

Reshoring:

Bringing manufacturing back home now!

NTMA/PMA Purchasing Fair 10/29/10

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Supported today by:



Definitions

- Reshoring: Bringing work back to the U.S.
- Antonym: Offshoring
- Synonyms: Backshoring and Onshoring
- Nearshoring: Includes U.S., Canada & Mexico

Reshoring Initiative Objectives

- **Change the Sourcing Mindset:**
 - From: “Offshored is Cheaper”
 - To: “Local Reduces the total Cost of Ownership.”
- **Train:**
 - OEMs why to source local
 - Vendors how to “sell” local sourcing
- **Do the best we can on the unlevel field now!**

The Industry-Led Initiative Provides

- Free Total Cost of Ownership (TCO) Software for OEMs and vendors
- Online Library of 49 reshoring articles
- Linked NTMA/PMA Purchasing Fairs
- Media coverage: WSJ, USATODAY, IW, CBS, CNBC, etc.

Logical Foundation

60% of manufacturers:

- Apply “rudimentary” total cost models
- Ignore 20% or more of the total cost of offshored products*

51% of companies found no financial benefit in offshoring**

Sources:

* Archstone Consulting survey, American Machinist Mag., 7/16/09

** Supply Chain Solutions, Grant Thornton, Jan. 2010 survey.

TCO Estimator Software: 18 Cost Factors *

- FOB Price
- Packaging
- Duty
- Freight: air, surface, all fees
- Inventory: en-route, cycle, safety stock, obsolete
- Local warehousing
- Travel
- Rework/quality
- Product liability
- IP risk
- Impact on innovation
- Prototype
- Forecast wage inflation and currency appreciation

Example Assumptions: a Part

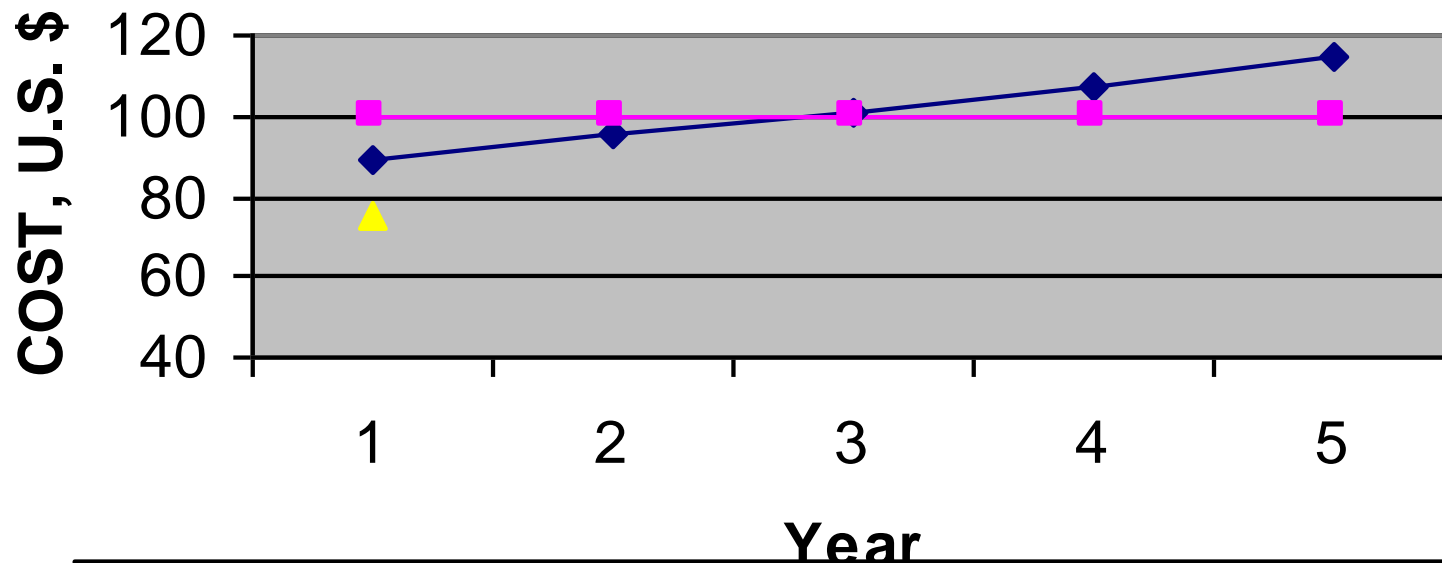
| | |
|--------------------------------------|--------|
| Chinese unit price | \$80 |
| U.S. unit price | \$100 |
| # units/year | 12,000 |
| unit weight, incl. packaging, lbs | 2 |
| shipment size, units | 1,000 |
| product life, yrs | 5 |
| Packaging* | 0 |
| Payment on shipment | Yes |
| Quality* | 2% |

| | |
|--------------------------------|---------|
| Product liability* | 0.50% |
| IP risk* | 2% |
| Innovation* | 0% |
| Trips/yr | 2 |
| Prototype cost* | \$5,000 |
| Obsolescence, mos.* | 2 |
| Wage inflation, annual* | 8% |
| Currency appreciation, annual* | 5% |

* Chinese differential vs. U.S.

TCO Comparison Example: a Part

Comparison of U.S. and China TCO: Parts



—◆— China TCO —■— U.S. TCO —▲— China FOB

Deming on Total Cost *

- “End the practice of awarding business on the basis of price tag. Instead, minimize total cost.”

Source: 4th key principle for management,
“Out of the Crisis”, W. Edwards Deming

Offshoring contributes to Waste

| <u>Toyota Wastes</u> | <u>Offshoring Contributes</u> |
|----------------------|--|
| Overproduction | Large batch shipments |
| Waiting | Uncertain delivery/Inconsistent quality, port, customs |
| Transport | 12,000 mi. inbound, 6,000 return (boat ½ full) |
| Overprocessing | More packing and unpacking |
| Inventory | In transit, cycle, safety stock, uncertain delivery and quality |
| Motion | Large batches require a customer warehouse. Travel, e.g. 2-3 weeks, 2-3X/yr |
| Defects | Much higher than local sources, extra inspection of materials and tolerances |

Offshoring contributes to Instability

- Weather
- Port strikes
- Loss from mishandling
- Language problems
- Pirates *

Offshoring contributes to Overburdening

- Travel
- 2 am phone calls *

Other LLCC supply chain issues

- Impact of large batches and distance:
 - Offshoring → commoditization
 - Reshoring → differentiation

Reshoring Facilitates Clustering

- Innovation
- Partnering
- Communications
- Lean supply chain
- DFMA

Reshoring and Government

- Status:
 - TCO software in Cong. Wolf's HR 5980
 - Discussions with Dep. Assist. Sec. Perez, MEPs, EDA
 - Trying to set up local reshoring tests in Flint, OH, AZ and IL *
 - Encouraging Pres. Obama to broaden focus from exporting to include reshoring!

Initiative Will Affect Policy

- Survey supply chain managers:
 - What cost factors are considered?
 - What is the price elasticity of the offshoring/onshoring decision? *
- Become the **national source** of actionable information on the size, motivation, decision processes and industry mix of U.S. offshoring and reshoring.

Requests of Vendors

- Talk TCO
- Use the Estimator to help customers compare costs

Requests of OEMs

- Try the TCO Estimator
- Help improve the Estimator
- Make sourcing decisions based on TCO, not just price
- Check our Library to see what your industry is doing
- Consider how a stronger home market benefits your sales
- Attend the Fairs!
- Bring some offshored work to the Fairs

Requests of OEMs and Vendors

- Submit successful reshoring cases *
- Good publicity
- Good for the country

Vendors: Maximize the value of proximity: Beat the LLC competitors

- Early Involvement, Partner, DFMA
- Show technology, lean, NTMA 6S Program, automation
- Respond to phone calls timely
- Provide great customer support
- JIT delivery

Vendors: Maximize the value of proximity: Beat the LLCC competitors

- Guarantee delivery
- Help solve assembly issues
- Guarantee the integrity of supply base
- Focus on IP parts
- Automate

Presentations

- 9/28 National Press Club
- 11/11 American Mfg. Summit
- 11/18 AME Annual Convention
- 12/7 AFS Sales Training Session
- 12/9 NTMA/AMBA/BTC, W. MI
- 1/20 PMA Roundtable, Independence
- 3/10 SME Milwaukee Chapter
- 3/30 CAPM Forum, Conn.
- 4/13 or 14 Amerimold, Chicago



For more information on the Fairs

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For more information and to help the
Reshoring Initiative slow the offshoring flood now

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