Class 3: The Operating Model

15.571
Generating Business Value From Information Technology

Jeanne W. Ross
Director & Principal Research Scientist
Center for Information Systems Research (CISR)
MIT Sloan School of Management
Agenda

- Defining an Operating Model
  - Four alternatives
  - Differing requirements of the four operating models
- Visualizing Operating Model Requirements in a High Level Graphic
- The Multiple Operating Models of Complex Organizations
- An Evolutionary Approach to Changing Operating Models
- Operating Model Lessons from Top Performers
An operating model provides long-term IT requirements

- A firm’s operating model is: the desired level of business process integration and business process standardization for delivering goods and services to customers.
- The operating model describes how a firm will profit and grow.
There Are Four Operating Models

<table>
<thead>
<tr>
<th>High</th>
<th>Coordination</th>
<th>Unification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Unique business units with a need to know each other’s transactions</td>
<td>- Single business with global process standards and global data access</td>
</tr>
<tr>
<td></td>
<td>- Examples: Merrill Lynch GPC, PepsiAmericas, MetLife</td>
<td>- Examples: Delta Air Lines, Dow Chemical, UPS Package Delivery</td>
</tr>
<tr>
<td></td>
<td>- <strong>Key IT capability:</strong> access to shared data, through standard technology interfaces</td>
<td>- <strong>Key IT capability:</strong> enterprise systems reinforcing standard processes and providing global data access</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low</th>
<th>Diversification</th>
<th>Replication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Independent business units with different customers and expertise</td>
<td>- Independent but similar business units</td>
</tr>
<tr>
<td></td>
<td>- Examples: Johnson &amp; Johnson, GE, ING</td>
<td>- Examples: Marriott, CEMEX, ING DIRECT</td>
</tr>
<tr>
<td></td>
<td>- <strong>Key IT capability:</strong> provide economies of scale without limiting independence</td>
<td>- <strong>Key IT capability:</strong> provide standard infrastructure and application components for global efficiencies</td>
</tr>
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</table>

Business Process Integration vs. Business Process Standardization

Different Standardization Requirements of the Four Operating Models

- **Coordination**
  - Customer and product data
  - Shared services
  - Infrastructure, portal, and middleware technology

- **Unification**
  - Operational and decision making processes
  - Customer and product data
  - Shared services
  - Infrastructure technology and application systems

- **Diversification**
  - Shared services
  - Infrastructure technology

- **Replication**
  - Operational processes
  - Shared services
  - Infrastructure technology and application systems

Delta’s Unification Operating Model

Operational Pipeline

Allocates 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.
 Equip. | Employee | Aircraft | Customer | Ticket

Nine Core Databases

Delta’s Unification Operating Model

Business Reflexes

Pagers | Voice | Video

Employee Relationship Management

Cell Phones | Desktops

Customer Experience

Skylines | Skymiles | Reservations | Travel Agent | Skycap | Ticket Counter | Crown Room | Boarding | Inflight | Baggage

Personalization | Digital Relationships | Loyalty Programs

Source: Adapted from Delta Air Lines documents. Used with permission.
P&G's Diversification Operating Model

250 Brands

GBS Shared Solutions

- Strong marketing and customer focus
- Ownership of unique business processes
- Product and service innovation and delivery

- Catalogue of services—some mandatory, some optional
- Marketing approach to build “brand” awareness and loyalty to GBS services
- Ownership of shared solution business processes
- Unit price management with guaranteed reductions over time
- Scorecard of GBS performance with variable compensation
- Architecture interconnecting the different solutions to be building blocks for innovation
- New product development group to add new solutions
- Management of outsourcing partners
## P&G's Diversification Operating Model (cont'd)

### P&G Global Business Services—Employee Services & Solutions

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Services</td>
<td>Pay, benefits, policies, career development, work plans</td>
</tr>
<tr>
<td>People Management</td>
<td>Compensation planning, relocation, employee management tools</td>
</tr>
<tr>
<td>Facilities</td>
<td>Office moves, conveniences: banking, dining, fitness centers, mail &amp; documents</td>
</tr>
<tr>
<td>Computers &amp; Communications</td>
<td>PCs, e-mail, mobile phones, Intranet, service support</td>
</tr>
<tr>
<td>Meetings</td>
<td>Rooms, technology &amp; scheduling, audio &amp; video conferencing, events</td>
</tr>
<tr>
<td>Travel</td>
<td>Booking, expense accounting, credit cards, group meetings</td>
</tr>
</tbody>
</table>

### P&G Global Business Services—Business Services & Solutions

<table>
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<tr>
<th>Service</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchases</td>
<td>Strategic sourcing, supplier relationship management, procurement service</td>
</tr>
<tr>
<td>Financial Services &amp; Solutions</td>
<td>General ledger, affiliate accounting, product/fixed asset accounting, expense, sales/marketing accounting, purchases-to-payment (include accounts payable), banking, financial reporting</td>
</tr>
<tr>
<td>Product Innovation</td>
<td>Bioinformatics systems, product imaging &amp; modeling systems</td>
</tr>
<tr>
<td>Supply Network Solutions</td>
<td>Demand planning systems, total order management, physical distance systems</td>
</tr>
<tr>
<td>Consumer Solutions</td>
<td>Prime prospect research, CRM systems, advertising &amp; media measurement</td>
</tr>
<tr>
<td>Customer Solutions</td>
<td>Shopper intelligence, in-store action planning, trade fund management systems</td>
</tr>
<tr>
<td>Initiative Management</td>
<td>Technical package &amp; materials design, package artwork process, portfolio tracking &amp; reporting</td>
</tr>
<tr>
<td>Business Performance Solutions</td>
<td>Decision cockpits, market mix modeling, competitive intelligence, ad-hoc business analyses</td>
</tr>
</tbody>
</table>
MetLife’s Coordination Operating Model

Application Presentation Tier

Customer
Producer
Sales Office
Underwriter
Call Center
Service Provider

Portal: Presentation Integration
Sign-On
Navigation
Search
Sessions
Sign-On
Navigation
Search
Sessions

Screen Entry & Validation
Marketing
Illustrations
Order Entry
Underwriting
Billing/Payment
Service
Eligibility
Claims

Portal: Presentation Integration
Screen Entry & Validation
Marketing
Illustrations
Order Entry
Underwriting
Billing/Payment
Service
Eligibility
Claims

Application Business Logic and Data Tier

Security & Entitlements
Licensing
Rates & Calcs
Suitability
Forms & Requirements
Business Rules
Party Management
Underwriting & Issue
Product Admin
Events
Service Recording
Workflow

Integration Hub

ACORD XML
ACORD JLife
ACORD XML

Partner Portals

Center for Information Systems Research (CISR)  Source: Adapted from MetLife documents. Used with permission.
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ING DIRECT’s Replication Operating Model

External Services
- Prospect Fulfillment
- Statement Fulfillment
- Payments
- Checks
- Reports Local/HQ/Tax

Customer Relationship Services
- CIF
- CRM
- Contact History
- Product Info

Core Banking Services
- Mutual Funds
- Brokerage
- Banking Engine
- Credit Score

Common Business Services
- Transactions
- Customers
- Products
- Services

Channel Services
- IVR/CTI Server
- Imaging Server
- E-mail Server
- Web Server
- Gateway Server

Customer Contact:
Call Center, IVR, E-mail, Direct Mail

Self-Service:
Internet, MinTel, ATM, WAP, (WebTV)

Johnson & Johnson’s Multiple Operating Models

Legend
- Corporate
- Business Segment
- Regional Business
- Operating Company

Source: Researcher approximation based on historical data.
Target Operating Model of One Full-Service Bank

- **Coordination**
  - Corporate/Wholesale
  - Retail Banking

- **Unification**
  - Insurance
  - Credit Card
  - Auto Loans
  - Cons. Finance
  - Branche
  - Mutual Funds
  - Brokerage
  - Cash Mgmt.

- **Diversification**
  - Investment Banking & Treasury
  - Bank-wide

- **Replication**
Aspirations of the Retail Banking Head at the Full-Service Bank

- **Coordination**
  - Corporate/Wholesale

- **Unification**
  - Retail Banking
    - Credit Card
    - Branches
    - Investments

- **Diversification**
  - Investment Banking & Treasury

- **Replication**
  - Bank-wide
  - Mutual Funds
  - Loans
  - Brokerage
  - Cash Mgmt.

Source: Researchers’ assessment of one bank’s operating models.
Business Transformation at Toyota Europe

Toyota Motor Marketing Europe 2002

- Sales growing dramatically:
  - 384,000 units in 1995
  - 727,000 units in 2002

- Toyota Europe structured as 28 independently managed country operations:
  - Cars and parts ordered from 9 European manufacturing plants
  - All product and spare parts inventories managed within countries
  - Little transparency of supply and demand
  - Different systems and processes in each country

- Operating loss FY 2002 ¥9.9B

Source: Presentation by Peter Heinckiens, Chief Architect, Toyota Motor Marketing Europe to IMD OWP Program, June 30, 2005.
Toyota's Operating Model Transitions

**High Business Process Integration, Low Business Process Standardization**
- **Coordination**
  - "Required": Transparency for Virtual Supply and Demand Chain
  - Unique business units with a need to know
  - Examples of P&G, GE, ING
  - Key IT role: sharing data, through new technology interfaces

**Low Business Process Integration, High Business Process Standardization**
- **Replication**
  - Independent but similar business units
  - Examples: Marriott, CEMEX, ING DIRECT
  - Key IT capability: provide standard infrastructure and application components for global efficiencies

**1999 Position: Decentralized Independent Country Operations**
- Low Business Process Integration, Low Business Process Standardization

**Unified Business Process Integration, High Business Process Standardization**
- **Unification**
  - "Desirable": Standardized Systems to Reduce Cost
  - Single business unit, global process standard
  - Examples of IBM, Toyota
  - Key IT role: reinforcing core processes and providing global data access

## Toyota Europe's Transformation

<table>
<thead>
<tr>
<th>Year</th>
<th>Units Sold</th>
<th>Revenue (€)</th>
<th>Operating Income (€)</th>
<th>Business Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>727,000</td>
<td>1,266B</td>
<td>(9.9B)</td>
<td>28 autonomous marketing companies, 9 manufacturing facilities</td>
</tr>
<tr>
<td>2004</td>
<td>898,000</td>
<td>2,164B</td>
<td>72.5B</td>
<td>European delivery lead time for vehicles reduced 35%, Inventory of spare parts reduced by almost 50%, Operating income: 3.5% of sales</td>
</tr>
<tr>
<td>2008</td>
<td>1,284,000</td>
<td>3,993B</td>
<td>141B</td>
<td>Reorganized as Toyota Europe</td>
</tr>
</tbody>
</table>
Target Operating Models


Source, Business Executive Percentages: 107 Senior Executives—Attendees of MIT Sloan's "IT for the Non IT Executive Program" December 2007 and April 2008 - typical titles: CEO, CFO, BU Heads, EVP operations, President, CIOs, VP Business Services.

Source, IT Executive Percentages: Survey of 70 IT executives—mostly CIOs and CIO reports from Fortune 500 companies, Spring 2006.
Operating Model Lessons from Top Performers

- **Make Tough Choices**
  An operating model is a commitment to a way of doing business. It involves eliminating some strategic options in order to better deliver on others.

- **Consider the Off-Diagonals**
  As firms seek more integration and standardization the Coordination and Replication models allow for more rapid implementation and payback than the Unification model.

- **Prepare for a Transformation**
  Transitioning from one operating model to another will always involve a transformation. Small steps toward the targeted operating model can make changes more evolutionary than revolutionary.

- **There is No Substitute for Strong Senior Management Leadership**
  Firms getting strategic business benefits from an operating model have senior business leaders who are actively involved in its design, management and implementation.