



Sound bites of previous class

- Overview of pricing and channel decisions
 - Rigorous pricing and channel research requires hard work.
 - Pricing and channel decisions are intimately related.
 - Independent pricing decisions by different channel members potentially brings conflict.

Lecture 1



Price, Profit and Psychological Aspects of Pricing I



Today's agenda

- Understand the relationship between price and profit
- Understand Psychological aspects of pricing
 - Perception bias
 - Weber-Fechner Law
 - Status quo bias
 - Prospect theory



Price & Profit

- Price is the value that customers give up or exchange to obtain a desired product.
- Payment may be in the form of:
 - money,
 - service or goods (bartering),
 - favors,
 - votes,
 - or anything else of value to the other party.
- Profitability

Profit = Total Revenue – Total Costs

(Unit Price x Quantity Sold) – Total Costs

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A simple computation



- Suppose you plan to grow and sell one million square water melons in the U.S.
- Direct fixed cost is \$4 million
- Variable cost is \$3 per watermelon
- Administrative overhead is \$1.5 million
- You expect to sell each watermelon for \$10
- Is this a profit business?

Why is pricing so important?

Consider a 10% improvement in...	Profit Driver		Profit		Percentage Increase in Profit
	Old	New	Old	New	
Variable Cost	\$3		\$1.5 mil		
Sales Volume	1 mil		\$1.5 mil		
Fixed Costs	\$4 mil		\$1.5 mil		
Price	\$10		\$1.5 mil		

Source: Dolan, R.J. and H. Simon (1996), *Power Pricing: How Managing Price Transforms the Bottom Line*, New York: Free Press, 369 p.

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Why is pricing strategy important?

Company	Percentage increase in net income if the price is up by 1% and without the negative impact on demand
Coca-Cola	6.4%
Fuji Photo	16.7%
Nestle	17.5%
Ford Motor Company	26%
A typical large U.S. Corporation	12%



Psychological Aspects of Pricing

- Perception Bias
- Weber-Fechner Law
- Status Quo Bias
- Prospect Theory

Perception Bias

- Consumer perception of a price change depends on the absolute difference, and there are thresholds above and below a product's price at which price changes are noticed or ignored.



Perception of Price Differences

Perception of Odd Ending Prices

- Odd ending prices: \$.99 \$1.99 \$9.89 \$199.99
- The odd-price states that consumers process prices by reading numbers from left to right rather than by calculating an absolute change in price.



\$259.99

VS

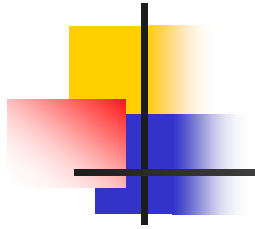
\$260.00

Perception of Price Differences



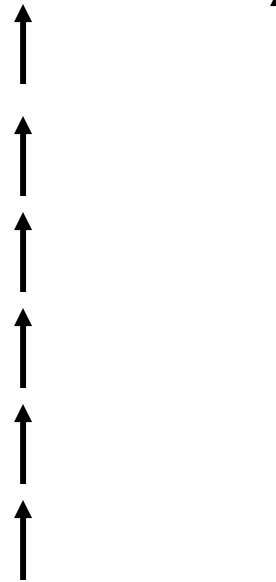
- Data for grocery items do seem to indicate that there is an odd-price sales effect.
- For an odd-pricing scheme to work, the item must be purchased with a relatively high frequency and be a relatively inexpensive item. Otherwise, consumers would make time to more closely examine the price.

Implication of Perception Bias



Price Increase

Target Price



Original Price

Implication of Perception Bias



Implication of Perception Bias

- Which price statement works better?





Weber-Fechner Law

- Scenario #1

- You set off to buy a Sony Walkman at what you believe to be the cheapest store in the area. Upon arriving, you find that the Walkman you want costs \$29, a price consistent with your prior expectations. As you are about to make the purchase, a reliable friend tells you that the very same Walkman is selling for \$10 less at a store approximately 10 minutes away. Do you go to the other store to buy the Walkman?



Weber-Fechner Law

■ Scenario #2

- You set off to buy a Sony Camcorder at what you believe to be the cheapest store in the area. Upon arriving, you find that the Walkman you want costs \$495, a price consistent with your prior expectations. As you are about to make the purchase, a reliable friend tells you that the very same Walkman is selling for \$10 less at a store approximately 10 minutes away. Do you go to the other store to buy the Walkman?

Weber-Fechner Law

- A “full rationality” point of view says it is the absolute monetary instead of the percentage of price that should be calculated.
- However, consumers tend to evaluate differences in quantities relative to the level of a baseline quantity
- The Weber-Fechner Law, when applied to pricing, suggests that consumers tend to evaluate prices on proportional terms rather than in absolute terms (absolute magnitude).
- Price differences seem less important as base price increases
 - Which one is easier to get noticed:
 - \$ 0.50 price increase for the bottled water or
 - a \$2.00 price increase for your textbook.

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Implications of Weber-Fechner Law

- Which of the two is more likely to be used by Wal-Mart as the loss leader?



OR





Implications of Weber-Fechner Law

Your competitor sells the GPS for \$100 and \$5 shipping fee, and you decide to beat the competitor's full price by \$5

How much should you charge for the GPS and the shipping?

\$95 for GPS
and \$5 for
shipping

OR

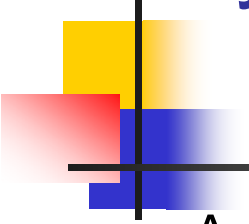
\$100 for GPS
and \$0 for
shipping

New Car Purchase with Trade-In



Dealers of new cars usually give you the opportunity of trading in your old one

Why is it not a good idea to trade in?

- 
- A common wisdom of buying a new car is that whenever possible, do not trade in your old car with the same dealer.

■ Why?

Think about a \$500 difference:

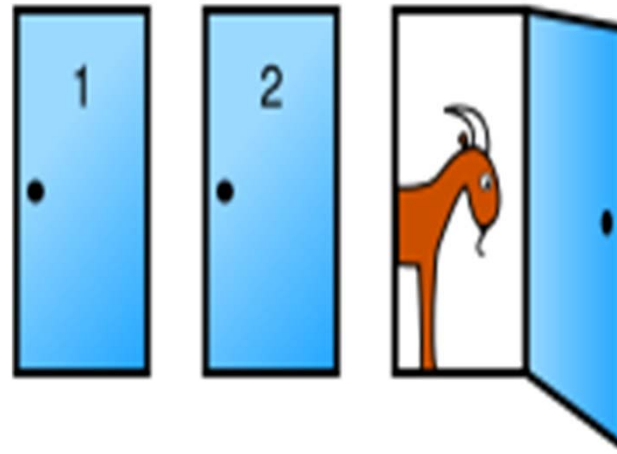
it means: 2.5% of the price of your new car

or

25% of the price of your trade-in car.

- Understand “which battle is more worthwhile fighting”.

Status-quo Bias



Should you switch?



Experiment on Status Quo Bias

- Same mug, two different experiment groups.
- Selling price vs. buying price.
- Participants who “owned” the mug place a greater value on it.

Implications for Status-quo Bias

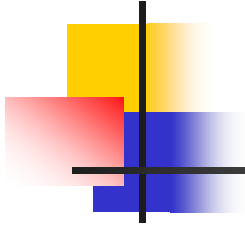


- Free-trial can work well if it can induces status-quo bias.
- Again, be aware if you HAVE TO buy a new car and trade in your old car at the same time!

Summary



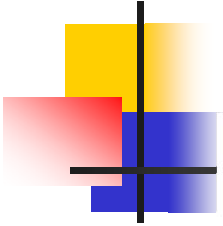
- Why do you see so many price tags ending with nines in various retail outlet (Supermarket, convenience store, etc)?
- Why is it not a good idea to trade in your old car when you are buying a new car?
- Rationale behind free-trial offers?



Prospect Theory

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Prospect Theory



20" iMac MA876LL/A

\$1,199.99

with \$200 mail-in rebate

Why don't simply price it at \$999.99?



More illustrations

- Mr. A was given tickets to lotteries involving the World Series. He won \$50 in one lottery and \$25 in another.
- Mr. B was given a ticket to a single, larger World Series lottery. He won \$75.

Who was happier?

A _____

B _____

No difference _____



More illustrations

Mr. A received a letter from the IRS saying that he made a minor arithmetical mistake on his tax return and owed \$100. He received a similar letter the same day from his state income tax authority saying he owed \$50. There were no other repercussions from either mistake.

- Mr. B received a letter from the IRS saying that he made a minor arithmetical mistake on his tax return and owed \$150. There were no other repercussions from his mistake.**

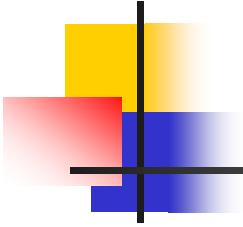
Who was more upset?

A _____

B _____

No difference _____

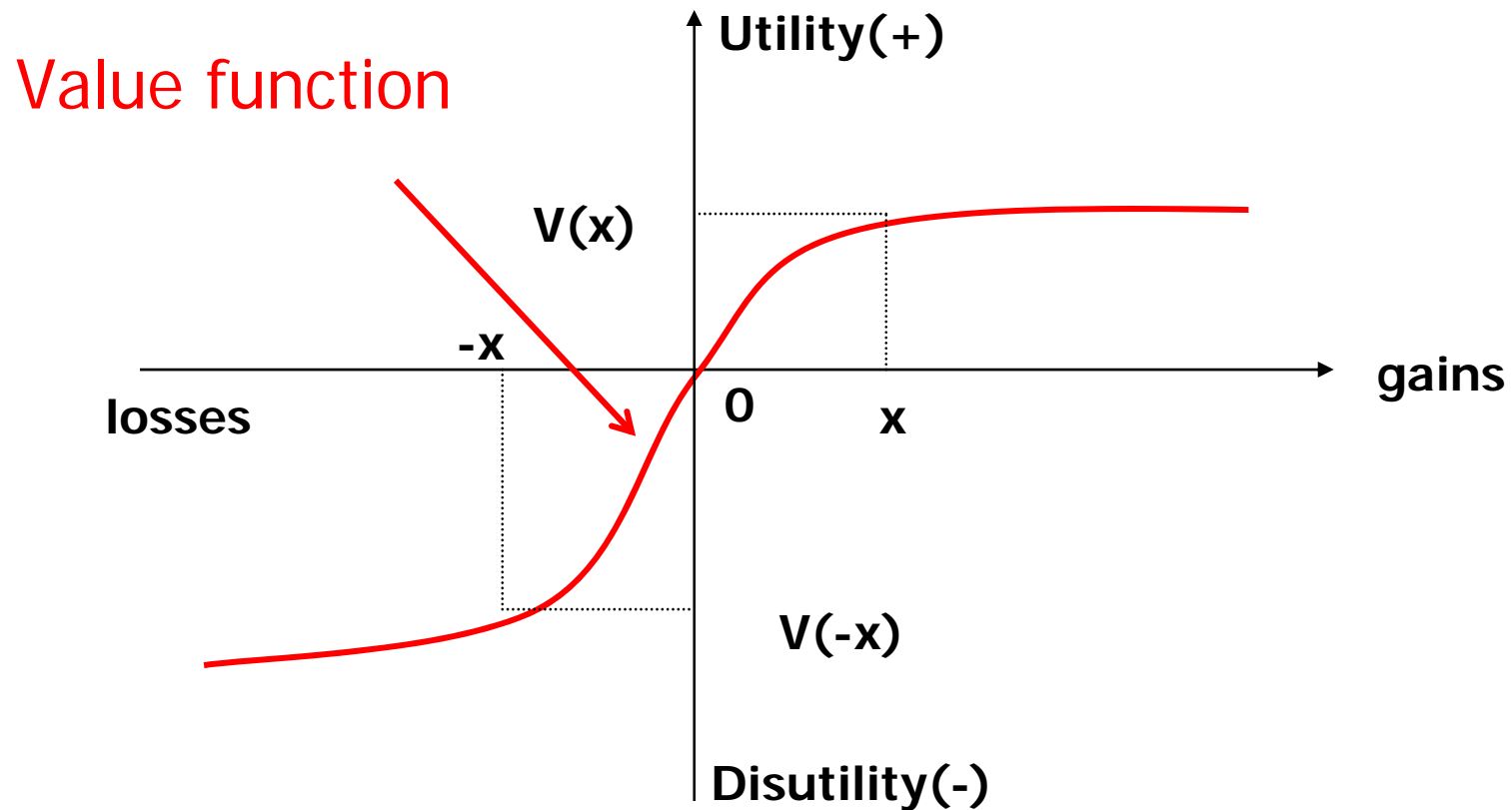
Prospect Theory

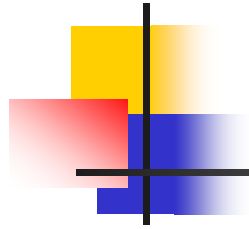


Theory

- Consumers evaluate purchases as gains and losses relative to reference price
- Gains and losses have a diminishing effect as they grow larger
- Consumers are more sensitive to losses than to gains

Shape of the Value Function According to Prospect Theory





Example of Value function



Implications for Pricing Strategy

- Present price as opportunity forgone rather than outright loss (MasterCard)
- Present price difference as discounts from higher price rather than as premiums over lower price (Home Depot)
- Aggregate smaller losses with larger gains (Consulting)
- Segregate smaller gains from larger losses (Silver Lining Principle) (rebate)



Next Lecture

- More on Prospect Theory
- Transaction utility
- Reference price formation