

# Indiana High Speed Rail: Reality of the future?

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# Supply Chain Management (SCM)

- SCM – significant for manufacturers, other businesses
- Key component for management
- Difference between success and failure
- SCM succeeds, business succeeds!

# SCM....Fast and Efficient



# SCM....

- What is Supply Chain Management?
- Distribution. Product availability to customers!
- Coca Cola – Key strength? SCM...distribution
- Wal-Mart – Key Strength? SCM...distribution
- Wherever humans are....
- Anecdote...

# SCM....trends?

- **1. Global dynamic environment....today and tomorrow**
  - 9/11 dramatic effects....everything changed
  - 2008 – oil price shot up \$147/barrel
  - Down to \$35/barrel six months later
  - Global challenges....purchasing managers had excess inventory
  - Liquidity concerns, company survival

# SCM...trends

- Today – tremendous growth from emerging economies
- New middle class customers, one billion+, driving demand....raw materials, consumer goods, etc.
- One point of caution....the political stability of these markets can change overnight

# SCM...trends

## Costs!



# SCM....trends

- **2. Focusing on Lower TLC (Total Landed Cost)**
  - all costs from manufacturer to consumer -- raw materials, inventory, transportation, fuel costs, utilities, cost of capital, labor, insurance, etc.
  - For some producers, TLC lower when closer to customer
  - Transportation costs skyrocketing: cookie story

# SCM...trends

- 3. Better Inventory Management/Control (reducing inventory)...Just-in-time/Lean methods



# SCM....trends

- **4. Managing uncertainty and risk**
  - 2001: 9/11
  - 2002: Global Recession
  - 2004: West Coast port shutdown
  - 2005: West Coast capacity crunch
  - 2005: Hurricane Katrina strikes Gulf Coast
  - 2007: Start of Great Recession
  - 2007: Peru Earthquake (8.0; copper and many raw material shortages)
  - 2008: Fuel price spike and global food shortages
  - 2008: Global unrest starts, many primary markets shut down

# SCM....trends

- **2009: Global recession crisis hits highest levels – airlines shut down, 3,000+trucking companies exit the market**
- 2010: Chile earthquake impacts global raw materials sources**
- 2010: Haiti earthquake**
- 2010: Iceland volcano closes European airspace**
- 2010: Oil spill in Gulf of Mexico**
- 2011: Middle East unrest and protests spanning a dozen countries or more**
- 2011: Japan Earthquake**
- 2011: Oil price spike and global food price spike**
- 2012: ?**

# SCM....trends

- Finding alternatives – Tier 1, Tier 2, Tier 3 suppliers
- Contingency plans, especially in crises
- Flexibility and better communication
- Risk management....a major issue
- Managing exchange rate fluctuations
- Dell Computers anecdote....backlog crisis

# SCM....trends

- 5. **Dynamic transportation environment**
  - Truck driver shortages appearing....20,000+ (American Trucking Association)
  - Rising fuel costs
  - Rail – industry favorite (high fuel prices)
  - Container traffic/demand exponentially up – shortage of “container chassis”
  - Rail sector – popular demand increase projected

# SCM....trends

- **6. Supply Chain Flexibility, Integration, Coordination**
  - Information processing and integration
  - Enterprise Management programs like SAP (systems, applications, processes)
  - Mostly used at large multinational organizations
  - New programs BusinessbyDesign –middle/small business organizations

# SCM....trends

- Energy demand increase worldwide
  - Affecting Supply Chain members
  - Energy Supply....deregulation in the U.S.
    - cost competition, alternative service providers in electric and natural gas
    - Many states already deregulated energy, others in process
  - Green supply chain models, LEED, energy efficiency

# Focus Group Session

- **Indiana University Northwest (IUN)/Indiana High Speed Rail Association (INHSRA)**
- “What are the first words that come to your mind when I say high speed rail?” Most frequent responses:
  - Fast
  - Connect ability/Linkage
  - To where/From where
  - Cost
  - Japan

# Focus Group Results....

2. People rated the following items on a scale of 1 – 10, with 1 being “Not Likely” and 10 being “Very Likely”:

# Focus Group Results....

a. How likely will a high speed rail system lead to significant economic development in Indiana?	7.7
b. How likely would you choose high speed rail over airlines for business travel?	8.1
c. How likely would you choose high speed rail over airlines for personal or recreational travel?	7.3
d. How likely would you choose high speed rail over cars for business travel?	8.3
e. How likely would you choose high speed rail over cars for personal or recreational travel?	7.1

# Major benefits/advantages....

Save time	8.3
Reduce highway congestion	8.3
Environment	8.3
Development of infrastructure	8.3
Commercial benefits/new businesses	8.2
Less wasted time	8.2
Time savings	8.1
increase use of Gary Airport	8.0
Air quality improvement	7.8
Job creation	7.7
Energy Savings	7.5
Necessary connectivity	7.4
Enhance NWI Image	7.3
Job access	7.2
New transportation option	7.1
Safer Travel	6.9
Increase Property values/transit oriented development	6.8
Interstate Commerce	6.8
Alternative to air travel	6.7
Reduce travel expense	6.6
Comfort of Travel	6.6
Attracting new residents	6.3
Education	5.6

# Major costs/disadvantages....

Expensive	8.5
Politics	8.2
Sustainability	7.7
Potential Tax Increases	7.2
Maintenance Cost	7.1
Partnership Problems	6.6
Freight Rail Conflict	6.6
Maintenance Responsibility	6.4
Shared Accountability	6.1
Accessibility	6.0
Imbalance of Economic Development	5.7
Increased Congestion	5.3
Lack of National Connectivity	4.9
Emergency Response	4.7
Increased Job Competition	4.7
Elimination of Other Transportation Jobs	4.7
Insurance Costs	4.4
Hurt Gary Airport	4.2

# Major obstacles....

1. Funding options/lack of local funding	9.7
2. Political will (leadership)	9.5
3. Lack of political will	9.3
4. Public support	9.0
5. Competition for state/national	8.3
6. Adjacent state support	7.9
7. Lack of business support	7.8
8. No immediate pay out	7.4
9. Existing improvement needs	7.4
10. Lack of level playing field	7.2
11. Infrastructure inadequacy	7.2
12. Resistance from competition	7.1
13. A culture unfamiliar w/rail travel	7.1
14. Construction priorities	7.1
15. Driving habits	7.0
16. Vacation habits	6.6
17. State/federal regulations	6.6
18. Public fear/opposition	6.5
19. Adequacy of hubs	6.4
20. Resistance from freight railroad	6.2
21. Speed limitations in "Quiet Zones"	6.0
22. Ticket price	6.0
23. Rail product development	5.4

# Top factors to consider.....

- **(#1) Funding options/Lack of local funding**
- **(#2) Political will (Leadership)**
- **(#4) Public support**

# Recommendations....

## **(#1) Funding options/Lack of local funding**

Group Advice:

- Identify the market.
- Costs need to be congruent with beneficiaries.
- Need public and private funding to make it work.
- Need proper accountability.

## **(#2) Political Will (Leadership)**

Group Advice:

- Show that it politically meets everyone's interests.
- Bring businesses on board.
- Need political leaders.
- Fund/obtain lobbyists.
- Foreign oil dependency.
- Political will committees.

## **(#4) Public support**

Group Advice:

- Use Gary airport as transportation hub.
- Pick Specific Constituency to benefit.

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