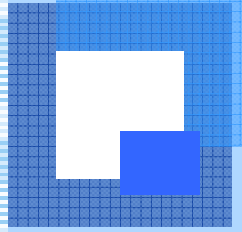


# *Chapter 12*

## *Economic Decision Making in the 21st Century: The “Old” Economics of the “New Economy.”*

*Managerial Economics: Economic  
Tools for Today’s Decision Makers, 4/e  
By Paul Keat and Philip Young*



# Economic Decision Making in the 21<sup>st</sup> Century

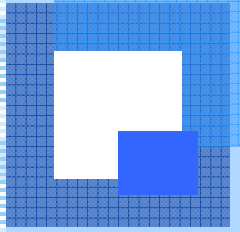
- Introduction
- Brief History and Overview of the Internet
- Two Business Models: B2B and B2C
- Economic Fundamentals
- Application of Old Economy Concepts to New Economy Businesses



# Introduction

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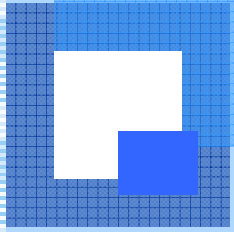
- Two Primary Objectives
  - Examine the challenges for managers caused by the development of the Internet
    - “New Economy” vs. “Old Economy”
  - Suggest ways in which the analytical tools of the “old economy” can be applied to the “new economy”



# Introduction

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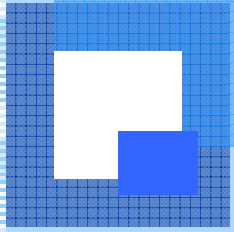
- “New Economy” refers to the myriad of new business models and activities made possible by the Internet and the World Wide Web
- “New business models” refers to “new” ways to make money made possible by the Internet and the World Wide Web



# Introduction

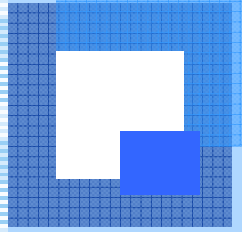
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- Early entrants focused on the domination of “marketspace”
- Focus was on acquiring the largest number of “hits” and worry about generating revenue and profit later.
- Example: AOL



# Brief History and Overview of the Internet

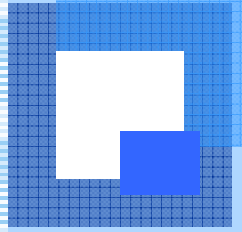
- Early Beginnings
  - DARPA
    - Department of Defense's Advanced Research Projects Agency
    - How to share information securely and efficiently
  - ARPANET
    - Packet switching technology
  - As network grew the term Internet began to be used (1984)



# Brief History and Overview of the Internet

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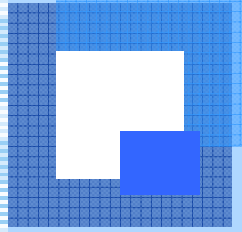
- Early Beginnings
  - In 1987 management of Internet moved from Department of Defense to National Science Foundation
  - In 1995 management was transferred from the National Science Foundation to commercial entities: Sprint, UUNET, Cable & Wireless, etc.



# Brief History and Overview of the Internet

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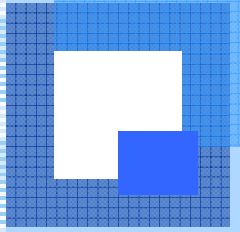
- The World Wide Web
  - Created in 1989 by Tim Berners-Lee at the European Laboratory for Particle Physics (CERN)
  - Allowed transmission of information other than text including video, audio and color.
  - Allowed a mode of simple navigation



# Brief History and Overview of the Internet

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- Web Browsers
  - Enabled users to find web sites easily by using simple address commands or bookmarks
  - Mosaic
  - Netscape
  - Microsoft's Internet Explorer
  - Microsoft vs. AOL-Time Warner



# Brief History and Overview of the Internet

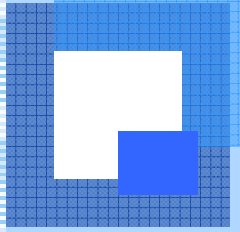
- Internet Infrastructure
  - Arrangement of interconnected networks owned by many separate firms that span the globe.
  - Major network service providers:
    - AT&T, Cable & Wireless, Sprint, Genuity, Verio, Qwest
  - Major network hardware providers:
    - Cisco, Nortel, Lucent, Corning



# Brief History and Overview of the Internet

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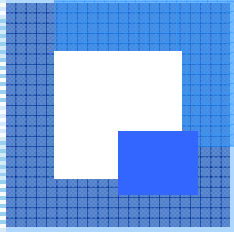
- Interface Between Service Providers and Users
  - Connection of networks accomplished through network access points
    - New Jersey, Washington, D.C., Chicago and San Francisco
    - Development of private network access points



# Brief History and Overview of the Internet

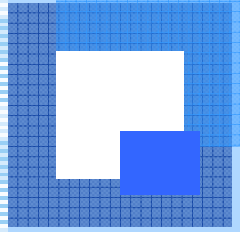
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- Interface Between Service Providers and Users
  - Content Delivery Network (CDN)
    - Enables content to load faster.
    - Caching



# Brief History and Overview of the Internet

- Gateways to the World Wide Web
  - Internet Service Providers (ISPs)
    - Offer Internet access, email, domain registration, Web page hosting and design.
    - Sprint, AT&T, MindSpring, NetZero
  - Portals
    - The site that greets the user when they first go online.
    - Dominant firm is AOL-Time Warner
  - Search Engines
    - Ask Jeeves, Inc., Northern Light, Google



# Brief History and Overview of the Internet

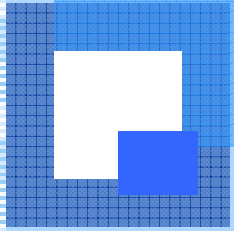
- e-Commerce and e-Business
  - No agreed upon definitions

A well-respected business consultant with many years of experience first with IBM and later with Deloitte Consultants has this to say about these two “e-terms”:

There are 2.74568 very precise definitions of e-business for every player in the field. Mapping the nature, structures, and differences between e-Commerce and e-Business has become a subculture all its own . . .

Here’s what we believe is the major difference between e-Commerce and e-Business. E-Commerce uses the Internet primarily as a means of conducting sales transactions, especially for consumers. E-Business leverages new and existing technologies to interact, transact, and collaborate with members of the organization’s entire value chain.<sup>10</sup>

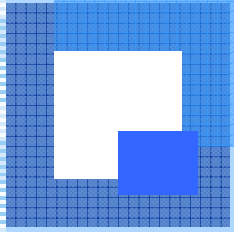
<sup>10</sup>Harry B. DeMaio, *B2B and Beyond: New Business Models Built on Trust*, New York: John Wiley & Sons, 2001, p. 10.



# B2C and B2B

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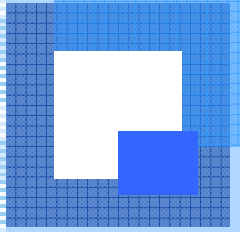
- B2C
  - Business to Consumer
  - Utilize the Internet and World Wide Web to sell goods and services directly to consumers.
  - From “brick and mortar” to “click and mortar”
  - e-retailers
    - Data warehousing
    - Data mining
  - Amazon.com



# B2C and B2B

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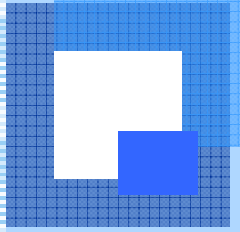
- B2B
  - Business to Business
  - Internet transactions among businesses.
  - Reduce transactions costs between businesses.
  - Sharing of data, services, applications and infrastructure.
  - Booz-Allen & Hamilton divide B2B activity into 3 ownership models, 6 basic service offerings, and 24 traditional segments.



# B2C and B2B

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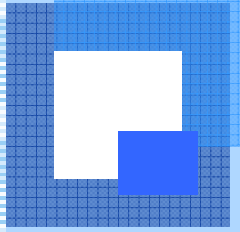
- B2B Ownership Models
  - Type I: The Independent or “Pure-Play” e-Marketplace
    - Provides a forum where firms can interact with each other online.
    - AutoTradeCenter.com
    - Most common ownership type. (92%)



## B2C and B2B

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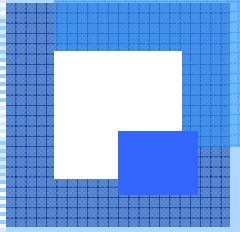
- B2B Ownership Models
  - Type II: The Consortium
    - A forum for the exchange goods and services
    - Aeroxchange, Covisint LLC, Trade-Ranger, Transora
    - 5% of the industry



# B2C and B2B

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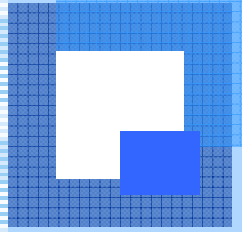
- B2B Ownership Models
  - Type III: The Private Network
    - Exclusive use of a single owner to facilitate supply-chain management
    - Dell, Wal-mart
    - Newest ownership type



# B2C and B2B

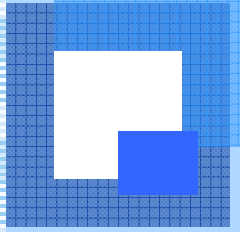
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- B2B Core Services
  - Information Exchange
  - Digital Catalogs
  - Online Auctions
  - Logistics Services
  - Supply Chain Planning
  - Design Collaboration



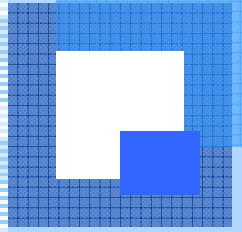
# Economic Fundamentals of the New Economy

- The Goals of a Firm
  - Build market share or at least “mindshare”
  - However, lack of attention on profitability caused many dot.coms to go out of business.
- Estimation and Forecasting of Demand
  - Overconfidence in market potential.
  - Lack of comparable products or historical data to perform a reliable forecast.



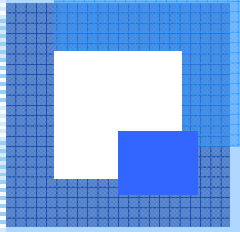
# Economic Fundamentals of the New Economy

- Price Elasticity
  - Complications
    - New product
    - Determining the right price points
- Cross-Price Elasticity and Pricing Tactics
  - Offer free services and sell ad space and assess “click-through” fees
  - Bundling of free and pay services



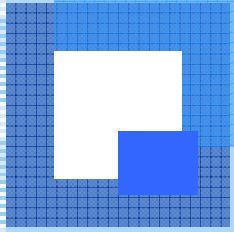
# Economic Fundamentals of the New Economy

- Break-even Analysis and Operating Leverage
  - Internet based businesses appeared to have a distinct advantage over traditional retailers through their lower fixed costs and much lower marginal costs.
  - However, fixed costs and variable costs turned out to be higher than expected. This led to the failure of many dot.coms



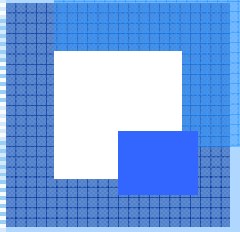
# Application of Old Economy Concepts

- Case 1: Amazon.com
  - Setting
    - Launched in 1995
    - Initial stock price about \$2 per share
    - Rose to over \$80 per share in two years
    - In 2001 stock price back around \$2 per share.
    - Had not shown a profit by late 2001.



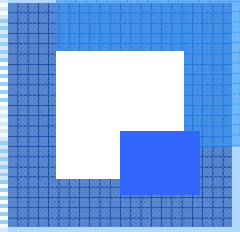
# Application of Old Economy Concepts

- Case 1: Amazon.com
  - Analysis
    - Importance of price elasticity
      - Offering significant discounts allowed Amazon to increase traffic from its own customers (own price elasticity) and lure customers away from competitors such as Barnes and Noble (cross price elasticity)
    - Revenues from book sales rose.



# Application of Old Economy Concepts

- Analysis
  - Importance of operating leverage
    - One of the supposed strengths of online commerce was the low fixed costs compared to “brick and mortar” retailers.
    - Originally, Amazon’s inventory was held by the publishers and Amazon had to pay near wholesale prices for the books. This squeezed profit margins too thin.
    - Amazon invested in its own warehouses which led to significantly higher fixed costs.
    - Higher fixed costs means higher volume to break even.
    - Amazon started selling other items; CDs, toys, appliances, etc.
  - Online mall concept to service company



# Application of Old Economy Concepts

- Case 2: Yahoo!
- Setting

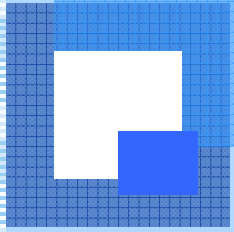
Yahoo! began as a study hobby and evolved into a global brand that has changed the way people communicate with each other, find and access information and purchase things. The two founders of Yahoo!, David Filo and Jerry Yang, Ph.D. candidates in Electrical Engineering at Stanford University, started their guide in a campus trailer in February 1994 as a way to keep track of their personal interests on the Internet. Before long they were spending more time on their home-brewed lists of favorite links than on their doctoral dissertations. Eventually, Jerry and David's lists became too long and unwieldy, and they broke them out into categories. When the categories became too full, they developed subcategories . . . and the core concept behind Yahoo! was born.<sup>24</sup>

<sup>24</sup>Yahoo Web site homepage.



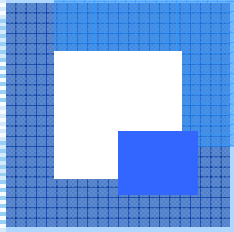
# Application of Old Economy Concepts

- Setting
  - Began in 1995
  - Showed profit in 3<sup>rd</sup> quarter 1998
  - Stock price opened at \$2.75 per share reached an all time high of \$250 per share and late in 2001 was around \$8 per share.
  - Offers search engine and directory services, news, online shopping, and online classified ads.
  - 200 million visitors per month, 24 international sites, 13 languages.



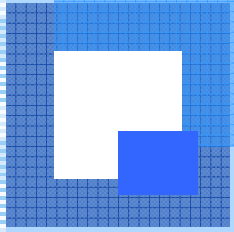
# Application of Old Economy Concepts

- Analysis
  - 80% of company's revenue is derived from advertising.
  - High operating leverage and failure of many of its advertisers lead to considerable problems.
  - New CEO set goals of reducing dependence on advertising revenues.
  - Replacement revenues are proposed to come from fee-for-service items such as streaming video, auction listings, and charging heavy users of its web-hosting services.
  - The amount of incremental revenue generated by Yahoo! will depend on the elasticity of demand for these products.



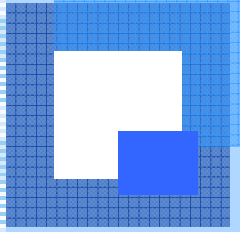
# Application of Old Economy Concepts

- Case 3: Webvan and Peapod.com
  - Setting
    - Online grocery stores
    - Webvan shipped goods from their own warehouses
    - Peapod.com formed alliances with supermarkets and used their inventory
    - Webvan had achieved a market capitalization of \$8 billion but shut down operations in August 2001
    - Peapod.com was acquired by a Dutch supermarket chain.
    - Other firms have withdrawn from the online grocer marketplace.



# Application of Old Economy Concepts

- Analysis
  - Why did the online grocer marketplace fail to develop?
    - “industry gross margins are too low to cover the additional costs of delivering the last mile to the consumer and consumers are unwilling to pay the full costs of filling their orders.” (Nirmalya Kumarisa, “Can Online Grocery Retailing Ever be Profitable? Lessons from the Bleeding Edge of e-Commerce,” Perspectives for Managers, IMD, No. 78, Feb 2001. p. 1)



# Application of Old Economy Concepts

- Using Professor Kumarisa as a source:
  - Typical supermarket gross profit margin is 25%.
  - Typical online order is \$100
    - Gross profit of \$25
  - Picking and packing costs ranged from \$5-\$15 per order
  - Transportation costs averaged \$10 per order
  - All this implies very low profit margin for the online grocer.
  - This coupled with the huge marketing costs associated with establishing a market presence, the staff expenses for web masters, programmers, and tech support, not to mention the costs associated with warehousing merchandise, led the online grocers over the edge.