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Generating Business Value From Information Technology

Jeanne W. Ross
Director & Principal Research Scientist
Center for Information Systems Research (CISR)
MIT Sloan School of Management
The Delta Air Lines Story

1997 As-is
- 17 functional silos
- 17 IT units
- 17 major platforms
- 17 answers to a single customer question

1997 To-be
- Process view of the firm
- Corporate infrastructure to support cross-functional processes
- Standardized environment
- Focus on customer

In 1997, Delta was worst performing airline on key metrics, such as on-time performance, mishandled baggage, and customer complaints.
Delta’s Unification Operating Model

Operational Pipeline

- Allocate Resources
- Prepare for Flight Departure
- Load Aircraft
- Flight Departure and Closeout
- Monitor Flight
- Flight Arrival and Closeout
- Unload Aircraft
- Clean/Service Aircraft

Delta Nervous System

Electronic Events

- Location
- Flight
- Schedule
- Maint.

Nine Core Databases

- Equip.
- Employee
- Aircraft
- Customer
- Ticket

Business Reflexes

- Pagers
- Voice
- Video

- Cell Phones
- Desktops

- Gate Readers
- Kiosks
- Hand Holds

- PDAs
- Reservation Systems

Customer Experience

- Skylinks
- Skymiles
- Reservations
- Travel Agent
- Skycap
- Ticket Counter
- Crown Room
- Boarding
- Inflight
- Baggage

- Personalization
- Digital Relationships
- Loyalty Programs
Discussion Questions

- What did Delta do right in its transformation efforts?
- What risks did Delta take on as a result of the Delta Nervous System project?
- How did Delta's approach to going from Worst to First compare with Continental's?
## Comparative Financials for Continental and Delta

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<tbody>
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<td><strong>Continental</strong></td>
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<tr>
<td>Operating Revenue</td>
<td>$14,232</td>
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<td>Operating Income</td>
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<td>(238)</td>
<td>188</td>
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<td><strong>Delta</strong></td>
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<tr>
<td>Operating Revenue</td>
<td>$13,358(^1)</td>
<td>$17,532</td>
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<td>796(^1)</td>
<td>58</td>
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### Current Market Cap:
- Delta: $1.55 B
- Continental: $1.24 B

\(^1\) Delta 2007 figures are for first 8 months of fiscal year
Market Comparison for Delta and Continental

Figure by MIT OpenCourseWare.
Contrasting Approaches to "Fixing" Operating Data

- Ripping out legacy and installing new systems presents the challenge of the "big bang" (i.e. risky, high-cost implementation).
- Installing "fixes" like data warehouses and web services presents the challenge of constant maintenance (i.e., costly upkeep).
- Fixing applications provides opportunities for operational efficiencies. Fixing data warehouse provides opportunities for decision support.
- Both approaches allow a firm to operate the way it wants to operate.
- Both approaches demand business process changes to drive value.
Key Findings on the Information Explosion

- Data storage requirements are growing
  - Granular operating data
  - Unstructured data, video, wikis, email, images
- Technology solutions can manage costs and risks—but that's the easy part
- Don't assume that putting good information in the hands of smart people = business value
  - Identify what is sacred/core
  - Define clear business goals
  - Insist on definitive costs and benefits
  - Change something