People: The Heart of Lean
“There are two major distinctive features of these [Toyota Production and Kanban] systems.

One of these is ‘just-in-time production’, an especially important factor in an assembly industry such as automotive manufacturing.…

Second…is the ‘respect-for-human’ system where the workers are allowed to display in full their capabilities through active participation in running and improving their own workshops”
“The soft stuff is the hard stuff.”

Chris Cool - Northrop Grumman
At the end of this module, you should be able to:

• Explain why people are the key to improving productivity

• Describe how to be an effective member of a team

• Compare & contrast leadership vs. management
What are the most important things that contribute to your job satisfaction?

Please contribute ideas, then we will vote on them.
Drivers of Employee Satisfaction

2003 Employee Satisfaction Index
Key Driver Analysis

- Pay
  - Job security
  - People I work with cooperate to get the job done

- High Performance Work Env. (ESI)
  - Job makes good use of skills
  - Encouraged to come up with new and better ways
  - Satisfaction with recognition received for doing a good job
  - I have enough information to do my job
  - Conditions allow me to be productive
  - Overall job done by supervisor
  - My Company makes changes to compete

- Opportunity to improve my skills
- Involvement in decisions
- People I work with cooperate to get the job done

Correlation / Strength of Association

0.75  0.65  0.55  0.45

High  Low

Source: Boeing Air Force Systems Employee Involvement Strategy 2003

Courtesy of Boeing. Used with permission.
Productivity Virtuous Cycle

*Richard Kleine, John Deere, c 2000

** Elton Mayo, c 1920
Southwest Performance vs. All U.S. Domestic Airlines

Southwest has made a profit every year since it started operation!
Southwest Airlines…

- Has had only one fatality in 35 years of operation - an overrun on a snowy runway at Midway on Dec 8, 2005
- Flies only one make of aircraft - Boeing 737
  - Simplifies training, maintenance, logistics
- Has never had a layoff of employees to reduce costs, including after 9/11
- Is the most highly unionized major U.S. airline
- Has a point-to-point, not hub-and-spoke, route structure
- Consistently offers some of the lowest fares available
- Is a favorite of both investors and employees

What makes Southwest so successful?
Organizational Competency

“In this book I argue that Southwest’s most powerful organizational competency… is its ability to build and sustain high performance relationships … characterized by shared goals, shared knowledge, and mutual respect. Although these relationships appear simple, appearances are deceptive.”

(Emphasis added)
Relational Coordination

• **Shared Goals** *aligns* employees to prioritize organizational success over “just doing my job”
  • SWA: Safety, Satisfied Customers, On-time Departure

• **Shared Knowledge** *enables visibility* of the overall work process, and the linkages between different jobs
  • SWA: Functional groups help each other; Pilots help flight attendants, gate agents help baggage handlers,…

• **Mutual Respect** *reduces barriers* between employees and employee groups
  • SWA: No one employee group is more important than another

**Supported by effective communication**
From *The Southwest Airlines Way*

- “With frequent, timely communication, Southwest employees could respond quickly to changing circumstances in a coordinated way.”
- “…Southwest employees communicate about the problem itself, rather than assigning blame when difficulties occur.”

Open and honest communication is a hallmark of lean thinking organizations.
Coordination Correlates with Performance For Airlines

“The performance effects of relational coordination are large and statistically significant. This means you can be confident of achieving improved performance results if you can increase relational coordination.”

Ref: Gittell, *The Southwest Airlines Way*
“Relational coordination among care providers enables shorter hospital stays, higher levels of patient-perceived quality of care, and improved clinical outcomes.”

Ref: Gittell, The Southwest Airlines Way
Relational Coordination Applies to Other Work Settings

- Work setting characteristics where relational coordination applies
  - Task interdependence - handoffs may require feedback and iterations
  - Uncertainty - adjustment of plans and updating
  - Time constraints - time buffers not feasible

- Example work settings where relational coordination applies
  - Product development
  - Production
  - Operations
  - Can you think of others?

Ref: Gittell, *The Southwest Airlines Way*
### SWA Organizational Practices Supporting Relational Coordination

#### Practices
- Lead with credibility and caring
- Invest in frontline leadership
- Hire and train for relational competence
- Use conflicts to build relationships
- Bridge the work/family divide
- Create boundary spanners
- Measure performance broadly
- Keep jobs flexible at the boundaries
- Make unions your partners
- Build relationships with suppliers

#### Shared Goals
- Shared Knowledge
- Mutual Respect

#### Communication
- Frequent
- Timely

#### Problem Solving

#### Outcomes
- Quality Performance
- Customer complaints
- Lost baggage
- Late arrivals
- Efficiency Performance
- Turnaround Time
- Staff Time Per Passenger

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*Courtesy of Southwest Airlines. Used with permission.*

Ref: Gittell, *The Southwest Airlines Way*
Outcomes of Relational Coordination

The SWA Study shows that increased Relational Coordination leads to:

• Higher reliability
  • Better on time performance
  • Fewer lost bags

• Greater customer satisfaction
  • Fewer complaints

• Shorter turn around time
  • Greater aircraft and gate productivity
  • Most passengers served per employee

Ref: Gittell, The Southwest Airlines Way
The Power of Workforce Productivity

Workforce Productivity benefits at SWA

• Revenue generated from satisfied customers
• Revenue generated from airplanes in the air and not on the ground
• Reduced costs from low employee turnover
• Reduced costs from not having employees idle
• Happy, satisfied employees
How Does This Apply to You?

- Leadership plays a key role at all levels
  - What are characteristics of leadership and how they related to management?
  - What are the roles of leadership and management in a lean organization?
- Teamwork is essential
  - What are Integrated Product/Process Teams?
  - What factors affect team performance?

Let us focus on these two topics
People are the Heart of the Enterprise and Lean

Tasks
What people do

Processes
How people do it

People

Organizational Structures
What enables people

Culture
Leadership and Management

Leadership Focus in Organizations
(Doing the Right Thing)

- Values
- Vision
- Engagement
- Change and Risk Taking
- Empowerment (Shared Leadership)

Management Focus in Organizations
(Doing Things Right)

- Decision Making
- Organization Structuring & Determining Tasks & Work Groups
- Human Resource Development & Management
- Fiscal & Technological Resource Management
- Conflict Management

Organization and its Participants

Goal Attainment

Source: Stanke, A. MIT SM Thesis; adapted from Hickman, 1998
Matrix Organizations
(From the 1960’s)

Functions
- Engineering
- Marketing
- Manufacturing
- Supplier Mgmt
- Support
- HR
- Legal

Programs

Work Unit or Individual

Invented to allow response to rapid technology changes in aerospace
Integrated Product/Process Teams

Before IPT’s
- Linkages occurred here
- Coordination meetings
- Traditional networks
- Grapevine-type communication

New Way
- Linkages occurred here
- Regular IPT meetings
- Defined members & leaders
- Every member keeps functional leadership informed

IPT leaders must be good leaders and good managers!
Aligning the Focus

Near Term Direction

Unaligned Goals/Projects

Sound Business Principles and Involved Employees

Strategic Direction

Where good leaders spend time

Work Group

Individual

Planned Journey

Courtesy of Boeing. Used with permission.

Source: Boeing Air Force Systems Employee Involvement Strategy 2003
Team Behaviors by Stage

**Stage 1: Formation**
- Team members skeptical of one another
- Little or no commitment or trust
- Getting to know one another
- Communication is guarded
- Hesitant participation by members
- Struggle to make consensus decisions

**Stage 2: Team Building**
- Team members begin to express themselves openly
- Only ideas and opinions of a few team members are known
- Conflict is evident but remains unsolved; complaining is the norm
- Learn to ask for help from one another
- Struggle to not blame one another for mistakes
- Team members begin taking on more responsibility

**Stage 3: Collaboration**
- Team members openly give and seek feedback
- Differences of opinion are valued and worked within the team
- Team members trust one another
- Conflict is resolved within the group
- Team has a sense of cohesiveness
- Team members attempt to achieve harmony through cooperation

**Stage 4: High Performance**
- Mutual respect and equal participation by all members
- Team interested in individual and team development
- Team values differences of opinion, perspectives and conflict
- Team has a high synergy level
- Team has a comfortable working atmosphere
- Knows what needs to be done and able to do it

Source: Boeing Air Force Systems Employee Involvement Strategy 2003

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Leadership Behaviors by Stage

Stage 1: Formation
- Help to build trust
- Inspire, motivate, encourage team concepts
- Model good listening
- Provide information
- Be patient
- Provide clear direction

Stage 2: Team Building
- Model open and honest communication
- Help team learn from mistakes and not place blame
- Encourage team to directly communicate with other teams
- Make sure training takes place
- Revisit team goals to make sure they are meaningful
- Help team deal with frustration

Stage 3: Collaboration
- Pull back from day to day tasks
- Allow team to take on more and more of the “old” management role
- Act as a resource, “technical expert on call” for the team
- Delegate decisions
- Continue to provide business information
- Coach/counsel teams

Stage 4: High Performance
- Provides resources for team coordination between shifts, support groups, etc.
- Partner with team
- Allow more autonomy
- Share in long-range/strategic planning
- Rewards and recognizes exemplary performance

Source: Boeing Air Force Systems Employee Involvement Strategy 2003

Courtesy of Boeing. Used with permission.
Personal Values Exercise

• Get the sheet from your packet; spend 5 min to:
  • Grade your personal values
    • A = most important
    • B = important
    • C = least Important
  • Then rank values using the grade as a first sort

• Form 3-4 groups; Each group will arrange these values in rank order; take no more than 10 min.

• Each group will give a 2 minute debrief

• Class discussion

Adapted from Elaine Seat, University of Tennessee, Knoxville
Collaboration in Teams

Benefits

• More ideas and new ideas
• Multiple areas of expertise
• Shared workload
• Stronger problem solving
• Improves design work

Challenges

• Different goals and values
• Not being skilled or practiced in it
• Defensive about work (ego)
• Preconceived Notions
• Different work styles
  • “lone wolf”
  • “I’ll do it”
  • “me, mine”
• Previous unsuccessful collaboration

Source: J. Craig, MIT 16.621 Lecture Notes, Spring 2003

Photo by Hugh McManus

Courtesy of Jennifer Craig. Used with permission.
Three Elements of Collaboration

- **Task** - What is being done together
  - Conceptualizing, problem solving, implementing
- **Process** - How the task will be accomplished
  - Division and scheduling work, coordination, managing time and meetings, draft and revisions
- **Affect** - Feelings about the work based upon:
  - Prior experiences, culture, biases
  - Current experience

Source: J. Craig, MIT 16.621 Lecture Notes, Spring 2003

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How to Meet the Challenges of Collaboration

- Elaborate key ideas in writing and verbally
- Consider alternate ideas/solutions
  - Don’t jump to consensus prematurely
- Pay careful attention to process
- Voice disagreements constructively, directly, and explicitly
- Give positive feedback directly and explicitly

Source: J. Craig, MIT 16.621 Lecture Notes, Spring 2003

Courtesy of Jennifer Craig. Used with permission.
People are the Heart of Lean

- Leadership
- Teamwork
- Communication
- Shared Goals
- Mutual Respect
- Shared Knowledge
What is the most important thing you learned from this module?

Write a short answer on a 3 x 5 card
Reading List


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