2005 Update to the Business Case Analysis of the Parachute Industry

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Background

- 2004 National Security Assessment of the U.S. Aerial Delivery Equipment Industry
  - Prepared by the U.S. Department of Commerce
  - 1996 – 2000
  - Scope: Industry-wide; Included Market and Supplier Environments
Background

- 2005 Update to the Business Case Analysis portion of the original study
  - Adds 2001 - 2005
  - Scope: 4 primary producers
Methodology

- Multi-stage process
  - Visited one manufacturer
  - Developed questionnaire and collected consistent data and information
  - Followed up with numerous conversations
Business Case Analysis

Results

- Four general areas
  - Sales
  - Margin
  - Labor
  - Investment
Total Sales Dollars

2001: 58% TOTAL Decrease
Sales Dollars by Category

2001: 67% Defense Decrease

1 Stated in Millions

Defense
Commercial
International
Defense Sales as a Percent of Total Sales

Growing Dependence 60-68%
Average Margin

- High: 3.4%
- Fluctuations: 35% to 500%
- Single Year Declines: of 148%
Labor Statistics

SIGNIFICANT
Workforce Reductions
Loss of Expertise
Eroding Labor Market
Capital Investment\(^1\)

$1,600

$1,200

$800

$400

$0

1996\(^*\) 1998\(^*\) 2000\(^*\) 2002 2004

\(^1\) Stated in Thousands

- Equipment
- Plant
Implications

**TRIGGER**

UNPREDICTABLE DEMAND & LOW MARGINS

**CONSTRAINTS**

1. Constrains technology investment
2. Locks in old costly processes

**RESULTS**

1. Layoff experienced workers
   * Increases costs – inefficiencies, hiring, training
   * 10-12 month learning curve
2. Long lead times
   * Slow delivery
   * Excess inventory costs
   * Ties up precious capital

**IMPLICATIONS**

1. Higher costs . . . to producer . . . To customer
2. Slow delivery
Potential?

- Example: 1 value stream in 1 facility
  - In 2 years:
    - Capacity (units) more than doubled
    - Capacity (square feet) reduced to 69%
  - Reduced Days Supply of Inventory (DSI) from 125 to 61
  - Order to Invoice time fell from 21 to 5 days
  - One year improvement of 17% in sales per employee
Problems?

- Typical change management issues
  - Communications
  - Performance measurement
  - Managing expectations
  - Ensuring security

- Other potential barriers
  - Technology constraints
  - Funding
  - Timing
Research Potential – Supply Chain

- Document problems, barriers, implementation and results
  - Ideal supply chain
    - Well-defined
    - Critical
Research Implications

- **Customer**
  - Results of the study impact other Defense supply chains

- **Supply Chain**
  - Better communications and awareness
  - Identify potential barriers
  - Identification and development of the best metrics to track progress and impact of changes
Baseline Research

- During this slow period, we can
  - Baseline metrics
  - Identify potential barriers
  - Quantify holding capital

- This initial phase could inform actual implementation
Questions and Discussion?

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