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15.571 Generating Business Value from Information Technology Spring 2009

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Class 8: The Data Driven Organization

15.571 Generating Business Value From Information Technology

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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



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Source: e-Business at Delta Air Lines, Jeanne W. Ross, MIT CISR Working Paper #317, 2001.

Delta's Unification Operating Model



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MANAGEMENT

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

	2007	2006	2005	2004	2003
Continental					
Operating Revenue	\$14,232	\$13,128	\$11,208	\$9,899	\$9,001
Operating Income	687	468	(39)	(238)	188
Delta					
Operating Revenue	\$13,358 ¹	\$17,532	\$16,480	\$15,235	\$14,308
Operating Income	7 96 ¹	58	(2,001)	(3,308)	(785)

Current Market Cap:
Delta: \$1.55 B
Continental: \$1.24 B

¹ Delta 2007 figures are for first 8 months of fiscal year



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Market Comparison for Delta and Continental



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

