

Competition and Antitrust

Professor Michael E. Porter
Harvard Business School

*Presentation to the ABA
Fundamental Theory Task Force*

Washington, D.C.
January 11, 2001

This presentation draws on ideas from Professor Porter's books, in particular, Competitive Strategy (The Free Press, 1980), Competitive Advantage (The Free Press, 1985), "What is Strategy?" (Harvard Business Review, Nov/Dec 1996), The Competitive Advantage of Nations, and other publications cited. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means - electronic, mechanical, photocopying, recording, or otherwise - without the permission of Michael E. Porter.

Competition and Prosperity

Global Competitiveness Report

Regression

Dependent Variable: 1999 GDP per capita

	Significance	Adj R2
Measure of National Business Environment		
Effectiveness of antitrust policy	at 5% level	.700
Intensity of local competition	at 5% level	.320

Regression

Dependent Variable: 1994 - 99 GDP per capita growth

	Significance	Adj R2
Measure of National Business Environment		
Intensity of local competition	at 5% level	.255
Effectiveness of Antitrust policy	at 5% level	.117

“...countries where the intensity of competition is rising showed by far the greatest improvement in GDP per capita.”

Competition and Prosperity

Evidence from Japanese Industry

Competitiveness

- Measured by World Export Share



Local Competition

- Measured by Fluctuations in Domestic Market Share

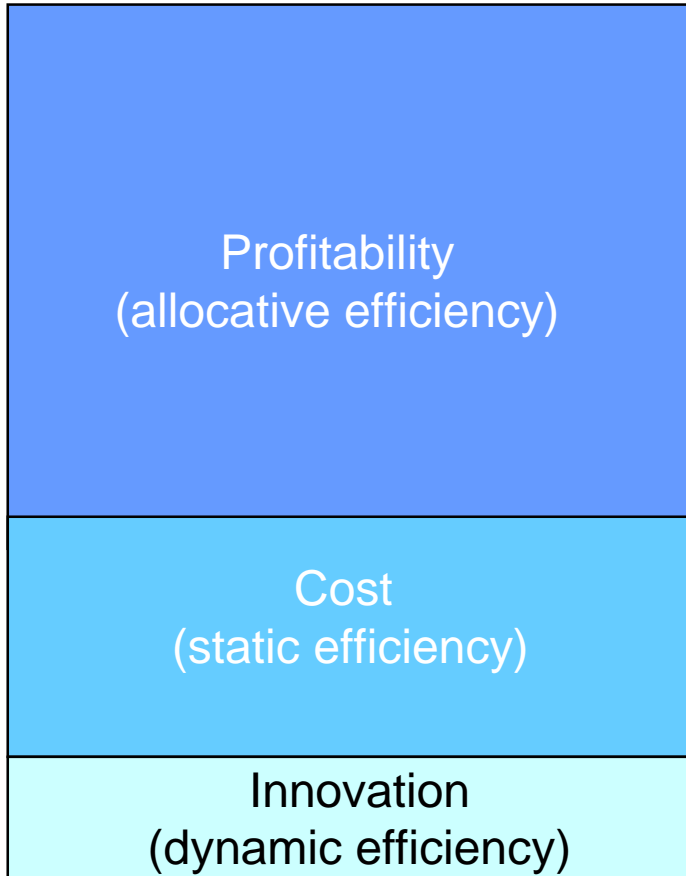
Sakakibara/Porter:

“We find a positive and highly significant relationship between the extent of market share fluctuations [a measure of local rivalry] and trade performance

Contrary to some popular views, our results suggest that Japanese competitiveness is associated with home market competition, not collusion, cartels, or government intervention that stabilize it.”

Goals of Antitrust Policy

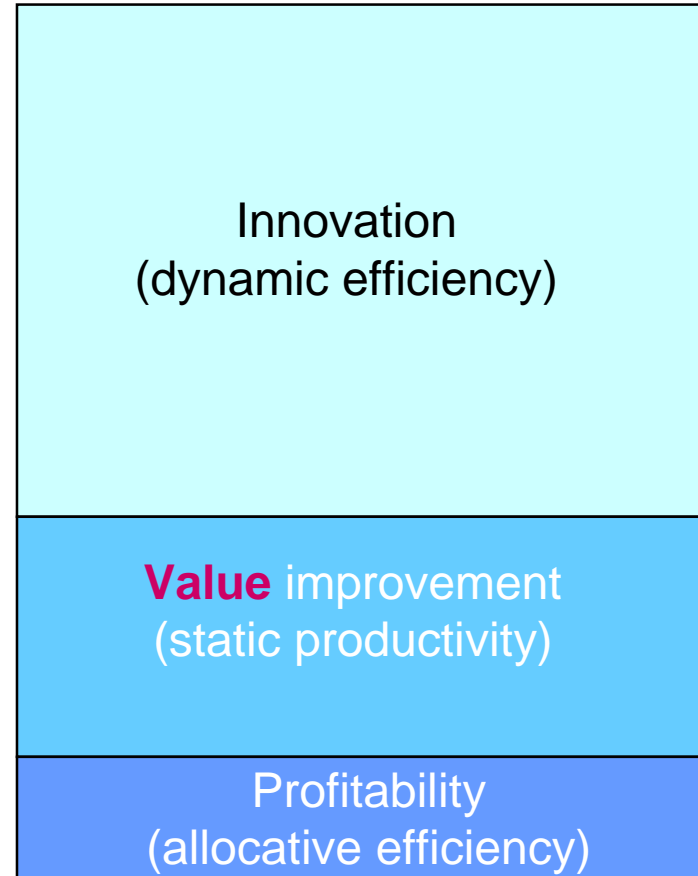
Traditional View



Profitability standard



Alternative View

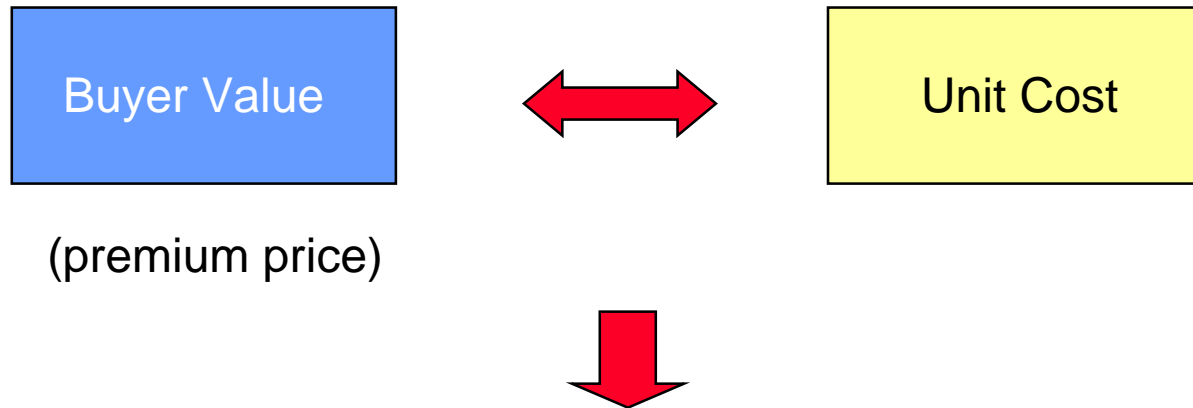


Productivity growth standard



Productivity

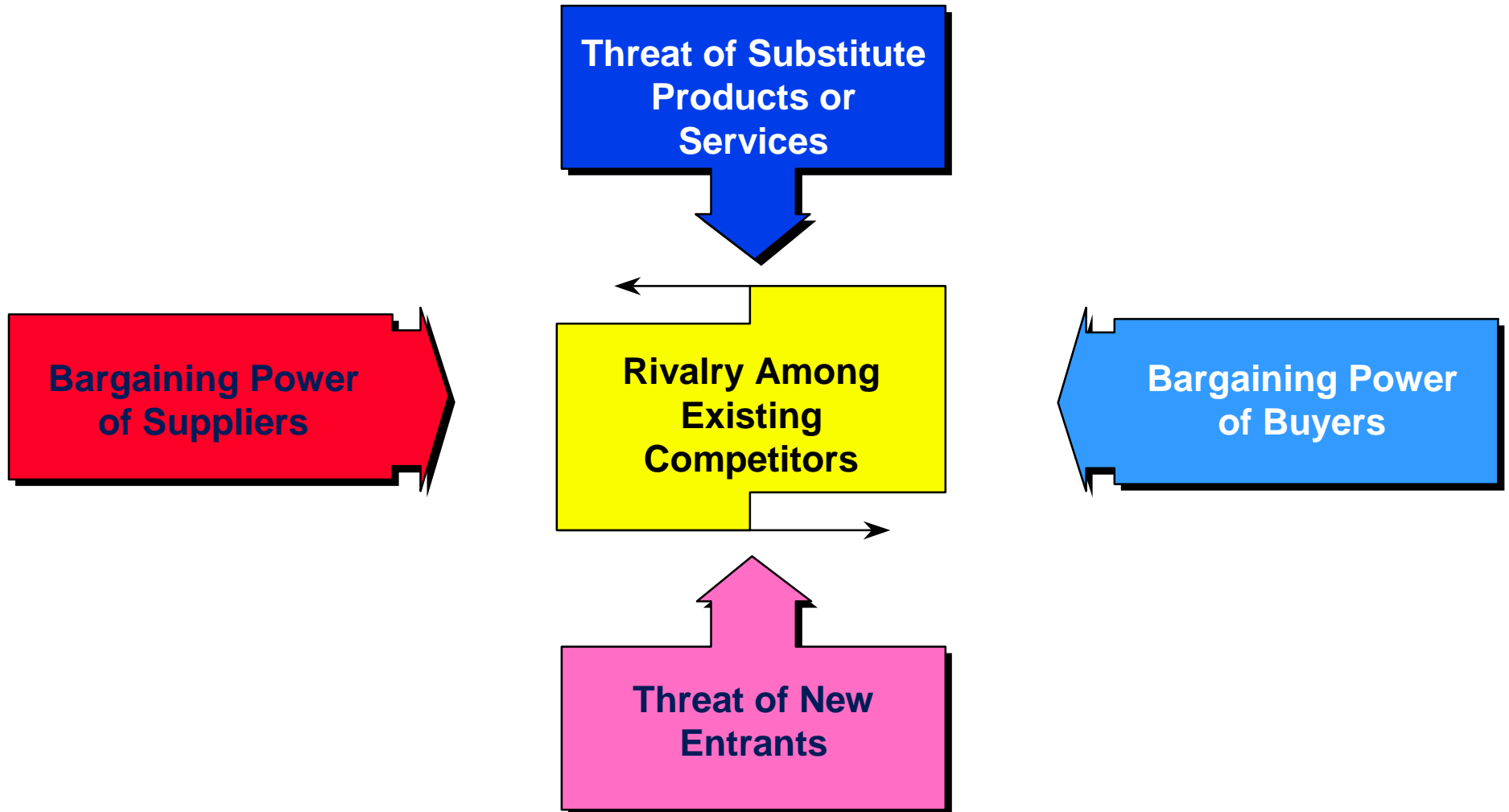
- Productivity depends on both value (price) and cost



- Productivity analysis considers the **trajectory** of product value and cost, not only current profitability
 - profitability for successful firms is a sign of healthy competition if it is a reflection of truly superior products or significant advantages in operating efficiency
- Productivity captures the broader connection between competition and standard of living
- Improvements in productivity depend on **healthy competition**
- Mergers and other corporate practices that materially improve product value or raise fundamental operating efficiency are likely to be good for society, unless they give rise to significant risks to competition itself

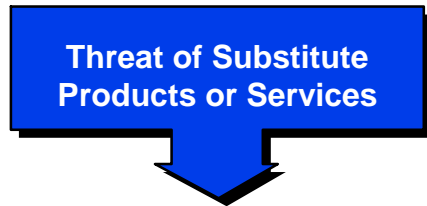
Assessing the Extent of Competition

Five Forces Model



Assessing the Extent of Competition

Five Forces Model



Determinants of Substitution Threat

- Relative price performance of substitutes
- Switching costs
- Buyer propensity to substitute



Determinants of Supplier Power

- Differentiation of inputs
- Switching costs of suppliers and firms in the industry
- Presence of substitute inputs
- Supplier concentration
- Importance of volume to supplier
- Cost relative to total purchases in the industry
- Impact of inputs on cost or differentiation
- Threat of forward integration relative to threat of backward integration by firms in the industry



Rivalry Determinants

- **Concentration and balance**
- Industry growth
- Fixed (or storage costs/ value added)
- Intermittent overcapacity
- Product differences
- Brand identity
- Switching costs
- Informational complexity
- Diversity of competitors
- Corporate stakes
- Exit barriers



Entry Barriers/Mobility Barriers

- Economies of scale
- Proprietary product differences
- Brand identity
- Switching costs
- Capital requirements
- Access to distribution
- Absolute cost advantages
- Proprietary learning curve
- Access to necessary inputs
- Proprietary low-cost product design
- Government policy
- Expected retaliation



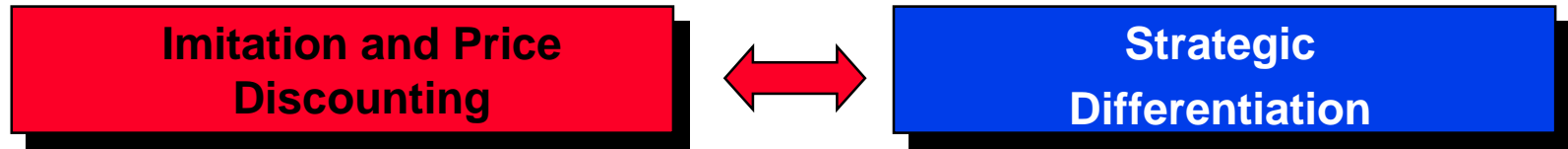
Bargaining Leverage

- Buyer concentration vs firm concentration
- Buyer volume
- Buyer switching costs relative to firm switching costs
- Buyer information
- Ability to backward integrate
- Substitute products
- Pull-through

Price Sensitivity

- Price/total purchases
- Product differences
- Brand identity
- Impact on quality/ performance
- Buyer profits
- Decisionmakers' incentives

Rivalry and Productivity Growth



- Low prices
- Little true customer choice

“Zero sum competition”

- Multiple, different value propositions
- Expanded market

“Positive sum competition”

Assessing the Extent of Competition

Five Forces Framework

Advantages

- Embodies a much broader conception of competition
- Embodies a much richer conception of rivalry
- Can apply to any market definition
- Fact-based analysis unique to each industry
- Allows analysis of both near-term and longer-term effects

Issues

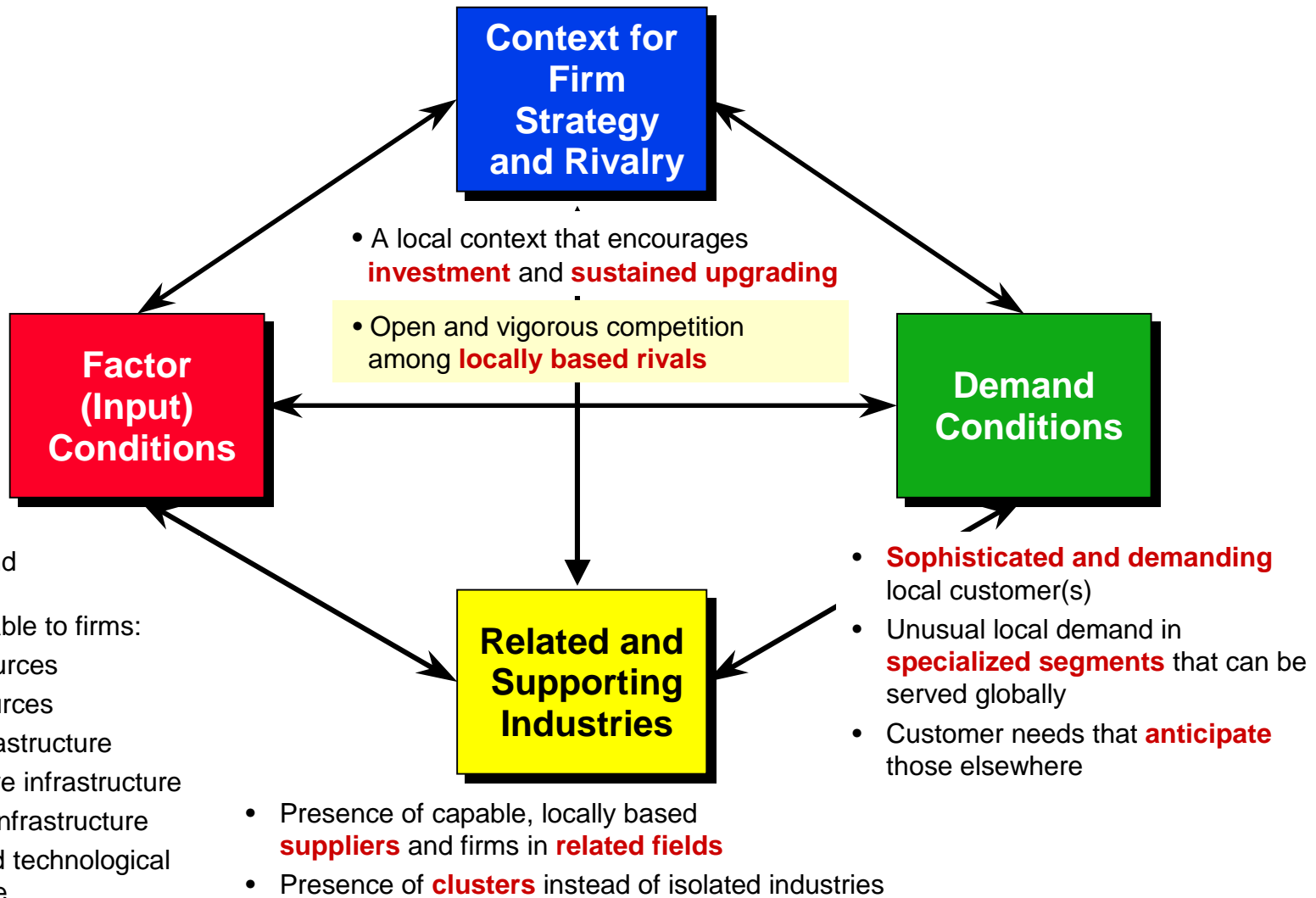
- Requires the weighing and balancing of numerous elements (an expert system)
- Quantification of the net effect of competition is difficult



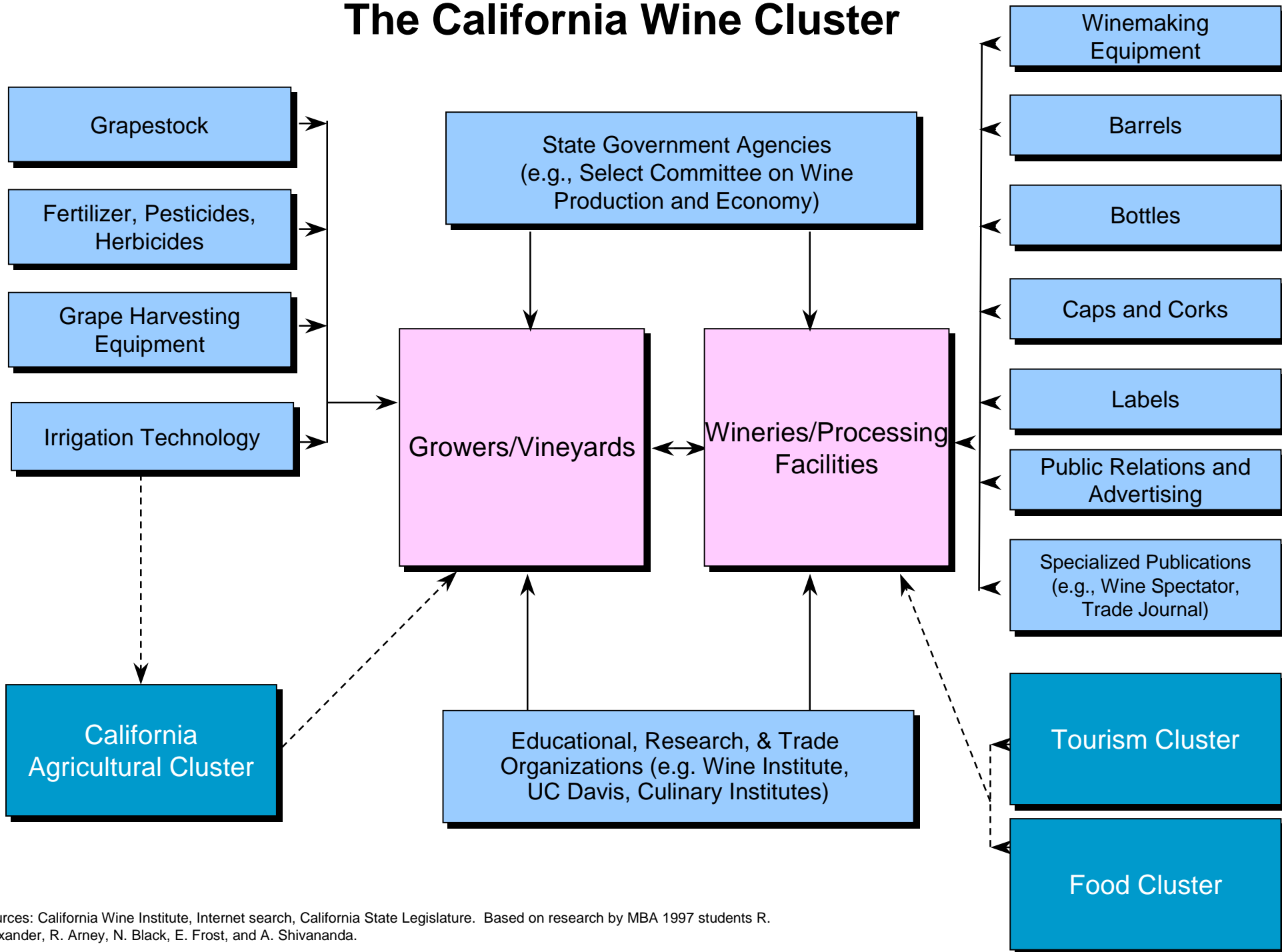
- Five forces should not be used in isolation, but as part of a risk-reward analysis

The Externalities of Rivalry

Determinants of Productivity and Productivity Growth



The California Wine Cluster

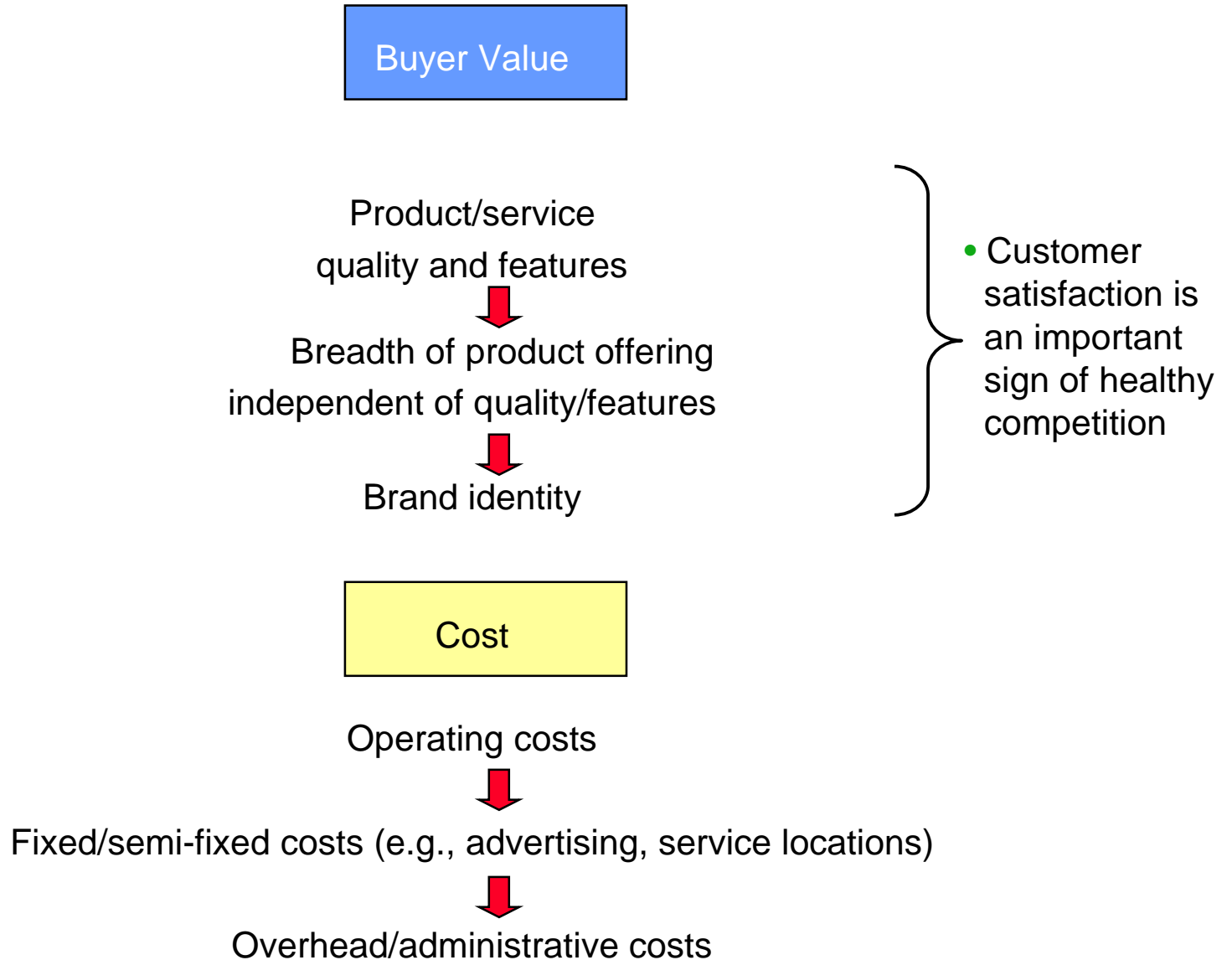


Sources: California Wine Institute, Internet search, California State Legislature. Based on research by MBA 1997 students R. Alexander, R. Arney, N. Black, E. Frost, and A. Shivananda.


Productivity Growth Test

- Innovation and dynamic improvement is more important than static efficiency
 - e.g., the accessibility of the market to new entrants/small rivals is **weighted higher** than reaping static economies of scale, especially due to fixed cost or administrative overhead amortization
 - short-term price cuts are evaluated in light not only of current costs but also vs. the trajectory of productivity
 - transient efficiency gains such as lowering the risk of capacity shortages are discounted if there is any significant potential effect on competition
- Cluster externalities are important to productivity and productivity growth
 - **national** conditions are important even in global markets
 - vertical foreclosure can be reevaluated using this framework
- If a risk to competition is identified, the **burden shifts to the company** to document productivity and productivity growth benefits. Evidence from **customers** is accorded special weight

Hierarchy of Productivity Enhancement



Standards for Merger Approval

- Mergers and other combinations should be treated with caution versus other corporate growth strategies
 - acquiring another company requires only capital and no new products, technologies, processes, or marketing approaches
 - the empirical evidence is striking that mergers have a low success rate
 - strategy research reveals that smaller, focused acquisitions are most likely to improve competitive fundamentals vs. mergers among leaders
- 
- reducing the number of significant rivals is much more likely to reduce competition than increase it

Standards for Merger Approval (cont.)

- What is the likely near-term and long-term effect of the merger on competition?

- a (low) minimum share threshold is used to screen out small transactions
- five forces analysis
- **all** relevant markets/submarkets
- diamond analysis of externalities



No material effect on competition

Significant effect on competition

- How will the merger affect productivity and productivity growth?

- the burden of proof is on the companies to demonstrate lasting, fundamental productivity benefits (e.g., operating vs. corporate overhead savings)

- Are the productivity benefits significant enough to outweigh the threat to competition?

- risk/reward analysis

Standards for Merger Approval (cont.)

- Other policy changes would reinforce antitrust policy in limiting questionable mergers
 - elimination of pooling of interest
 - stricter rules on merger write-offs and restructuring charges
 - modifications in reporting requirements (e.g., requirements to report equity **before** write-offs and charges in the previous five-year period)
 - collection and reporting of systematic information on merger outcomes (e.g., durability, profitability, customer satisfaction, quality and service metrics)

Evaluating Competitive Practices

NutraSweet

NutraSweet Practices

- Patent on blends of aspartame and saccharin -- blending by customers not permitted by NutraSweet
 - Aggressive investment in brand
 - Joint venture with a potential competitor (Ajinomoto)
 - Branded ingredient strategy
 - Heavy investment in other sweeteners
 - Exclusive multi-year contracts with large customers (meet or release; most favored nation clauses)
-
- NutraSweet began serious cost reduction
 - Aggressively expand capacity ahead of demand
 - Aggressive price reductions below total cost

Market Outcomes

- NutraSweet retains dominance
- Lower prices/profits
- NutraSweet cost reduction does not begin until new entrant appears
- Blending suppressed -- taste and health benefits
- Several potentially superior sweeteners never developed
- Tosoh (Japan) production process for aspartame never commercialized
- Ajinomoto never became a significant competitor
- Little innovation in the industry after the competitive threat repelled

Industry Structure

Suppliers

- Benign

Barriers to Entry

- Moderate to high

Rivalry

- Low variable costs

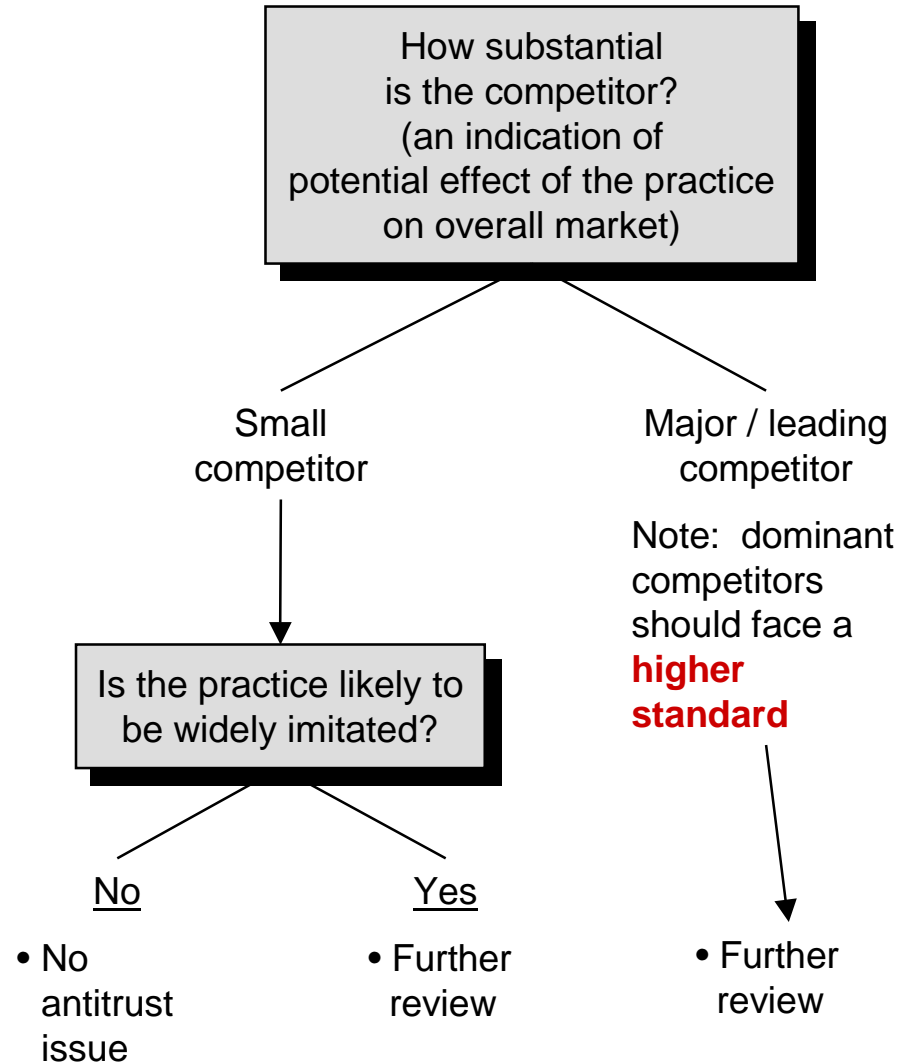
Substitutes

- Many alternative sweeteners under development
- But high switching costs

Buyers

- Powerful soft drink companies

Evaluating Competitive Practices



Evaluating Competitive Practices (cont.)

