
The (Marketing) Science of Pricing: Taking the Guesswork out of Your Biggest Marketing Challenge

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Harris Heritage. Interactive Power.



The Pricing Challenge

- Finding the price that maximizes....
 - **DEMAND** (value delivered to customer)
 - **PROFIT** (value received from customers)



Four Deadly Sins of Pricing (following Peter Drucker)

- Worshipping at the altar of “premium pricing”
- Charging “what the market will bear” for new products
- Cost-based pricing
- Pricing below the “marginal benefit” delivered



Worshipping at the Altar of Premium Pricing

- A prime example, adding high priced features to yield greater margins—driving up the price of the product.
- Buyers who do not desire or need the extra features look around for less expensive competitors.
- When such competitors enter the market, they quickly grab market share.



Charging “What the Market Will Bear”

- New products, especially those without direct competitors, may be priced at a premium because that’s what the “early adopters” are willing to pay.
 - Wireless telephones were initially targeted at a small niche market who would presumably pay \$1,000 to \$2,000 for a large, bulky phone with high per minute charges
- Charging what the market will bear creates a risk-free opportunity for competitors.
 - Today, wireless services have to give away phones and have trouble making a profit.



Cost-based Pricing

- Arrive at prices by adding up costs and putting a profit margin on top.
 - Customers do not feel that they owe a “profit” to any company.
 - The competitive strategy becomes one of “low cost” and, often, “low value.”
- Competitors who can deliver value at lower cost will always beat this pricing strategy.
- Price-based costing is the solution—start with the price that consumers are willing to pay (when they have competitive alternatives) and whittle down costs to meet that price.
 - But—companies have to continue to deliver value.

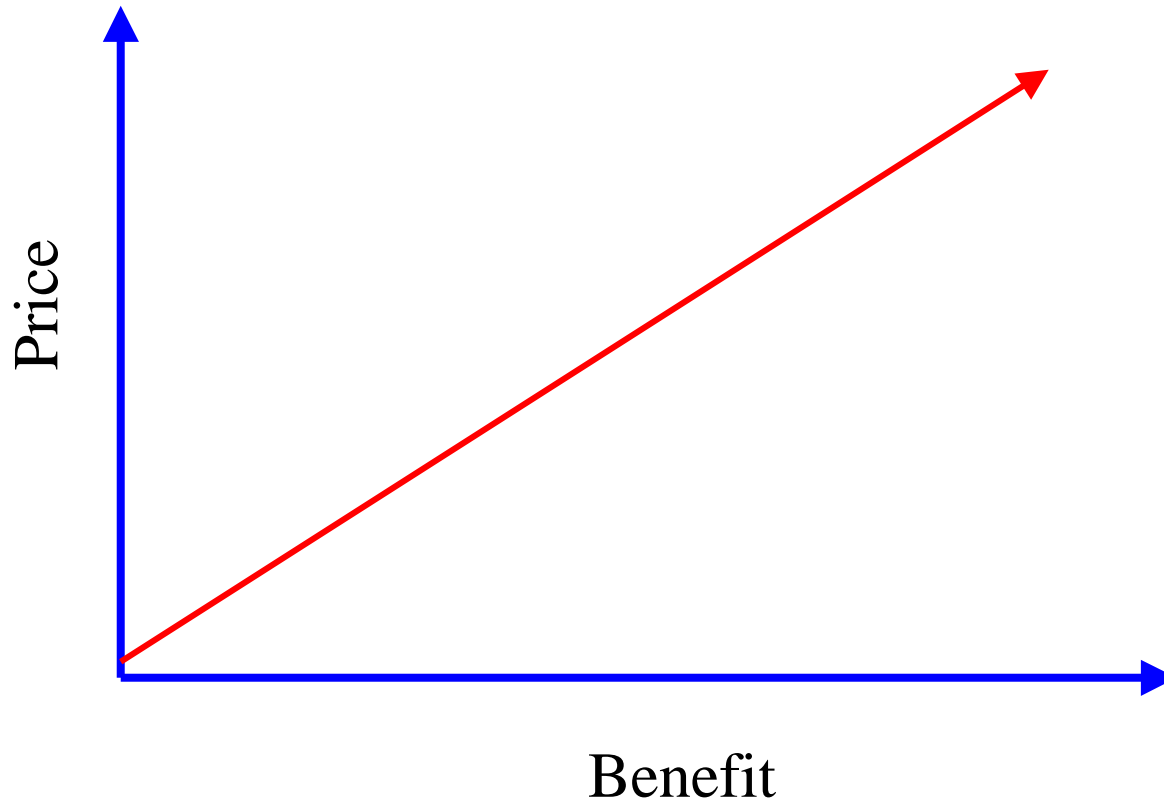


Pricing Below Marginal Benefit Delivered

- Companies sometimes err in the other direction, setting a price below the marginal value of the benefits delivered by a product or service.
- Estimating the value of specific features is beyond the ability of any “intuitive” approach to pricing.
- Failure to identify customer segments who place higher value on some features may lead to “money left on the table.”

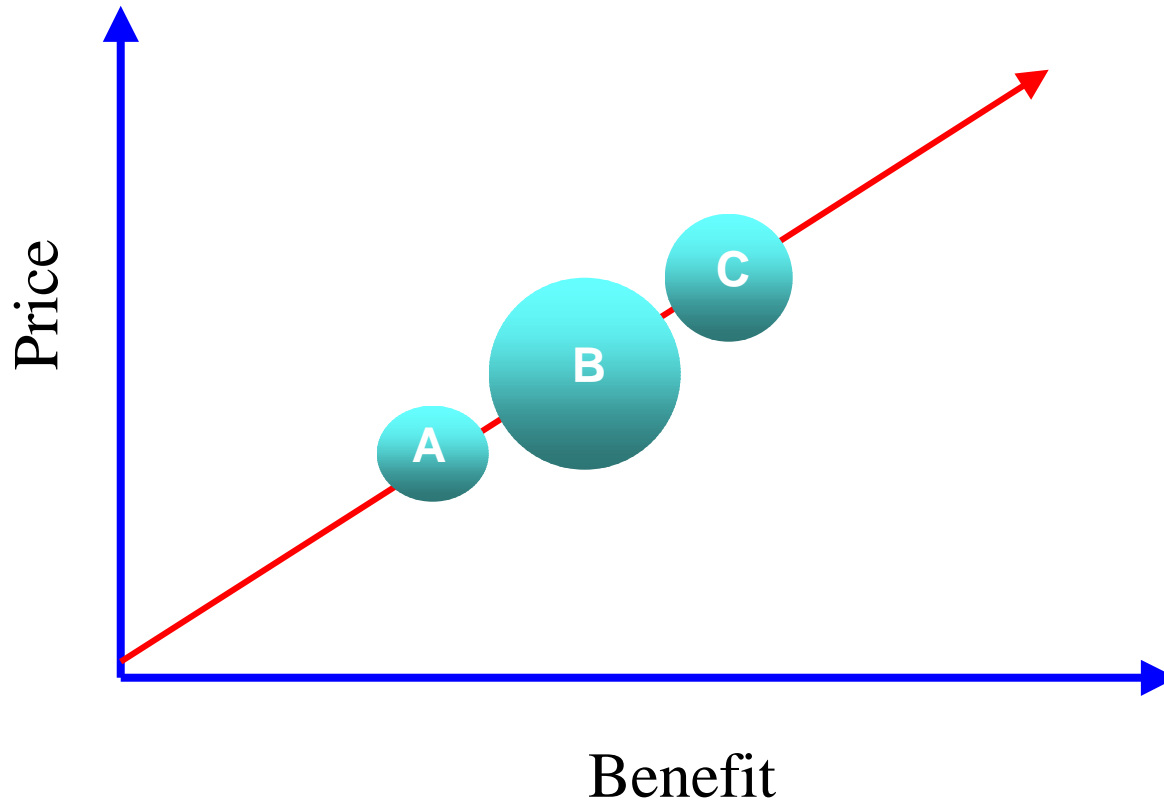


A “Model” of Customer Value (Everything you need to know in one graph—almost)



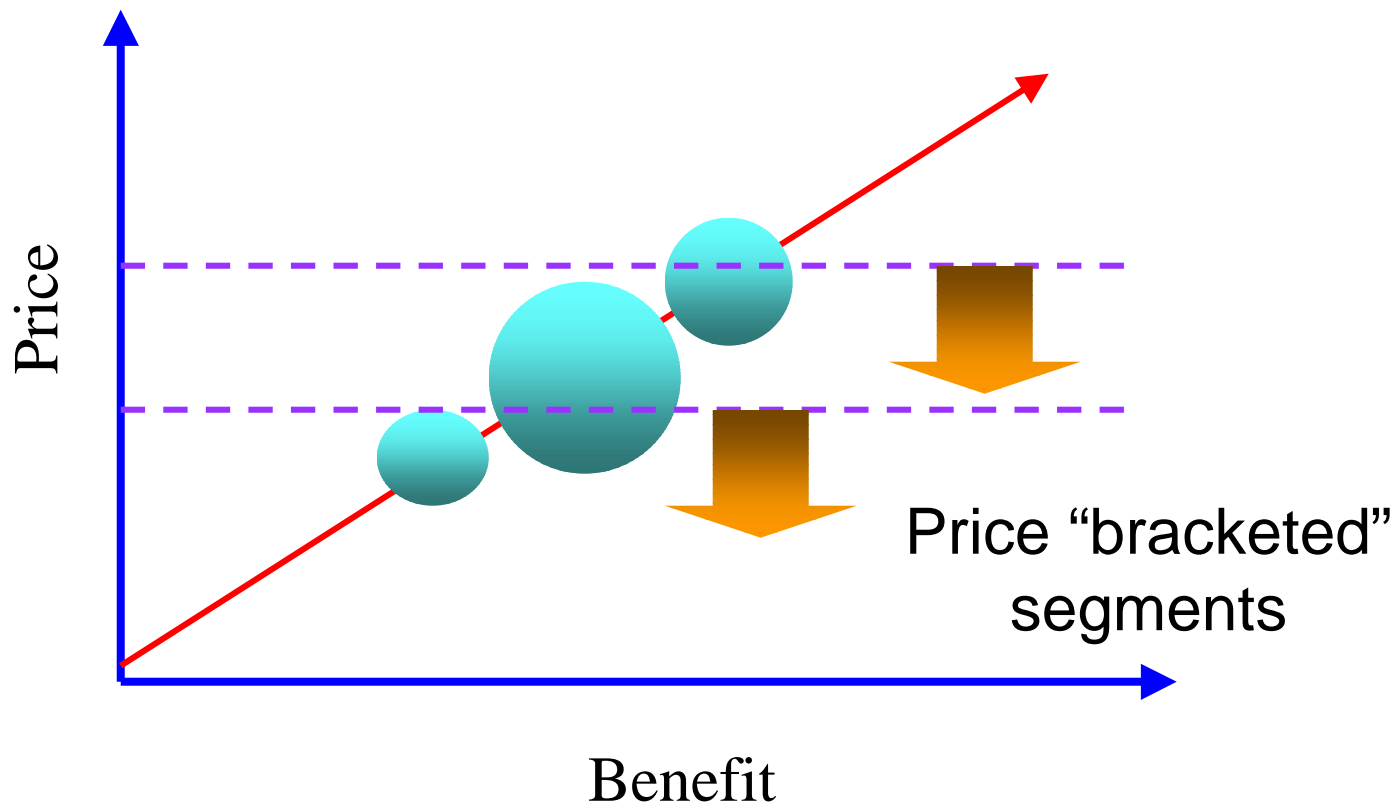


A Model of Customer Value



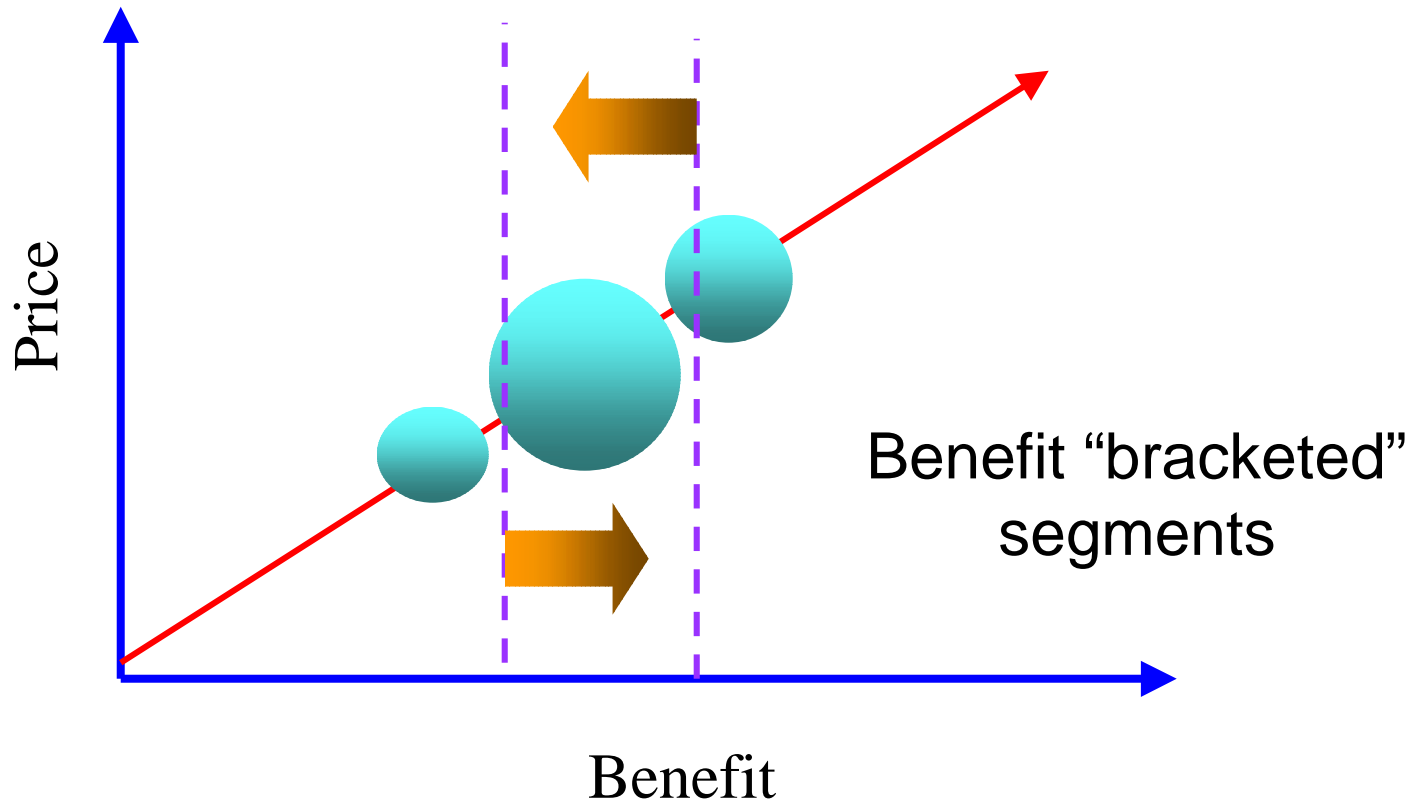


A Model of Customer Value



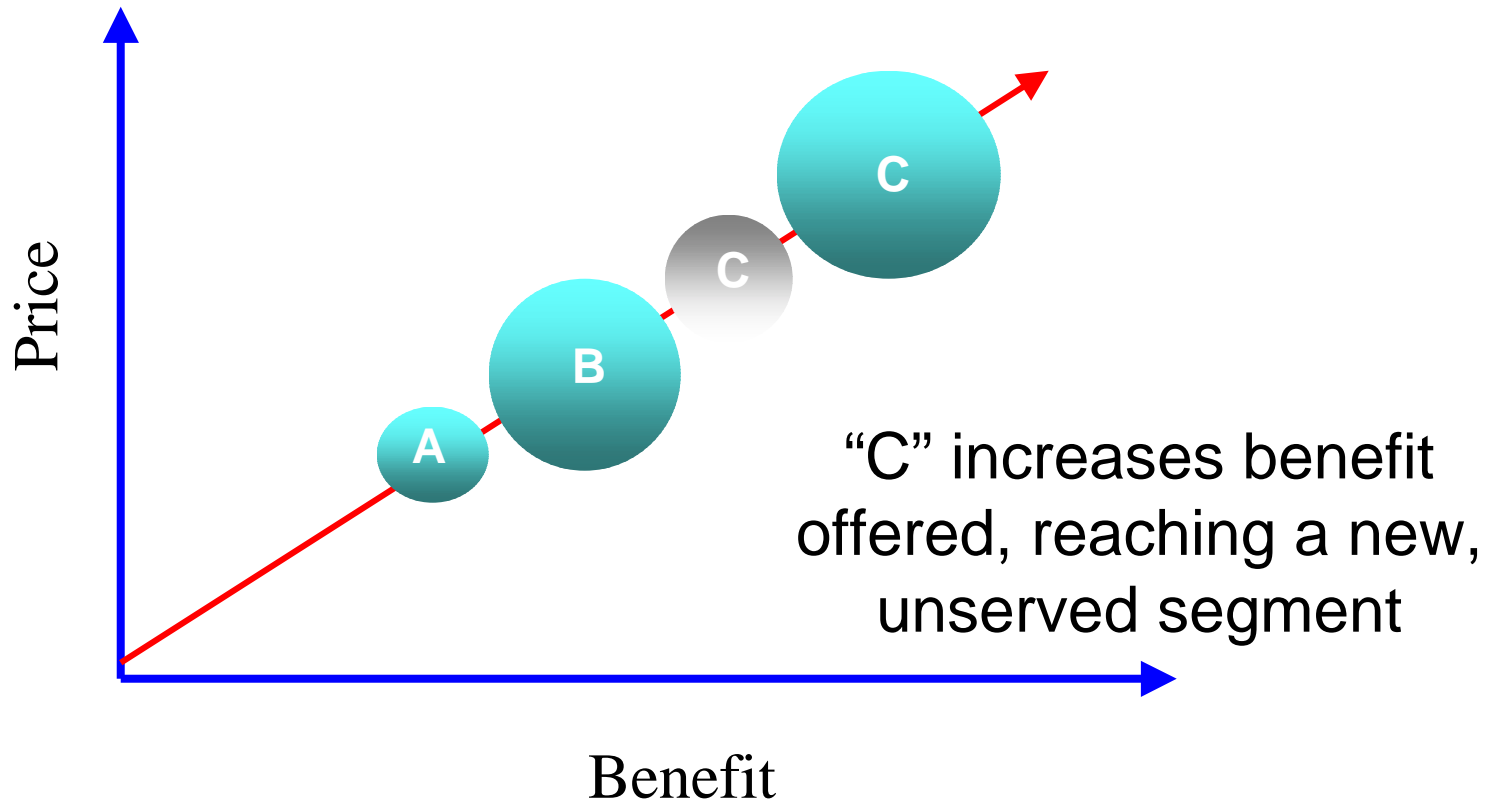


A Model of Customer Value



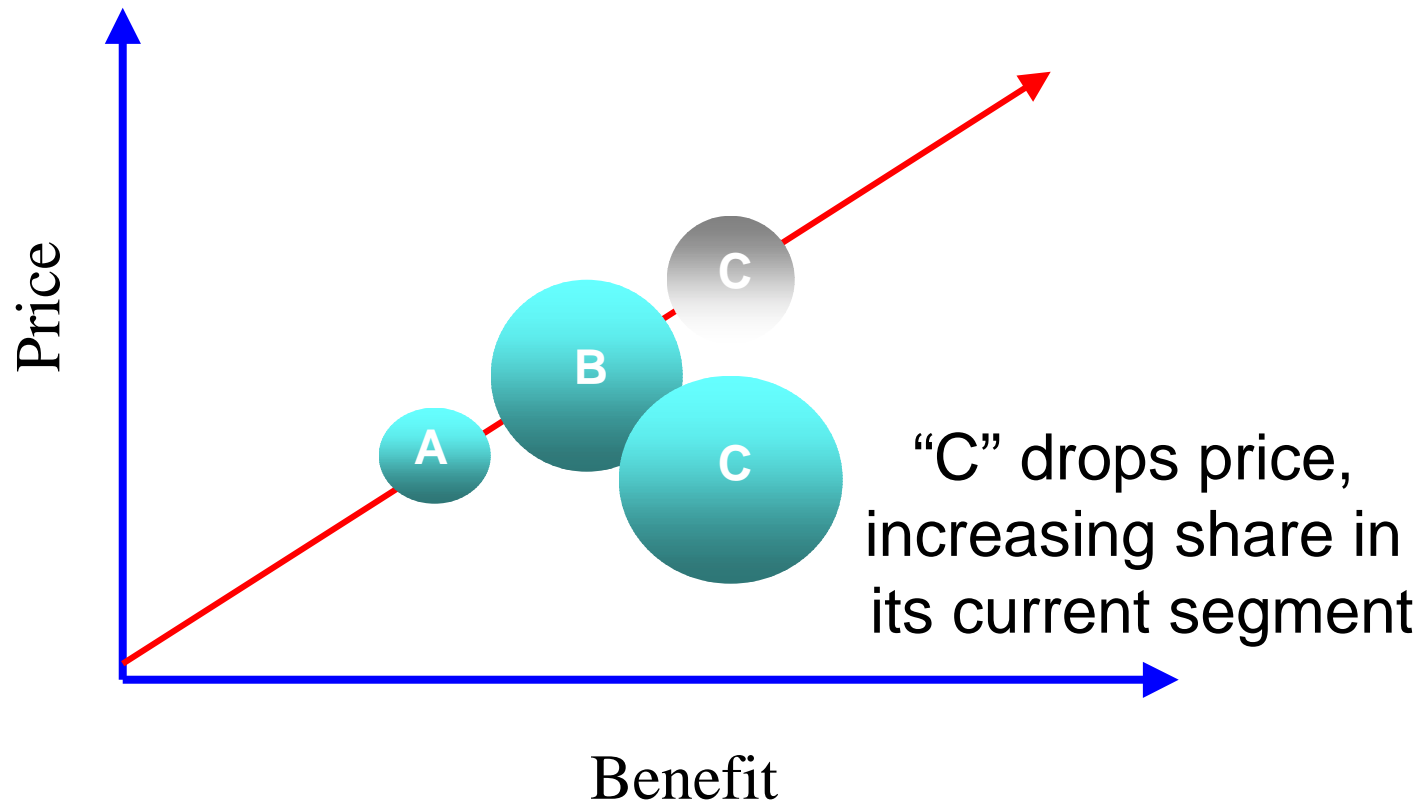


A Model of Customer Value—Market Scenario 1



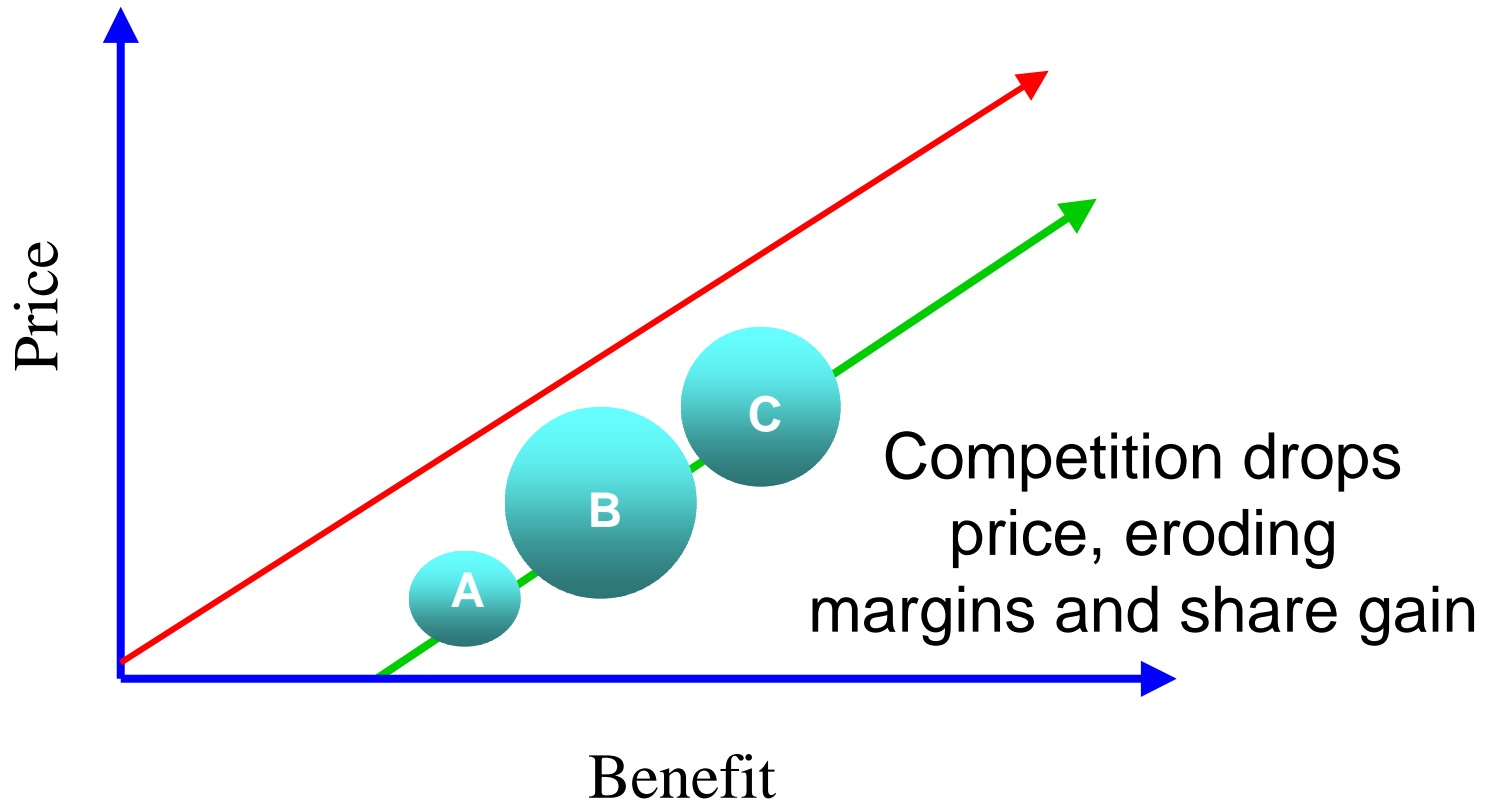


A Model of Customer Value—Market Scenario 2





A Model of Customer Value—Market Scenario 2





The *Marketing Science* of Pricing....

- If we understand the relation between perceived benefits and perceived cost...
 - We can set prices based on the value delivered to customers
 - Understanding of this relationship leads to *price-based costing*.
- This relationship can be understood through analysis of the trade-offs that customers make.
 - Horsepower versus fuel economy
- Trade-off methods in marketing research allow us to measure these trade-offs and attach monetary value.



Trade-off Methods

- The simplest trade-off is between *brand* and *price*.

Brand A

Brand B

Brand C

\$8.95

\$7.95

\$5.95



Trade-off Methods

- More commonly, consumers evaluate more than two product features when making a choice...
 - Film speed (e.g., ISO 400 vs. ISO 800)
 - Number of exposures
 - APS vs. 35mm
 - Picture quality
- Which of the following one-time use cameras do you prefer most?
 - Brand A camera with 800 speed film, 27 exposures, and excellent picture quality for \$8.95....or
 - Brand B camera with 400 speed film, 15 exposures, and very good picture quality for \$4.95?



Using Trade-off methods for Setting Prices

- Benefits of using trade-off methods include...
 - Better (more accurate) estimation of price elasticity, compared to other techniques
 - Estimation of marginal impact on preference for each product attribute or feature
 - Estimation of marginal value of features
 - Estimation of cross-elasticity for price across brands
 - Simulation of market outcomes for different product scenarios (including scenarios not directly tested in the research)
 - In other words—we can test the impact of several different pricing strategies with “what if” analysis.



Sample Trade-Off Task

National Brand A	National Brand A	National Brand B	National Brand B	Private Label Brand
APS	35 mm	35mm	APS	35mm
ISO 400	ISO 400	ISO 800	ISO 800	ISO 400
25 exposure	15 exposure	27 exposure	25 exposure	27 exposure
Excellent picture quality	Very good picture quality	Excellent picture quality	Very good picture quality	Very good picture quality
\$8.95	\$6.95	\$7.95	\$6.95	\$5.95
Buy this camera	Buy this camera	Buy this camera	Buy this camera	Buy this camera

Buy nothing at this time



Sample Trade-Off Task

APS	35 mm	35mm	APS	35mm
ISO 400	ISO 400	ISO 800	ISO 800	ISO 400
25 exposure	15 exposure	27 exposure	25 exposure	27 exposure
Excellent picture quality	APS cameras can have a price range that is different from 35mm cameras.	Excellent picture quality	Very good picture quality	Very good picture quality
\$8.95		\$7.95	\$6.95	\$5.95
Buy this camera	Buy this camera	Buy this camera	Buy this camera	Buy this camera

Attribute levels can vary by type of product (APS has 25 exposures)

APS cameras can have a price range that is different from 35mm cameras.

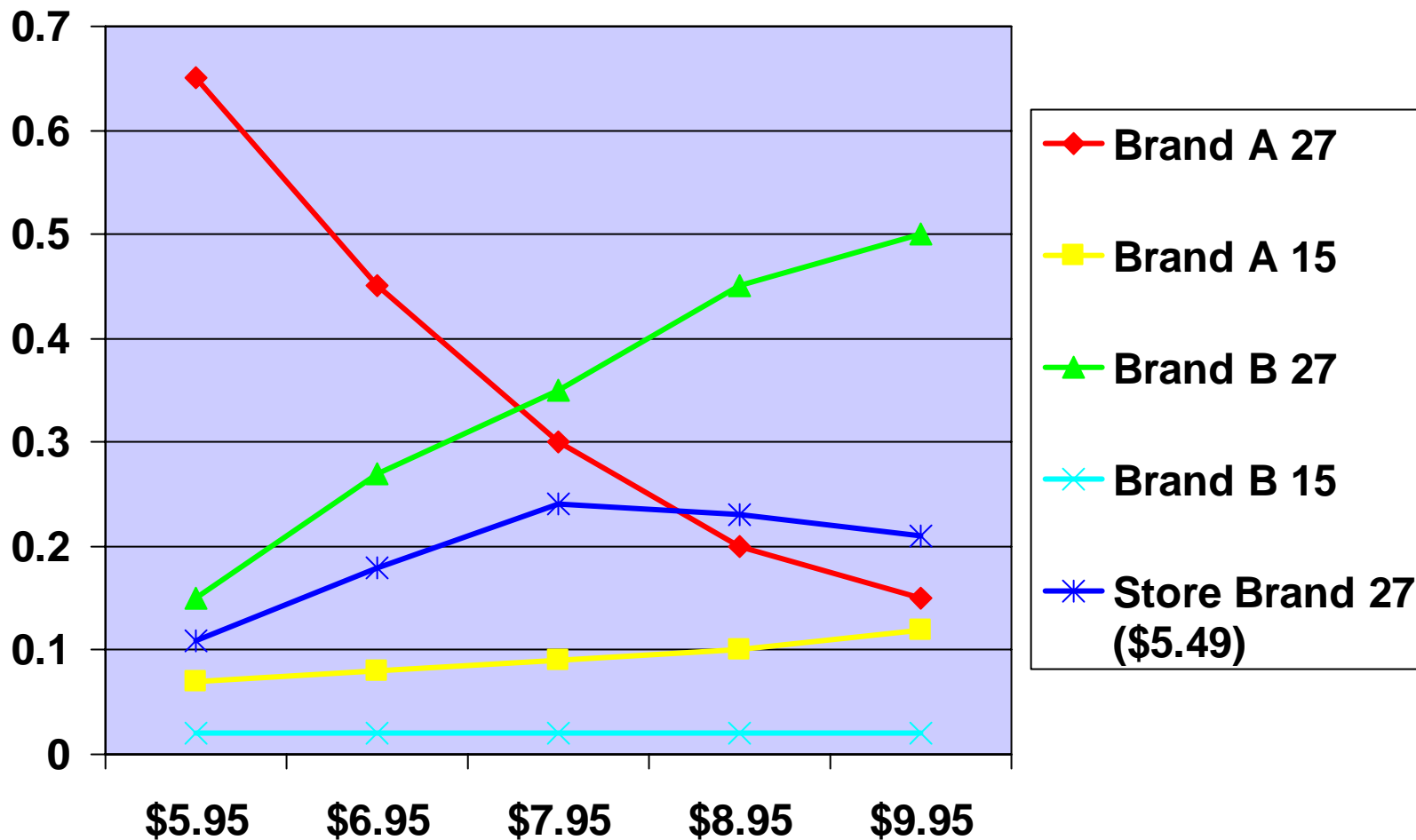
With prohibitions, store brand is always "very good"

Respondents have the option of rejecting all the alternatives.

Buy nothing at this time



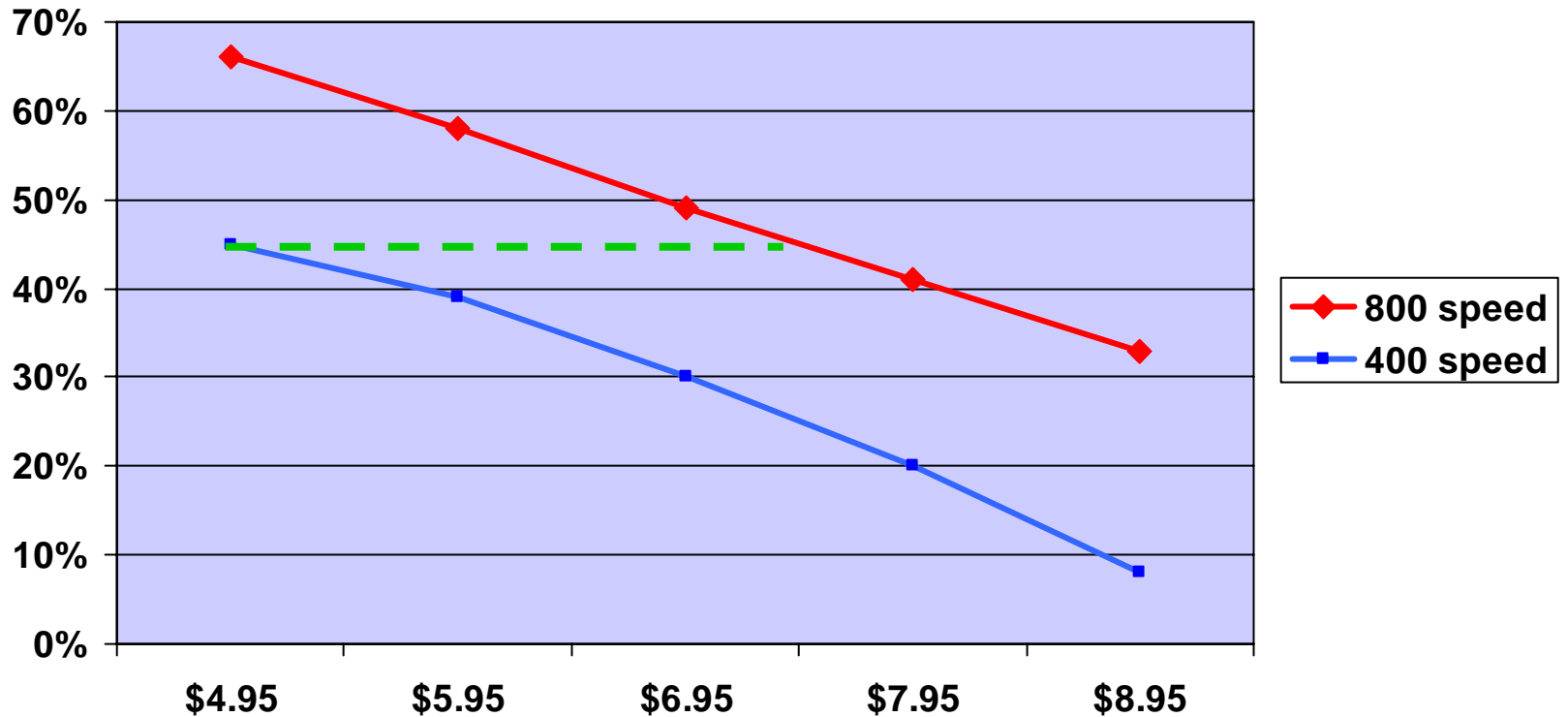
Price “Cross-Elasticity” for Single-use Cameras





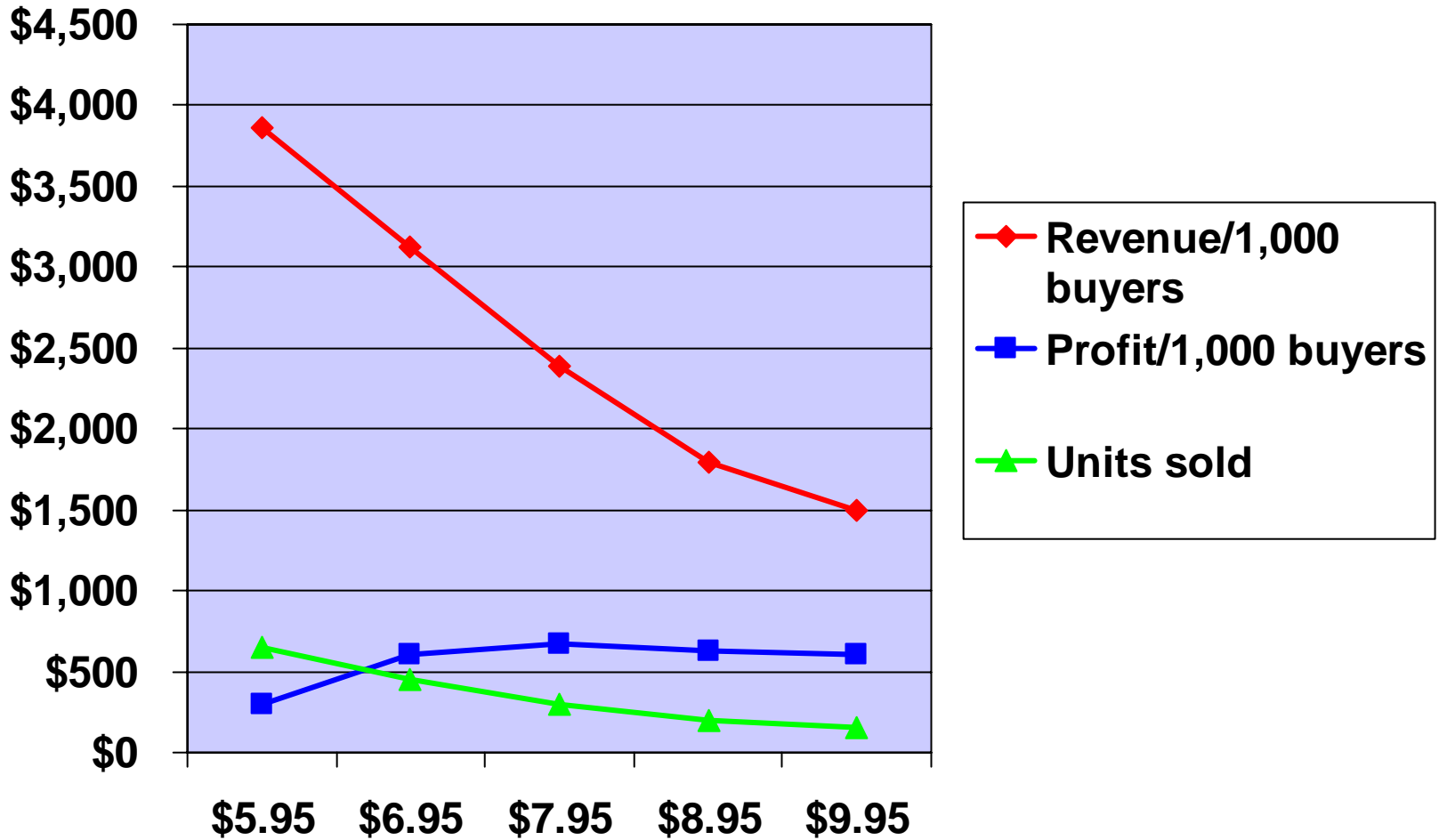
Determining the Incremental Value for Features

Impact of Price and Film Speed for Brand A





Maximum Profit Price for Brand A





Trade-Off Models Capture a Wide Range of Pricing Situations

- Price can be modeled as an absolute value: \$6.95, \$8.95, etc.
- As a discount relative to current or anchor price: -15%, -5%, 0, +10%, etc.
- Relative to another product: Brand A price minus \$0.50; Brand A price minus \$1, Brand A price minus \$1.50
- Non-linear pricing (e.g., block pricing or volume discounts, transaction-based vs. “all you can eat prices”) can be modeled as well.



In Conclusion...

- Trade-off methods provide a mechanism for understanding the relationship between price and the benefits delivered by a product or service.
- Trade-off models can identify prices that lead to greatest share, revenue, and profit.
- Market simulations using trade-off models help prevent the four deadly sins of pricing.