costs may be usefully manipulated and twisted and averaged so that they cease to represent what actually happen and come to represent what are in the opinions of their manipulator ought to have happen.”^[1]

[1] A. Hamilton Church, 1976 reprint edition (Originally published in 1910), *Production Factors in Cost Accounting and Works Management* (New York, NY: Arno Press), pp. 34-35.

What to Do?

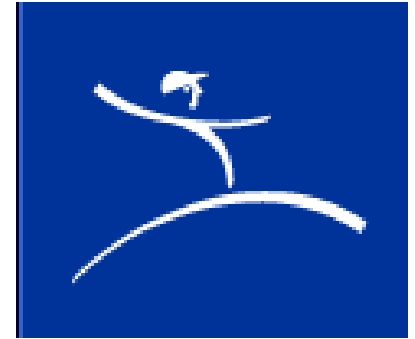
What to Do...

- ◆ **Start the Physical Implementation**
- ◆ **Find a Sensei – *maybe it's you!***
- ◆ **Select a Model Line**
 - **Learning experience**
 - **Not too simple, but not too complex**
 - **Current issue**
 - **High-leverage**
 - **Something that will be a success**
 - **Example of “It can be done here!”**
- ◆ ***Gather data and perform an Analysis (BUT do not get into analysis paralysis!)***
- ◆ **Make careful note of what support functions are impacted by the transformation of the Model Line**
- ◆ **Apply support and proper resources**
- ◆ **Have an executive champion**
- ◆ **The Champion must become intimate with the process**
- ◆ **Have one of your accountants be part of the transformation/implementation team**
- ◆ **Set the sequence of events and a reasonable timeline**
- ◆ **Take the time to review and reflect! (Key to Learning, Understanding & Evolving)**



What to Do?

What to Do...example and explanation from LEI and Brian Maskell – just posted!



Date: **02/26/05 05:30 PM**

Author: Brian Maskell

Title: Lean vs. Accounting

Catherine:

We have worked a lot with "lean accounting" and find that the software does not have a big impact.

The important thing is to develop accounting, control, and measurement methods that are lean themselves. In brief (very brief):

1. Replace traditional standard costing with value stream costing.
2. Replace "control by transactions" to operational control and visual management.
3. Create financial reports that clear and straight forward so everyone can understand them. Real numbers and no complicated ideas like absorption or standard cost-of-sale.
4. Eliminate standard costs (or other full absorption cost methods) for decision-making like quoting, pricing, make/buy, capital expenditure, etc.
5. As the company matures as a lean organization, remove most of the transactional controls. Free up the time of the financial people and use their time for growing the business, creating more value, eliminating waste, and making tons of money.

Brian Maskell

Lean Cost Management

Lean Cost Management for Tomorrow's Manufacturer:

- ✦ Takes business back to its original thinking – understanding and executing your business to satisfy the customer
- ✦ A change in view/vision of how business should be managed
- ✦ A drive to change business practice and the scholastic training of new business people
- ✦ Methods, techniques, and principles to guide the manufacturing enterprise to be a superior company
- ✦ **Relentless pursuit for change, knowledge, understanding, and *different thinking***
- ✦ ***Transposes the manufacturing firm to the future via understanding the past***





Questions/Comments/Discussion?

Thank You!

Jim Huntzinger

Change Your Thinking!



Recommended Reading:

- Orest Fiume and Jean E. Cunningham, 2003, *Real Numbers: Management Accounting in a Lean Organization*. Durham, NC: Managing Times Press.
- H. Thomas Johnson and Anders Bröms, 2000, *Profit Beyond Measure: Extraordinary Results through Attention to Work and People*, New York, NY: The Free Press.
- H. Thomas Johnson and Robert S. Kaplan, 1987, *Relevance Lost: The Rise and Fall of Management Accounting*. Boston, MS: Harvard Business School Press.
- Jeffrey K. Liker, 2004, *The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer*, New York, NY: McGraw-Hill.
- Brian Maskell and Bruce Baggaley, 2003, *Practical Lean Accounting: A Proven System for Measuring and Managing the Lean Enterprise*, Portland, OR: Productivity Press Inc.
- Brian Maskell, 1996. *Making the Numbers Count: the Accountant as Change Agent on the World Class Team*, Portland, OR: Productivity Press.
- Steven J. Spear, May 2004, "Learning to Lead at Toyota," *Harvard Business Review*. Reprint R0405E, pp. 1 - 9.
- Steven J. Spear and H. Kent Bowen, September-October 1999, "Decoding the DNA of the Toyota Production System," *Harvard Business Review*. Reprint 99509, pp. 96 - 106.
- Jerrold M. Solomon, 2003, *Who's Counting? A Lean Accounting Business Novel*, Fort Wayne, IN: WCM Associates.
- Glenn Uminger, "Manufacturing Cost Management: A Practical Life-Cycle Cost Perspective," In William F. Christopher (ed.), 1998, *New Management Accounting: How Leading-Edge Companies Use Management Accounting to Improve Performance*. Menlo, CA: Crisp Publications.

Change Your Thinking!