



New Products

Session 12

Marketing Management

Prof. Natalie Mizik

Agenda

- What is a New Product?
- Why do firms introduce new products?
- Why do some good product ideas go bad?
- What factors affect customers' adoption of new products?
- Creativity in NPD

New to the World?

Total
Total Fresh Stripe
2 in 1 toothpaste & mouthwash
Sparkling White
Sensation Whitening
Sensitive Maximum Strength
Tartar Control
Tartar Control Plus Whitening
Baking Soda & Peroxide Whitening
Tartar Control with Baking Soda & Peroxide
Cavity Protection
Star Wars
Barbie toothpaste
Looney Tunes toothpaste
My First Colgate Toothpaste with Barney

Only about 5 - 10% of new products are truly new

Types of New Products

		M A R K E T		
		L	M	H
F I R M	Newness			
	L <i>Not Very New</i>	Cost Reductions 11%		Repositionings 7%
	M <i>Moderately New</i>		Product Line Extensions 26%	
H <i>Very New</i>	New Product Lines 20%		New to the World 10%	

Why Do Firms Introduce New Products?

- Support additional usage
- Better meet needs of slightly different sub-segments through differentiation
- Address needs of potential emerging segments
- Encourage variety seeking
- Enhance sales of current products

CUSTOMER

- Counter encroachment by alternative products
- Control shelf space

COMPETITION

- Alter brand image
- Replacing and improving mature products is a key success factor for a firm

COMPANY

The low-carb trend

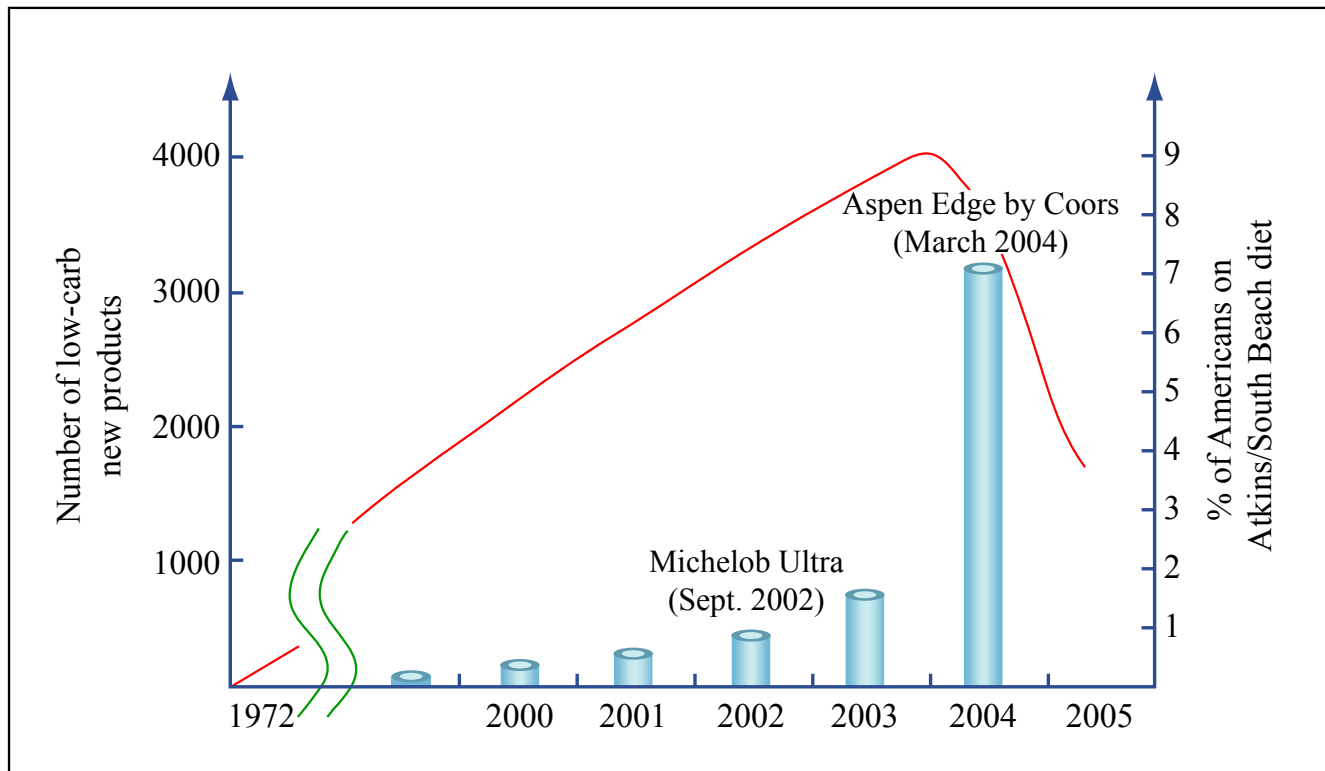
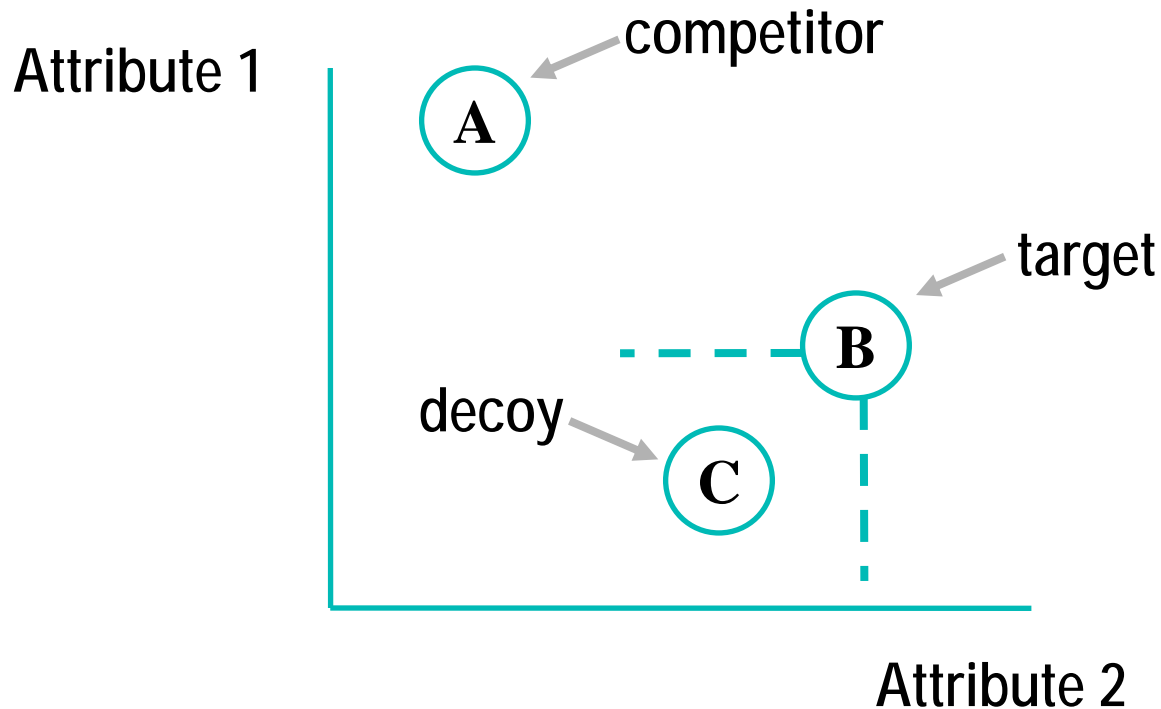


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Enhance Sales of Current Products

Asymmetric Dominance Effect



Adding a dominated alternative can increase the probability of choosing the dominating alternative. (Huber, Payne and Puto 1982)

At the Movies...

Compromise Effect

The share of a product is enhanced when it is the intermediate option in the choice set and is diminished when it is an extreme option. (Simonson 1989)

Why do Products Fail?

Project Newprod: A study of over 200 industrial products

- “Better mousetrap nobody wanted” -- 28% of failures
- “Me-too product meeting competitive brick wall” -- 24%
- “Technical dog product” -- 15%
- “Competitive one-upmanship” -- 13%
- “The price crunch” -- 15%
- “Environmental ignorance” -- 7%

Source: Cooper and Calantone (1979).

Problems with Product Quality or Product Attributes

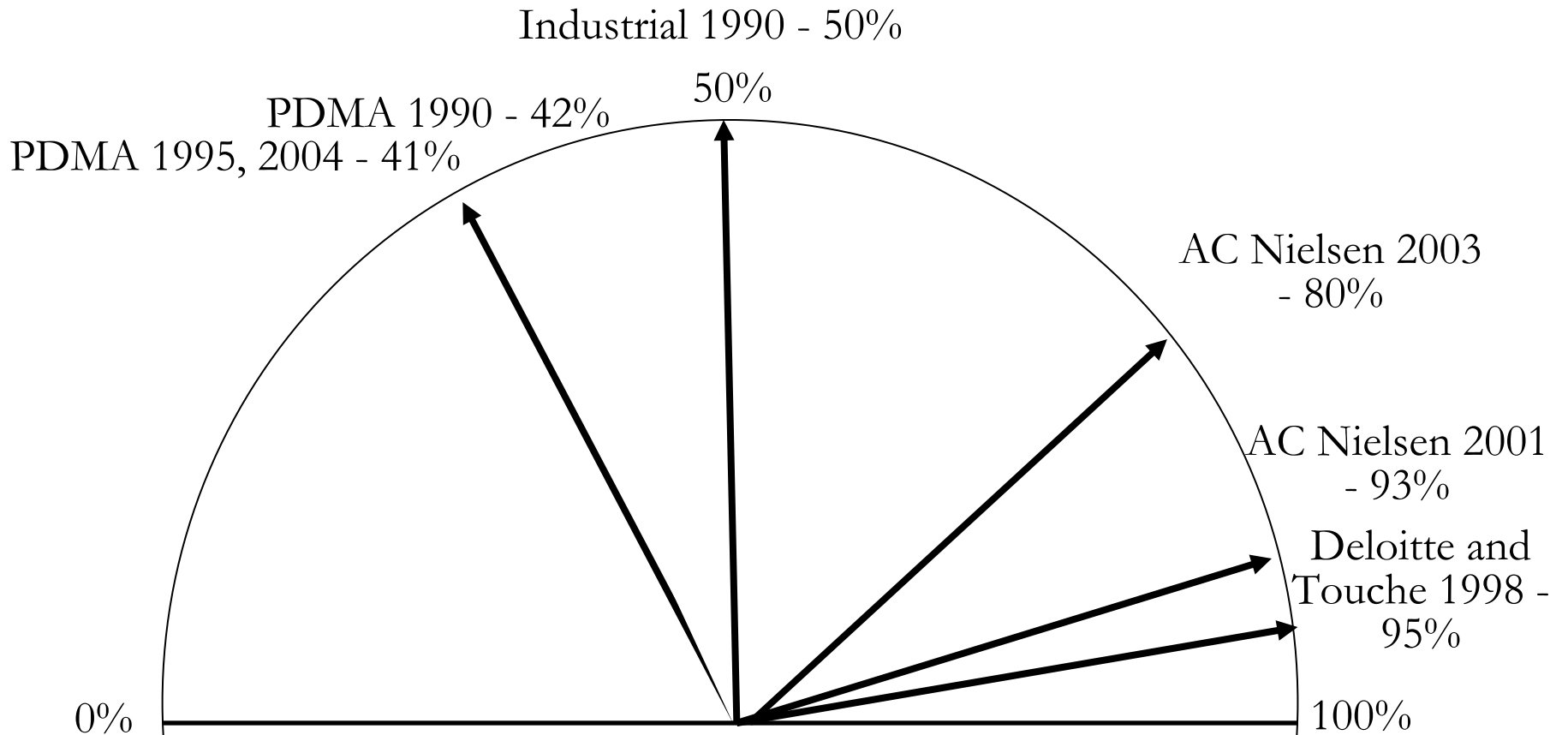
Why Good Ideas Go Bad?

Problems with Product Quality or Product Attributes

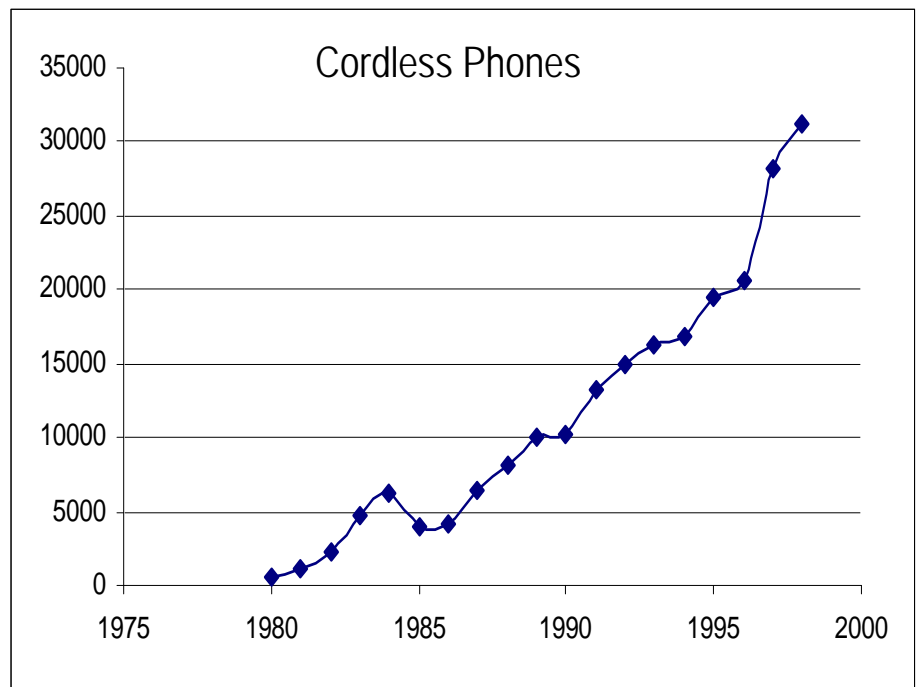
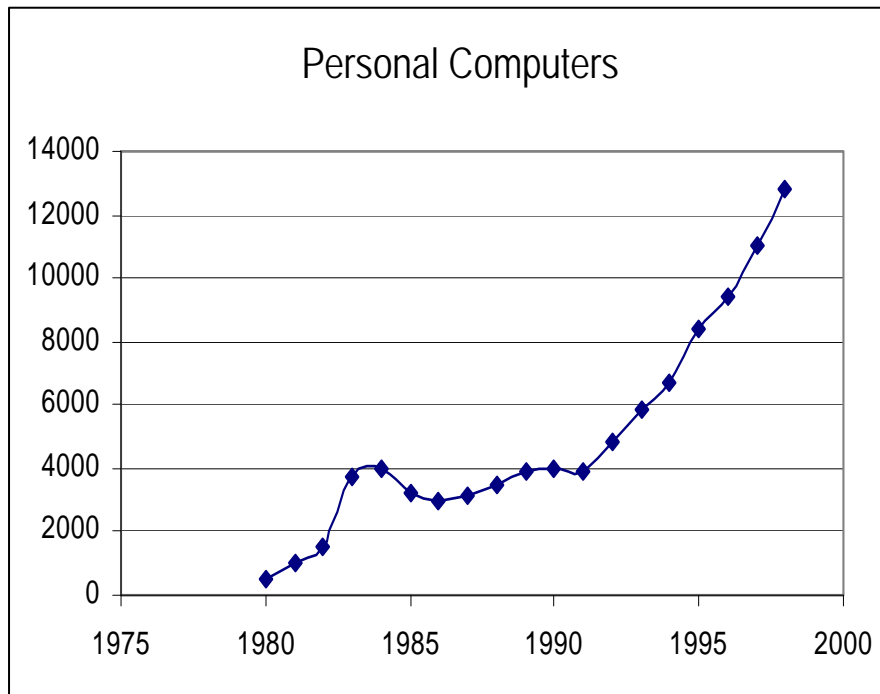
Problems with Distribution (Place)

Problems with Promotion

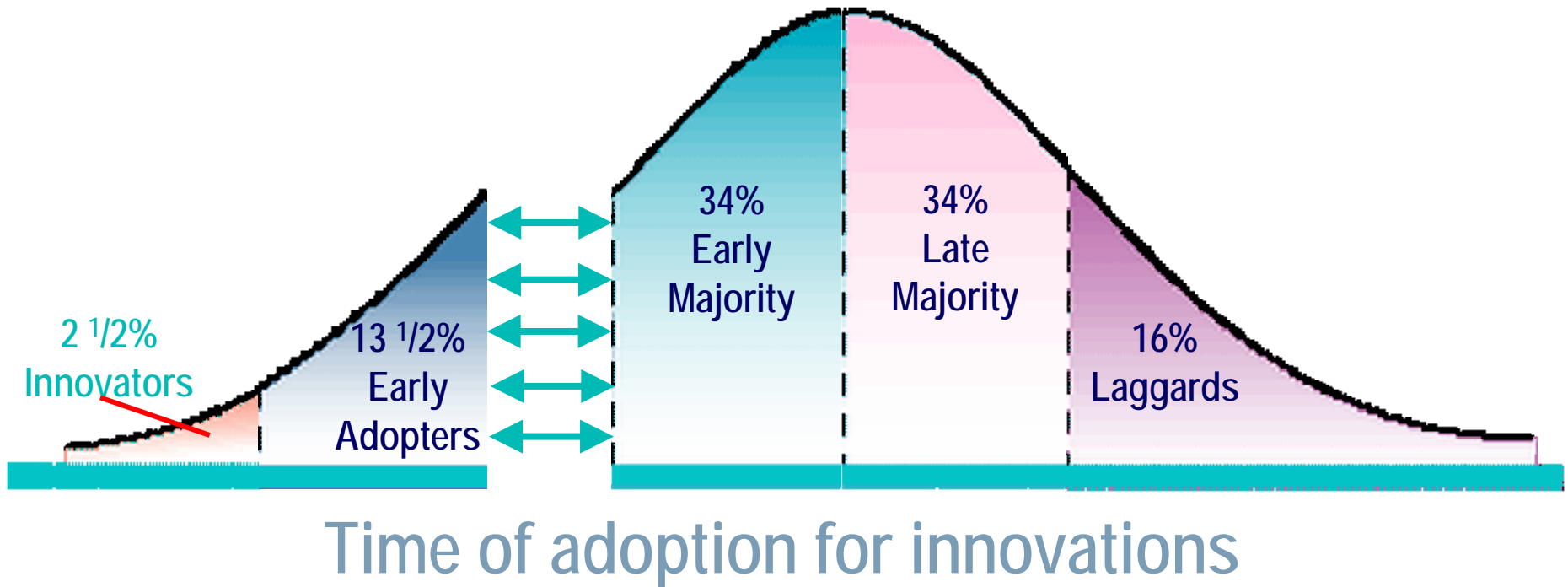
What percentage of new products fail?



S-Shaped Diffusion Curve of New Products



Product Life Cycle and the Chasm



Reference: [Geoffrey A. Moore \(1991\), Crossing the Chasm, HarperBusiness](#)

Factors Affecting Customer Adoption

- **A**dvantage
- **C**ompatibility
- **C**omplexity
- **O**bservability
- **R**isk
- **D**ivisibility

"Apple iPod Grabs 82% US Retail Market Share"

Oct 12, 2004 (The Register)

Strategy: Product Life Cycle

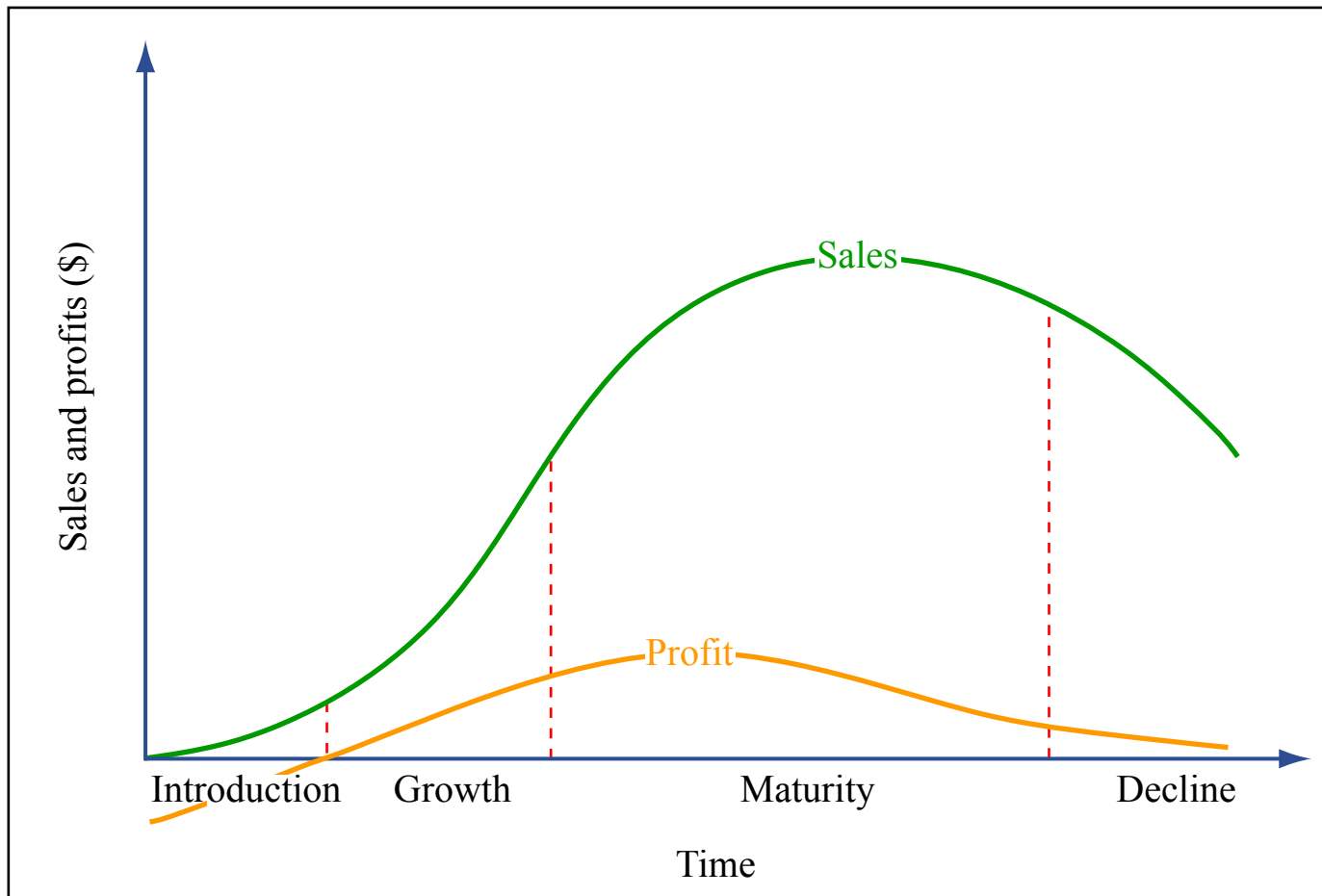


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Main Takeaways: New Products

- Why do firms introduce new products?
 - Think of the 5Cs...
- Why do some good product ideas go bad?
 - Think of the 4Ps...
- What factors affect customers' adoption of new products?
 - Think of ACCORD!

HW # 4: Why has No One thought about THIS yet?

Due: Session 13

Describe a product (or service), which does not exist on the market today, but would benefit consumers, and has potential for commercialization.

- Who are your potential consumers (i.e., your target market)?
- What benefit/value does your product provide to the consumers?
- What is the best way to inform consumers, promote & advertise it?
- What should your price be? Why?
- How do you propose to distribute your product?
- What do you think are the major challenges/ possible problems with bringing this product to the market?

(1-2 page max)



Creativity in NPD

... an Alternative View

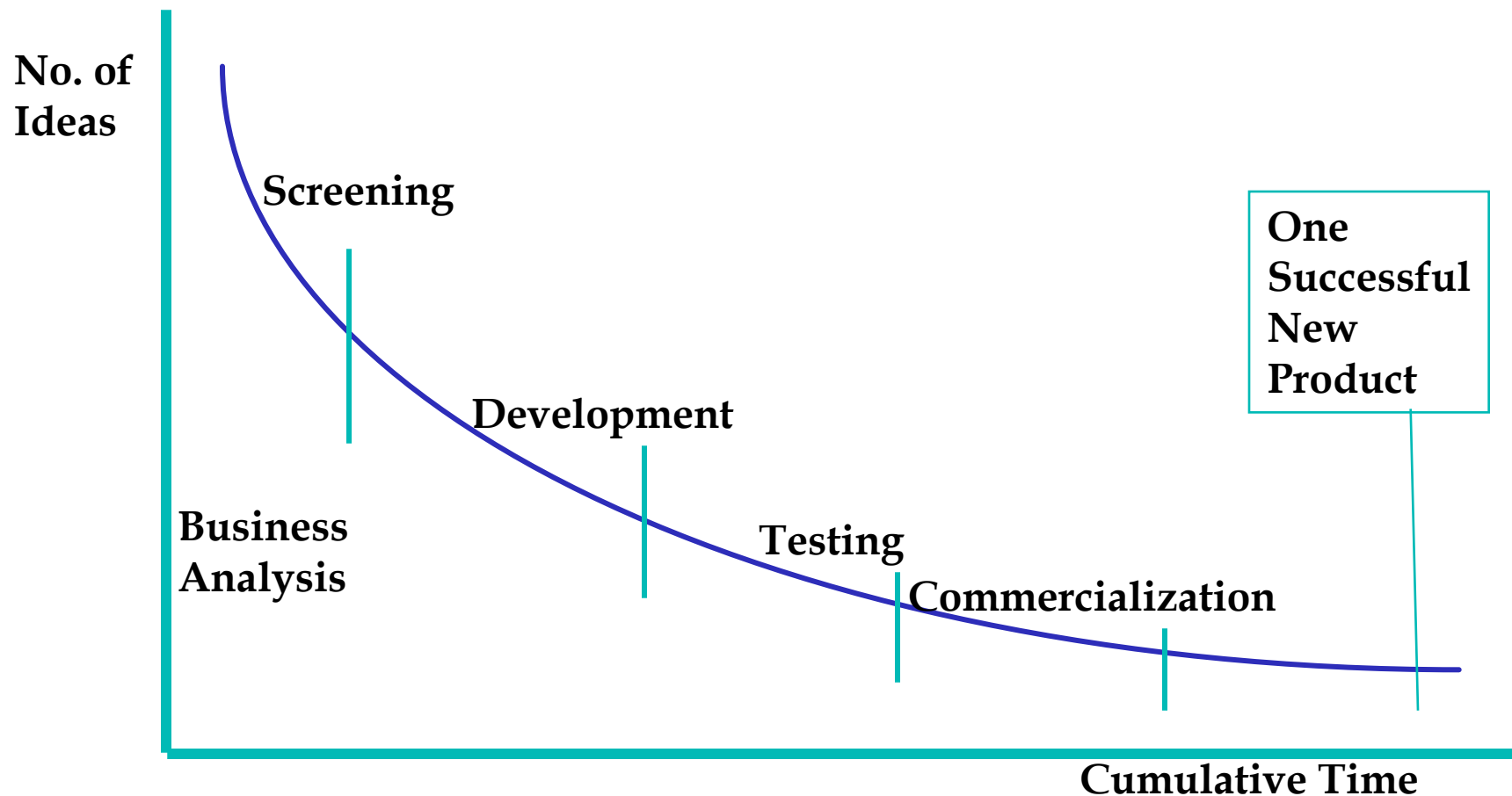
A Typical NPD Process



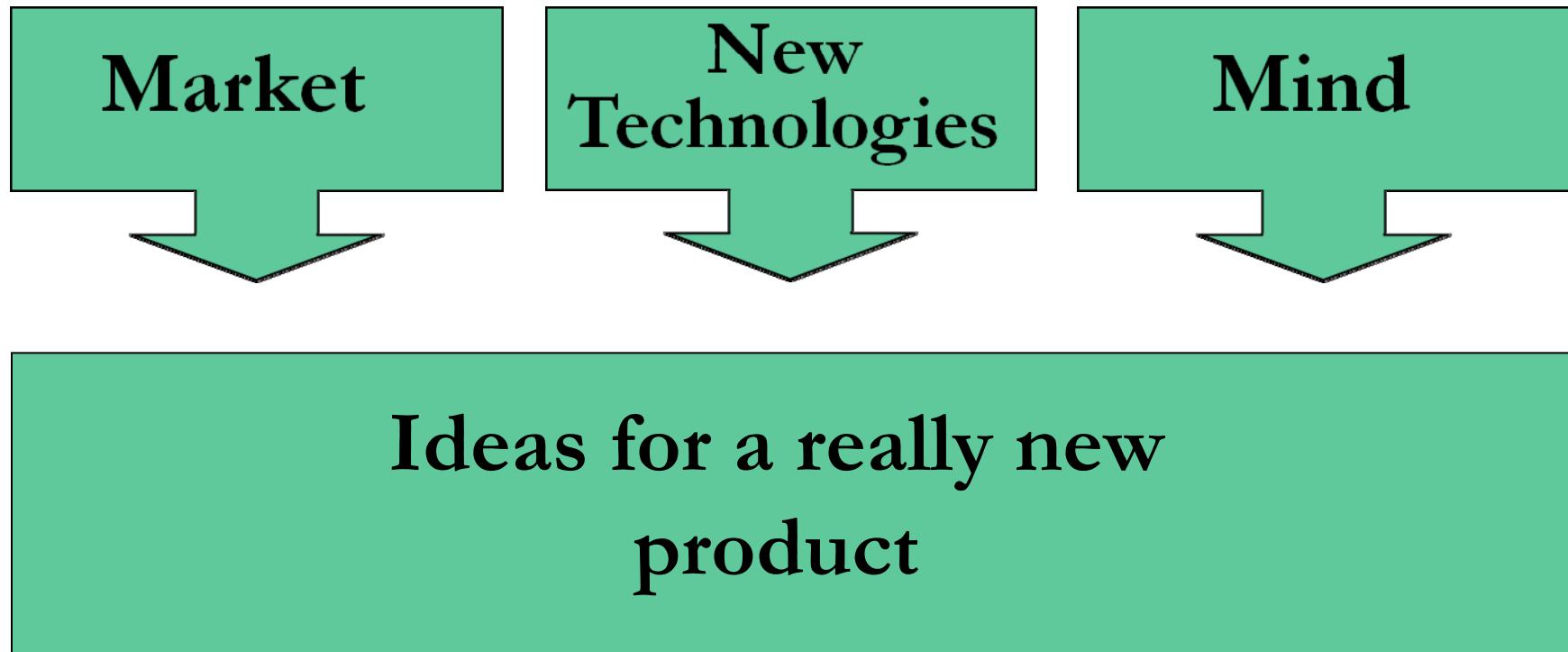
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Source: Hauser and Urban, "New Product Development"

A Mortality Curve of New Product Ideas



The Prevailing Paradigm on sources for creative ideas



Customers

- **“If I had asked the public what they wanted, they would have asked for a faster horse”** *Henry Ford*
- **I don't know who discovered the sea, but it sure wasn't a fish.** *an old Arab saying*

Experts

“In order to get a C in this course, the idea has to be feasible”

Yale econ professor on Fred Smith' paper outlining FedEx idea

November 15, 1876: Expert committee's response to Hubbard & Bell's telephone patent application

“Technically, we do not see that this device will be ever capable of sending recognizable speech over a distance of several miles...”

“The idea is idiotic on the face of it. Furthermore, why would any person want to use this ungainly and impractical device when he can send a messenger to the telegraph office and have a clear written message sent to any large city in the United States?”

“Mr. G.G. Hubbard's fanciful predictions, while they sound rosy, are based on wild-eyed imagination and lack of understanding of the technical and economic facts of the situation, and a posture of ignoring the obvious limitations of his device, which is hardly more than a toy.”

The market cannot indicate a need, if it is not aware that such a need exists

If we wish to find a creative, surprising new product - there is no point to look for it in the market

The Famous “Getting out of the box” Puzzle

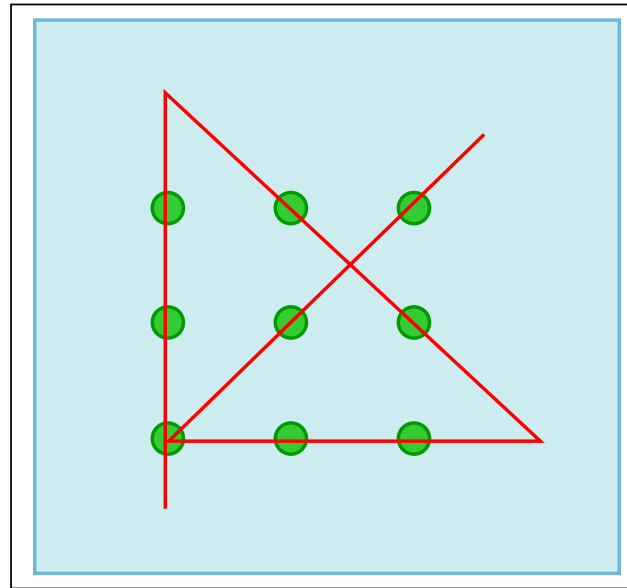


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- In the 70's only 20% solved this riddle
- In a replication (1989), participants have received further instructions: "In order to solve the riddle intersections of lines out of the imaginary square should be created." Only 25% solved it with instructions

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The Close(d) World Principle

Thinking **Inside** the Box

Preschoolians Shoes

Young children can not tell us that their shoes are too tight and the age old method of pressing on toes does not work. Preschoolers curl their toes when their toes are pressed on, making it seem that shoes are larger than they are. A study conducted by the Glasgow Caledonian University reveals that 83 percent of preschoolers are wearing shoes that are too small. This problem might seem minor, but unfortunately, tight shoes lead to foot problems later in life.

A breakthrough invention by Preschoolians allows a parent to make sure shoes are never too tight. Preschoolians shoes look like ordinary children's footwear except for one thing: they have see-through bottoms to help ensure proper fit. Like the rest of the sole, the viewing window is made of durable polyvinyl acetate, and the parts are heat fused to prevent cracks or splits.

Beware of the Bizarre

lockcup

The "Lock-Cup" is designed for people who share facilities at their work place, such as the kitchen. The cup has a hole which prevents most people from using it. Only the owner of the cup can use his shaped key to close the hole, pour the coffee and enjoy the drinking.



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 **How large is the market potential for this cup?**

Prof. Natalie Mizik – 2010 MIT 15.810

“Creativity” Science Is Rather Young

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- Connolly T., Routhieaux R. L., Schneider S.K. (1993). On the Effectiveness of Groups Brainstorming: Test of One Underling Cognitive Mechanism. *Small Group Research*, 24, 490-503.
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- Finke Ronald A , Thomas B. World and Steven M. Smith (1992), *Creative cognition*. MIT Press Cambridge Massachusetts.
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15.828 Design and Marketing New Products

- New product development may be the greatest source of profitability in the next 10 years as growth returns to the world's economy. Innovation earns extra profits and ROI by filling new customer needs with products that command premium margins. However the process of new product development is fraught with risk.
- In this course we study the process of design and marketing new products and how new analytic methods can reduce risk and improve innovation. We organize our learning around the basic steps of development: 1. opportunity identification, 2. product design, 3. testing, 4. launch and life cycle management. We study the process in the context of large, startups, consumer, and industrial companies.
- In addition to lectures and guest speakers, the course uses an intensive project on designing an alternative fuel vehicle. The problem is how to design and market a car people "need" (low emissions and high efficiency), but may not "want" (most buyers want large size and power). The obvious solution is to build an economy car, but this market is small (Prius sells 150,000 of over 10 million autos sold in the USA and most people do not buy it because it is "green", but because it gives better mileage). Your problem is to build an alternative fuel vehicle (hybrid plug in, all electric, or hydrogen) that people will buy at a premium price. Teams will define an entry strategy (type of fuel and car type – SUV, sports car, sedan, economy, truck, etc), design a vehicle (target segment, brand, product positioning, specs, price dealers, etc), test it with consumers (real concept test will be done during the course), and develop a launch plan (advertising, selling/distribution, price, etc) Your goal is to represent Ford, GM, or Toyota and build a line of green cars that create a business of 500,000 vehicles by 2017 and of one million vehicles a year by 2022. You are given assumptions that make this feasible, but this is a deep dive into new product design and marketing. Do not take this course unless you want an intensive active learning project course. Each team will meet with Professor Urban each week.

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