

BUZZ LAB 2019

Pricing



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SCHOOL

Center for Pricing

PROPOSED SESSION GOALS

- Foundations of sound pricing
- Something you can use in your business now

PRICING FOUNDATIONS



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THE IMPORTANCE OF PRICING

- Pricing is a critical management and profitability lever.
- Pricing is often poorly understood and not typically given adequate attention.
- There is tremendous profit opportunity from incremental pricing improvements.

PROFIT

$$\text{Profit} = \text{Total Revenue} - \text{Total Cost}$$

↓
(Price x Quantity)

↓
(Total Variable Cost + Total Fixed Costs)

↓
(Average Variable Cost x Quantity)

$$\text{Profit} = (\text{Price} - \text{AVC}) \times \text{Quantity} - \text{Fixed Cost}$$

FIRM XYZ

Current State	
Sales (units)	22,000
VC per unit	\$400
FC	\$3,000,000
Price	\$600

1%

Holding all else constant, consider a 1% improvement of each (fixed costs, volume, variable costs, price)

1% Improvement in	Improved Parameter Value	Total Rev	Total Cost	Profit	% Change (new-old)/old
Fixed Cost <i>(\$3,000,000)</i>					
Sales <i>(22,000)</i>	22,220				
Variable Cost <i>(\$400)</i>					
Price <i>(\$600)</i>					

B2C

vs

B2B

Many transactions

Few transactions

Many customers

Few customers

Price tag driven

Negotiation driven price

Few stakeholders

Many stakeholders

Relationship is less important

Relationship is very important

Deep product knowledge is not
necessary

Deep product knowledge
necessary

Shorter lead times

Longer lead times

Irrational decisions

Largely economic decisions

MANAGERIAL ECONOMICS

Decision Rule:

- Good decisions have marginal benefits that outweigh the marginal costs

ECONOMIC PRICE OPTIMIZATION

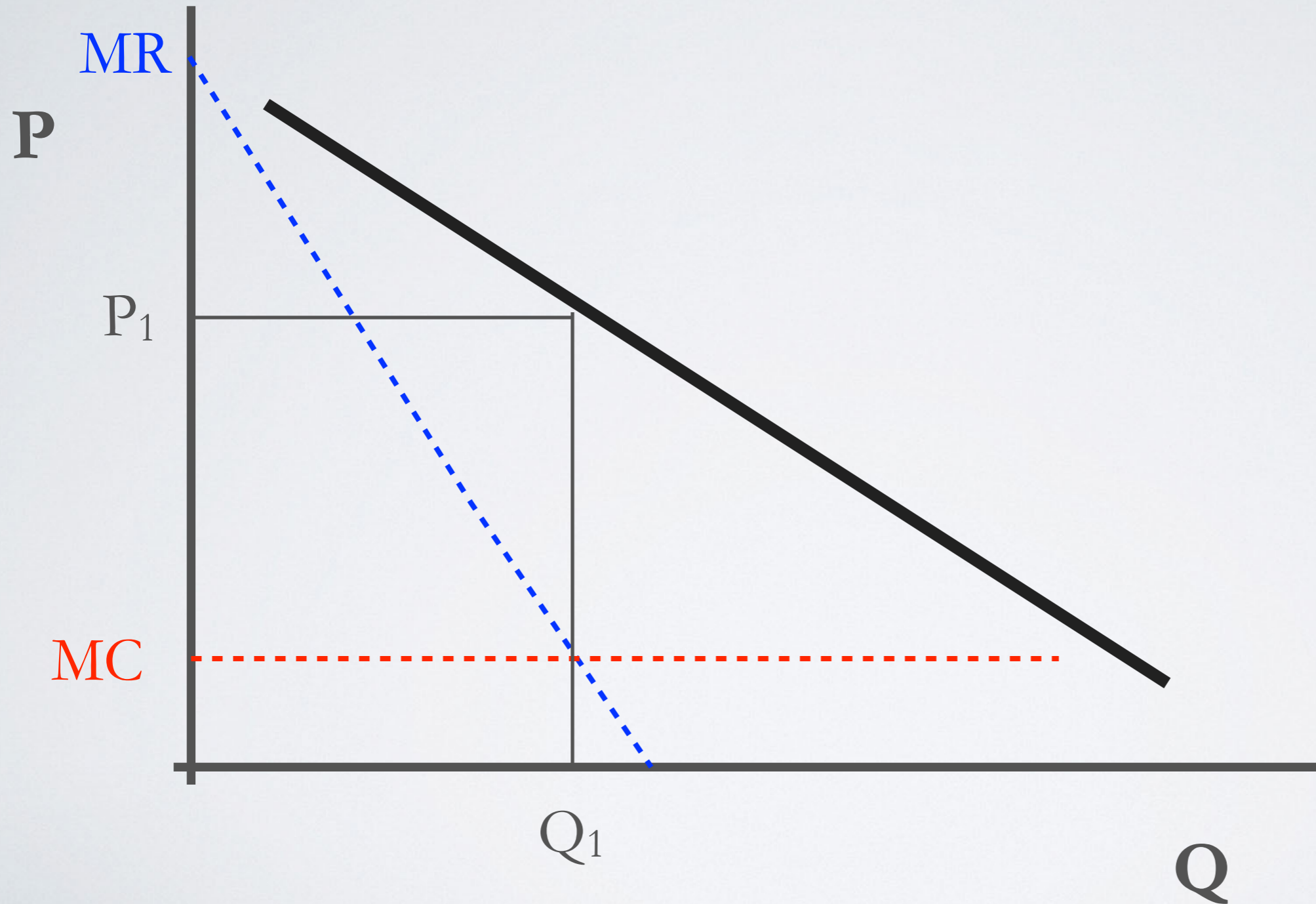
Marginal Revenue

- Change in total revenue from selling one additional unit

Marginal Cost

- Change in total cost from producing one additional unit

$$MR = MC$$



HOW ARE PRICES ACTUALLY SET?

Most firms adopt simple pricing techniques that are seemingly easy to implement:

- Competition-driven Pricing
- Customer-driven Pricing
- Cost-plus Pricing

COMPETITION BASED PRICING

What price will achieve our market-share objectives?

Advantages

- Focus on market & competitive intelligence
- Works well for new non-innovative products
- No “sticker shock”





COMPETITION

- Understand who your competition *really* is
- Always be looking out for new competitors



COMPETITION BASED PRICING: PROBLEMS

- Potential to incite price wars
- Assumes competitor is capable
- Ignores the other 2 C's
- Not always easy to get competitor info

THE PROPER ROLE OF COMPETITION

- Understand who your competitors are
- Always be looking for new competitors
- Seek to understand how your competitor will react to your price changes
- How are your products / services perceived vs. the competitors'



CUSTOMER BASED PRICING

What price does the customer want to pay?

Advantages

- Focus is on the customer
- Customer retention
- Sales force is empowered





CUSTOMER BASED PRICING: PROBLEMS

- Incentive problem
- May not work for new products
- Ignores the other 2 C's

THE PROPER ROLE OF CUSTOMERS

- Understand who your customers are, who the influencers are, who the purchasers are
- Understand how your customers use your product
 1. Segment
 2. Value in use

COST BASED PRICING

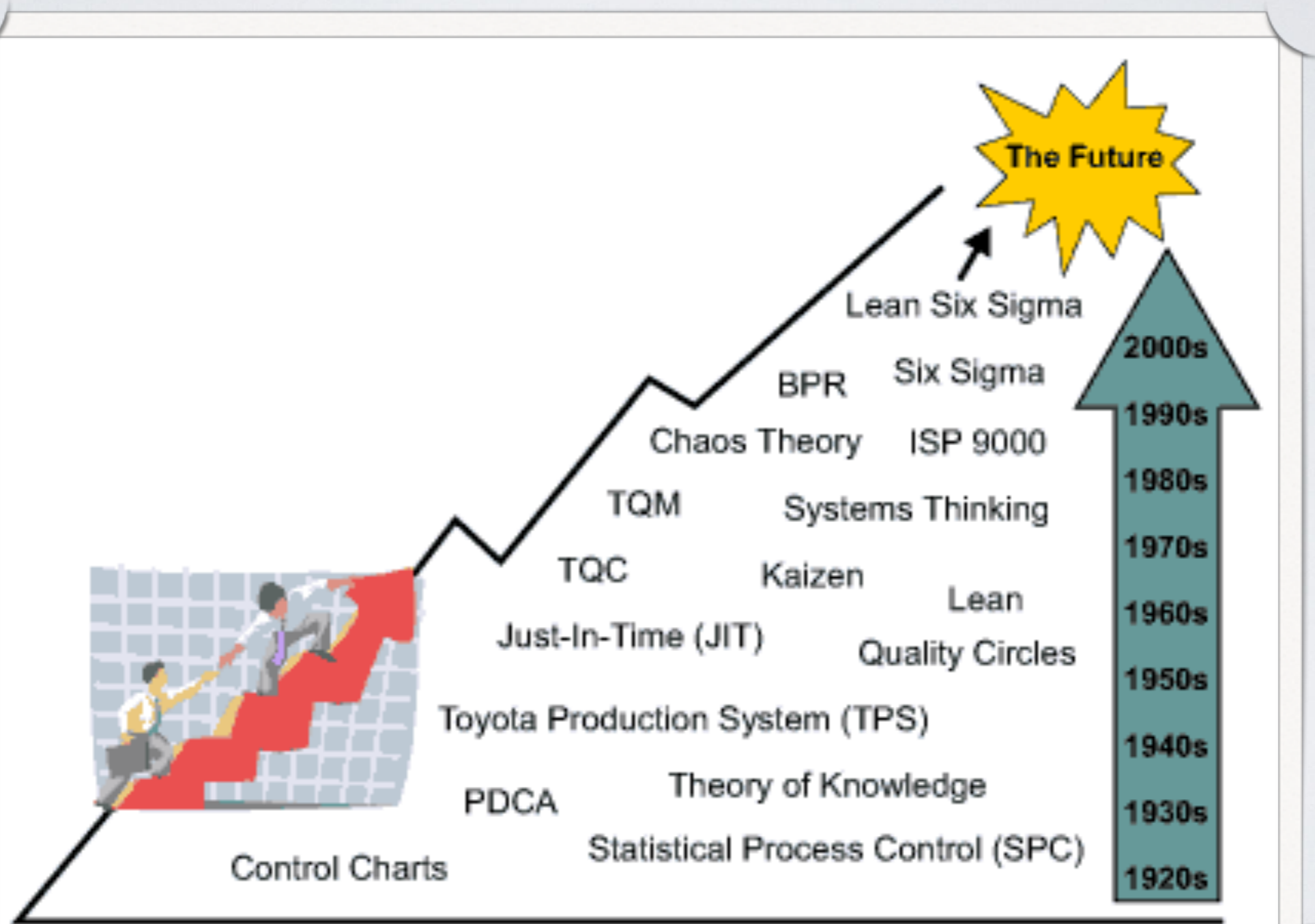
What price do we need to cover our cost and return our desired margins?

Cost based pricing is fairly self explanatory. You do everything you can to calculate every cost you have for producing a product or a service, and then you assign a margin on top of those costs.



WHY BASE PRICE ON COSTS?

COST FOCUS HAS TREATED US WELL





PRICING METHODOLOGY

1. Determine total cost per unit
2. Choose your margin target
3. Calculate your price

TOTAL PER UNIT COST

- Per Unit Cost = Variable per unit cost + (Fixed Cost / Allocation Base)
- What should be used as our allocation base?

Costs		Sales	
SG&A	\$1,000,000	Significant New Deals Expected (> 75%)	350,000
PP&E	\$4,000,000	Expected Attrition	10%
Unit Variable Cost	\$4	Economic Conditions	Favorable
		Last Years Sales	722,222

MARGIN

- Last year's forecasted margin was 42%
- Last year's realized margin was 38%
- Internal earnings targets which tie to compensation are at 40%
- The competitive intelligence unit believes the competition is achieving approximately 44%
- Public earnings expectations require a 39% margin

BUT WAIT.....

Costs are a **key element** of **pricing strategy** but **prices** should not be based on **cost alone**



QUESTION

Does pricing based on costs lead to prices that are too high or too low?

PROPER USE OF COSTS

- All costs must be covered in the long term
- Useful for setting lower price limits (B2B)

COST BASED PRICING: PROBLEMS

- Deceivingly scientific
- Chicken & egg
- Problematic in some cases
- Ignores the other 2 C's

BAD SPECTRUM

While cost based pricing is not a best practice, pricing based on the wrong costs is worse than pricing based on the right costs.

SUMMARY

- Basing prices solely on costs is not strategic, and ignores customers and competition
- Cost based pricing is frequently accompanied by a poor understanding of relevant costs and an over reliance on discounting
- What customers are willing to pay is unrelated to the producing firm's underlying cost structure

3 C'S

- These are the 3 c's of pricing and are the minimum requirement for a sophisticated and comprehensive pricing strategy
- Most firms give some consideration to more than just a single element
- Few firms have a comprehensive strategy which incorporates all 3

Know your costs

- Must cover your incremental costs (MC)
- In the long run, must generate enough margin to cover fixed costs

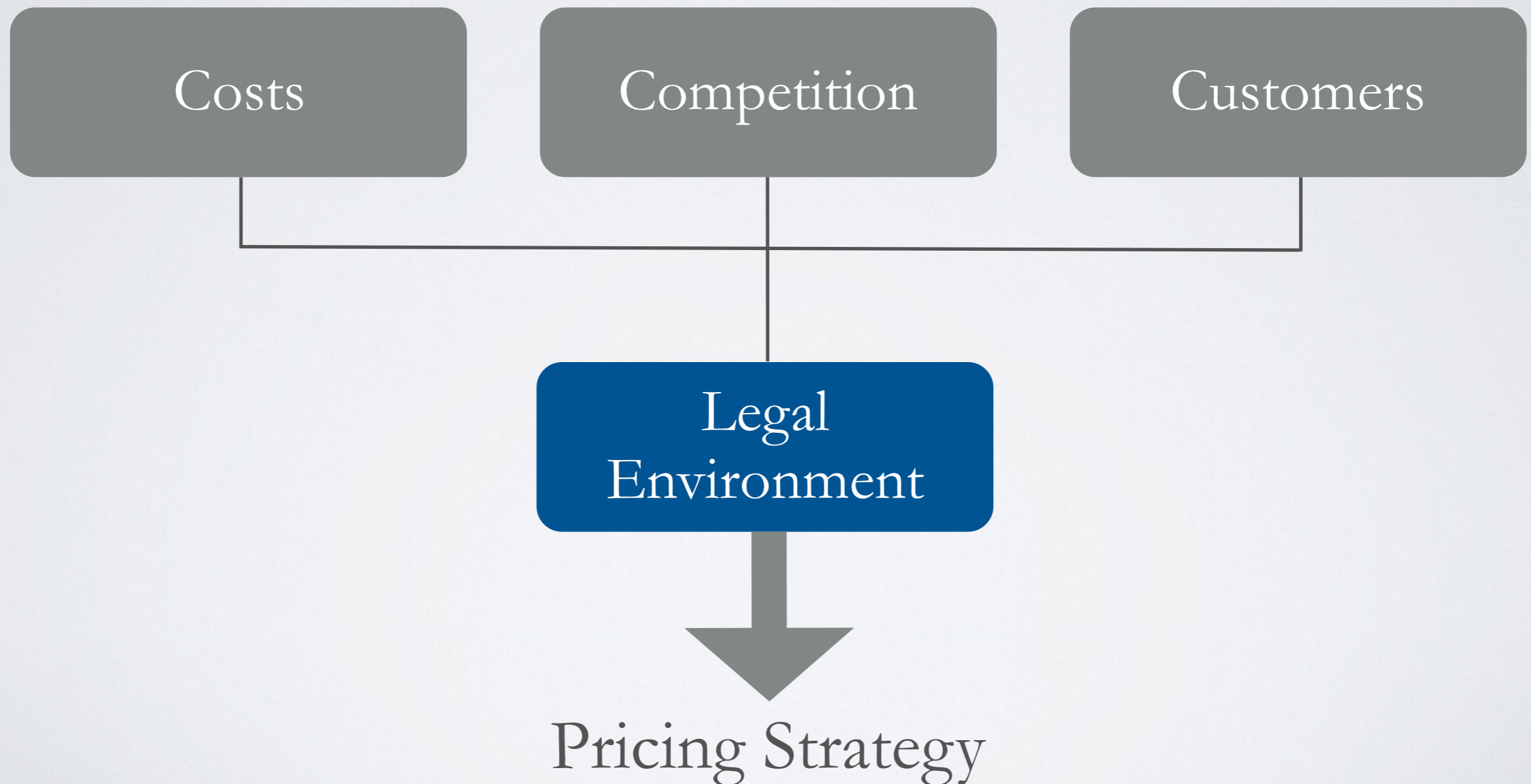
Know your customers

- Segmentation is key, along with WTP
- Value analysis

Know your competition

- Who is your competition and how will they react
- What is the next best alternative

DETERMINANTS OF A SENSIBLE PRICING STRATEGY



ECONOMIC VALUE ANALYSIS



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PRICE VS VALUE



Price



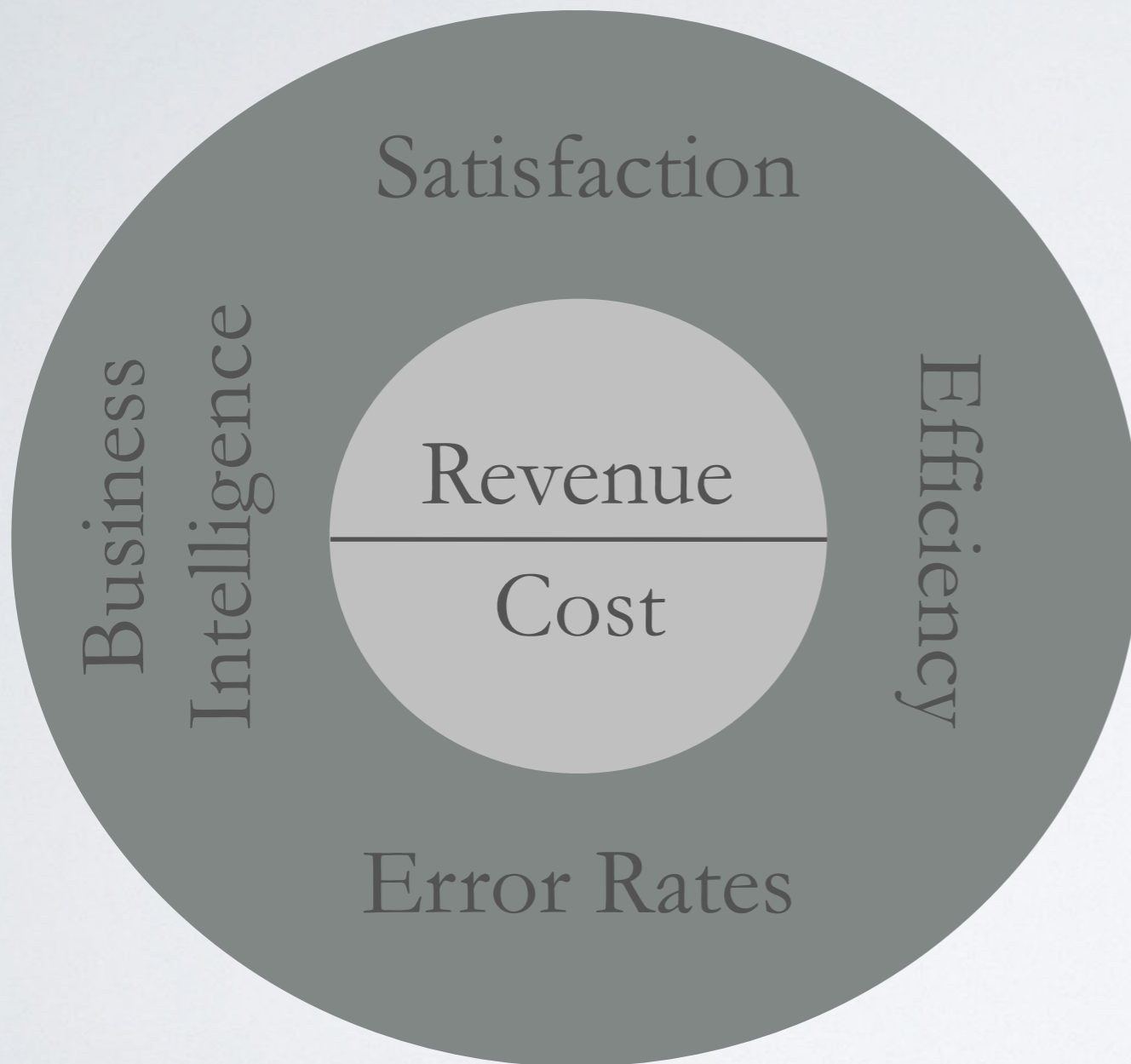
Value

ECONOMIC VALUE ANALYSIS

Key Components

- Reference Value (RV)
- Differentiation Value (DV)
- Result = Maximum WTP

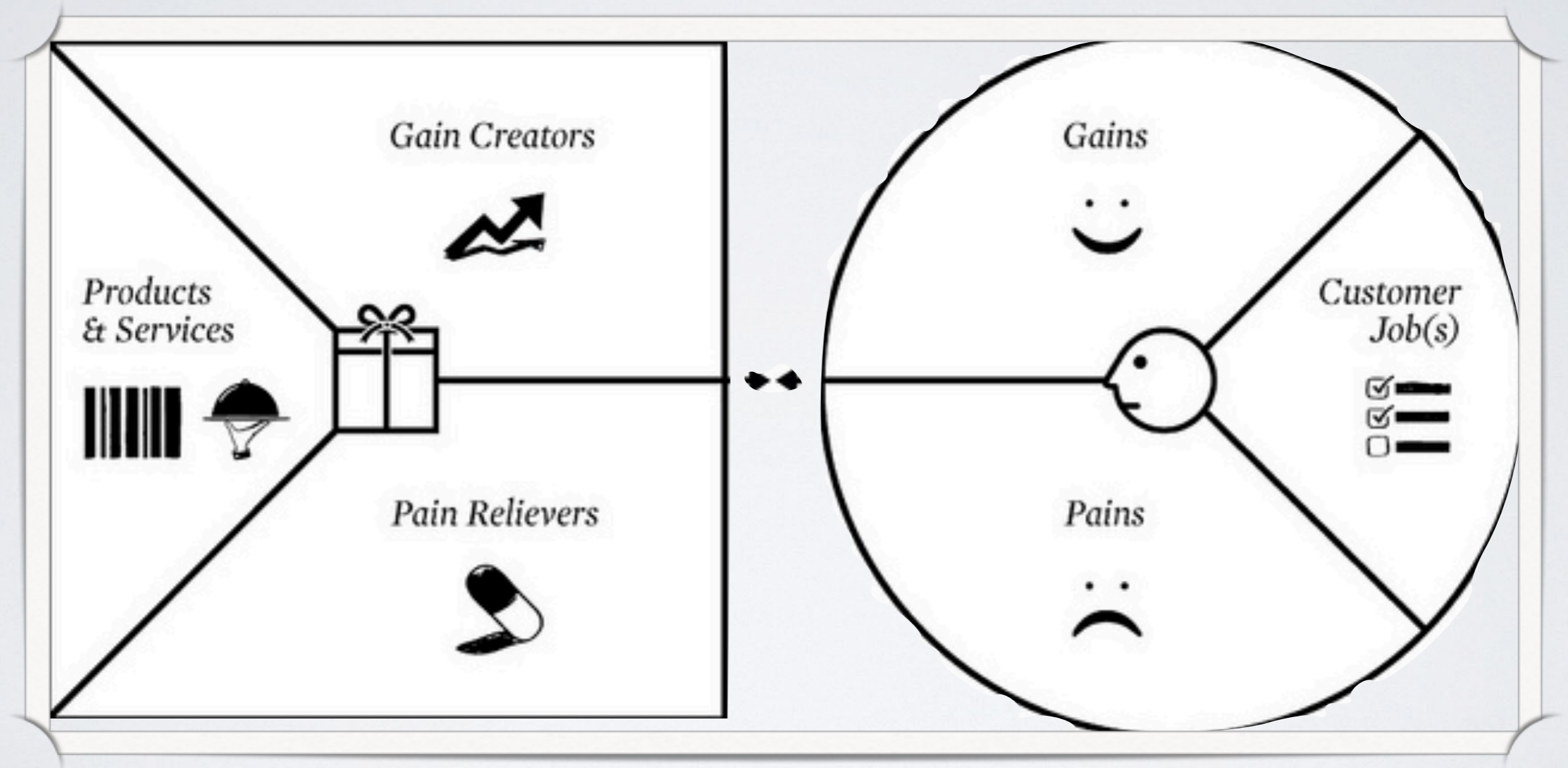
VALUE DRIVERS



Factors that enhance competitive advantage

- Revenue Increaseers
- Cost Reducers
- Other

BUSINESS MODEL CANVAS

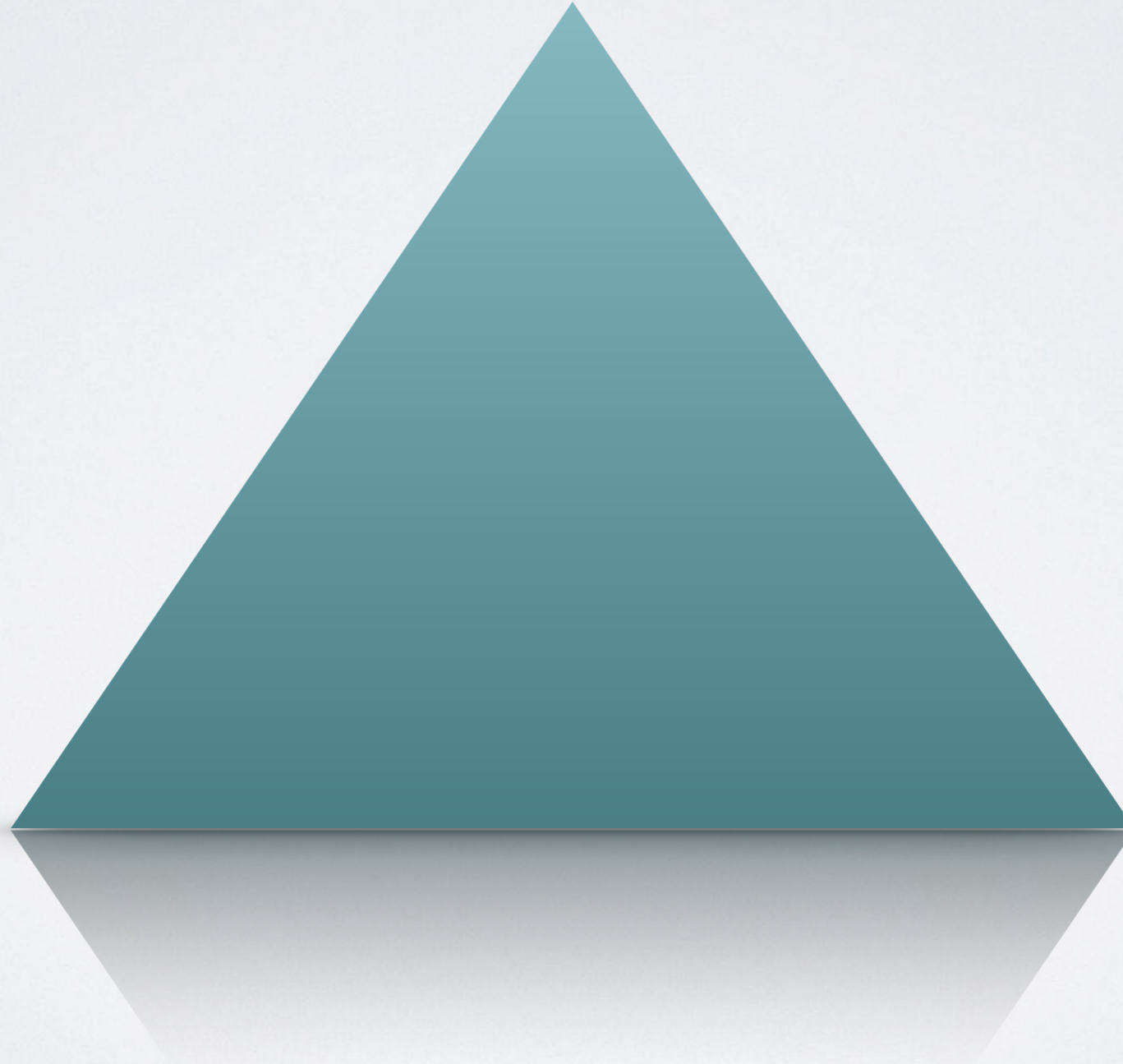


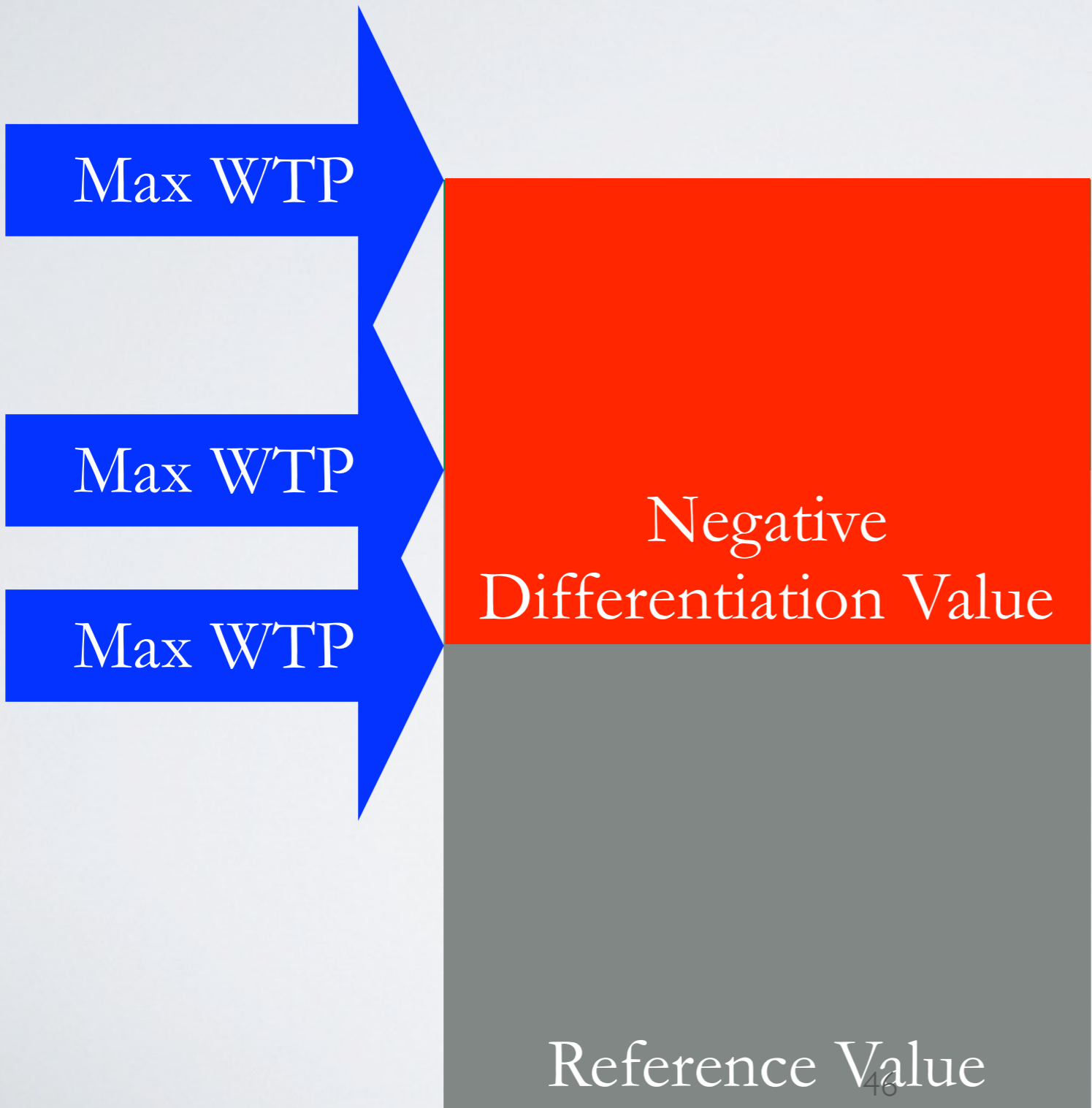
VALUE TRIAD

Revenue Gains

**Emotional
Contribution**

**Cost
Reductions**





Max WTP

Max WTP

Max WTP

Negative
Differentiation Value

Reference Value

EVA STEPS

1. Identify the next best alternative (competitive offer)

- Cost to customer

2. Identify factors that differentiate (+,-)

3. Quantify all value of factors that differentiate (+,-)

4. Select a price

AVOID COMMON MISTAKES

- Consider only the value of the differences between your product and the next best alternative
- Avoid double counting
- A product that is $X\%$ more effective than the next best alternative is not necessarily worth $X\%$ more in price

EVA BENEFITS

- Focuses organizations on value
- Can help identify customer segments
- Useful as a salesforce tool, negotiations

“if you’re only talking to procurement you shouldn’t be surprised that the conversation is all about price”

- Tool for establishing pricing vs. feature promotion

EVA KEYS

- Must be honest about reference value(s)
- Economic benefits and costs for differentiation value are critical
- Allows for an economics based analysis using more easily measured factors

X-ONE XDN2

- Michelin's new trucking tire
- "Price before volume"

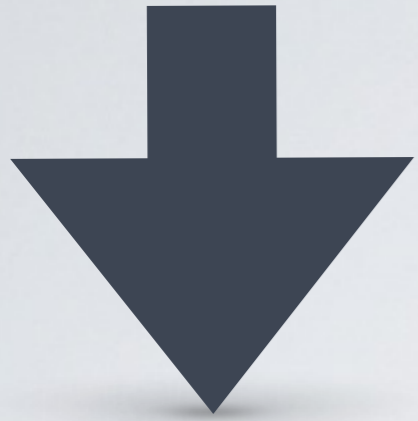


Wide Thing Video

A BETTER TRUCKING TIRE

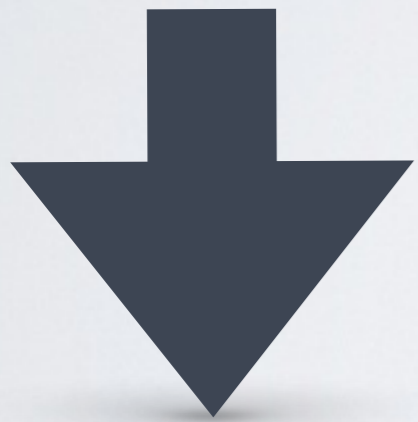
- Self-Regenerating Tread
- Infini-Coil Technology
- Advanced Siping Technology

Features



- Infini-Coil
- Regenerating Tread
- Matrix Siping Technology

Benefits



- Longer Tread Life
- Lighter Weight
- Reduced Rolling Resistance
- Consistent Traction and Wear
- Replaces 2 Conventional Tires

Value

- ?

MONETIZING THE BENEFITS

Differentiating Benefit	Differentiating Value
30% Longer Life	NBA x 0.30
3% Fuel Savings	Fuel Consumption with NBA x 0.03
Weight Saving (other than MPG)	+++
Installation & Training	-\$200.00
Ease of Tire Repair	-\$300.00
Accommodating Rims	-\$266.67
	Total Differentiating Value

MONETIZING THE BENEFITS

Differentiating Benefit	Differentiating Value	Monetized
30% Longer Life	NBA x 0.30	\$309.00
3% Fuel Savings	Fuel Consumption with NBA x 0.03	\$926.25
Weight Saving (other than MPG)	+++	
Installation & Training	-\$200.00	-\$200.00
Ease of Tire Repair	-\$300.00	-\$300.00
Accommodating Rims	-\$266.67	-\$266.67
	Total Differentiating Value	\$468.58

TOTAL ECONOMIC VALUE

Total Economic Value = Reference Value + Differentiating Value

Total Economic Value = (\$515.00)x2 + \$468.58

Total Economic Value = **\$1,498.58**

VALUE MODEL



ILLUMIN8 LED LIGHTING

Municipal Street Light Application	Next Best Alternative	New Product Release
Price	\$200	????
Cost of Failure	\$500	\$500
Probability of Failure	10%	2%
Hours of Operation	10,000	10,000
Operating Cost per Hour	\$0.01	\$0.012

- What is the total economic value?
- What if the customer believes the likelihood of failure is 7% with the new product?

ILLUMIN8 LED LIGHTING

Deep Subterranean Mining Application	Next Best Alternative	New Product Release
Price	\$200	????
Cost of Failure	\$50,000	\$50,000
Probability of Failure	10%	2%
Hours of Operation	10,000	10,000
Operating Cost per Hour	\$0.01	\$0.012

JOYCORP TRAVEL MUG

As the product manager at JoyCorp you own the P&L of the travel mug business unit.



JoyCorp uses a proprietary blend of organic materials infused with a ceramic mesh. The product offers superior insulating properties over other commercially available travel coffee mugs. These mugs must be hand-made due to the fragile nature of the ceramic mesh. As a result, the variable cost of production is relatively high at \$5.25 per mug. Competing travel mugs sell for \$5.50 per mug.

Through sophisticated estimation methods, it is determined that the incredible insulating properties are worth \$4 per mug. An undesired feature is that the ceramic mesh makes the mug less durable than competing mugs. Additional investigation and analysis suggests that this reduces customer willingness to pay by \$1.75 per mug.

Your boss also forwarded an recent news article, indicating that carrying a travel mug makes customers appear more sophisticated and that experts estimate this to be worth \$4.75.

- What is the total economic value?

INTERPRETING ECONOMIC VALUE

- EV is the maximum price a “smart” shopper would pay
- Your buyer’s perceived value can be different
 - product knowledge
 - substitute awareness
 - ▶ Need to communicate EV to buyers
- EV can and should be done for each customer or market segment

COMMUNICATING VALUE

- EVA provides the opportunity to price in a way that captures the value created
- However, it is still critical that the value created is communicated to the customer in an effective manner

COMMUNICATING VALUE

1. Showcase benefits and not simply features
2. Show benefits relevant for the customer segments you are targeting

This requires understanding your customer!

NOW WHAT?

Now that you've done the EVA, what should you charge?

CHOOSING THE PRICE

2 Person Teams

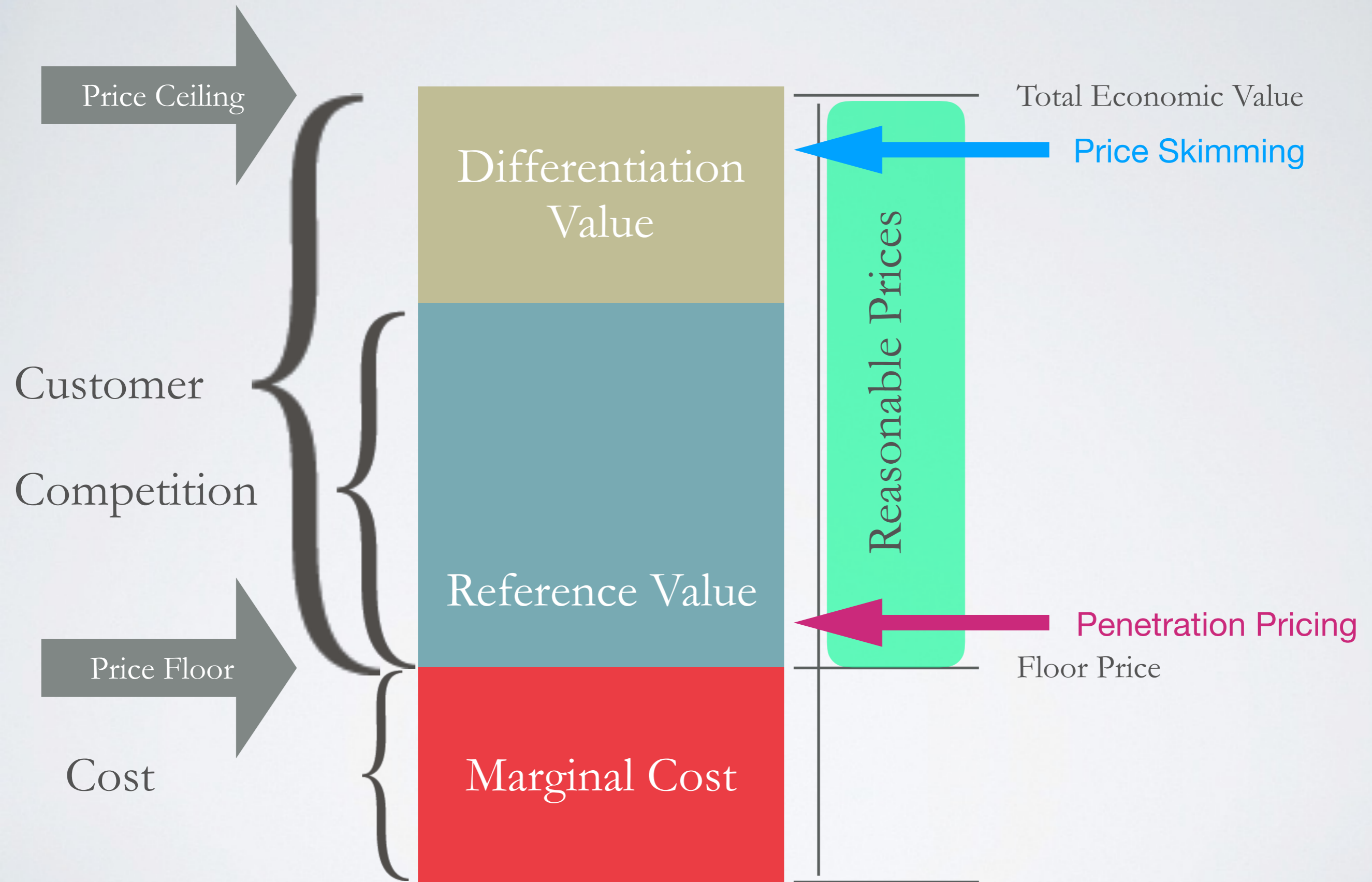
- Person #1 makes an offer to Person #2 as to how \$20 should be split
- Person #2 accepts or rejects this offer
 - if rejected -> offer total payout is \$0
 - if accepted -> offer payout is the accepted offer split



Cooperation

Fairness





EVA STEPS

1. Identify the next best alternative (competitive offer)
 - a. Cost to customer
2. Identify factors that differentiate (+,-)
3. Quantify all value of factors that differentiate (+,-)
4. Select a price

VALUE MODELING ADVICE

Estimate, Validate and Iterate (progress
not perfection)



EVA SUMMARY

- Begins with a reference value and then adds (or subtracts) differentiation value
- A powerful pricing framework
- Especially useful in new product pricing
- Can indicate attribute improvement opportunities
- Value based pricing is a pricing best practice
- Don't forget about costs and volume

BREAK-EVEN ANALYSIS



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INTUITION

- In order to maintain the current level of profitability.....

How many more units must I sell

- or -

How many fewer can I sell



WHAT IS THIS BREAK-EVEN ANALYSIS?

Analytical framework for understanding tradeoffs between price and quantity

STEP 1 - Develop a baseline

STEP 2 - Calculate the incremental “break-even” quantity for the proposed price change

- How much would sales have to increase in order to profit from a price reduction?
- How far could sales decline before a price increase would be unprofitable?

BASIC CASE

Break-even quantity = baseline profit / margin at new price

$$Q_{BE} = \frac{(P_1 - VC) * Q_1}{(P_1 + \Delta P) - VC}$$

DRY CLEANER

- Price = \$1.79 / garment
- Variable Cost = \$1.27 / garment
- Current Volume = 13,281 garments per month



DRY CLEANER PRICE CHANGE

- Consider a change in price to \$1.99 per garment

What demand drop off would break even?

- Consider a price drop to \$1.59 per garment

What incremental demand would be needed to break-even?

LOW MARGIN BREAK-EVEN

Price Decrease



LOW MARGIN BREAK-EVEN

Price Increase



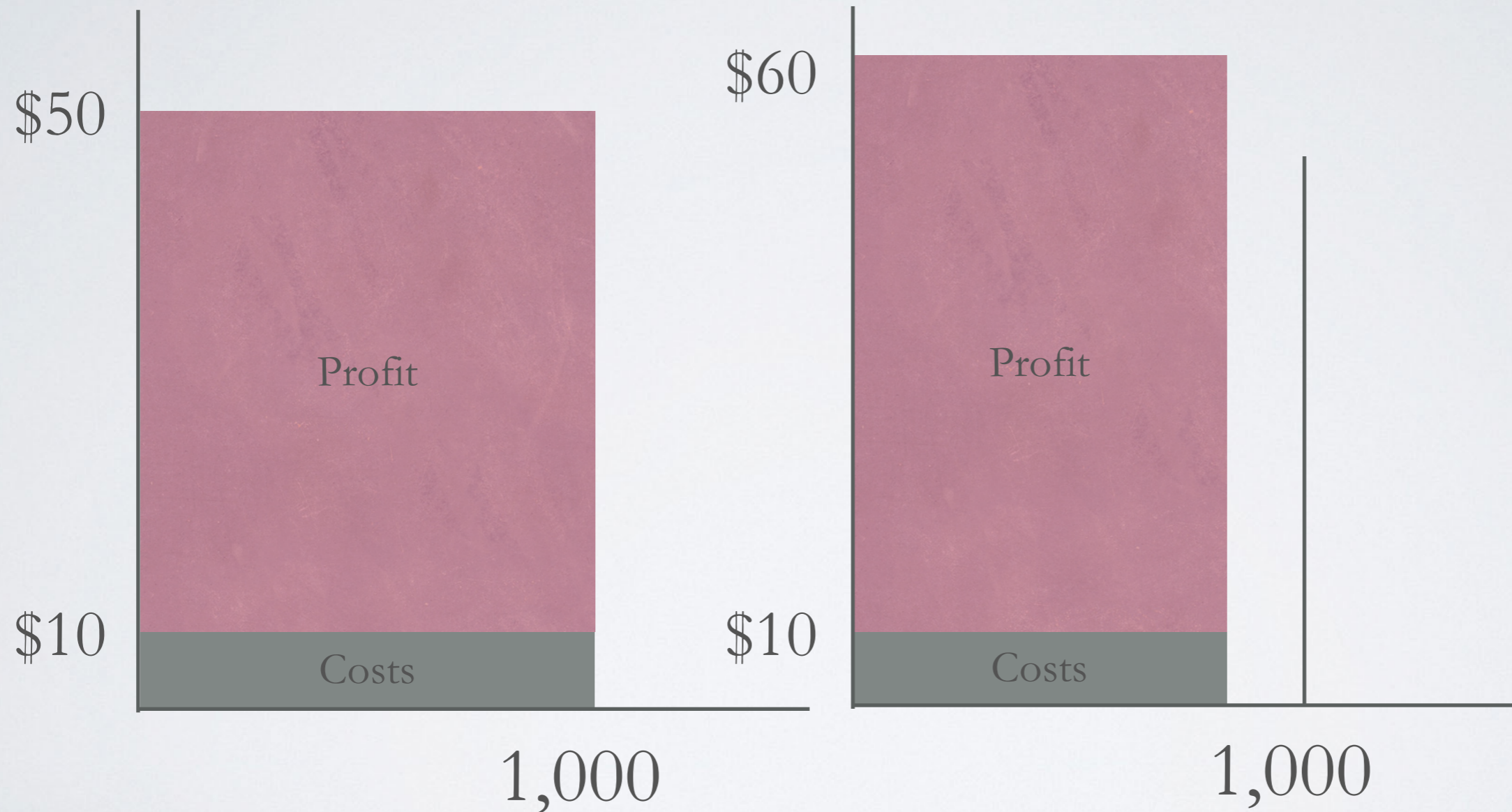
HIGH MARGIN BREAK-EVEN

Price Decrease



HIGH MARGIN BREAK-EVEN

Price Increase



ASYMMETRIC IMPACT

THE MONEY HUNT

Raising Prices Pays Off for Some

As Many Small Businesses Look for Ways to Charge Customers Less, a Few Try the Opposite Approach

A price rise of 1% at an average company in the S&P 1500 index, which includes large-, mid- and small-cap companies, would generate an 8% increase in operating profit if sales volume stays steady, the study found. By contrast, a price discount of 1% reduces profit by 8%. Typically, in order to offset the impact of a 5% price cut, volume would have to rise by about 19%.

ASYMMETRIC IMPACT OF PRICE CHANGES

% Price Change	% Quantity Change to Break-even
20%	-38%
10%	-23%
5%	-13%
1%	-3%
-1%	3%
-5%	18%
-10%	43%
-20%	150%

P = \$600

VC = \$400

Q = 22,000

WHAT DOES IT ALL MEAN?

- Price Decrease

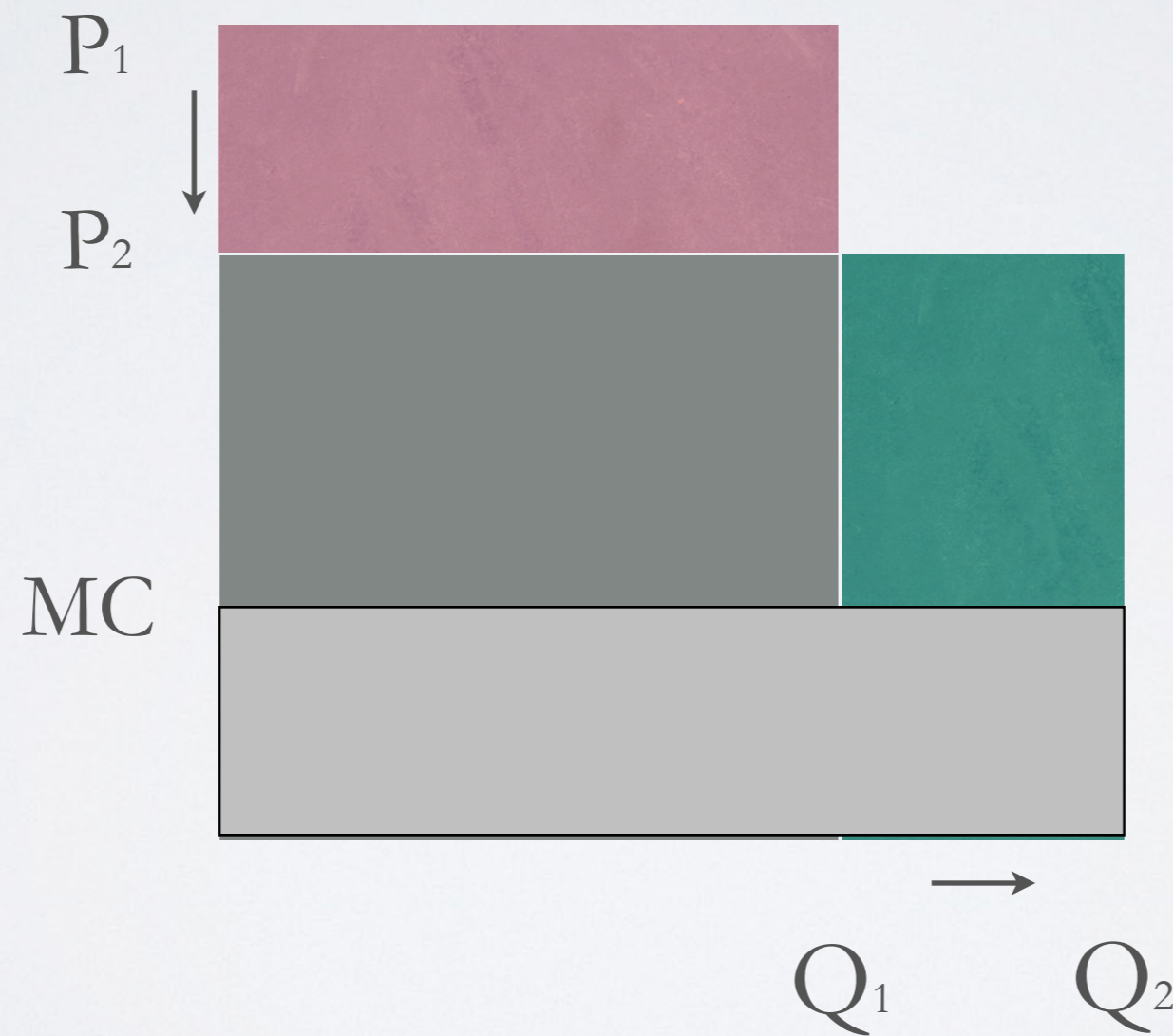
- If the actual increase in sales volume is $>$ than the break-even sales increase, then the price cut is profitable

- Price Increase

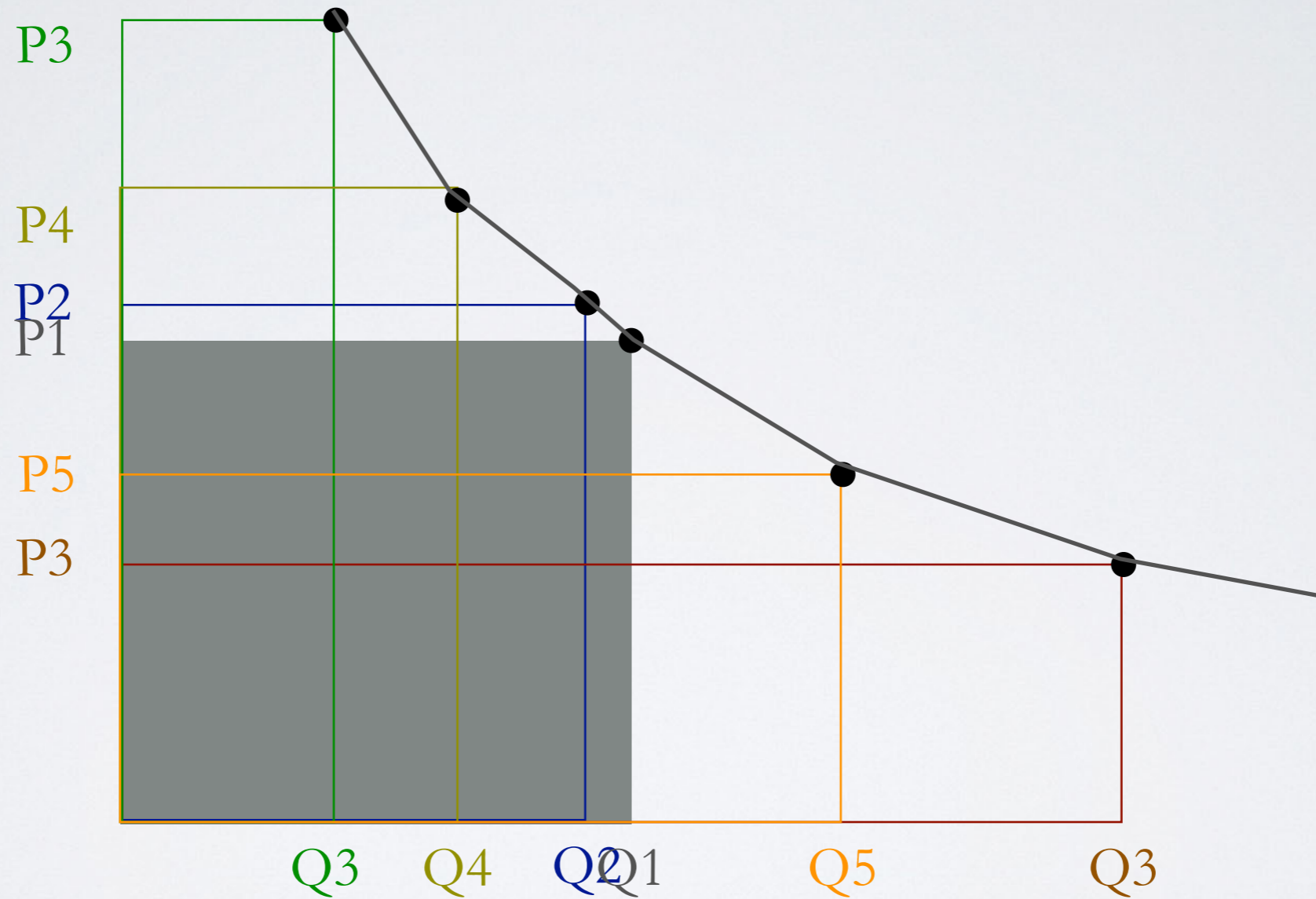
- If the actual decrease in sales volume is $<$ than the break-even sales decrease, then the price increase is profitable

GRAPHICAL ANALYSIS

Price Decrease



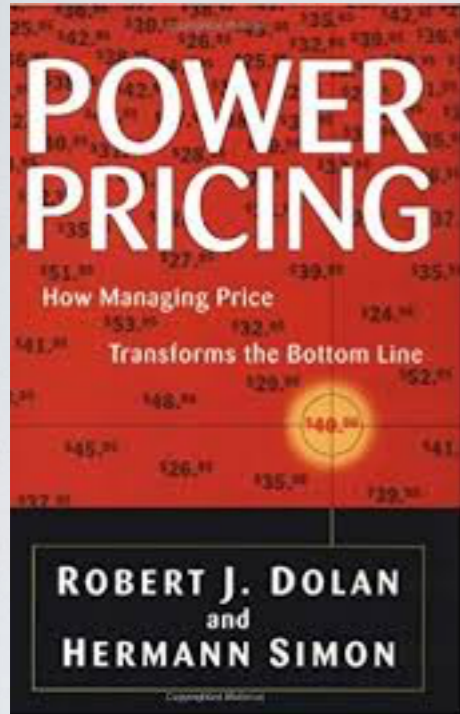
BREAK EVEN SALES CURVES



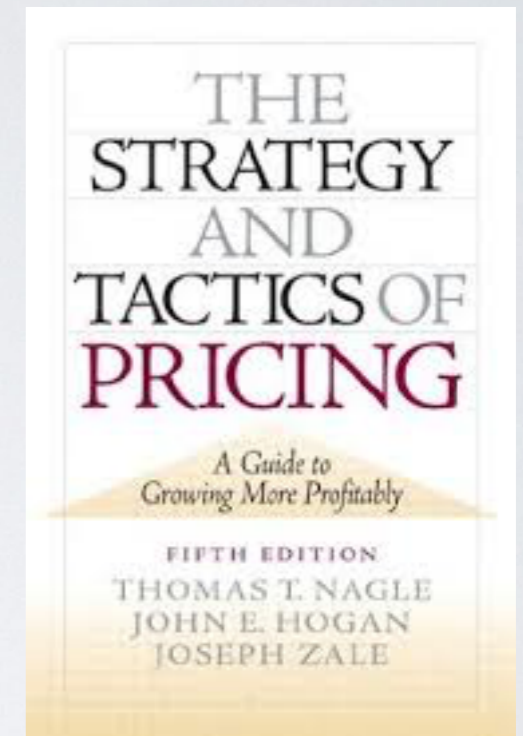
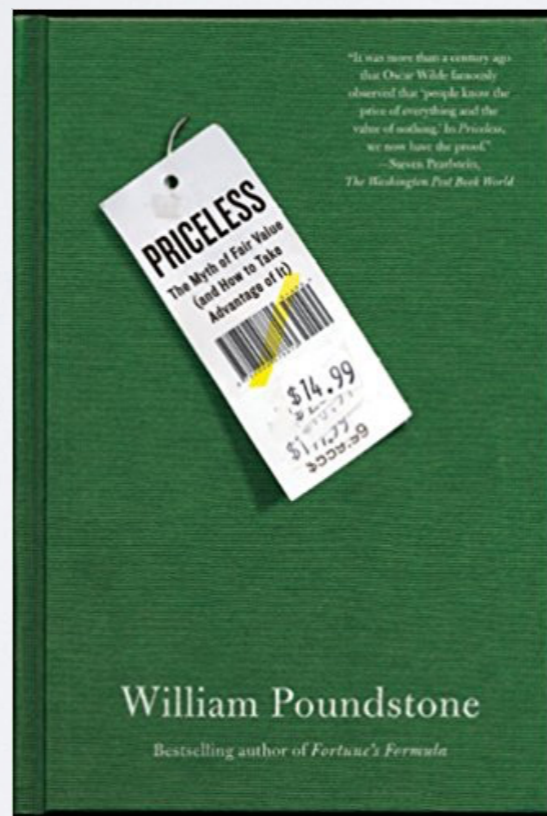
SUMMARY

- Powerful when combined with other understanding
- Works well for existing products
- Does not offer guidance on new or ideal quantity
- Not a stand alone justification for pricing action
- Insight for B2B contract language / terms

PRICING RESOURCES



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<http://www.priceintelligently.com/blog>

