NBA 600: Day 8
Differentiating IT
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Today’s Class

- Role of the Internet in IBM’s transition from vertically integrated to open standards
  - First short paper assignment
- IT and productivity
  - Continue discussion of McKinsey report
  - Retail banking sector
  - Lessons from report in terms of strategy and IT
  - Additional companies and industry segments with this framework
    - Fedex
Main Points Made in Papers

- Shift to open systems approach resulted from failure of old vertical model
  - Customers had been moving away for years
- Only viable means for IBM to still “provide everything to everybody”
  - Couldn’t actually be provider but could be coordinator and integrator
- Internet large factor in success of strategy
  - High degree of change and uncertainty
- B-web style tightly integrated partnering not a significant factor
Some Specific Points

- Gerstner came in wanting to focus IBM on service rather than their products
  - IBM as the customer’s partner in solving their IT problems
- Internet provided huge service opportunity
  - Companies trying to figure out what to do
- Internet leveled playing field for IBM
  - E.g., others were experts in client-server, etc.
- IBM only recently trying to integrate more tightly with its business partners
Additional Specific Points

- IBM’s experience with OS/2 led them to understand importance of networking
  - Important role in their quick grasp of Internet
- Internet substantially lowers cost of close collaboration with partners
  - But little specific evidence in case of IBM
  - Others such as Cisco clearer example
- Accelerating rate of change in IBM strategy
Necessary vs. Differentiating

- Two different roles for IT
  - Necessary for doing business
  - Enabling differentiation from competitors
- **Necessary IT** managed for reliability, security, cost
  - Formerly differentiating
  - Industry standards or shared resources
- **Differentiating IT** requires clear strategic understanding
  - How quickly evolve to being necessary
Differentiating IT

- In retail sector
  - Primarily available to large general merchandise firms
  - Better knowledge of customers, inventory, ties to vendors
  - Online retail?
    - Consider e-commerce in another week

- Retail banking
  - Less evident, consider in more detail

- Other sectors where prominent examples?
  - Package freight, ...
Retail Banking

- Saw decrease in productivity growth rates despite increase in IT investment
  - But high productivity growth rate overall compared to other industries
- “One time” issues
  - Substantial M&A activity in 1990’s
    - Sometimes high IT expenses, e.g., BankOne
    - Y2K spending
- Isolated competitive advantages
  - Citi credit card platform extended to loans
  - Fifth-third lower cost platform
Structural Issues

- Relatively large industry-wide investments
  - Payment processing
  - ATM networks
  - Fraud detection for checks and credit cards

- High customer acquisition costs
  - Motivation to match whatever competitors provide
  - Led to high cost investments
    - CRM systems, which also have been low value at least so far
    - Additional channel, Internet
Necessary IT

- Yielded substantial productivity and often also service improvements in select areas
  - Voice response systems for call centers
    - More transactions and faster resolution
  - Lending systems
    - More transactions and higher quality decisions
- Increasingly multi-channel interactions are requiring large changes
  - IT architecture and business process formerly organized around products and channels
  - Cross-product cross-channel view important
Example: Air Freight

- In 1970’s specialized, fractured business
  - Not readily available to individual consumers
  - No clearly defined value proposition over ground transport (e.g., UPS)

- Fedex started with idea of guaranteed delivery: “absolutely, positively overnight”
  - Focused on building air network that could provide this
    - Introduced hub and spoke system
    - Drove de-regulation
  - Quickly saw that information systems were critical as well
Fedex Information Systems

- As early as 1979 founder Fred Smith said
  - “The information about a package is as important as the delivery of the package itself.”
- Systems designed to share information with the customer not just internal use
  - Initially technology costs limited this to customers who did substantial business
    - In 1980’s Fedex developed and distributed custom PC based software for package origination
    - Gave 100,000 PC’s to large customers making customer base into an electronic network
    - Exponential growth from ’81-’86
Direct Customer Access at Fedex

- Lowered costs because customers prepared manifests and sent electronically
  - Often lower cost for customer too when connected to their in-house software
- Provided customers with more control, information and ease of use
- Allowed for more complex billing models
- Value to customer increased by exposing Fedex’s internal information
  - Package tracking made available
  - Starting in 1986 handheld scanners recorded every movement of a package
Internet Enabled Universal Access

- Internet not a strategy shift for Fedex
  - Lowered cost enabled wider range of customers to be reached
- In 1994 became first Web site to enable customers to track status of packages
  - Rudimentary software “scripts” to tie site to mainframe package tracking system
- Rapidly evolved into Internet based access for large as well as small customers
- Tracking became major value to end consumers
  - Retailers began offering order tracking
Role of IT at FedEx

- Viewed as critical to business both strategically and operationally
  - Enables strategy that information about the package is as important as the package
    • Creates competitive advantage
    • Drives excellence (no hiding from customer)
  - Arguably has been critical to rapid growth
  - Sub-committee of board specifically on IT

- In contrast many companies view IT as operational but not strategic
  - Is package delivery special?
Fedex Strategy Predates Internet

- Information should be made broadly available to customers
  - As valuable as the delivery itself – half of what Fedex is selling its customers
  - Opposite of Porter’s lament about the Internet
    - Customers getting too much information

- Fedex was not only ready for this shift they were looking forward to it
  - UPS has been smart enough to follow along and both have benefited
  - How important was this readiness to success of online commerce more broadly?
Fedex and UPS

- UPS is the largest package delivery service in North America
  - About 13.6M versus 3M packages per day avg.
- While Fedex tends to be information technology leader UPS is aggressive
  - Rapidly rolls out new information services
- Both companies have air and ground services
  - Until recently different emphases
- High cost business for others to enter
Fedex Today

- Do they have clear value proposition over other package freight companies?
- How has package freight industry changed with rise of Internet?
  - E-commerce
  - E-mail
- Narrow gaps between Fedex and competitors’ systems
  - What untapped information value remains in the business?
Competitive Advantage

- From differentiating to necessary IT
  - Took 25 years for Fedex to lose their clear IT superiority over UPS
- Continued differentiation required substantial ongoing innovation
  - Large changes in technology every few years
- During that time gained them
  - Clear value – “absolutely, positively”
  - Higher customer value and loyalty
  - Market segmentation revenue opportunities
Some Broader Lessons

- Recognizing the value of information as a part of a product or service
  - First to see how to increase that value
  - New entrant can have advantage if driven by clear business value goals
    - Have to build some infrastructure, build a better one than competitors
  - Execution, execution, execution

- Bringing customers inside your business
  - Creating value by sharing information to and from the customer
Next Week

- Bringing customers inside the business
  - “On demand”, “real time” IT systems
  - High risk reward

- Readings
  - SABRE
    www.cscresearchservices.com/foundation/library/113/RP02.asp
  - Harrell travel report
    www.consumerwebwatch.org/news/2_harrell.htm
  - Dell online case study
    www.gsb.stanford.edu/cebc/pdfs/EC-17_Dell_Direct.pdf