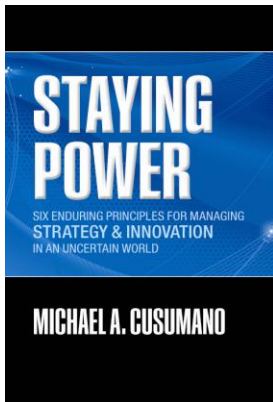


# *Staying Power*

**Six Enduring Principles for Managing  
Strategy & Innovation in an Uncertain World**  
(Lessons from Microsoft, Intel, Apple, Google, Toyota & More)

*Oxford University Press 2010*

*Nihon Keizai Shimbunsha 2012*



**January 2012**

**Michael A. Cusumano**  
**MIT Sloan School of Management**

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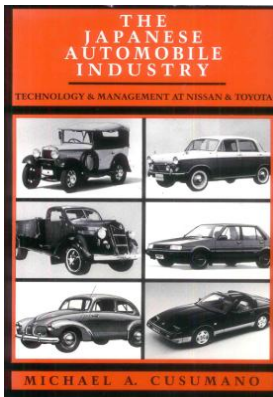




# 君臨する企業の「6つの法則」

—戦略のベストプラクティスを求めて

出版社: 日本経済新聞出版社



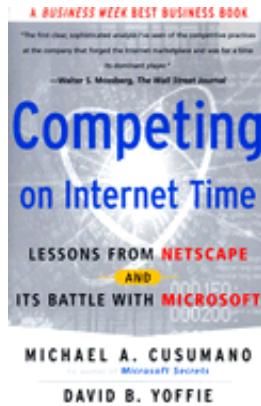
1985



1991



1995



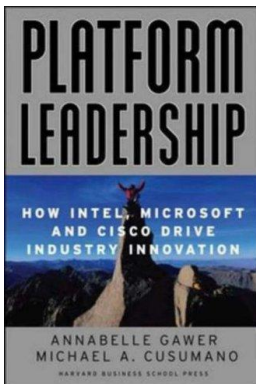
1998



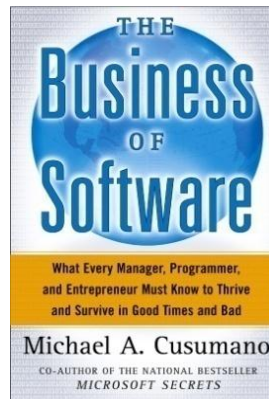
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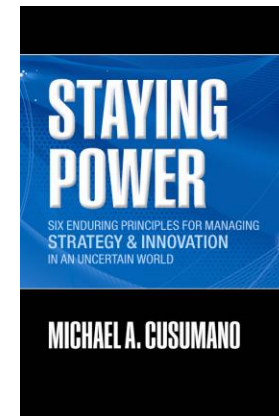
2002



2002



2004



2010

# Bigger Picture in Staying Power

- Now an age of *innovation & commoditization*, in both products & services, across multiple industries, global
- Long history, recently accelerated
  - E.g. Hardware Products: Mainframes to PCs and cell phones
  - E.g. Software Products: Millions & thousands of dollars to free
  - Manufacturing: *China's prices becoming the world's prices*
  - Hi-Tech Services: *India's prices becoming the world's prices*
- Value shift, from stand-alone products to more complex “industry platforms” & related value-added services
- **Little room for error in strategy or operations, but...**
- **Hard to separate “fads” from enduring practices!**

# “Best Practice” Research?

- **Lots of popular books & academic articles**
  - E.g., *In Search of Excellence* (1982), *Good to Great* (2001), *Blue Ocean Strategy* (2004)... *Japan as Number One* (1979)
- **Hard to generalize confidently**
  - Mostly case studies, small samples, or limited analysis
  - What works in one firm, time, industry, or nation may not transfer (e.g., what happened to Japan? Or the U.S.?)
- **Partially a problem of knowledge and context:**
  - *Imitation or best practice to standard practice*
  - *Lifecycle stage or type of technology/innovation*
  - *Industry structure & “clockspeed”*
  - *Institutional or cultural & social environment*
  - *“Luck” (timing) or population ecology (survivor bias)*

一橋大学イノベーション研究センター准教授  
青島矢一

京都大学大学院経済学研究科教授  
武石彰

マサチューセッツ工科大学スローン経営大学院教授  
マイケル・A・クスマノ

[編著]

# メイド・ イン・ ジャパンは End of "Made in Japan"? 終わるのか 「奇跡」と「終焉」の先にあるもの



東洋経済新報社

# Japan vs. the US/West

- US and Europe once the center of best practices
  - Japan in 1950s and 1960s: cheap, low-quality goods, but fastest growing economy
- Japan later overtook the West in many areas
  - “Best practices” in manufacturing, quality, HR, product development, industrial policy
- But since 1990, many Japanese “strengths” now seen as “weaknesses.” Even the mighty Toyota had quality problems in 2009-10.
  - **WHAT CHANGED?**

## Japan 1980s Strengths

## Japan 1990s Weaknesses

### *Financial System*

- low interest rates
- lots of capital for investment
- protected banks
- deficit financing

- inefficient use of capital
- poor investment returns
- bankrupt banks
- bankrupt government

### *Political System*

- stable, conservative,
- consensus-oriented
- sharing of wealth through subsidies

- struggles over shrinking pie
- political “gridlock”
- slow/negative growth, unemployment

### *Social & Cultural System*

- standardized primary education
- shared values
- hierarchy & authority, group/individual

- weak universities
- too much emphasis on rote learning,
- not enough individualism & creativity



## *Economic System*

- low wages
- high savings
- high exports

- rising value of yen
- bubbles in stocks and real estate
- low consumer spending

## *Management & Employment*

- lifetime employment in large firms
- seniority-based wages
- company-based unions
- consensus decision making
- long-term view
- institutional share-holding
- Just-in-Time” (“Lean”) production
- QC & kaizen
- low-cost dedicated supplier networks

- reduced flexibility
- do not reward merit & achievement
- inadequate concern -- worker welfare
- lowest-common denominator
- little pressure for efficiency/profits
- some problems in global competition
- over focus on manufacturing; traffic
- diminishing returns
- “shell game” of transferring costs

# “Made in Japan” Problem?

## Firm-level

- The best firms still very good & globally competitive. But...
- Western and Asian competitors have improved (manufacturing, product quality, engineering) at a fast rate and largely caught up to Japan in many sectors, especially in price-performance
- Weaker, protected firms and sectors still weak
- The high yen hurts exports and global competitiveness

## Nation-level

- Japan still a very rich country. Low growth vs. “decline”
- But political “gridlock” makes economic reforms difficult
- Other areas can improve (e.g. “weak” university research & ability to generate new industries, government-business-university-VC relations), but progress slow

# Staying Power at the Firm/Nation?

- The phenomenon of “great” or “excellent” firms declining or slowing down in growth over time, like great economies such as the US or Japan declining or going in cycles of good and bad performance, *is the norm*.
- No competitive advantage or set of distinctive capabilities are “permanent” and all are *relative* to the state of competition at any given time.

# Six “Enduring” Principles

Not original to me, but underlie my work and that of the strategy and innovation fields over 25+ years

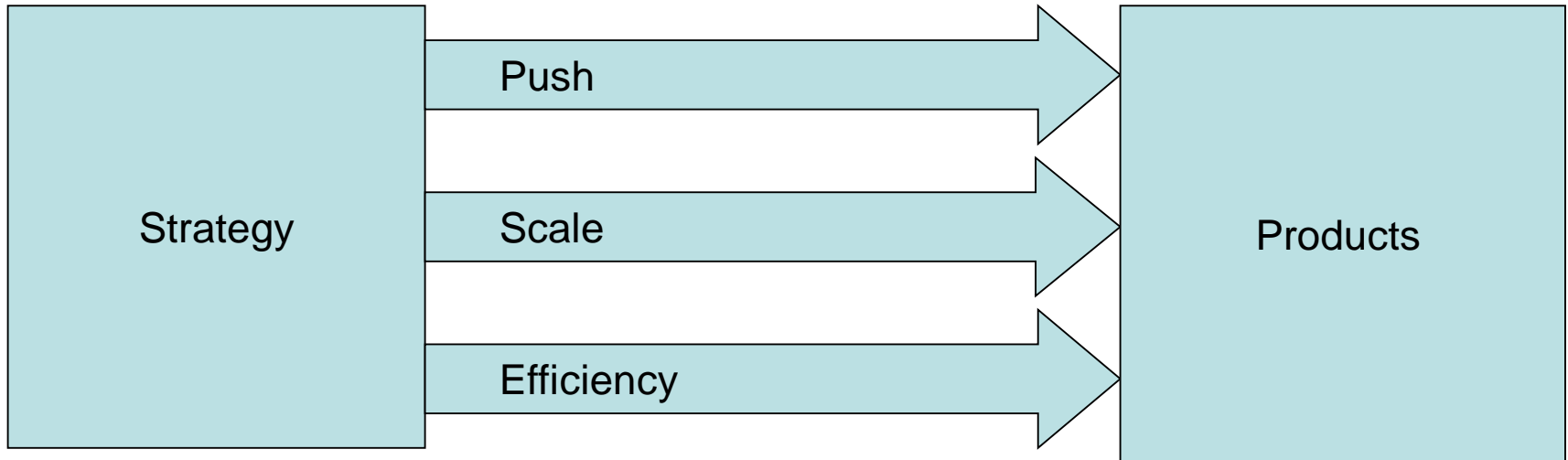
1. *Platforms*, Not Just Products
2. *Services*, Not Just Products (or Platforms)
3. *Capabilities*, Not Just Strategy
4. *Pull*, Don’t Just Push
5. *Scope*, Not Just Scale
6. *Flexibility*, Not Just Efficiency

## Narrow Way of Thinking About Focus and Competitive Advantage at the Product Level

Examples:

- Ford in Model T Era
- GM in the 1920s

- Sony in Betamax era
- IBM before Open Source
- Apple before mid-2000s

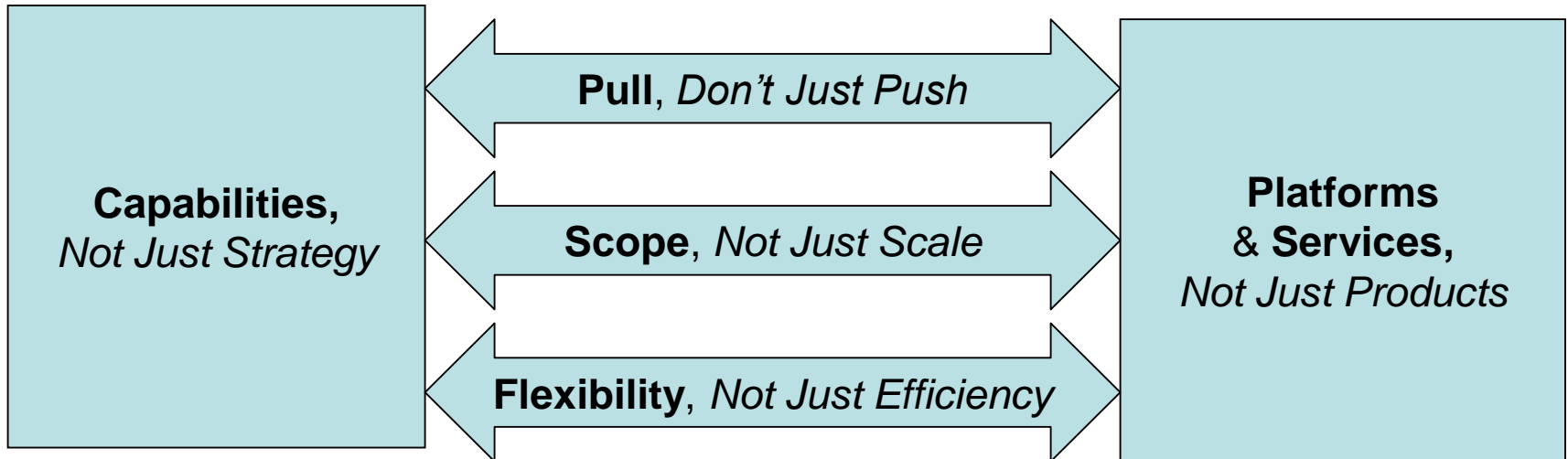


## Broader Way of Thinking About Agility and Competitive Advantage at the Ecosystem Level

Examples:

- Toyota
- Microsoft
- Intel

- JVC in VHS Era
- Apple after mid-2000s
- Google, Adobe
- Cisco, Qualcomm, et al.

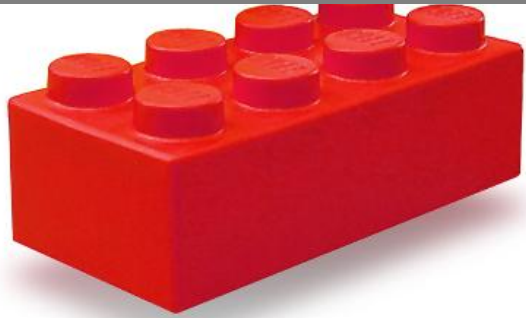


# Thoughts for Japan?

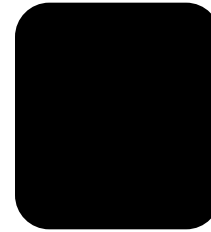
- Japanese firms & economy doing well relative to many countries; future demographics a worry
- Defining the “situation” through 6 principles lens could be helpful to think about present & future
- **Japan’s Challenge: How compete in a world of**
  - global, industry-wide platforms & services,
  - driven by deep capabilities in science & technology,
  - dominated by relatively agile (or entrepreneurial) organizations, economies, and governments?

# Platforms Examples

facebook®



Google™

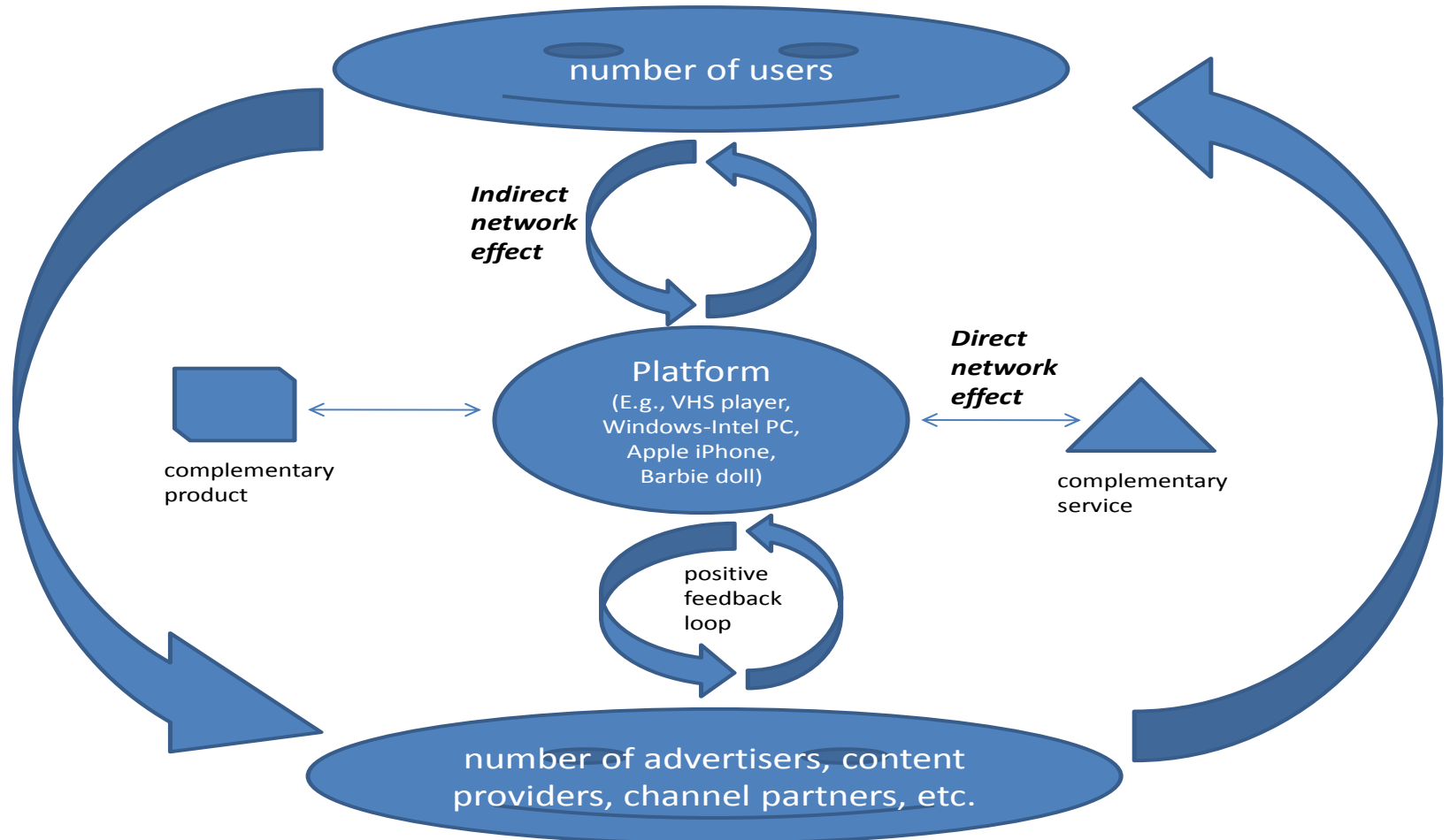


# Platforms, Not Just Products

- **In-house product platform:** set of common components or modules around which an organization can create a family of related products or services
- **Retail distribution platform:** network of distribution channels, including physical outlets or web sites, through which an organization can distribute a variety of products or services
- **Supply-chain platform:** network of suppliers who provide components (or “content”) that enable an organization to create new products or services
- **Industry-wide platform:** *one of the above but opened to outside organizations to create an “ecosystem” of partners*



# Platform Ecosystem: Platform + Complements + Network Effects



# Ongoing Platform Battlegrounds

- **Web Search** Google vs. Bing/Yahoo, foreign engines
- **Smart PhoneOS** Apple vs. RIM, Nokia/Symbian, Android, Microsoft, Palm, Linux, ARM, Intel Atom)
- **Digital Media** Apple (iPod, iPad & iTunes) vs. Microsoft (Media Player, Zune) vs. Real?
- **Social Media** Facebook, Twitter, LinkedIn, etc.
- **Video Games** Sony, Nintendo, Microsoft
- **Enterprise s/w** SAP vs. Oracle/Sun, Microsoft, IBM
- **Micropayments** Sony Felica vs. PayPal, credit cards
- **Displays** E-Ink vs. LCD vs. Plasma (Sharp, Sony, Samsung)
- **Batteries** Sony vs. Panasonic, Sanyo, A123, others
- **Power systems** Toyota hybrid vs. traditional vs. hydrogen FC

*And many more platforms, or platforms within platforms, in smaller or emerging markets*

# ① Basic Network as Platform



**Where is  
the Money?**

**“Value-Added Services” Development Ecosystem**

In-House for Businesses

In-House for Consumers

3<sup>rd</sup> Party Developers

Enterprise Customers

Applications Programming Interfaces (APIs)

①

**Basic Network Platform**

Mobile Network

Fixed Network

Wi-Fi/Wi-Max etc.

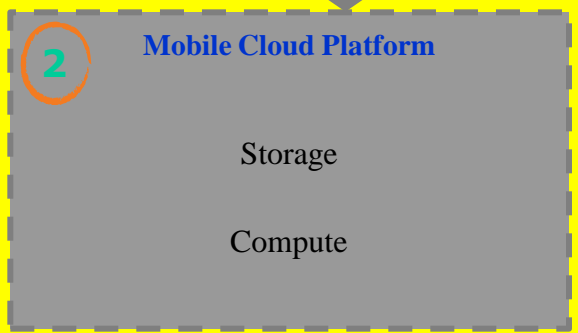
# 2 Mobile Cloud as Platform



**Where is the Money?**



APIs



Applications Programming Interfaces (APIs)

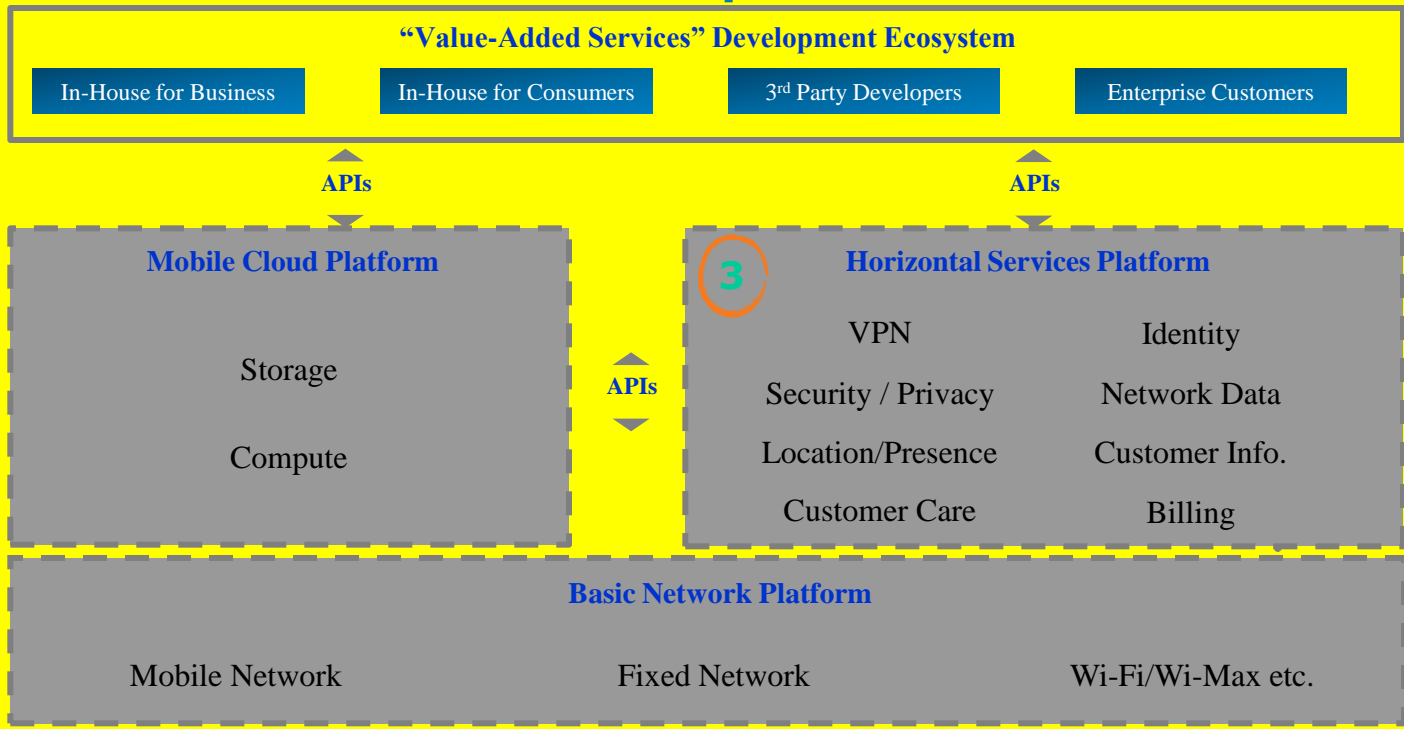


3

# Horizontal Services as Platform



Where is the Money?



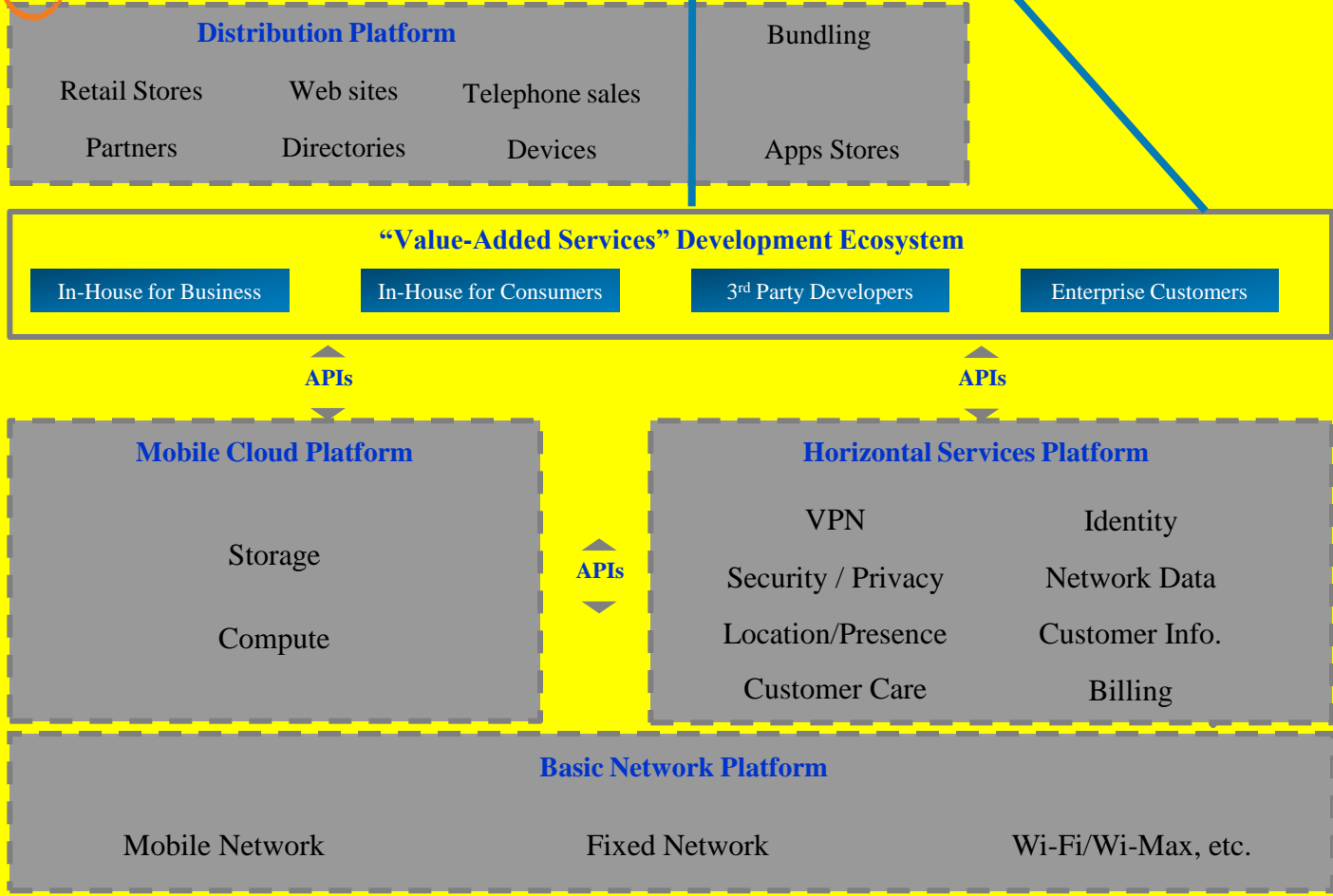
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# Distribution System as Platform



4

Where is the Money?

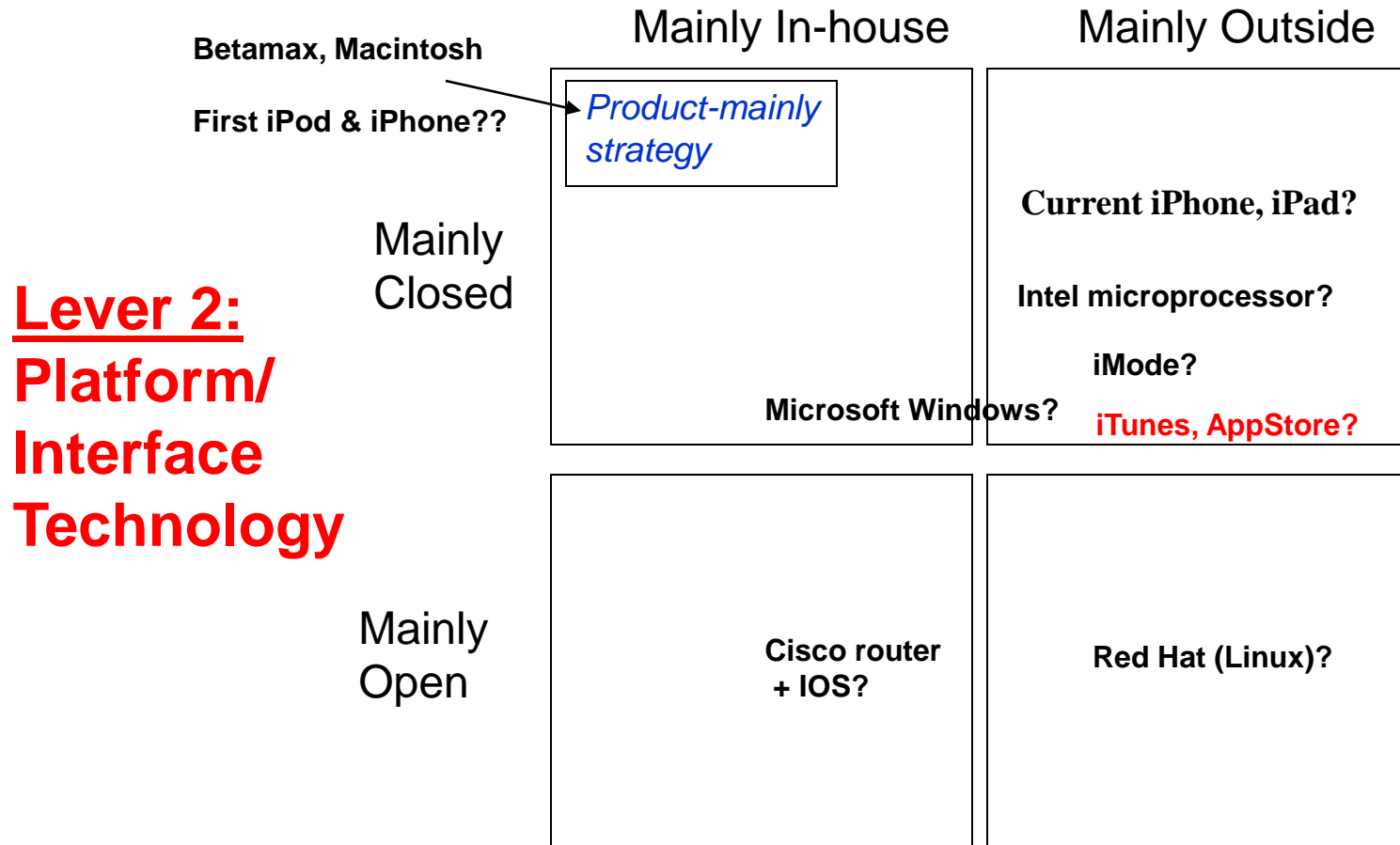


# The Argument

- *To compete effectively in a platform market requires having the “best” platform & platform strategy, not necessarily the “best” product!*
  - **“Best” platform?** = (1) Open (*but not too open*) interfaces; (2) modular architectures (*easy to build on/extend*); (3) compelling complements (*generally result of most vibrant ecosystem*)
  - **“Best” product?** Hard to define, and, while starting here is good, usually not enough for a platform market

# Product vs. Platform Strategy?

## Level 1: Source of Key Complements





# Apple:

**Before 2003 = *Product-First* Thinking**

**Now = Product + Platform + Services!**

- Apple still lower sales and profits compared to Microsoft, but catching up fast!
  - *Surpassed Microsoft in market value in May 2010*
  - *Why? PC sales FLAT but not so in consumer electronics: smart-phones, tablets, digital content/media, internet services*
- ***What Apple did:***
  - Moved beyond traditional boundaries to link PCs to consumer electronics & smart phones, & these to digital services, content, accessories, apps, etc.
  - Common OS, and iTunes now iCloud “service platforms” for iPod, iPhone, iPad, Mac, App Store, eBooks store, and with access for other platforms (Google, Windows, RIM). ***Multi-sided, multi-platform!***

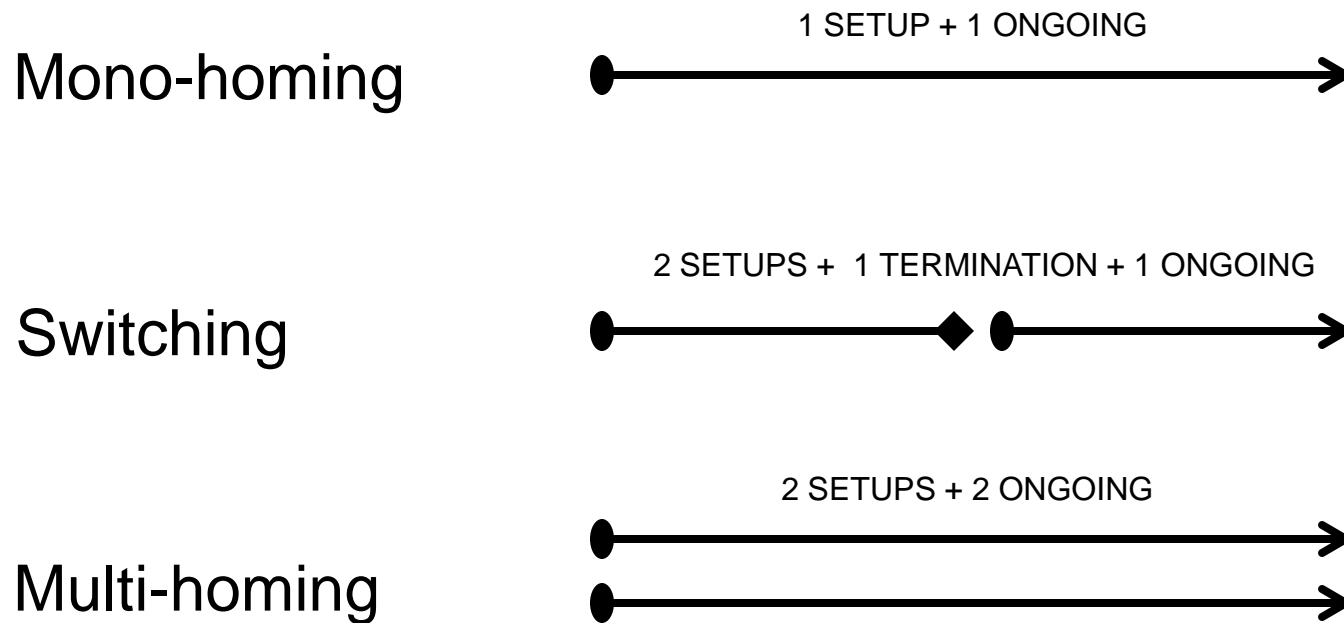
		<i>Microsoft</i>			<i>Apple</i>		
	<i>Revenues (\$million)</i>	<i>Operating Profits (%)</i>	<i>Year-End Market Value (\$m)</i>		<i>Revenues</i>	<i>Operating Profits (%)</i>	<i>Year-End Market Value</i>
2010	\$62,000	38.0%	\$245,000		<b>\$65,000</b>	<b>28.0%</b>	<b>\$312,000</b>
2009	58,437	34.8%	246,630		<b>36,537</b>	<b>21.0%</b>	<b>180,150</b>
2008	60,420	37.2	149,769		<b>32,479</b>	<b>19.3</b>	<b>118,441</b>
2007	51,122	36.2	287,617		<b>24,006</b>	<b>18.4</b>	<b>74,499</b>
2006	44,282	37.2	251,464		<b>19,315</b>	<b>12.7</b>	<b>45,717</b>
2005	39,788	36.6	233,927		<b>13,931</b>	<b>11.8</b>	<b>29,435</b>
2004	36,835	24.5	256,094		8,279	3.9	8,336
2003	32,187	29.7	252,132		6,207	(loss)	4,480
2002	28,365	29.2	215,553		5,742	0.3	4,926
2001	25,296	46.3	258,033		5,363	(loss)	7,924
2000	22,956	47.9	302,326		7,983	6.5	5,384

# “Winner Take All” (or Most) if...

- 1) **Strong network effects** between the platform and complements (direct or indirect)
- 2) **Little differentiation** among competing platforms (few niche opportunities or ways to be distinctive among competitors!)
- 3) **Multi-homing rare** (difficult or costly for users, app developers, or other players to use more than one platform as their “home”):

**MAKE THEM CHOOSE!**

# Multi-Homing vs. Switching Costs



# Why Did VHS Win 100% of the Consumer VCR Market?

Network effects? Differentiation? Multihoming?

1. **Strong network effects?** – Yes. VHS and Betamax incompatible. More licensing of VHS = more vendors, more prerecorded tapes, more sales to users, ad infinitum
2. **Little differentiation?** – Yes. Initial differences soon eliminated. Same prerecorded tapes available. Quality better with Betamax but not better enough.
3. **High cost of multihoming?** – Yes. Machines were expensive in the 1970s and 1980s, so users chose one.
  - **Sony quickly drops from 100% market share to zero!**
  - **Little first-mover advantage...Why?**

# Why Did Windows Win 95% of the Desktop OS Market?

Network effects? Differentiation? Multihoming?

1. Strong network effects? – Yes. Many more apps for Windows; incompatibility of the Mac (modified recently with the switch to Intel chips & virtual s/w)
2. Little differentiation? – Yes, **eventually**. Growing similarity with the Mac; rivalry among PC manufacturers & low entry barriers brought PC prices down. *Mac survived in a niche – desktop publishing & extreme ease of use, e.g. for schools*
3. High cost of multihoming? – Yes. The Mac usually cost 2x a WinTel PC. Both are costly so users choose one.

# Why No Permanent Winner in Video Game Consoles?

Network effects? Differentiation? Multihoming?

- 1. Strong network effects?** – Yes. Specific games for each platform (Sony PlayStation, Nintendo Wii, Microsoft Xbox).
- 2. Little differentiation?** – No. *Each platform different – Sony -- high-end , Nintendo -- non-traditional with hardware innovations, Microsoft -- like PC/internet. Also “hit” games or features vary by generation and vendor.*
- 3. High cost of multihoming?** – No. *Consoles relatively cheap. Often subsidized by makers. Serious game users buy more than one platform. Some games on multiple consoles.*

# Will There Be One Winner in the Global Smart-Phone Market?

Network effects? Differentiation? Multihoming?

- 1. Strong network effects?** – Yes. Specific applications and some services for each platform (Nokia/Symbian, RIM/Blackberry, Apple iPhone , Google Android, NTT Docomo, Microsoft Windows)
- 2. Little differentiation?** – No. *Different vendor strengths (e.g. business/email vs. consumer functions, computer-like, social networking, etc). And different operator strengths, politics, and bundles in different regions.*
- 3. High cost of multihoming?** – Yes. Phones often subsidized, but service contracts expensive. Most users chose one vendor. *But users can and do switch over time.*



# Will There Be One Winner in the Social Media Market?

Network effects? Differentiation? Multihoming?

- 1. Strong network effects?** – Yes. Very strong indirect – friends, colleagues, etc. Very strong direct – tie specific applications and some services to the platform APIs & data, though weaker if use cross-platform APIs.
- 2. Little differentiation?** – No – so far. Social media sites very different. Yes – Facebook copying features, and Google pushing cross-platform openness & applications.
- 3. High cost of multihoming?** – No – users can use multiple social media platforms, for different purposes – so far.

# *Platform Thinking:* Managerial Implications

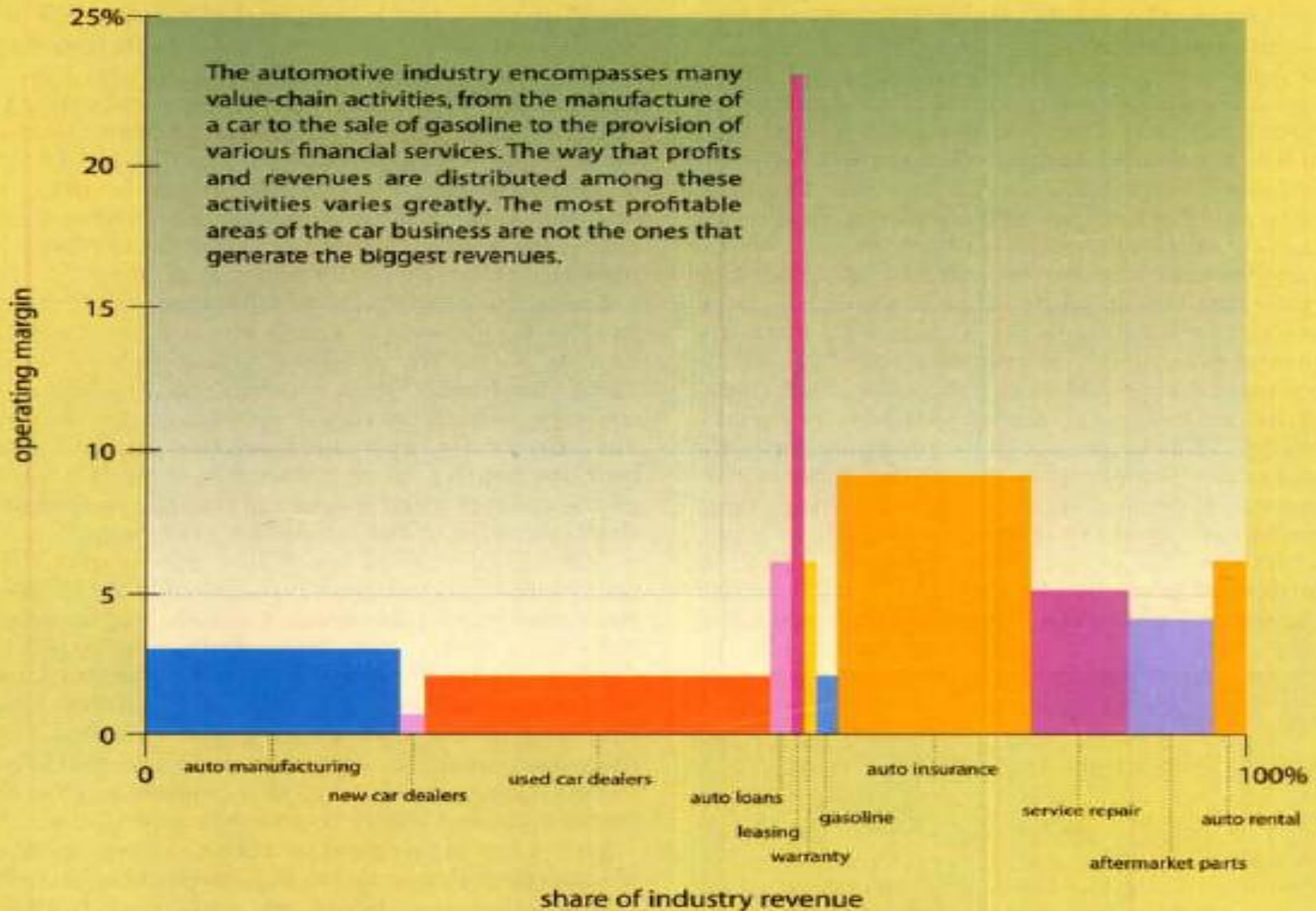
- Different from conventional product or service businesses in terms of:
  - **Strategy & Implementation** (for a *platform vs. a product strategy, or a complementor position*)
  - **Monetization & Business Models** (different ways of making money & increasing the “pie”)
  - **Value Creation, Capture, Delivery** (impact on market value, e.g. valuations of Microsoft then Apple, Google, Facebook, et al.)

# Services, Not Just Products

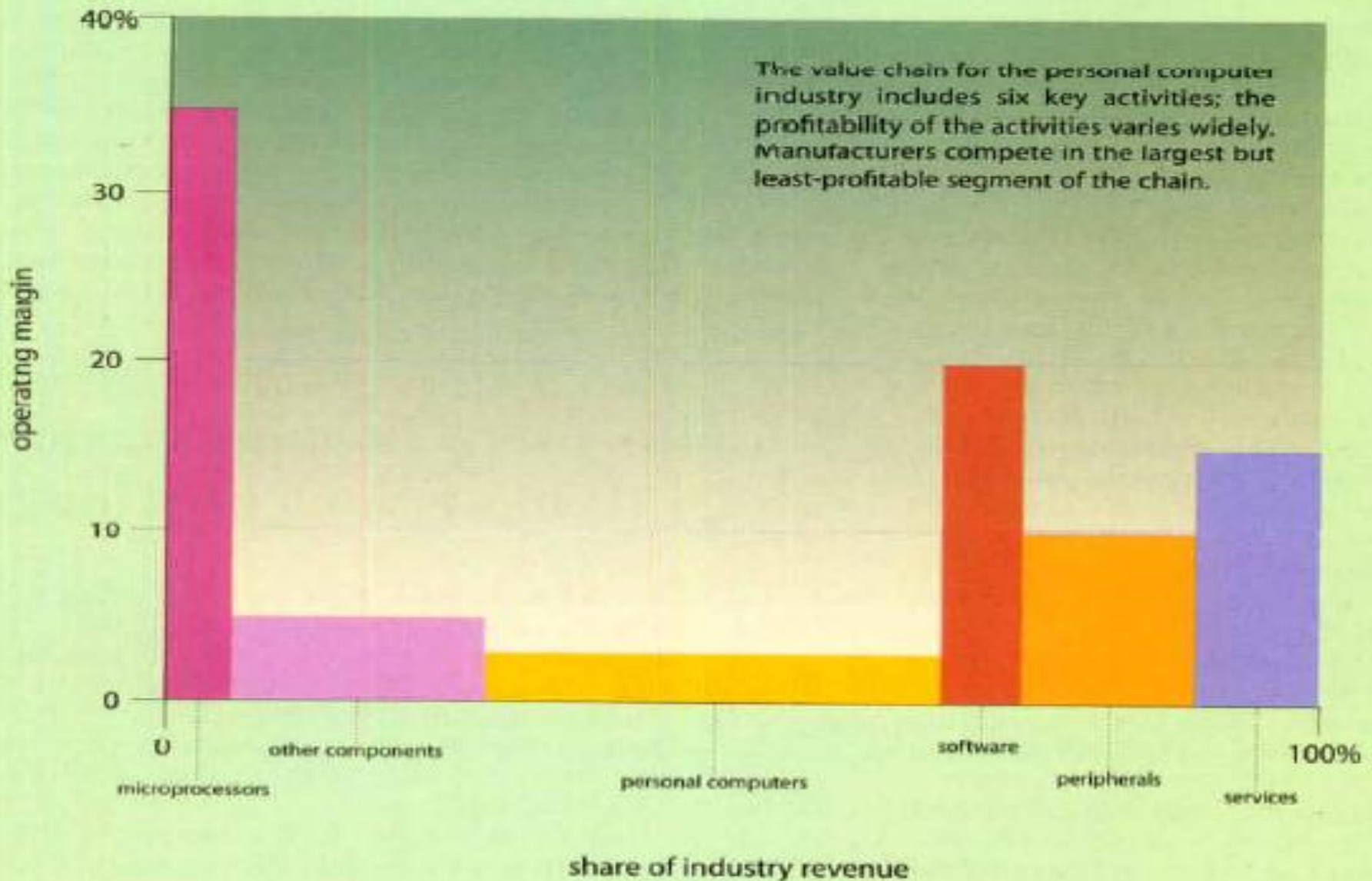
Many firms today, in different industries :

- (a) generate **more revenue or profits from maintenance + value-added or personalized services than from standardized products or standardized services** (e.g., IBM, SAP, Oracle ... GM, Ford in past decade);
- (b) have transformed **standardized products into more tailored service-like offerings** (e.g., Salesforce.com, Windows Live ... Zipcar .. Rolls Royce)
- (c) elevate **products to become new service-delivery “platforms”** (e.g., Google... Apple iTunes & iPod, iPhone, iPad... e-books... or the automobile, aircraft engine)

# THE U.S. AUTO INDUSTRY'S PROFIT POOL

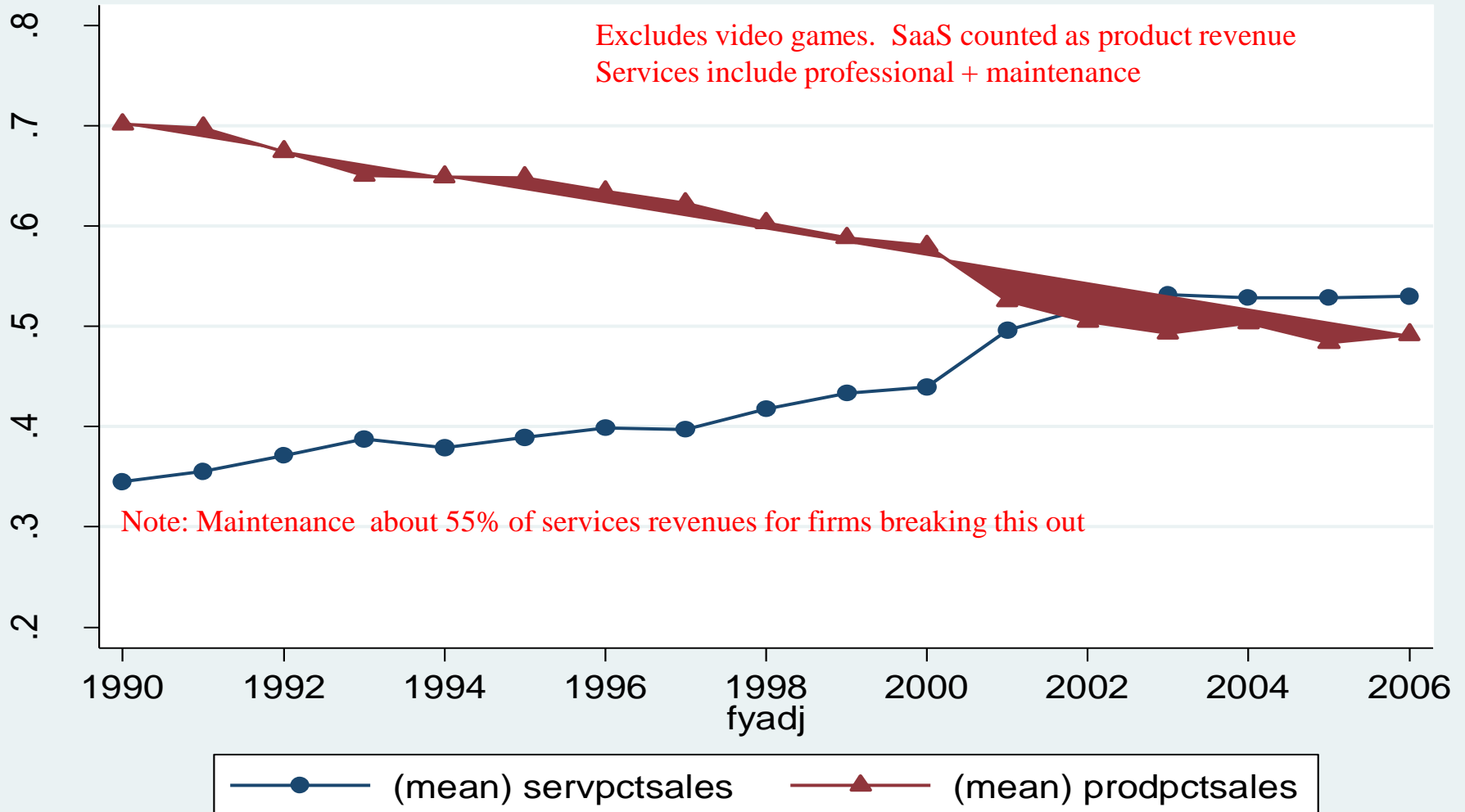


# THE PC INDUSTRY'S PROFIT POOL

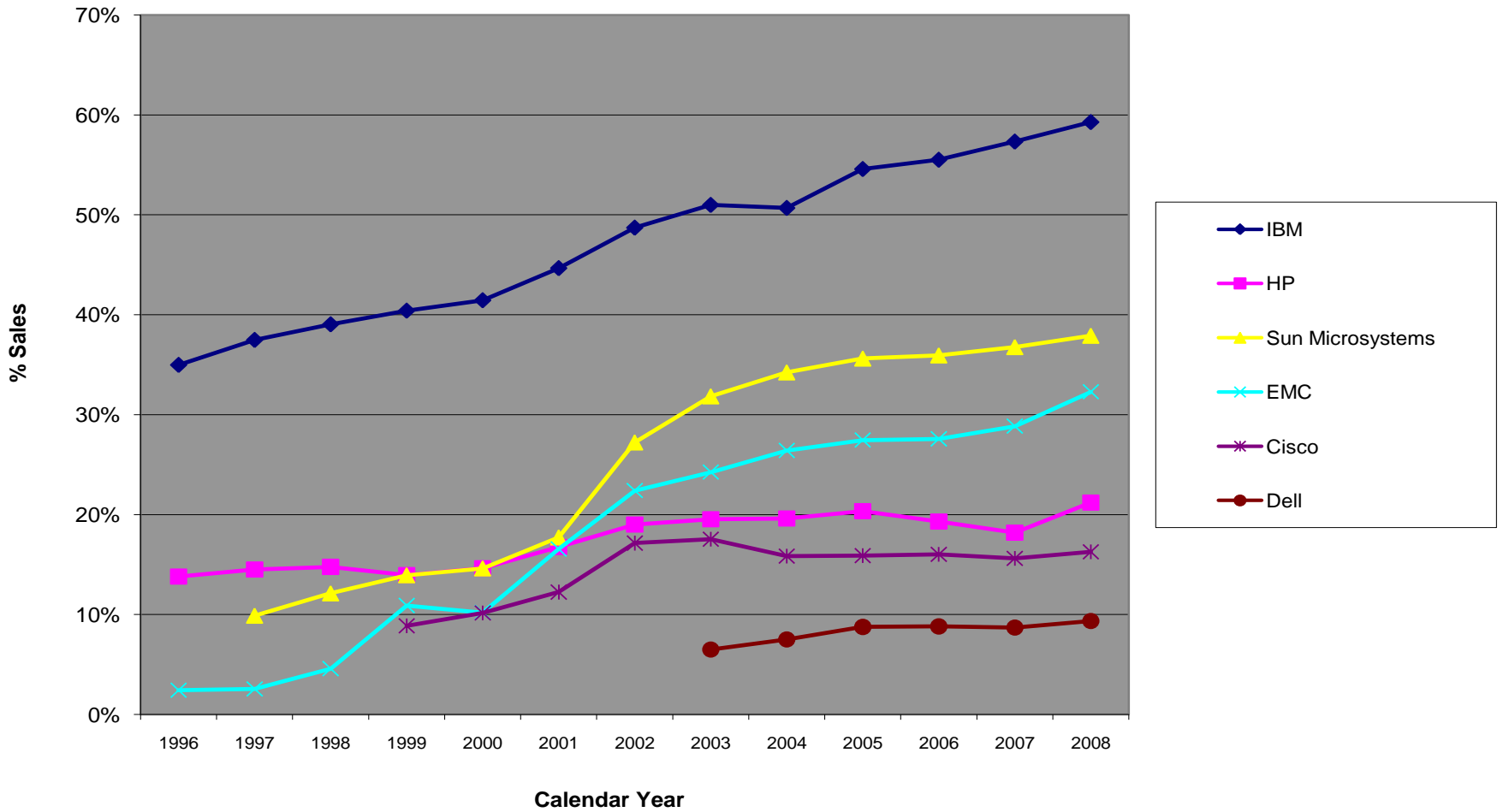


# Software Product Companies Listed in U.S.

## Service vs Product as % Sales - Average All Sample



# Service Revenue %, Select Hardware Firms



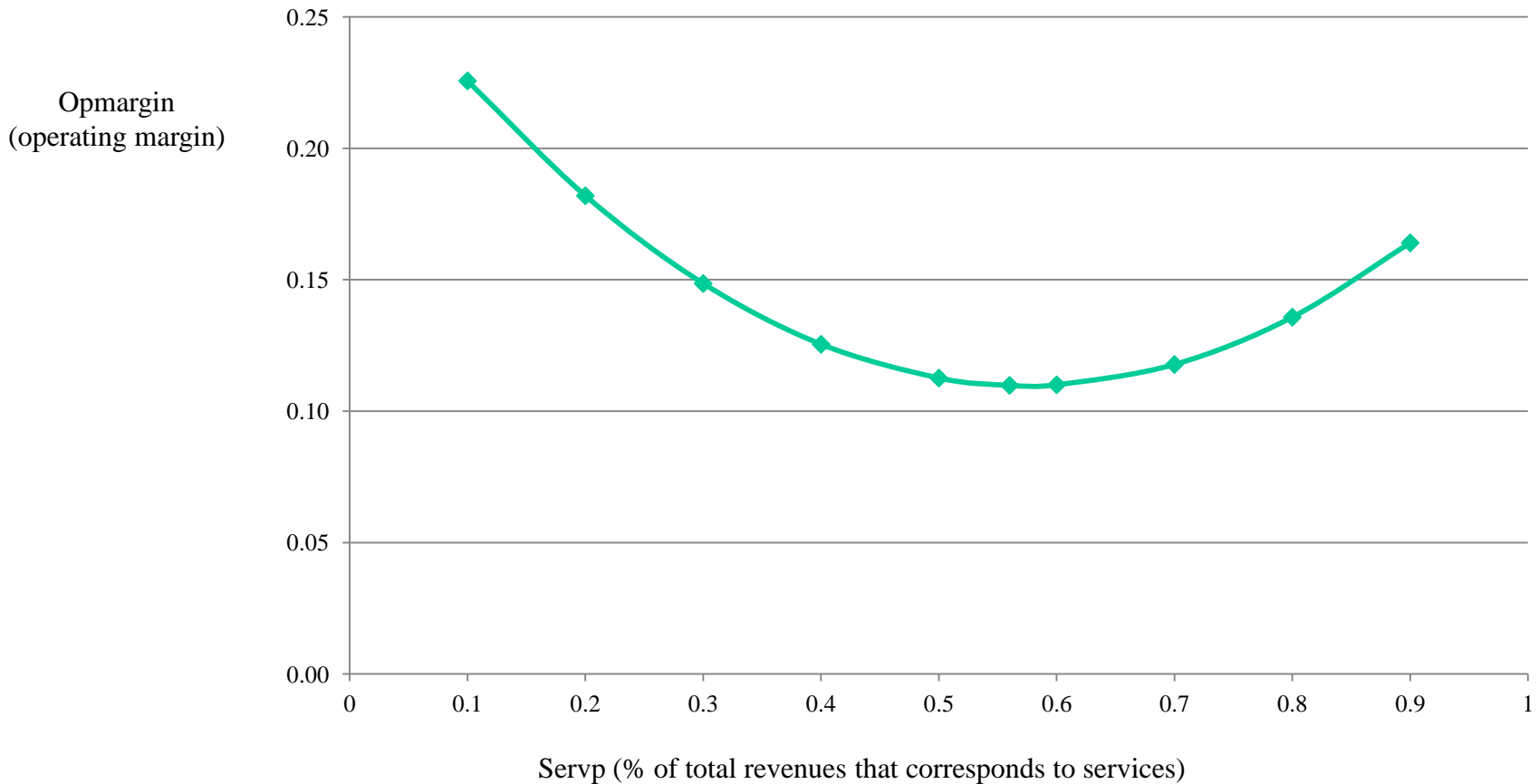


# Taxonomy of Services from the Product Firm

Complementary		Substitution
<p><b>Enhance/Smooth</b></p> <ul style="list-style-type: none"> <li>• Financing</li> <li>• Warranty/Insurance</li> <li>• Implementation</li> <li>• Maintenance/Repair</li> <li>• Technical support</li> <li>• Training in basic uses</li> <li>• Customization that makes existing product features easier to use</li> </ul>	<p><b>Extend</b></p> <ul style="list-style-type: none"> <li>• Customization that creates new features specific to a customer</li> <li>• Training or consulting that introduces new uses</li> <li>• Integrating the core product with new products</li> </ul>	<p><b>Substitute</b></p> <ul style="list-style-type: none"> <li>• Before product release (e.g., Zapmail)</li> <li>• After product release (e.g., software application hosting, automobile leasing, SaaS)</li> </ul>



# Impact of Services % on Operating Margins\*



\*Analysis using both Fixed Effects and GMM panel data estimations

# Product = Platform for Selling Services

*(Like a smartphone, e-book, iPad, others?)*

## Example: “Servitizing” the Automobile

- Financing (loans, leasing; insurance)
- Lifecycle (warranty, maintenance)
- Repair (remote diagnostics)
- Semi-Customization (configured features)
- Telematics Services/Content Intermediary
  - Internet access
  - Practical Content (navigation, satellite radio)
  - Entertainment Content (music, games, movies, etc.)

# *Services Thinking:*

## **Implications for Managers**

- Many if not most product companies today hybrids that have to manage both a product business (or standardized services) and a value-added or custom services business
- *Three challenges:*
  - **How manage the “crisscross”?** (“best” balance of products vs. services of different types)?
  - **How “servitize” products?** (innovate around the product to generate value-added customization, support, training, consulting, or to create new pricing/delivery models)
  - **How “productize” services?** (software factory-like scope economies for customization/personalization on one extreme vs. automated service delivery on the other).

# Capabilities, Not Just Strategy

- In the long run, the best firms distinguished by different organizational + individual **knowledge & skills**, as well as technology, processes – *not just strategic positions*
- Important to **evolve strategy & capabilities together**, incrementally, through trial and error, experimentation
- Capabilities = ultimate sources of product & process innovation, or handling **unknown future opportunities** and threats, especially when skills are close at hand

# Pull, Don't Just Push

- “Pull” a fundamental **philosophy of management**, emphasizing not detailed “push-style” planning but **feedback & change & adaptability**, with direct linkages to customers (backwards information flow from sales, marketing, service).
- Set the **“clock speed”** or pace for feedback, innovation, and adjustment – the **“heartbeat”** of the process –with techniques such as kanban in production management, or prototypes and daily builds in product development, or check-in meetings for other operations.

# Scope, Not Just Scale

- **Scope economies** – delivering multiple products or services with shared knowledge and resources, at a lower cost than delivering them separately – potentially as valuable to efficiency as traditional economies of scale.
- Need to manage a **more complex organization**, overcome potential tradeoffs, seek complementarities among efficiency, flexibility, quality, and cost. But important to firm differentiation – precisely because scope economies are difficult to achieve!

# Flexibility, Not Just Efficiency

- **The future is uncertain.** And some markets change very quickly and unpredictably. Cannot prepare for the unknown, but managers can promote **flexibility of different types** – into **organizations, operations, structures, processes (routines), planning, people.**
- Flexible thinking as well as people, processes, and structures can overcome tradeoffs and enhance **organizational effectiveness** when dealing with change and unforeseen opportunities

# U.S.A. on the 6 Principles?

**Platforms:** Yes, global leaders; platform-first thinking is common, esp. in computer h/w, s/w, internet services

**Services:** Yes, strong in professional & automated

**Capabilities:** Yes, build on university science/tech, though secondary education weak, too variable

**Pull:** Usually tight linkages to customers, though not all manufacturing; push-pull balance in sci-tech

**Scope:** Yes (e.g. GE, IBM), and learning to do better

**Flexibility:** Yes, firms, economy, & gov't, but skills always less so (e.g. too high unemployment)



# Japan?

**Platforms:** Emphasis is on global products & hardware, or complements to others' platforms

**Services:** Japanese product firms don't know how to add & monetize services, or not interested?

**Capabilities:** Evolving, but weak universities

**Pull:** World-class JIT, but in manufacturing. Not enough push-pull in science & technology?

**Scope:** World-class, in mfg & engineering. But “full line” companies often inefficient, replicate industry economics

**Flexibility:** Yes in mfg & engineering, but not in strategy or org. capabilities more broadly, or gov't “capabilities”?

# China?

**Platforms:** Not global, but domestic market big enough to create China-specific platforms

**Services:** Focus is on manufacturing; many firms don't know how to add or monetize services

**Capabilities:** Evolving, but still low on value chain

**Pull:** Plan-driven, becoming more market-driven

**Scope:** Diversified firms have much to learn?

**Flexibility:** Political rigidity, but lots of entrepreneurial activity. More like the US than Japan?

# India?

**Platforms:** Nothing global or industry-wide; largely rely on US technology

**Services:** World-class, in software/R&D, with some global delivery company platforms, but limited innovation

**Capabilities:** Evolving, but little innovation or ties to creative or advanced university research

**Pull:** Responsive to market change, but limited industries

**Scope:** Some in large industrial groups?

**Flexibility:** Many rigidities in government & society but lots of entrepreneurial activity

# How Achieve *Staying Power*

- Firms & nations need to be very “**agile**”
- Need to periodically **reinvent** themselves as customers, competitors & technologies change
- Need to pay attention not only to disruptions but to **subtle details** of change
  - **Indicators of larger disruptions or deeper organizational or managerial problems**
- Need to **overcome** the ups & downs of markets, good & bad luck, mistakes & decline in attention