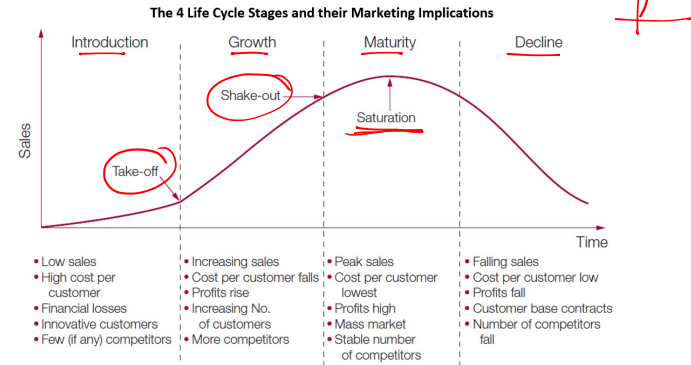


## Learning Objectives

- Product Life Cycle ✓
- Strategic Groups
- Industry Transformation
- Innovation and Change
- Product and Process Innovation

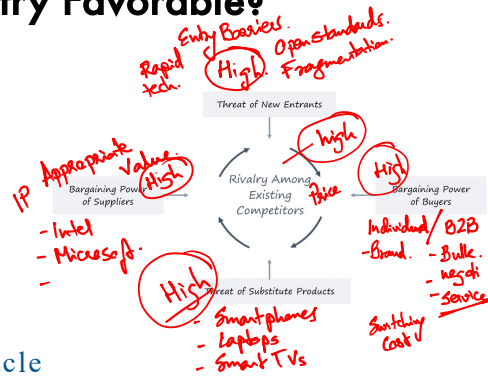
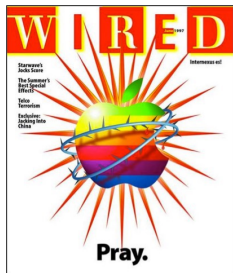
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## Product Life Cycle



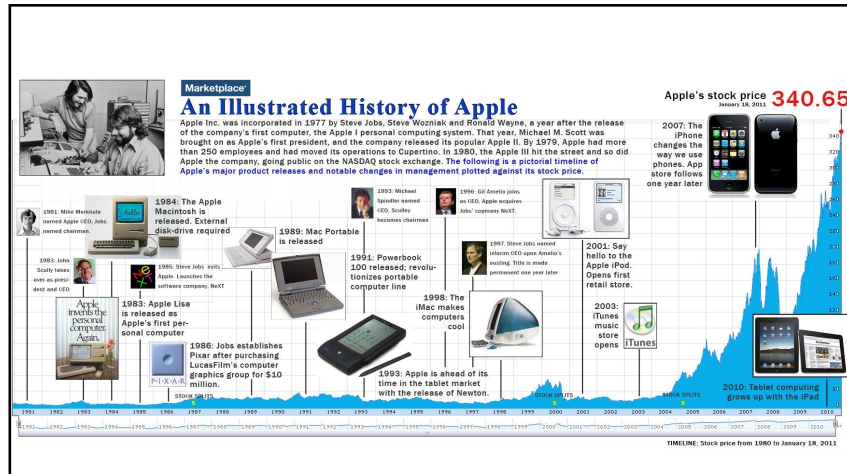
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## Is the PC Industry Favorable?



1996 – the Apple debacle

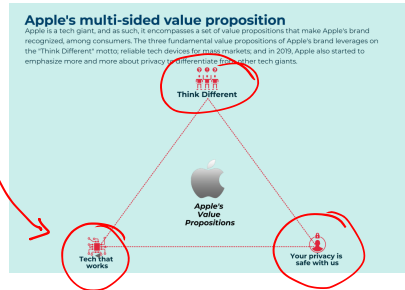
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## What is the USP of APPLE?

- Quality
- Innovation
- Simplicity (ease of use)
- Security
- Convenience
- Different Software-hardware integration
- Stated symbol:
- value for money.



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## History of Apple in the early days

- Steve Jobs and Steve Wozniak launched Apple Inc. back in 1976
  - The initial product was very successful
  - Later products failed – Software issues
  - Early IPO – pressure for growth
- Cost cutting at Apple
  - Product prices reduced
- Steve Jobs left Apple in 1985 on bad terms.
  - He started a new company, NeXT

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## The Downfall of Apple

- By 1997, Apple was experiencing a sharp sales decline
  - Compared to 1996, the company's net sales decreased by 28%

### RESULTS OF OPERATIONS

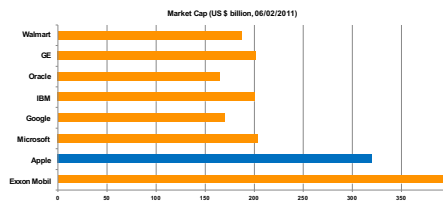
	1997	CHANGE	1996	CHANGE	1995
(TABULAR INFORMATION: DOLLARS IN MILLIONS, EXCEPT PER SHARE AMOUNTS)					
Net sales.....	\$ 7,081	(28%)	\$ 9,833	(11%)	\$ 11,062
Gross margin.....	\$ 1,368	41%	\$ 968	(66%)	\$ 2,858
Percentage of net sales.....	19%		10%		26%
Research and development.....	\$ 485	(20%)	\$ 604	(2%)	\$ 614
Percentage of net sales.....	7%		6%		6%
Selling, general, and administrative.....	\$ 1,286	(18%)	\$ 1,568	(1%)	\$ 1,583
Percentage of net sales.....	18%		16%		14%
Special Charges					
In-process research and development.....	\$ 375	NM	\$ --	NM	\$ --
Percentage of net sales.....	5%		--%		--%
Restructuring costs.....	\$ 217	21%	\$ 179	NM	\$ (23)
Percentage of net sales.....	3%		2%		--%
Termination of license agreement.....	\$ 75	NM	\$ --	NM	\$ --
Percentage of net sales.....	1%		--%		--%
Interest and other income (expense), net.....	\$ 25	(72%)	\$ 88	NM	\$ (10)
Net income (loss).....	\$ (1,043)	(28%)	\$ (816)	(23%)	\$ 424
Earnings (Loss) per share.....	\$ (8.29)	(26%)	\$ (6.59)	(291%)	\$ 3.45

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## How did APPLE Survive?

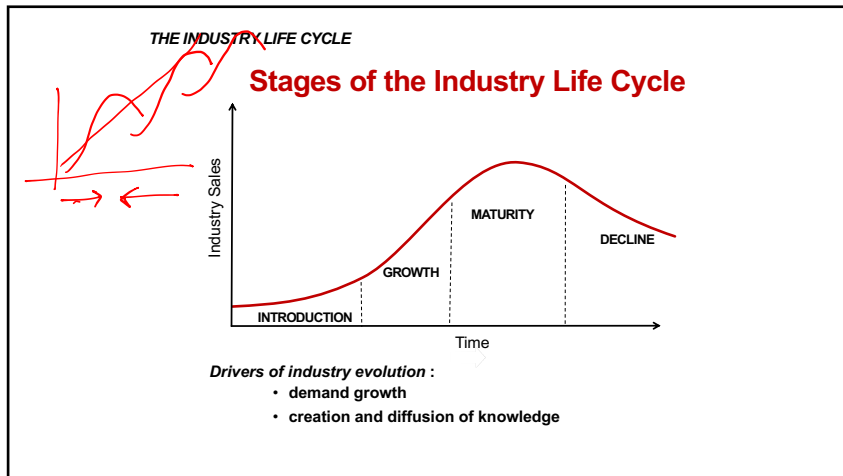
- Steve Jobs returns to Apple
  - Pitched NeXTSTEP (the software that powered NeXT computers)

### In 2011, Apple's market cap overtook Microsoft + Intel

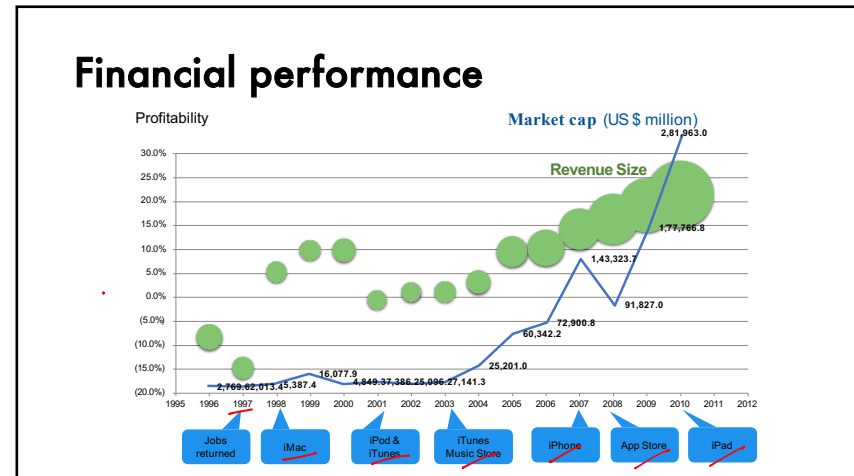


Apple set the price of "Mac OS X Public Beta," as it was called, at \$29.95—low enough for anyone could get it if they wanted, but high enough to exclude folks who might not be constructive to the beta testing process. The beta sold through Apple's online store; the company later offered a \$30 discount on the first full release of OS X (v10.0) when it shipped in 2001.

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## iPod & iTunes Software (2001)

### Reconstruction of the Digital Music Player (mp3) Industry

**A star is born**

**Oct 23, 2001:** Steve Jobs introduced the very first iPod at Cupertino

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## Digital Music (mp3) Players in the late 1990s

**Target customers**  
Technologically literate teens and twenty-year olds, MP3 file traders

**Flash MP3 Player** OR **Hard Drive MP3 Player**

**Flash MP3 Player:** Small, sleek design.

**Hard Drive MP3 Player:** Expensive (\$300-\$800), Bulky size, Big storage (up to 5,000 songs), Poor navigation system.

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# iPod

Targeted noncustomers: the over 34-year-olds  
 Great capacity of hard drive players (5GB=1,000 songs)  
 Portability and ease of use of flash memory  
Simplified user interface with one wheel & four buttons  
iTunes software application

- Simple to use software to transfer music from CD to player
- Automatic & fast synchronization with iPod
- Automatic battery charge from the computer
- Easy to manage digital music collection

Fun to use  
 Sleek design unlike conventional electronic devices  
 Priced at \$399

1,000 songs in your pocket

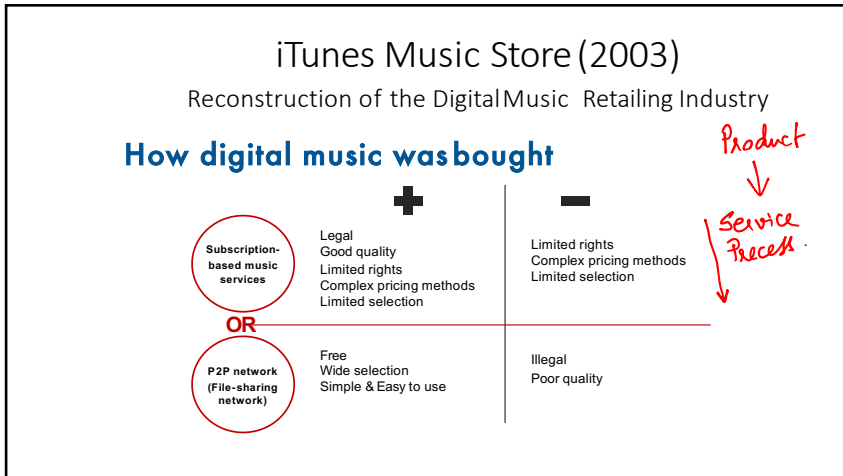


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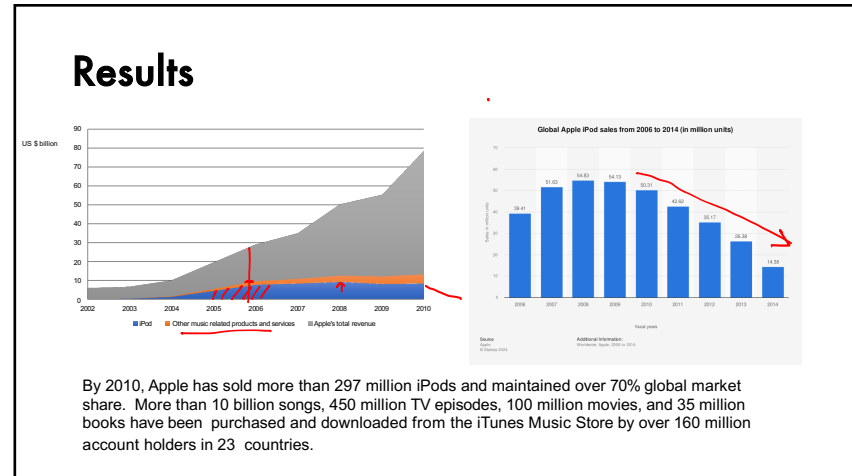
# iPod Drives Sales

Net Sales by Product:	2004	2003	2002
Power Macintosh net sales (b)	\$ 1,419 15 %	\$ 1,237 (10)%	\$ 1,380
PowerBook net sales	1,589 22 %	1,299 56 %	831
iMac net sales (c)	954 (23)%	1,238 (15)%	1,448
iBook net sales	961 34 %	717 (18)%	875
<b>Total Macintosh net sales</b>	<b>4,923 10 %</b>	<b>4,491 (1)%</b>	<b>4,534</b>
iPod	1,306 27% %	345 141 %	143
Other Music Products (d)	278 672 %	36 800 %	4
Peripherals and Other Hardware (e)	951 38 %	691 31 %	527
Software (f)	502 39 %	362 18 %	307
Service and other sales	319 13 %	282 24 %	227
<b>Total net sales</b>	<b>\$ 8,279 33 %</b>	<b>\$ 6,207 8 %</b>	<b>\$ 5,742</b>

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iPhone (2007) & App Store (2008)  
Reconstruction of the Mobile Phone Industry




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### The Mobile Phone Industry in the Early 2000s

*Nokia BB. Feature Phone | Smartphone*

- Handset makers
  - Engaged in R&D arms race to make more technologically innovative, value-added handsets.
  - Focused on selling more units of hardware (handsets). The more add-ons were equipped, the more expensive mobile was.
  - **Two strategic groups:** Feature phone OR Smartphone
- Carriers
  - Faced downward pressure on prices, slimmer margins on voice calls.
  - Dictated to handset makers what to build, how to build, and at what cost.
- Market was flooded with me-too handsets and services

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SEGMENTATION AND STRATEGIC GROUPS

### Strategic Group Analysis

**A strategic group is a group of firms in an industry that follow the same or similar strategies**

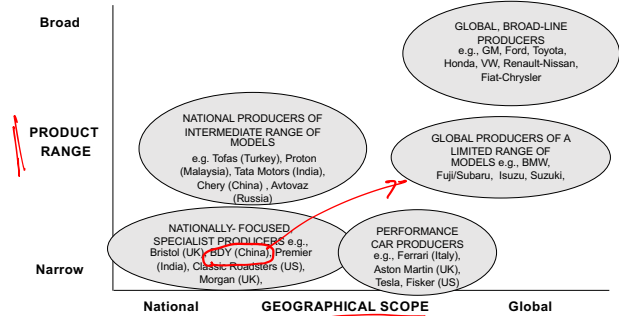
**Identifying strategic groups:**

- Identify principal strategic variables which distinguish firms.
- Position each firm in relation to these variables.
- Identify clusters.

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SEGMENTATION AND STRATEGIC GROUPS

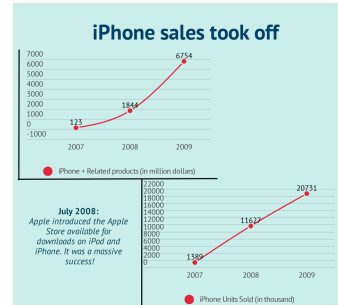
### Strategic Groups within the World Automobile Industry



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## iPhone Sales pick up

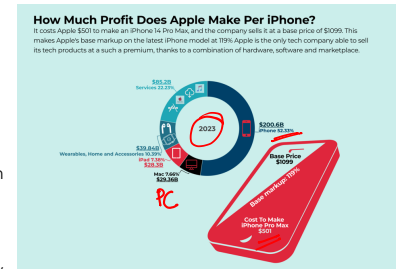
- Cingular (AT&T) was the first to understand that the iPhone could be a potential hit
  - Earlier handsets were a mere commodity used to lock as many new subscribers with cheap phones.
  - Apple gave AT&T 5 years of exclusivity and a small share of iTunes's revenue
  - Apple, in return got a revenue-share model where it received \$10 for every iPhone customer subscribing to an AT&T plan



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## iPhone Sales pick up

- App Store:** apps enhance the iPhone's capability, and the reason Apple can charge a wide premium on the physical product is also thanks to the apps available on the iPhone
- Service business:** on top of the iPhone and the other products' lineup, Apple has built a set of services offered in its stores (insurance, assistance, education, and more).
- Advertising:** within the service business, the marketplace that Apple has created also enables Apple to sell mobile advertising at wide margins.
- Marketplace revenue cut:** within the App Store, the apps featured share a cut of the revenues with Apple. Also, the marketplace has become an incredible source of revenue at high margins.
- Accessories and Wearables:** new products like ups, like AirPods and Apple Watch, have become extremely successful. And lately, the AirPods as well, those devices pair seamlessly with the iPhone, thus enabling a smooth experience if you stay within Apple's ecosystem!



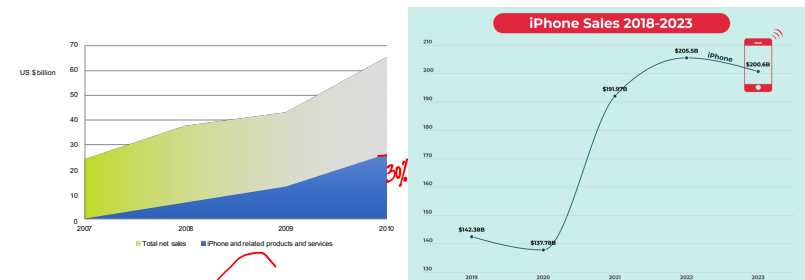
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## App Store (2008)

- Customize the iPhone the way the user wants
  - Application programs developed by Apple and third-party developers.
  - 20 categories ranging from Games & Entertainment to Books & Education.
  - Easy and convenient to purchase, download, and synchronize with iPhone on one Apple ID.
- Price
  - Free Apps: 25% of applications were free of charge.
  - Low price: More than 25% of applications cost \$0.99.
  - The average price of an application was \$3.21.
- Win-win proposition
  - Apple got 30% from the sales of apps (70% for developers).
  - App Store boosted sales of the iPhone by up to 15%. Apple generated revenues continuously through app sales from the increased iPhone users.

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## Results



By 2010, Apple has 51% of the profits of the global mobile phone industry, with just 22% share of revenue and only 4% market share (units sold). By 2011, over 100 millions iPhones were sold worldwide. App Store hit 10 billion downloads from over 300,000 apps available.


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## iPad (2010)

### Reconstruction of the Personal Computer Industry

### The Personal Computer Industry in the late 2000s

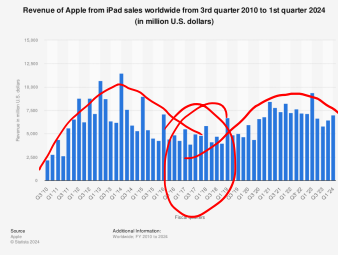
- Low PC sales growth
- Global competition
- Commoditization of PC: R&D arms race & price war
- Segmentation strategy
- Netbook: Low-end laptop
- Threats from substitutes: smartphones



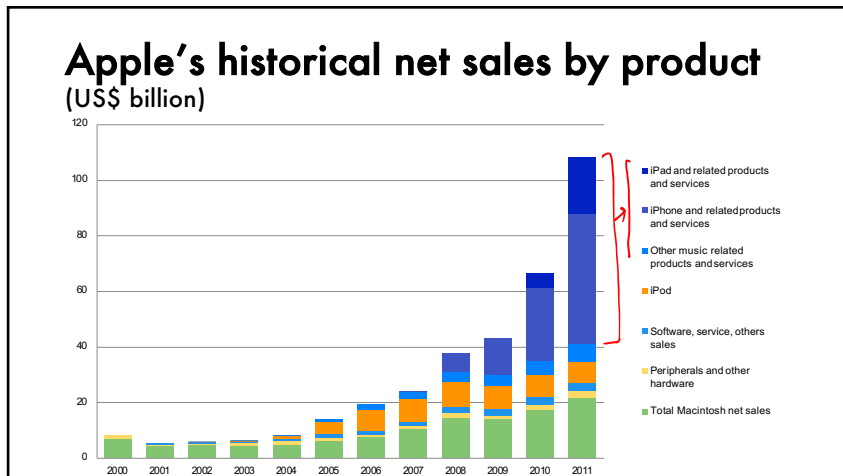
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## iBook Store (2010)

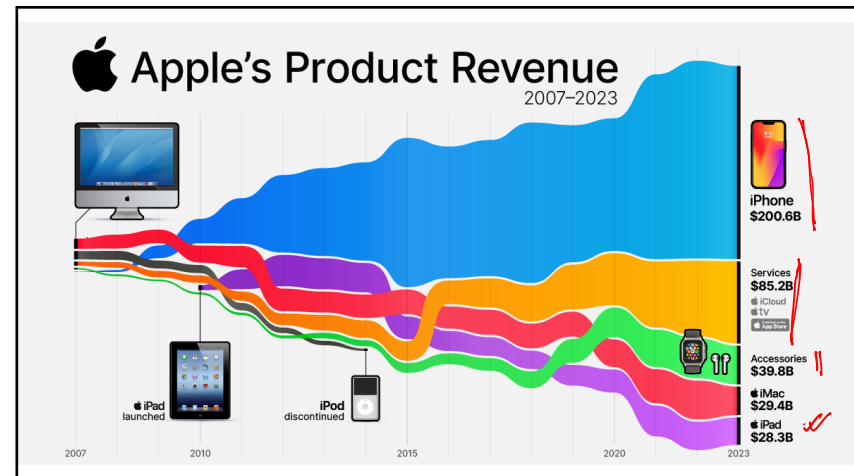
- Read e-books through iBooks apps
  - Own the collection of ebooks in iBooks
  - Read in color with full audio, video support
  - Turn pages by tapping the display, adjust brightness, font and its size, bookmark pages; find vocabulary in the dictionary
- A new market space for iTunes
  - Partner with established book publishers, individual publishers & authors
  - Easy and convenient to purchase, download, and synchronize with iPad
- Compelling buyer value
  - Easy and simple to browse, purchase, download, and manage ebooks
  - Free sample before purchasing a book
  - Free books
  - Priced the same as in other ebook stores (e.g. Amazon) and paper version
- Milestones (as of Feb. 2011)
  - 100 million ebooks were downloaded via iTunes iBook store
  - 2500 publishers in its store
  - Apple had more than 200 million Apple ID accounts



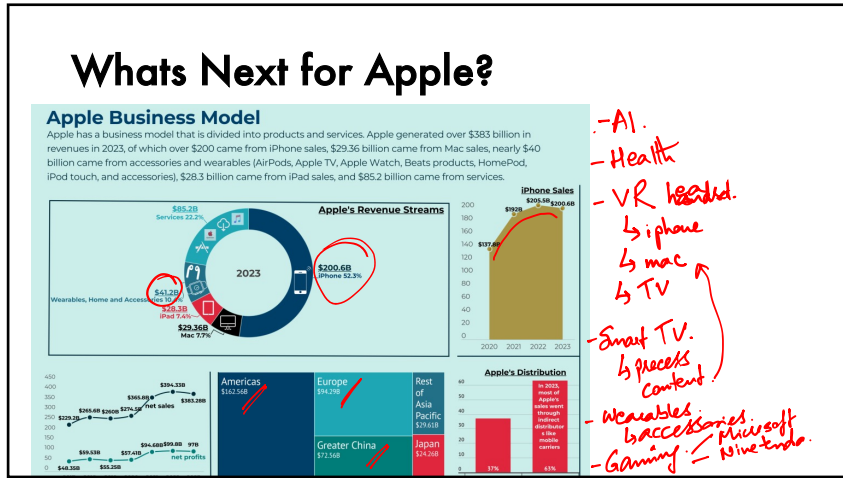
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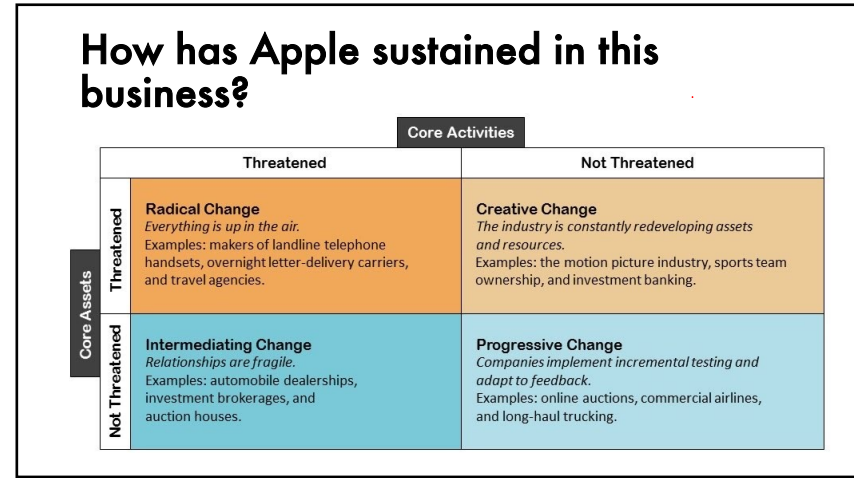
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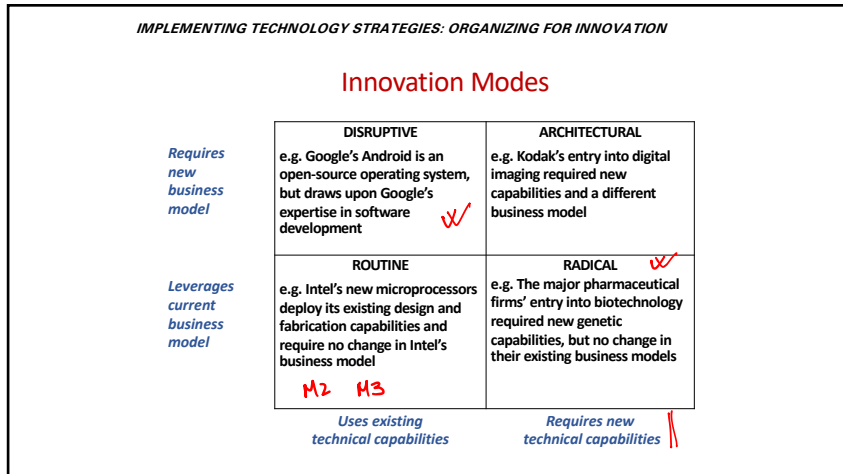
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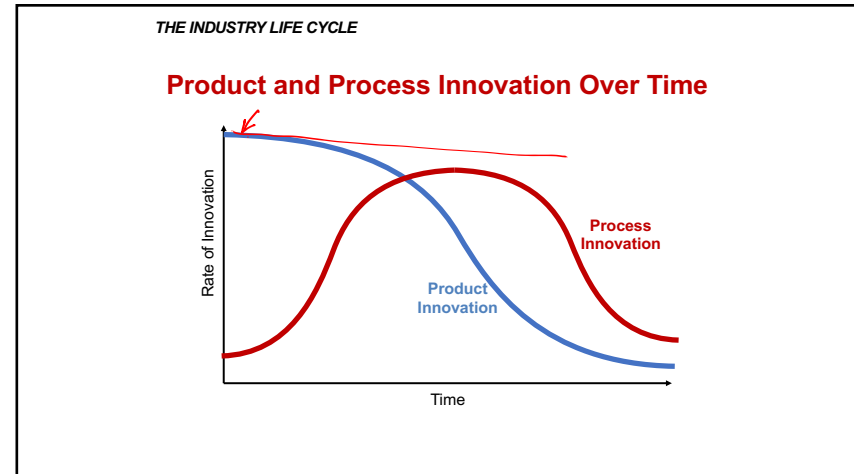
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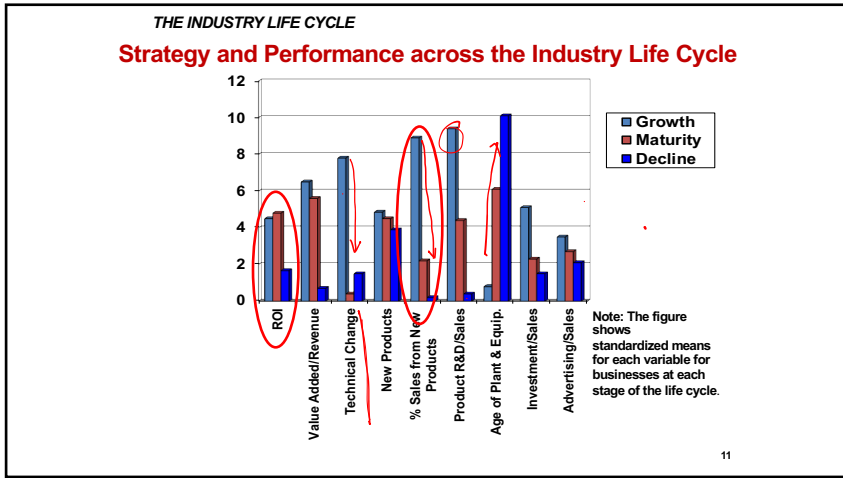
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### THE INDUSTRY LIFE CYCLE

#### How Typical is the Life Cycle Pattern?

- Technology-intensive industries (e.g. pharmaceuticals, semiconductors, computers) may retain features of emerging industries.
- Other industries (especially those providing basic necessities, e.g. food processing, construction, apparel) reach maturity, but not decline.
- Industries may experience life cycle regeneration, e.g. motorcycles, TVs:

1900 1950 1980 2017 1930 1950 1970 1990 2010

- Life cycle model can help us to anticipate industry evolution—but dangerous to assume any common, pre-determined pattern of industry development

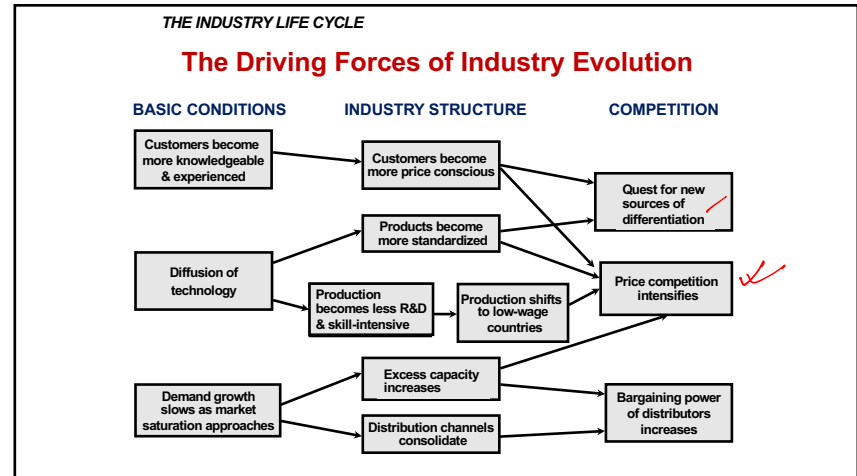
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### THE INDUSTRY LIFE CYCLE

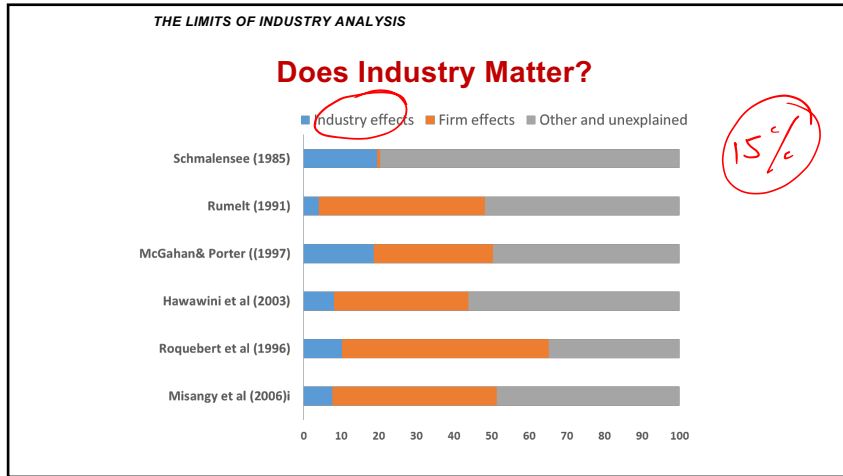
#### Evolution of Industry Structure over the Life Cycle

	INTRODUCTION	GROWTH	MATURITY	DECLINE
<b>DEMAND</b>	Early adopters	Rapid increase in market penetration	Replacement/ repeat buying; price sensitive customers	Obsolescence
<b>TECHNOLOGY</b>	Competing technologies; rapid product innovation	Standardization; rapid process innovation	Diffused know how; incremental innovation	Little innovation
<b>PRODUCTS</b>	Wide variety of features and designs	Design & quality improve; dominant design emerges	Commoditization; brand differentiation	Differentiation difficult
<b>MANUFACTURING</b>	Short-runs, skill intensive	Capacity shortage, mass-production	Over-capacity emerges; deskilling	Overcapacity
<b>TRADE</b>	-----Production shifts from advanced to emerging countries-----			
<b>COMPETITION</b>	Few companies	Entry, mergers exit	Shakeout & consolidation	Price wars & exit
<b>KSFs</b>	Product innovation	Design for manufacture; Process innovation	Cost efficiency (scale economies, low cost inputs)	Low overheads; rationalization

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LIMITS OF INDUSTRY ANALYSIS

### Competition as a Dynamic Process: Hypercompetition

**Porter framework assumes:**

- (a) industry structure drives competitive behavior
- (b) Industry structure is (fairly) stable.

**But, competition also changes industry structure:**

- **Schumpeterian Competition:** A “perennial gale of creative destruction”  
–market leaders overthrown by innovation
- **Hypercompetition:** “intense and rapid competitive moves.... continuously creating new competitive advantages and destroying existing competitive advantages”

**Implication:** --Within 5-forces framework:  
INDUSTRY STRUCTURE → COMPETITION

--Under dynamic competition:  
COMPETITIVE STRATEGY → INDUSTRY STRUCTURE

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