
Session 5:

Marketing in the E&C Industry

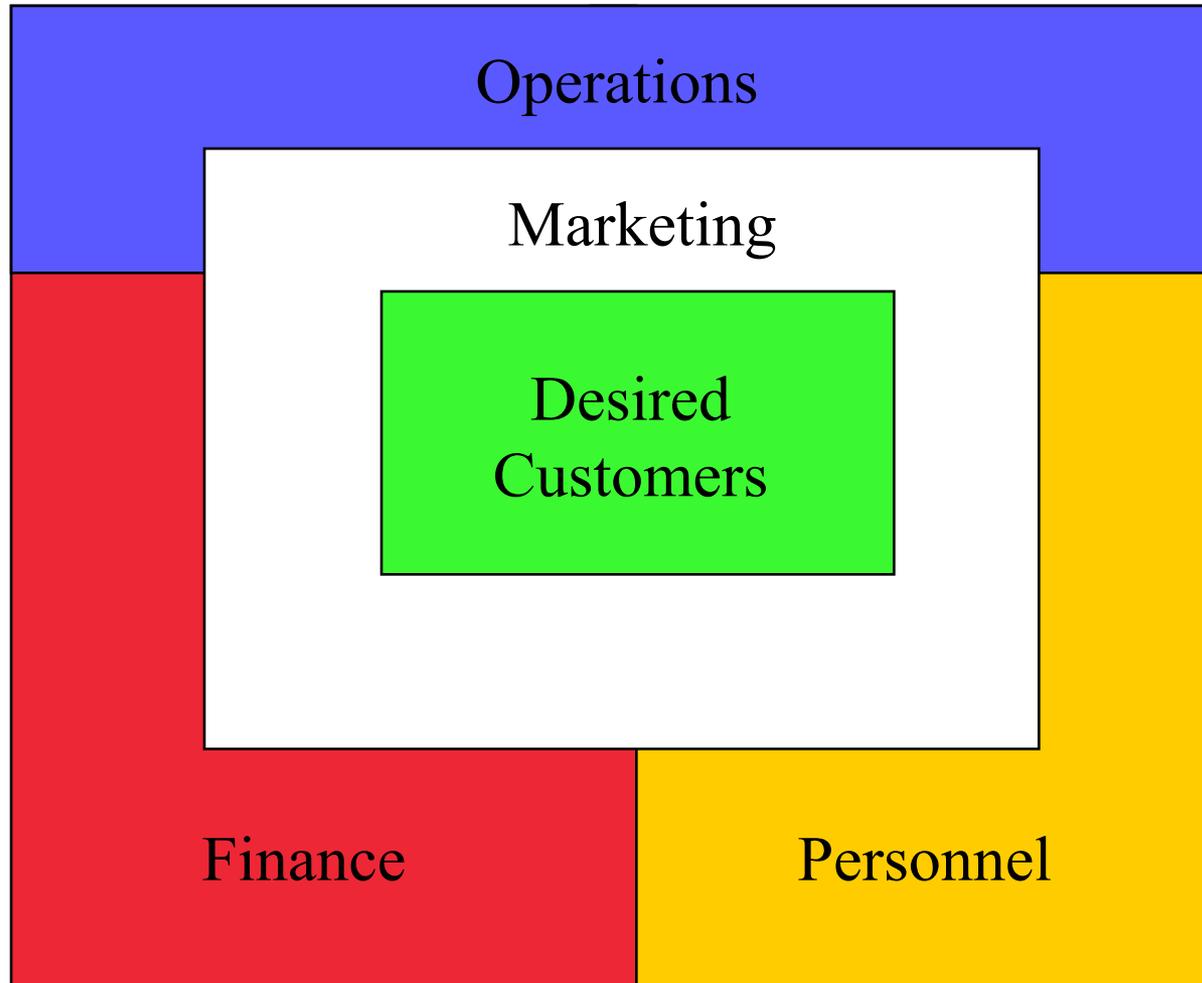
1.463 Globalization of the E&C Industry

Fall 2009

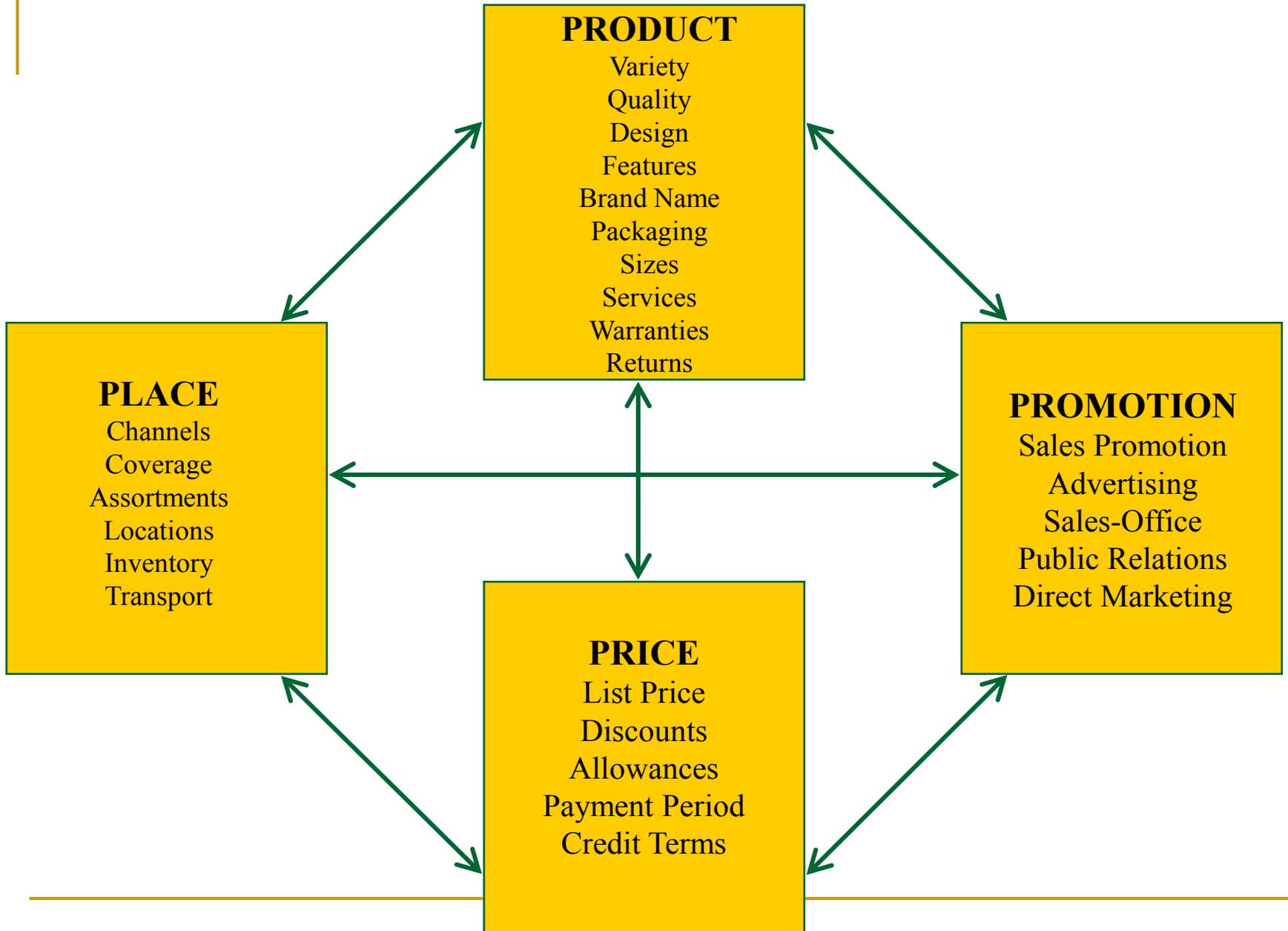
Fred Moavenzadeh

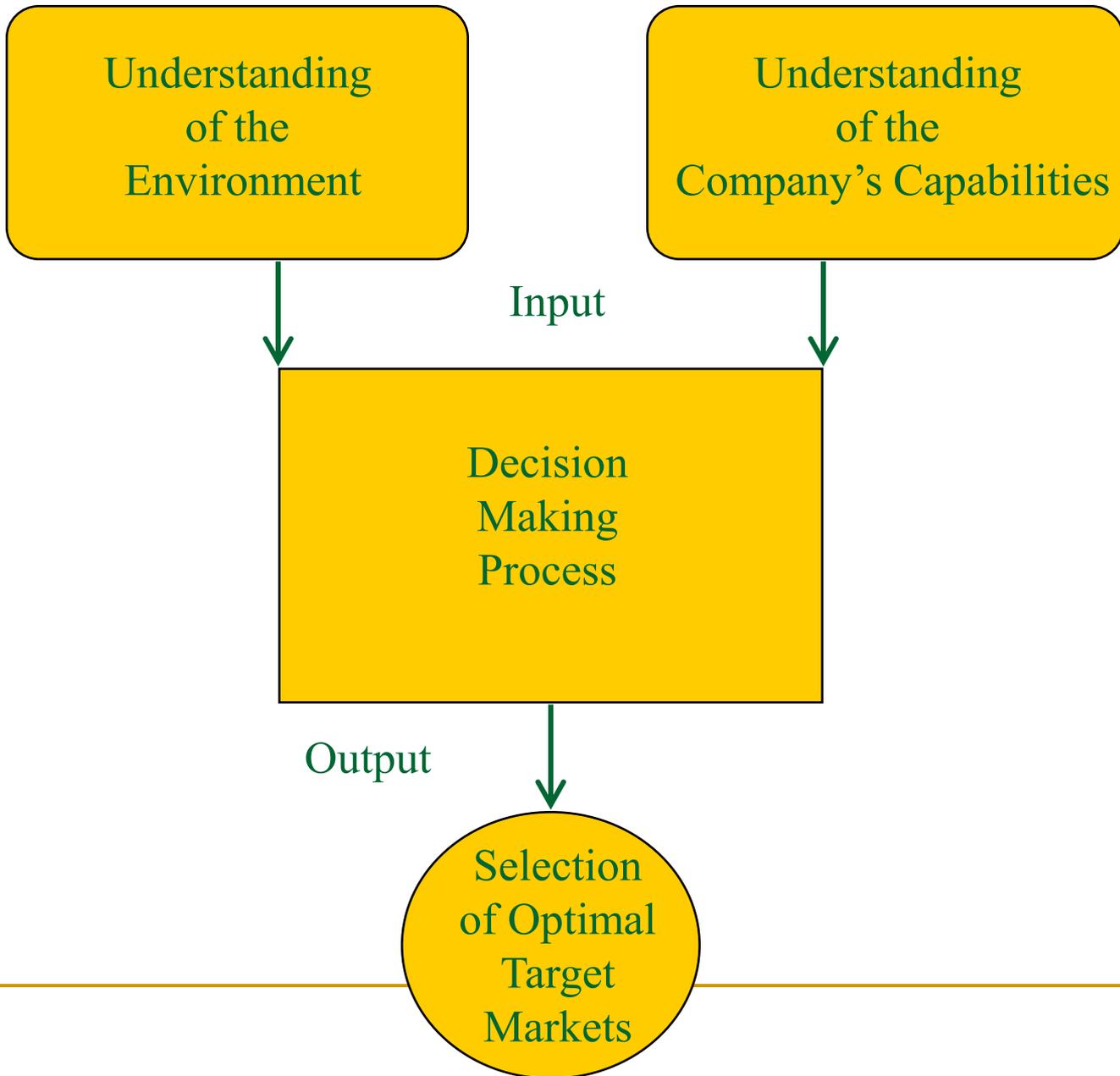
WHAT IS MARKETING?

- *“Marketing is the management process responsible for identifying anticipating and satisfying customer requirements profitability.”*

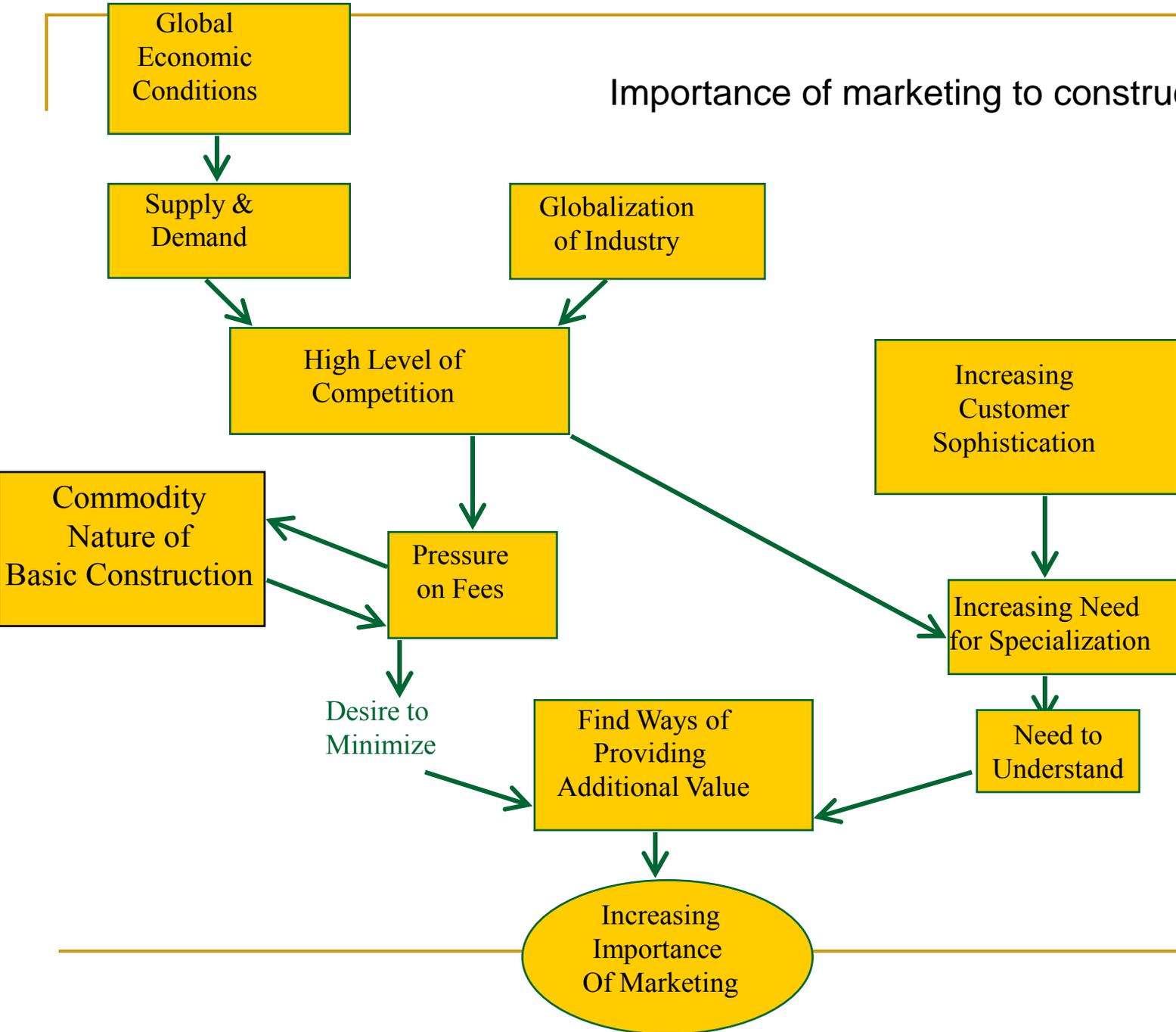


Marketing as a link between customers and other areas of business



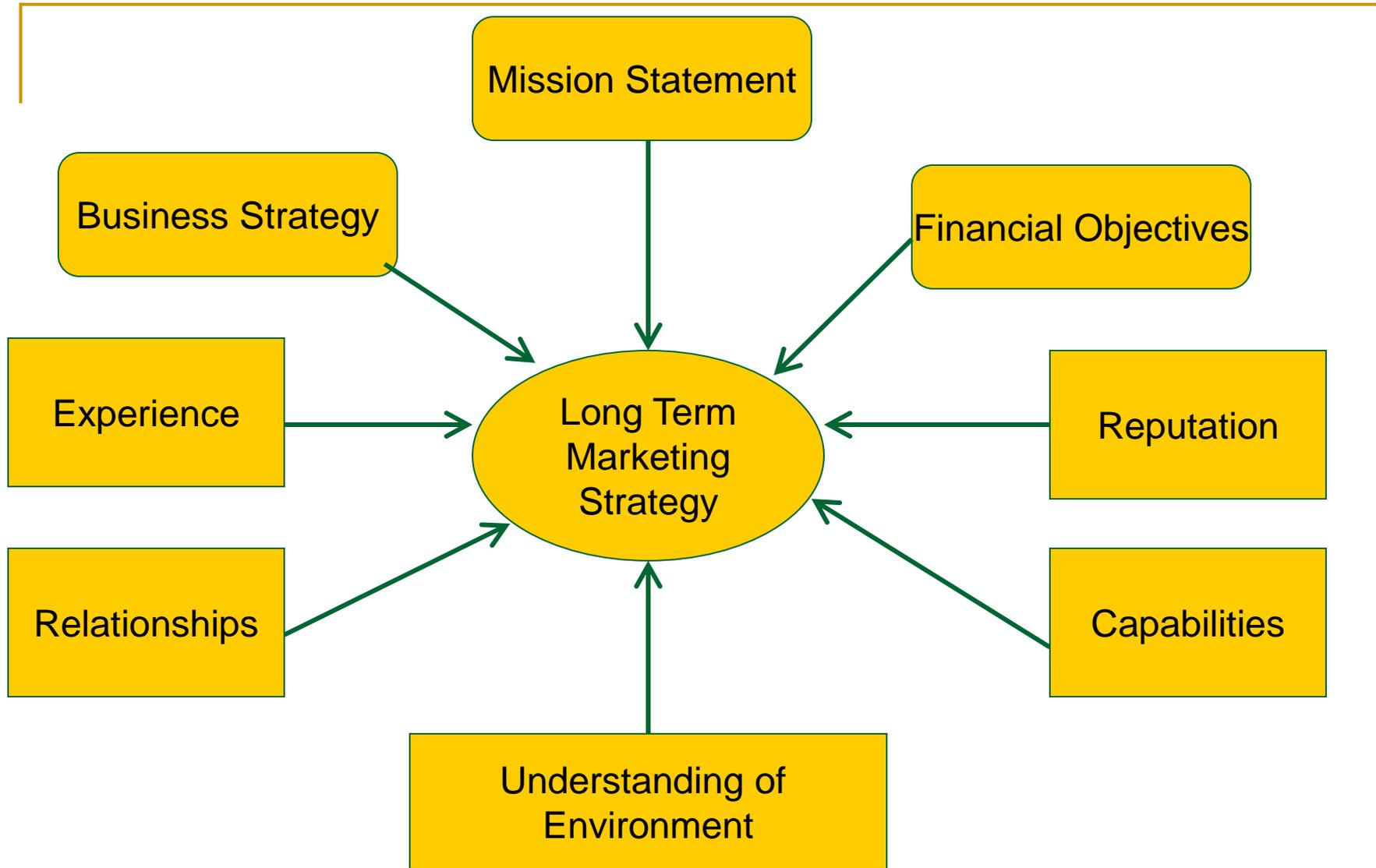


Importance of marketing to construction

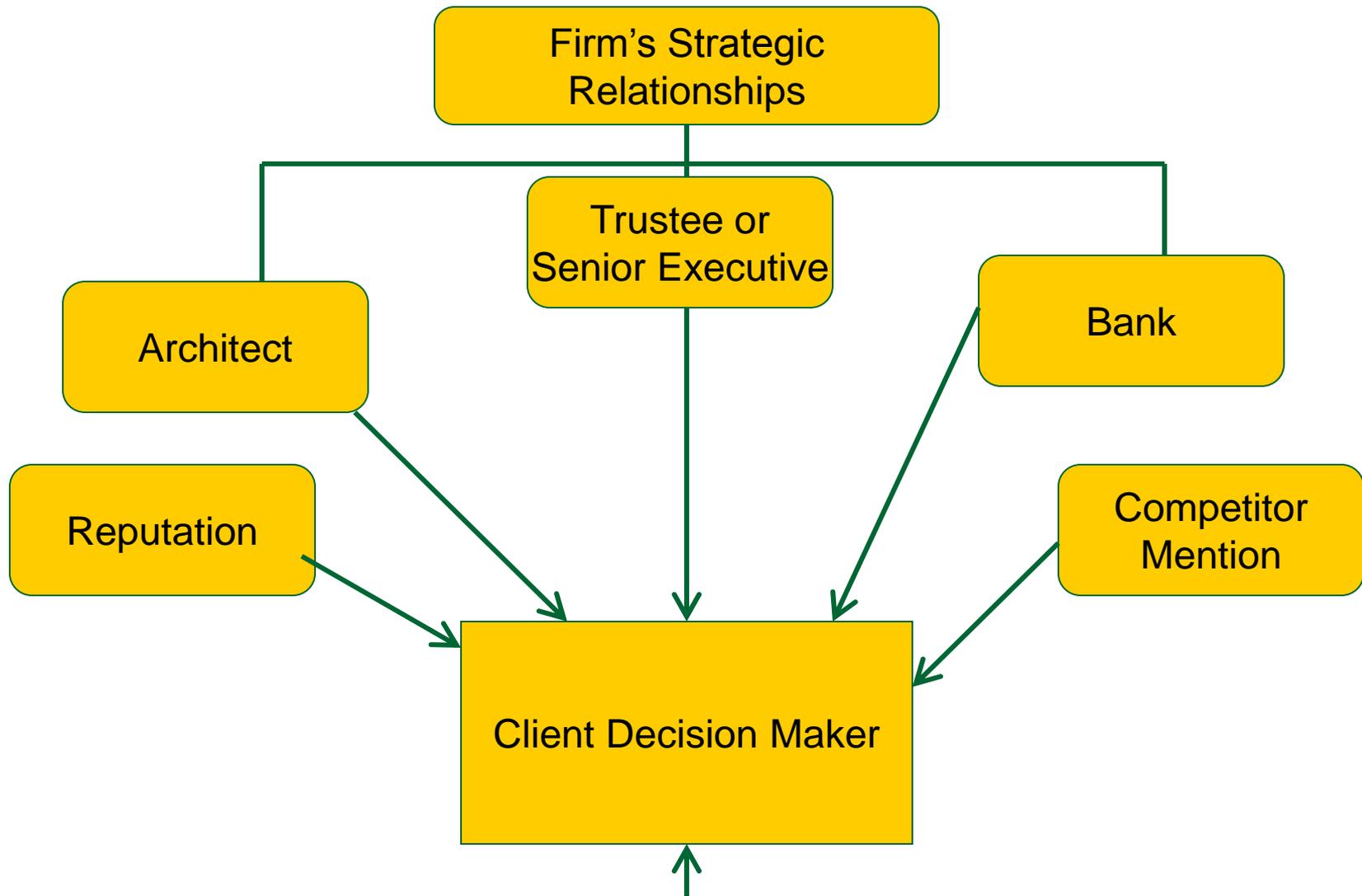


Features Affecting Marketing

1. Breadth of Service
2. Pricing
3. Promotion
4. Information Resources
5. Who is Involved in Marketing
6. Central Mechanism



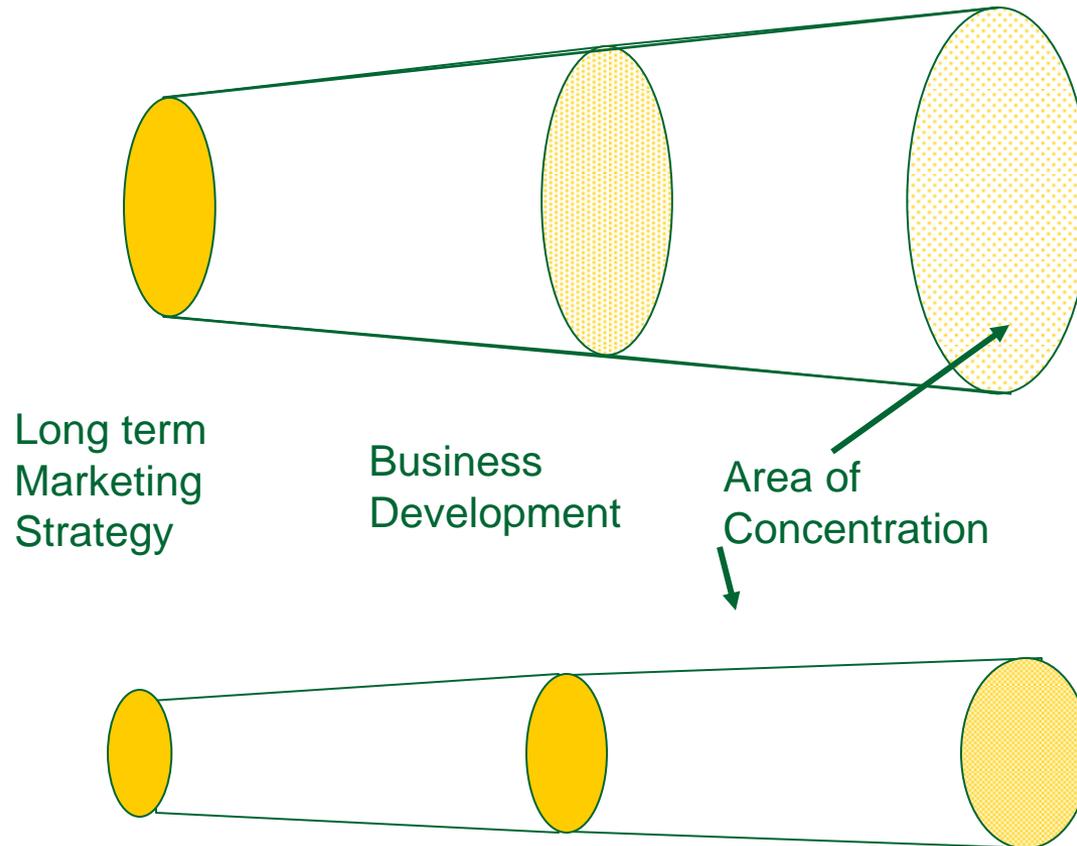
A graphical representation of the factors considered by the companies when
Developing long term marketing strategies



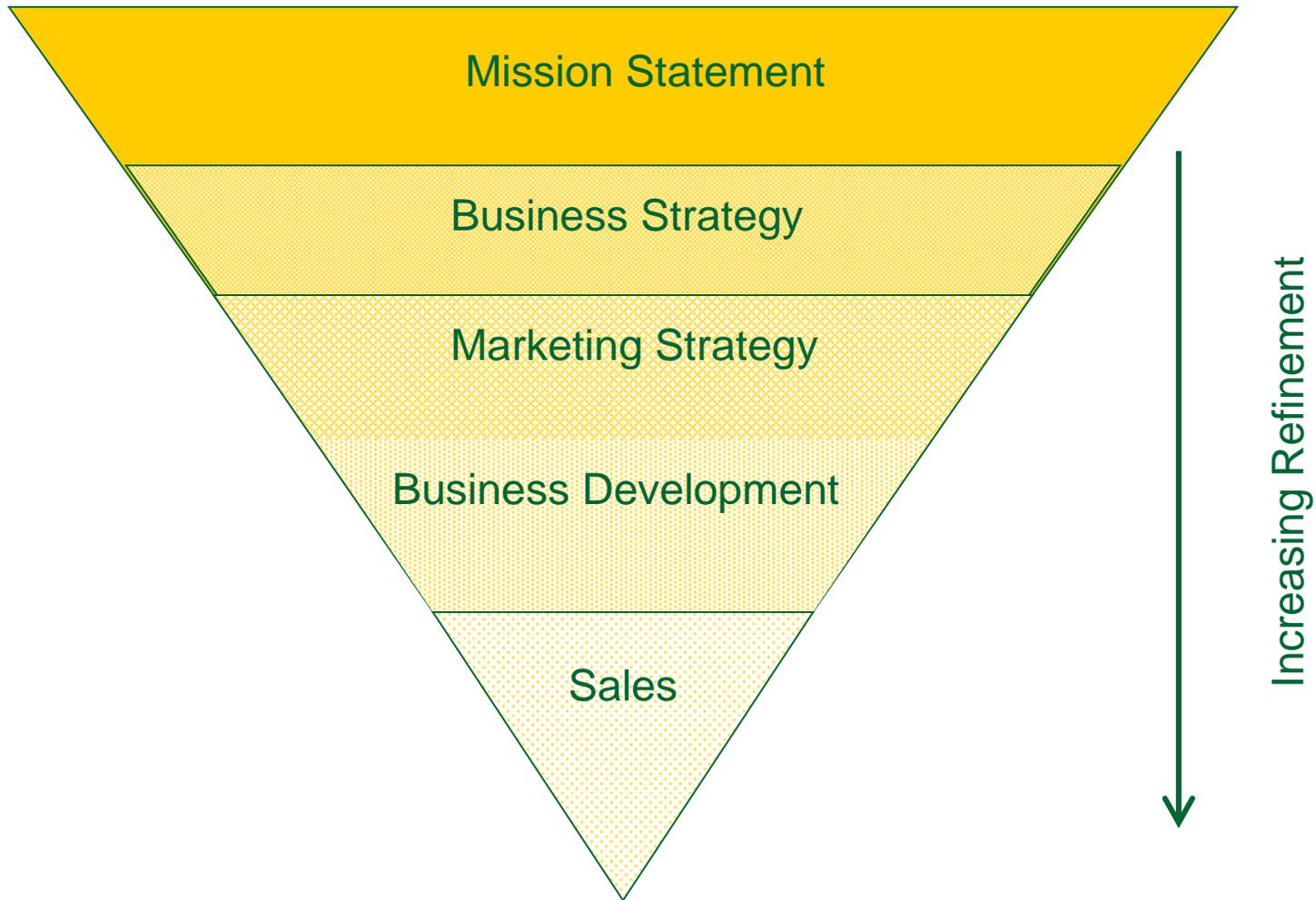
Question: Which Contractors to Send RFP's to?

An illustration of the influence of certain strategic non-customer relationships?

Effect of loosely defined strategy and limited control



Effect of well defined strategy and good control



An Illustration of the Increasing Level of Refinement Required for Each Activity

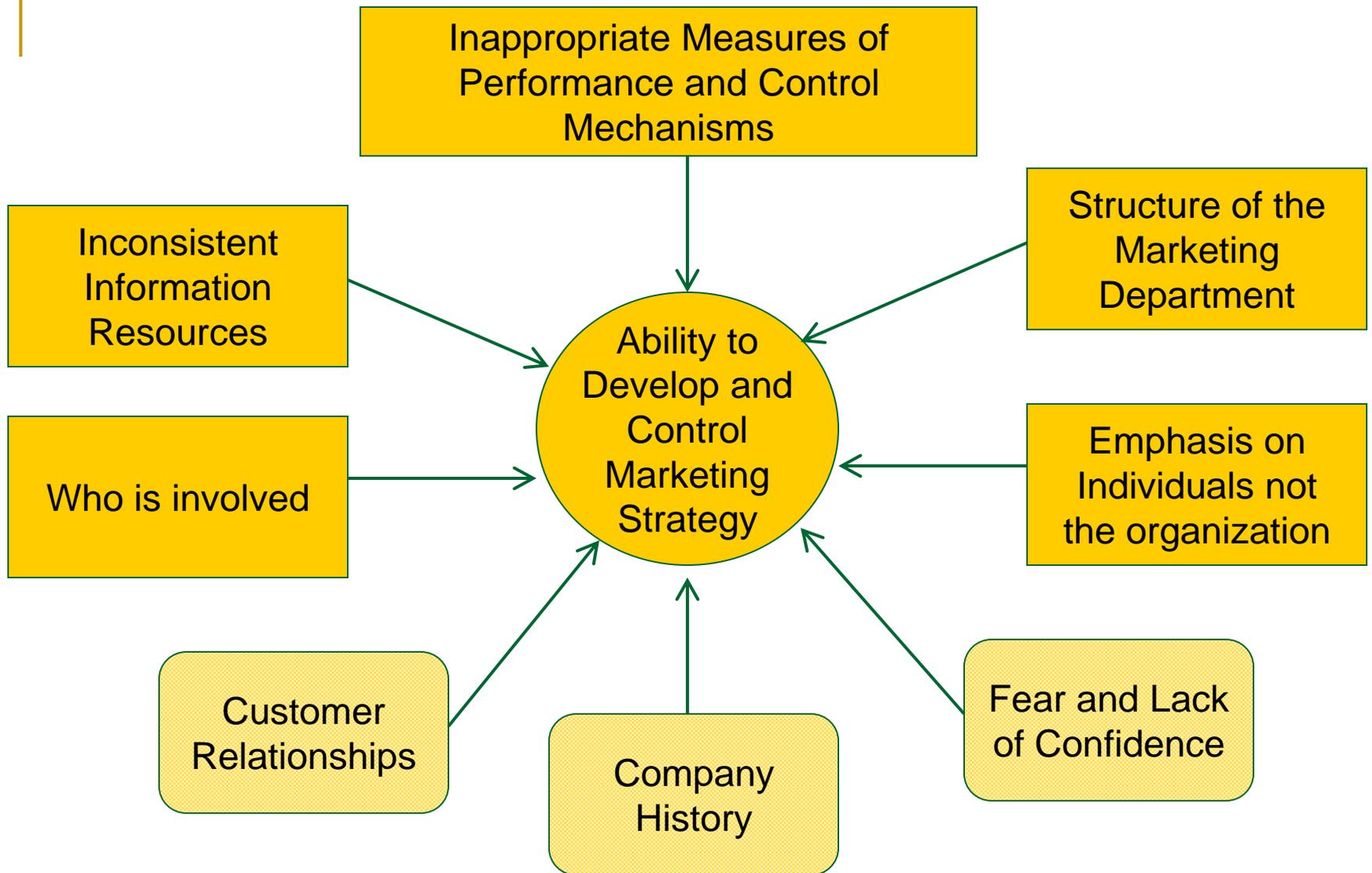
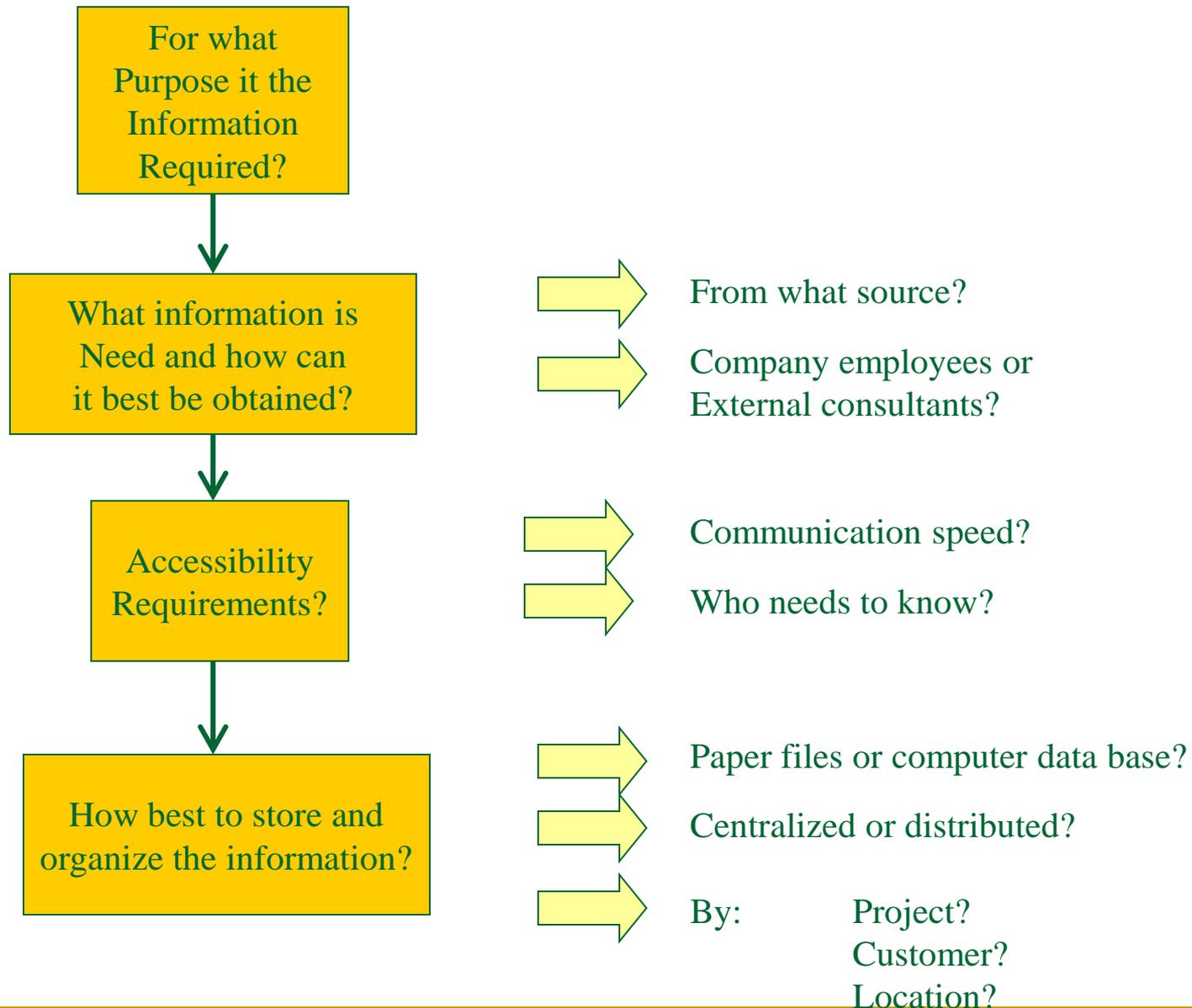
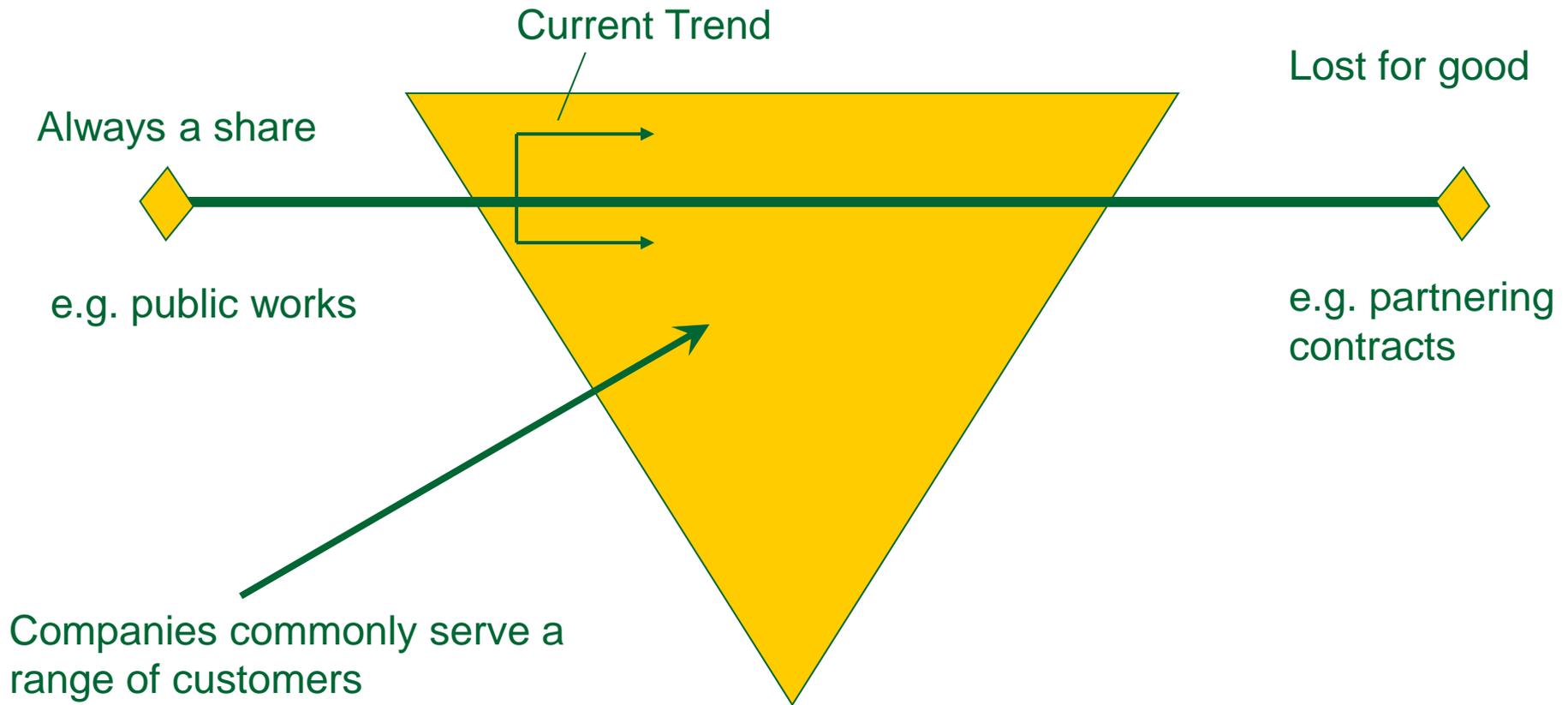


Illustration of factors affecting a construction companies ability to perform the marketing task.



An illustration of the thought process involved when gathering and subsequently using information.



*An illustration of the customer relationship continuum
that exists in the construction industry.*

Company	Established	Annual Volume (Millions of \$)	No. of Employees	Major Segments	Major Services
Bechtel	1898	9,000	21,000 (47)	Civil engineering Petroleum, chemical and industrial	Design, procurement, engineering, construction & financing
Brown & Root Inc.	1919	3,500	40,00 (20+)	Civil engineering, petroleum, chemical, environment & industrial	Eng, procurement, const. mngmt & maintenance
Gilbane Building Co.	1873	1,200	1,200	Corporate, public sector, healthcare & institutional/educational	Construction mngmt, program mngmt & general contracting
Kennedy & Rossi	1981	46	100 (1)	Pharmaceutical/biotech, independent school and healthcare	Construction mgmt, program mgmt and general contraction
Macomber	1904	100	100 (2)	Medical, industrial & institutional	Preconstruction planning, construction mngmt & construction
Morse Diesel	1936	1,000	400 (13)	Commercial, industrial, transportation, sports stadiums, correctional & entertainment	Construction mngmt/consulting general contracting & design/build

External Analysis

Characteristics that might be considered opportunities could include:

- Market size
- Market growth rate
- Value placed on construction services by customer
- Tendency for customers to stick with small number of providers
- Fee Level
- Political, economic and societal trends
- Match organization's capabilities
- Unfulfilled customer needs
- Opportunity for niche markets
- Price elasticity of market
- Number of competitors
- Cost of Entry
- Cost of Exit

External Analysis (continued)

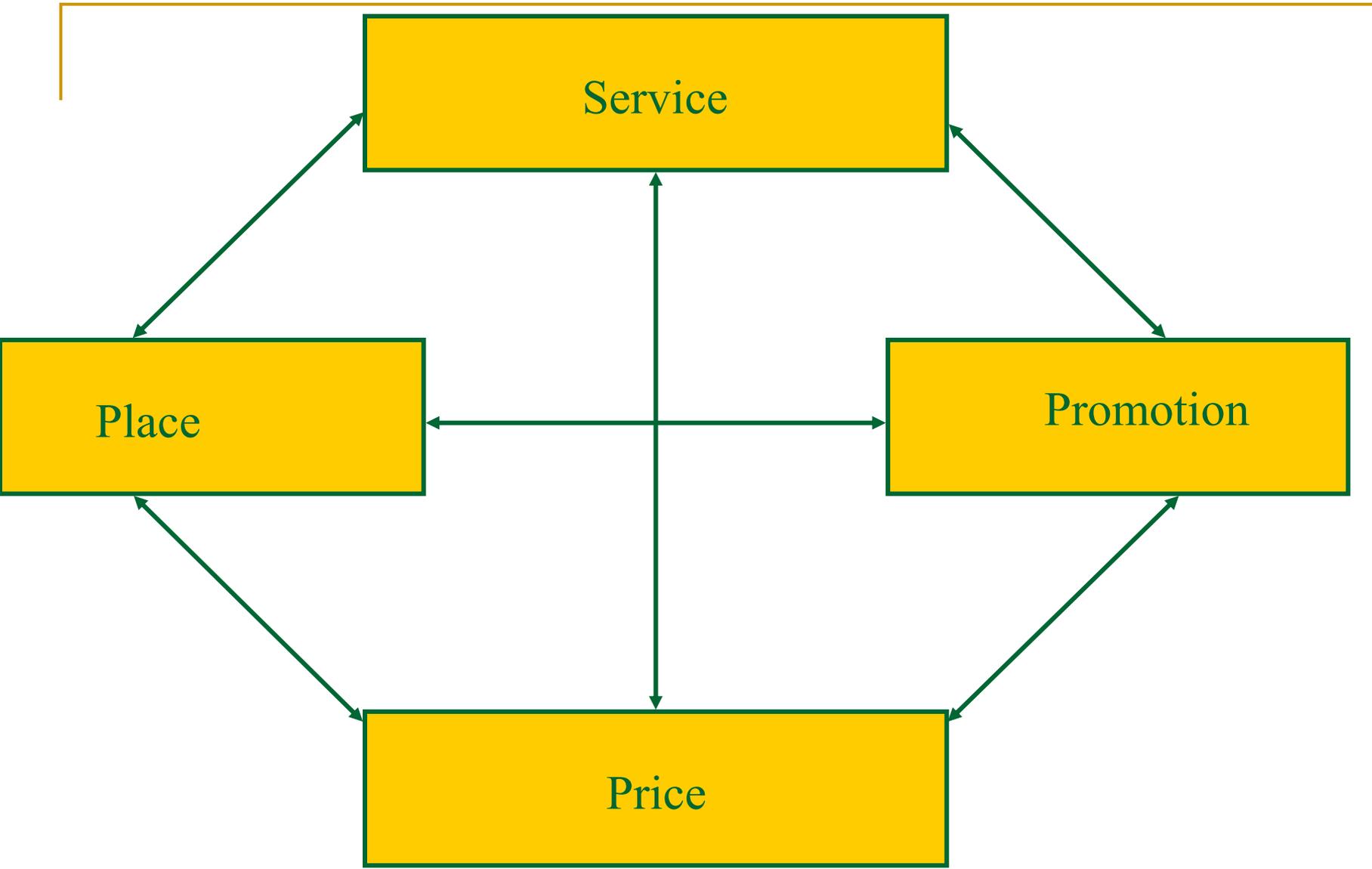
Characteristics that might be considered threats could include:

- Number of competitors
- Cost of entry
- Cost of exit
- Political, economic and societal trends
- Regulatory changes
- Tendency for customers to consider construction a commodity
- Chance of price war
- Lack of consistency with strategy
- Increasing segmentation
- Increasing requirement for specialization
- Strongly entrenched competition
- Buyer bargaining power
- Integrity of customers

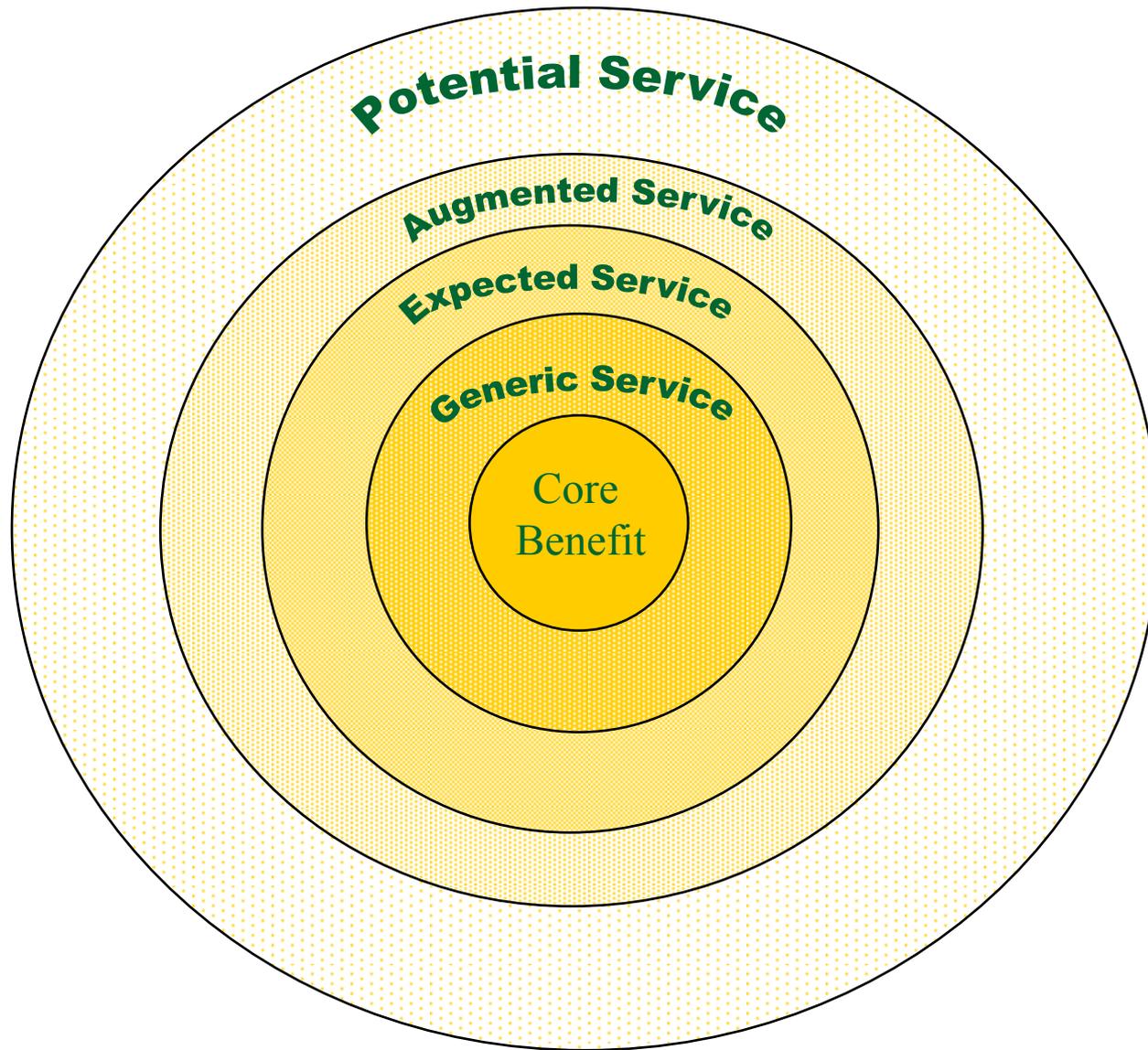
Competitive Advantage

	Substantial Advantage	Parity	Substantial Disadvantage
High			
Medium			
Low			

A Grid Combining Market Attractiveness
and Competitive Advantage

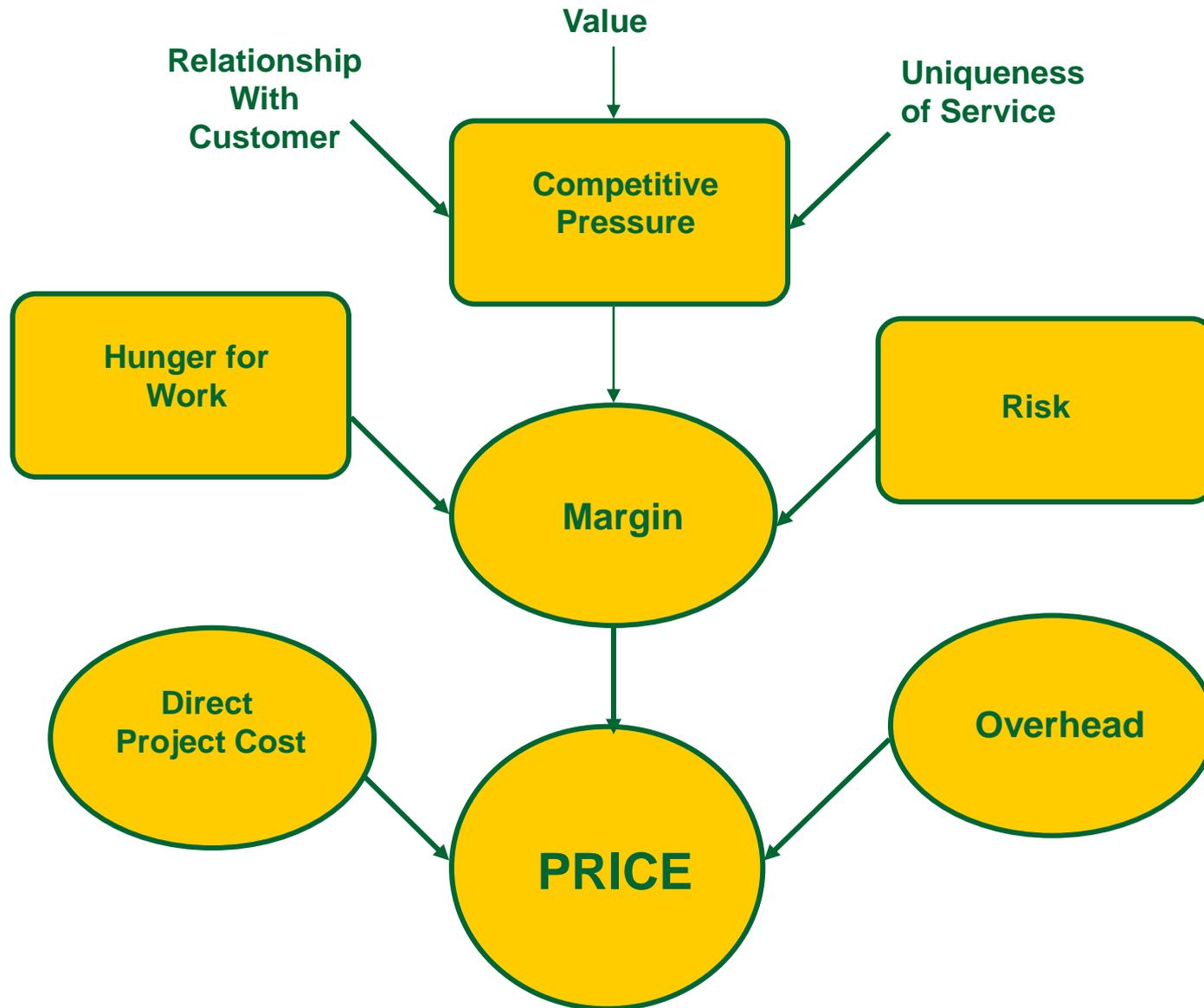


An Illustration of the Major Components of a Marketing Strategy and Their Inter-Relationship

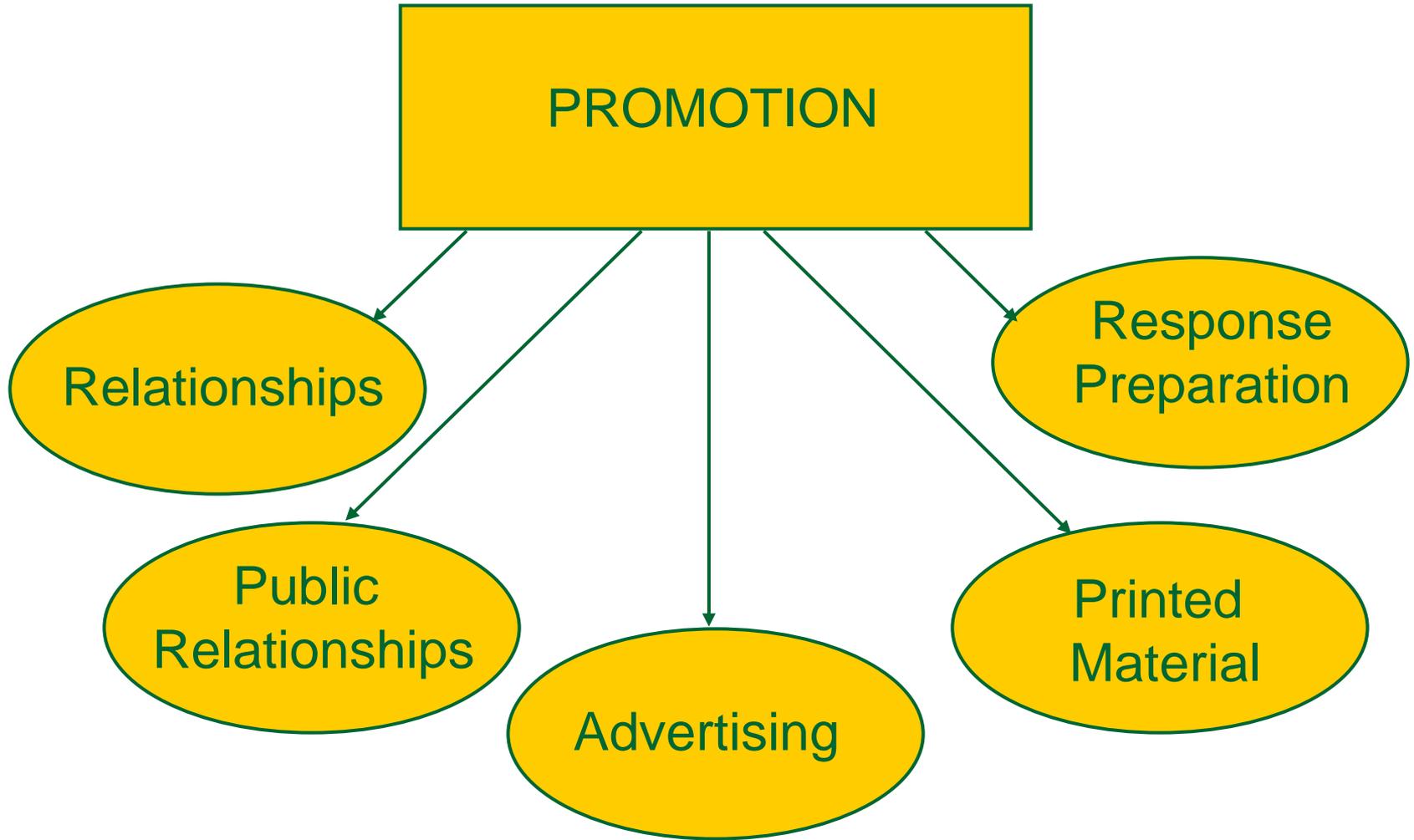


An Illustration of the Different Regions of the Service Component of a Marketing Strategy

Fall 2009



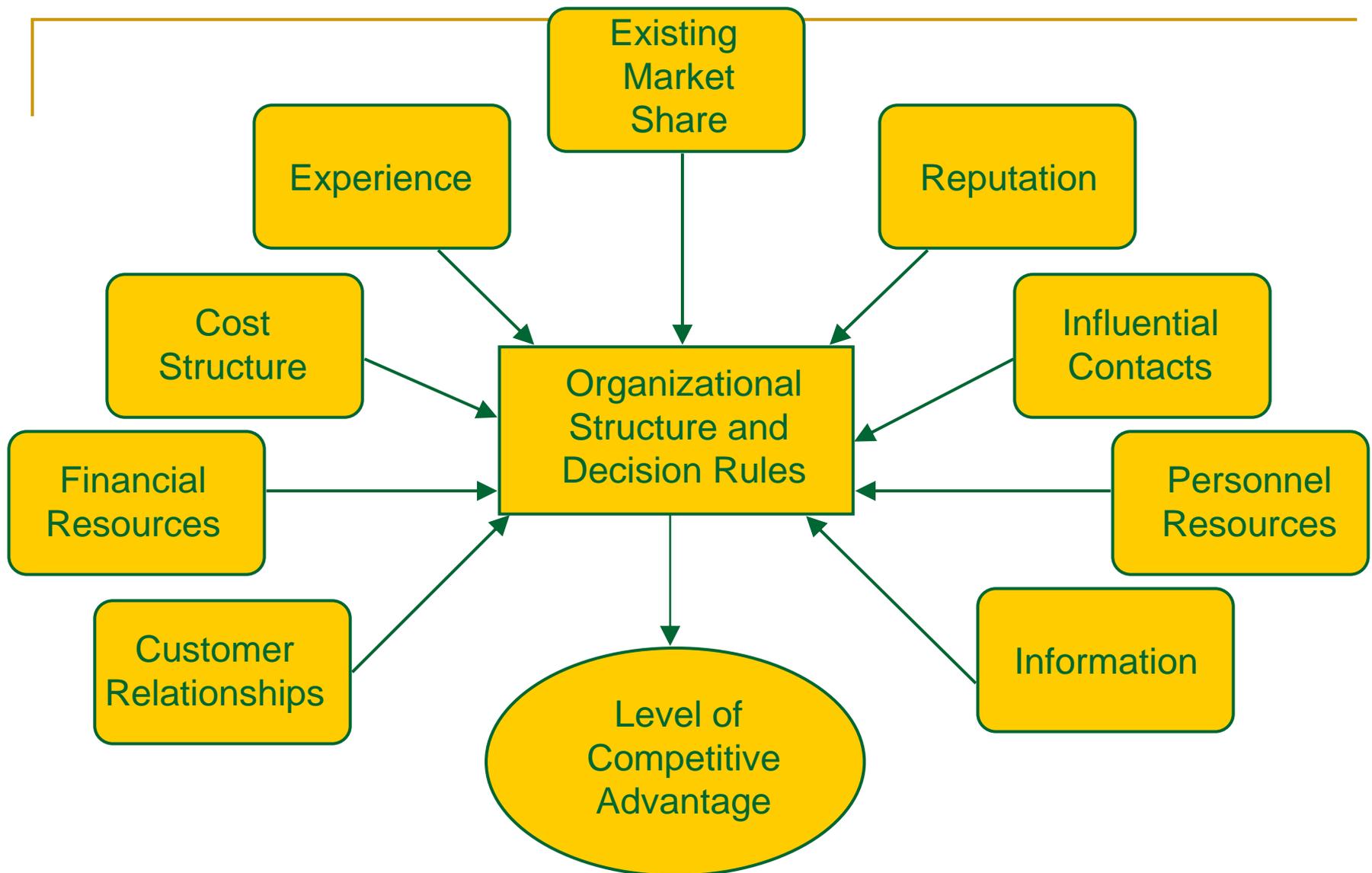
An Illustration of the Elements that Should be Considered in Developing the Price Component of the Strategy Fall 2009



The Main Components of Promotion

Control Mechanisms for Implementation of Marketing Strategy

- 1) Establishment and adherence to a marketing budget.
- 2) Strategy performance reviews.
- 3) Opportunity.
- 4) Use of payment incentive schemes for responsible individuals.
- 5) Clear rules detailing who, and under what circumstances, the strategies may be modified.



An Illustration of the Types of Characteristics that must be Considered in Order for a Company to Determine the Level of Performance Attainable.

The Importance of Marketing at BPCI

BPCI makes a distinction between marketing and business development

- Marketing is considered to be the more strategic activity, responsible for developing strategies and providing support and direction to business personnel.
- Business development is considered to represent the implementation of the strategy, in other words the sales activity.

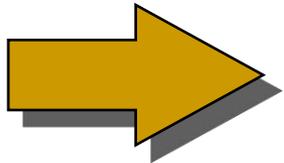
What Does Marketing Achieve?

Currently marketing provides the organization the ability to achieve the following:

- Develop and maintain customer relationships
- Lead strategy for the development of proposals that are responsive to customers needs, highlighting areas of differentiation
- Lead project teams in presentations that effectively illustrate areas of differentiation
- Lead commercial strategy and contract negotiations that assists the achievement of financial objectives

The Marketing Strategy Development Process

*Choice of service offerings is
made by customers.*



The Organization Responds to the Environment

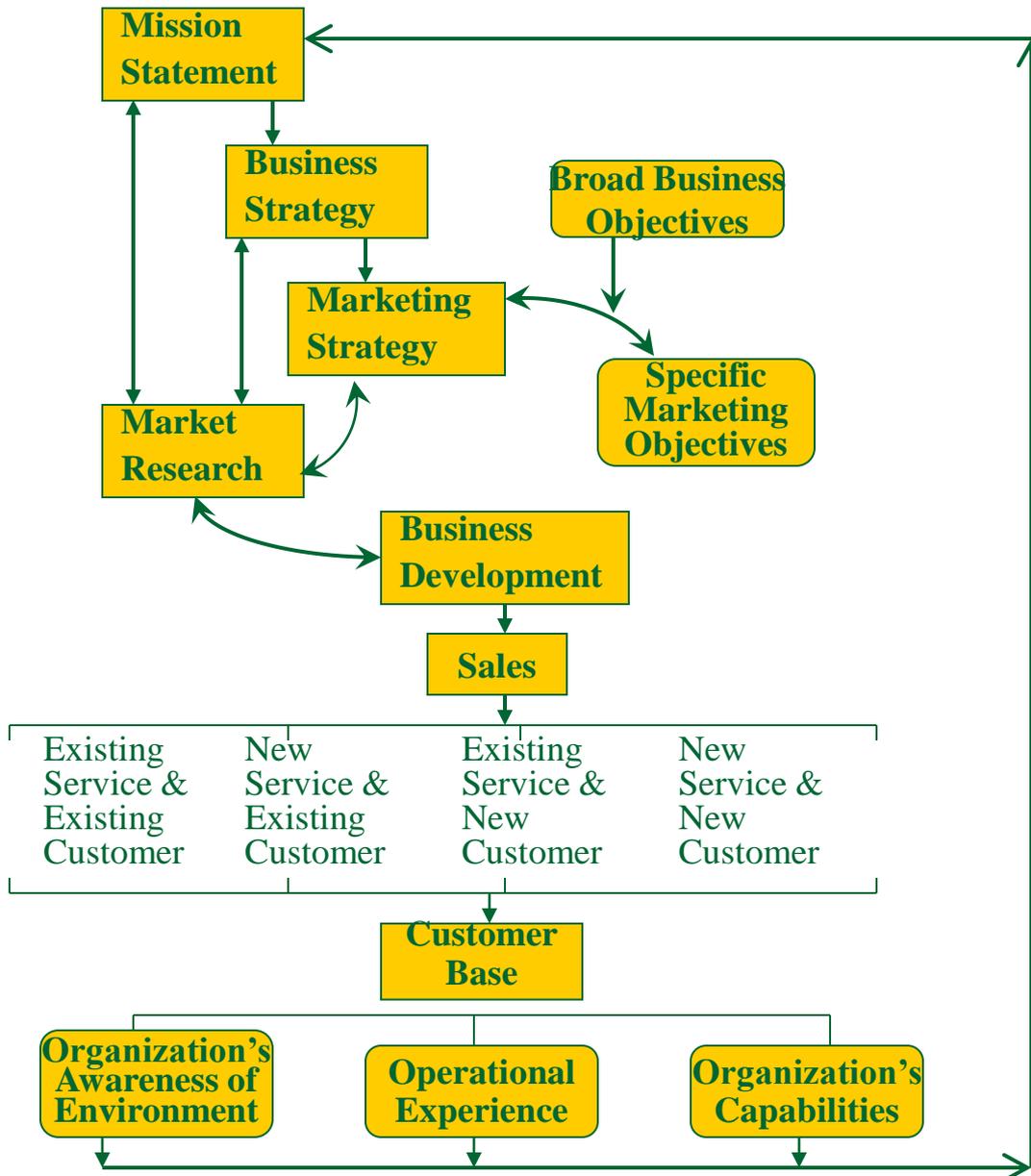
The Value that BPCI feels it Provides its Customers is:

“Solutions to their facilities requirements. BPCI essentially provides a pool of resources (experience and expertise) that resides in its employees.”

Segmentation

The following provides a list of the major segments served by BPCI:

- ***Bechtel Petroleum:*** including the design and construction of oil production and drilling platforms.
- ***Chemical:*** including the design and construction of a broad range of chemical manufacturing and processing facilities and process design and development.
- ***Industrial:*** including the design and construction of manufacturing facilities, e.g. pulp & paper and pharmaceutical plants.
- ***Refining:*** including the design and construction of refineries and advanced process design and control systems.
- ***Pipeline:*** including the design and construction of oil and chemical pipelines.

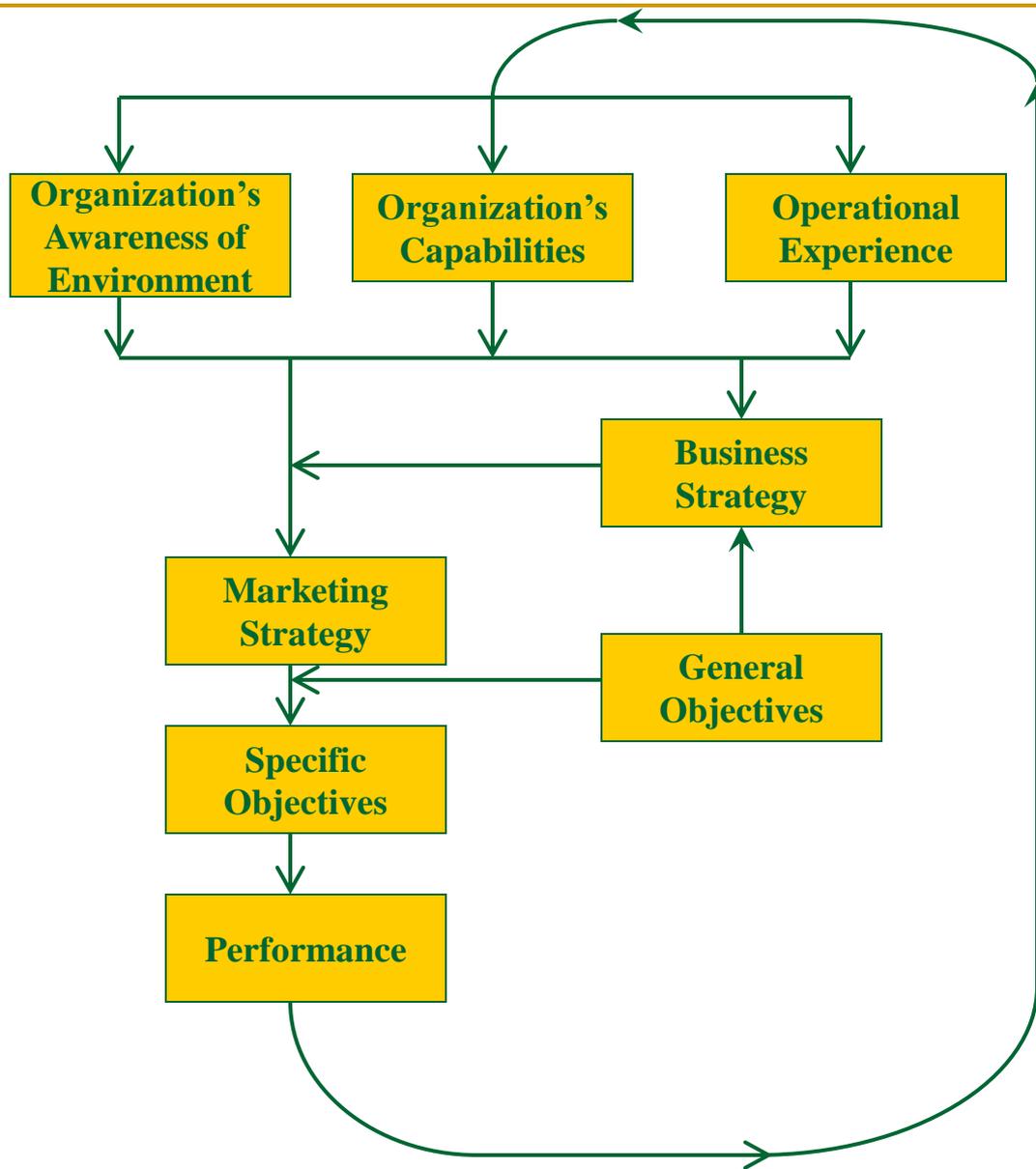


Marketing in the context of strategic planning

Developing a Marketing Strategy

An organization's marketing strategy should be developed as the result of the following three step process:

- Systematically analyzing not only the environment in which it competes but also its own capabilities within that environment
- Deciding on which areas to concentrate by matching opportunities with capabilities and setting realistic goals that will enable the company to achieve the general objectives and maintain the organizational direction defined by the business strategy.
- Developing and implementing specific strategies and plans that will achieve the goals established in 2



Company	Estblshd. Since	Annual Vol (Mil of \$)	No. of Employees (No of Offices)	Major Segments	Major Services
Bechtel	1898	9,000	21,000 (47)	Civil eng., petroleum, chemical, and industrial	Design, procurement, eng. Construction & financing
Brown & Root Inc.	1919	3,500	40,000 (20+)	Civil eng., petroleum, chemical, environmental & industrial	Eng., procurement, construction, management & maintenance
Gilbane Building Co.	1873	1,200	1,200 (10)	Corporate, public sector healthcare & institutional/educational	Construction mgmt., program mgmt., & general contracting
Kennedy & Rossi	1981	45	100 (1)	Pharmaceutical/biotech, independent school & healthcare	Construction mgmt, program mgmt. & general contracting
Macomber Building Co.	1904	100	100 (2)	Medical, industrial & institutional	Preconstruction planning, construction mgmt. & construction
Morse Diesel Int.	1936	1,000	400 (13)	Commercial, industrial, transportation, sports stadiums, correctional & entertainment	Construction mgmt., consulting, general contracting & design/build
Raytheon Eng & Constructors	1968	3,000	16,000 (17)	Civil eng., petroleum, chemical, industrial & environmental	Design, procurement, eng., construction & financing
Turner Construction Co.	1902	2,600	2,500 (45)	Commercial, healthcare, amusement, hotel public & manufacturing	Construction mgmt., program mgmt. & general contracting

Strategic Reasons to Enter a New Market

- Basic Motivation:
 - More attractive profits thru:
 - Possession of certain competency or
 - Acquisition of certain competence
- Secondary Reasons:
 - Acquisition of new technology
 - To hedge against currency fluctuation's
 - To expand scale or scope of the Operations
 - To balance cyclical domestic demand



Sustainable Competitive Advantage

Strategic Changes of International Construction Firms

Period	U.S.	Europe	Japan	Others
Before 1960	Cost/quality leader			
1960s	Differentiation & diversity		Protected market	
1970s	Design leader, managerial skills	Technical advances	Technical & Financial	Rising competence
1980s	Declining market, concentration on CAD and specialty constr.	Entering new markets in U.S.	Total package strategy new	Low cost leader, cheap labor
1990s	Niche Market - high tech - environment - Proj Mgmt.	Expansion in U.S. thru acquisition	Setback, recession debt	Emergence of Greece, Turkey, Russia Financing

How to Sustain Competitive Advantage

- Ability to offer continuously: better performance, lower cost, a combination of the above two;
- Continuously search for, identify, and exploit the horizontal linkages between activities within or across value chains which enable the firm to improve the performance and/or lower the cost of the products and services it provides;
- Identify links in existing value chains that have conflicting incentives that weaken overall effectiveness of the value chain (“negative sum” or “zero sum” relationships) and, having identified these conflicting incentives, to improve the existing value chain by realigning conflicting incentives through vertical integration, through establishing long-term cooperative relationships, or through creating new incentives that counteract existing conflicting incentives;
- Achieve a superior awareness of changes in market needs and available technologies and be able to move quickly to deploy the most advantageous technologies in the service of existing or new market needs.

Secondary Strategy for Entering a New Market

1. Balance cyclical, stagnating, or inadequate demand in the firm's home market by creating revenue sources in other markets;
2. Achieve economies of scale or scope by expanding the firm's operations into other markets;
3. Earn U.S. dollars or other hard currencies not available to the firm in its home market;
4. Hedge against currency exchange fluctuations by creating revenue streams and/or cost streams in currencies other than the currency of the firm's home market;
5. Engage in multipoint competition by competing directly in the profitable home market;
6. Gain access to technologies and skills available in overseas markets but not in the firm's home market;
7. Establish relationships with Foreign firms that may be potential clients for E&C services in home country or in other markets;
8. Take advantage of home government incentives to export products or services.

Why Foreign Firms are Interested in U.S. Markets

1. Extend the technological capabilities of the firm, especially those capabilities which will be needed by newly emerging industries and newly emerging markets. (microelectronics, South East and East Asia).
2. Expand the demand base of the firm, especially in those activities in which the firm will have to invest in acquiring new technological expertise; (General des Eau, British Water Co.)
3. Study U.S., and other foreign firms who may become competitors in the home market by competing or cooperating with them in the U.S. market; (Skanska, Ferrovial, Philip Holtzman)
4. Secure the protection of the U.S. Government in countries which do not have political stability (Lebanese Companies)
5. Reinvest dollars back into the U.S. economy (Japanese Firms)
6. Opportunities for B.O.T.: Legal Systems, Financial Market, Large Demand

Market Analysis

- Market Segmentation
- Assessing Value Chain
- Achieving Sustainable Competitive Advantage

Fundamental Objective

To provide product or service that is:

- a) Superior Performance
- b) Lower Price
- c) Combination of performance and price

Market Segmentation:

To identify clusters of customers who buy products or service with specific performance/price characteristics

Need pre-entry assessment of the potential (profitability of a market segment).

Entry Barriers

- Economics 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
- Governmental policy
- Expected Retaliation

Rivalry Determinants

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

Suppliers

Bargaining Power of Suppliers

New Entrants

Industry Competitors

Intensity Of Rivalry

Bargaining Power of Buyers

Buyers

Determinants of Supplier Power

- Differentiation of inputs
- Switching costs of suppliers and firms in the industry
- 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

Determinants of Buyer Power

Bargaining Leverage

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

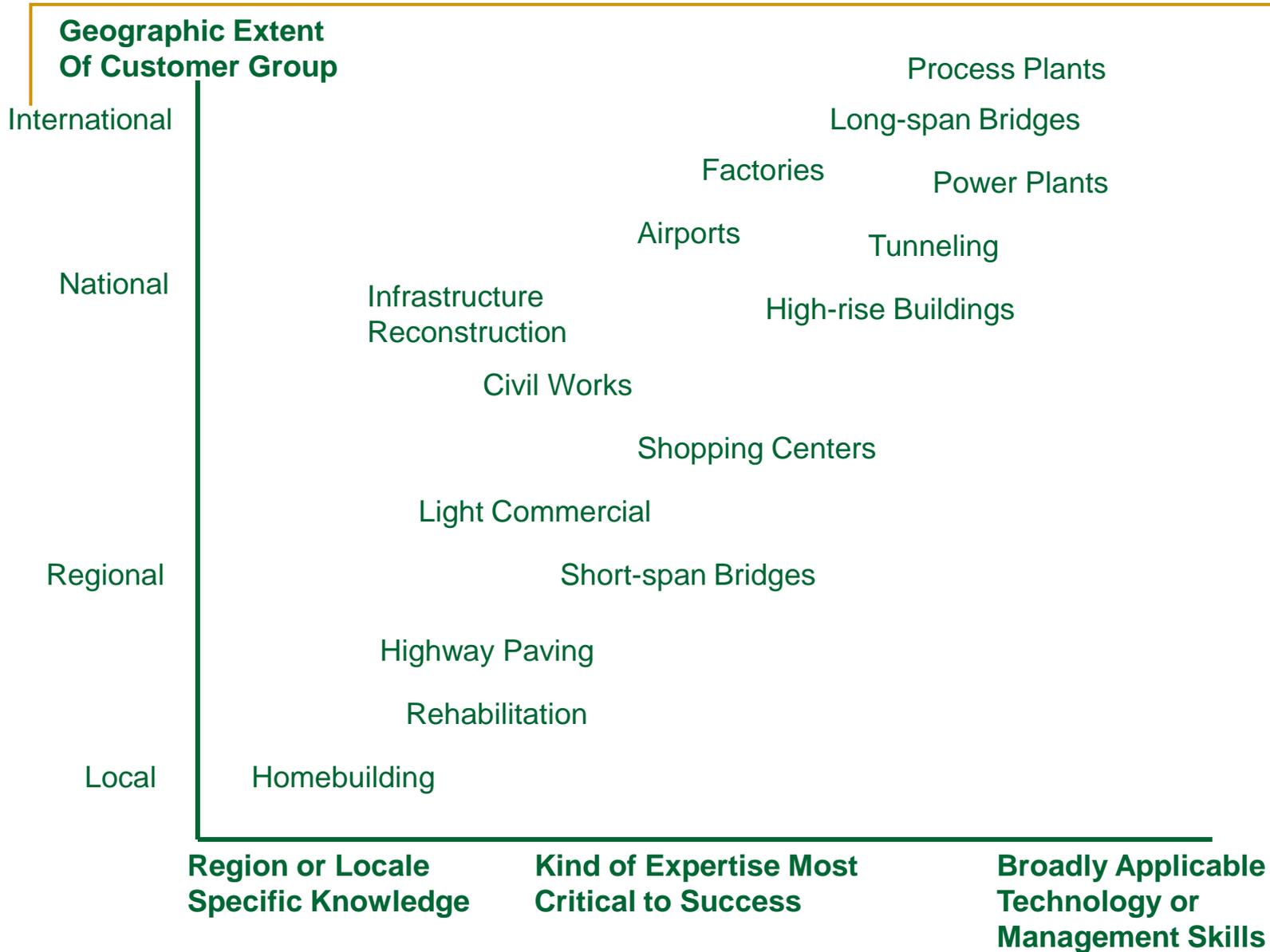
Determinants of Substitution Threat

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

Substitutes

Examples of Methods of Segmentation and Their Benefits

Method of Segmentation	Benefit	Examples of Companies Using this Method
Geographic	Provides insight into the different service requirements of separate regions. Assists planning of resource allocations.	Turner Gilbane Morse Diesel Int.
Service Type	Helps an organization identify and anticipate trends and to assess in which areas the company should focus its attention.	Brown & Root Inc. Bechtel P, C & I Raytheon E & C
Customer Industry	Provides the company with the ability to determine the requirements of each industry, hence devise the most appropriate responses. It is also a means of providing the customers with a sense of commitment to and specialization in their industries.	Morse Diesel Int. Macomber Kennedy & Rossi
Customer's Perceived Value of Construction Services	Allow the organization to assess the acceptable fee levels for different customers and industries. Provides the ability to determine which areas will provide the highest profitability.	Bechtel Macomber



Segmentation of the U.S. Homebuilding Market

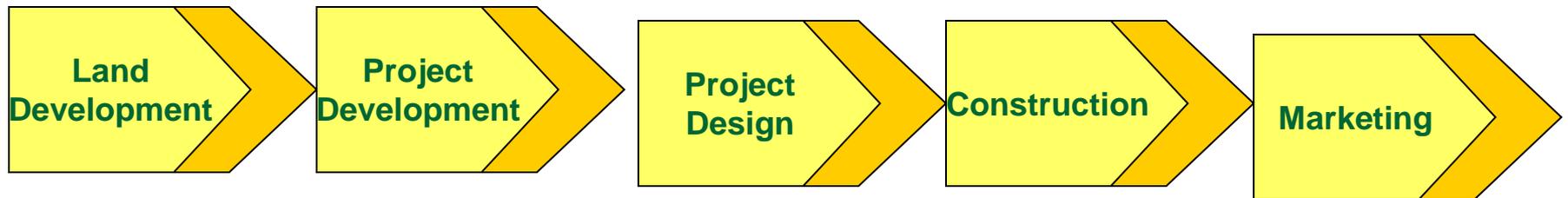
Approximate
Price of Home
Desired by Buyers



Primary and Secondary Activities in a Value Chain



Simplified Value Chain for Homebuilding

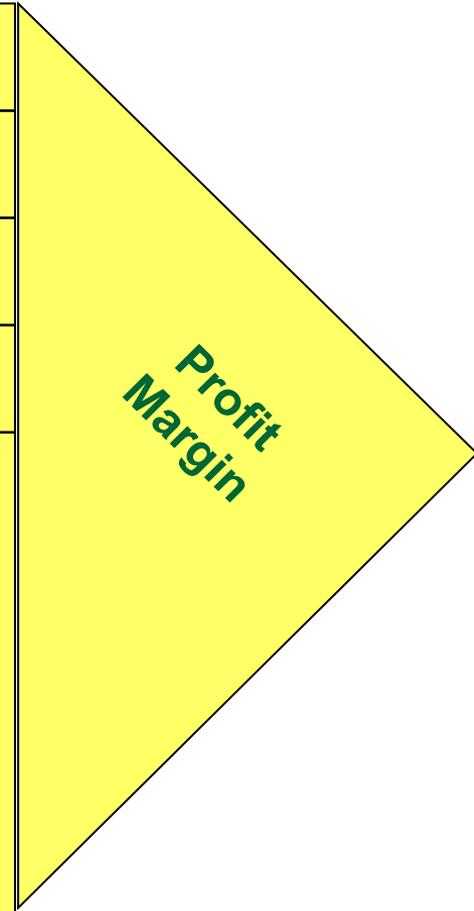


**Secondary
Activities**

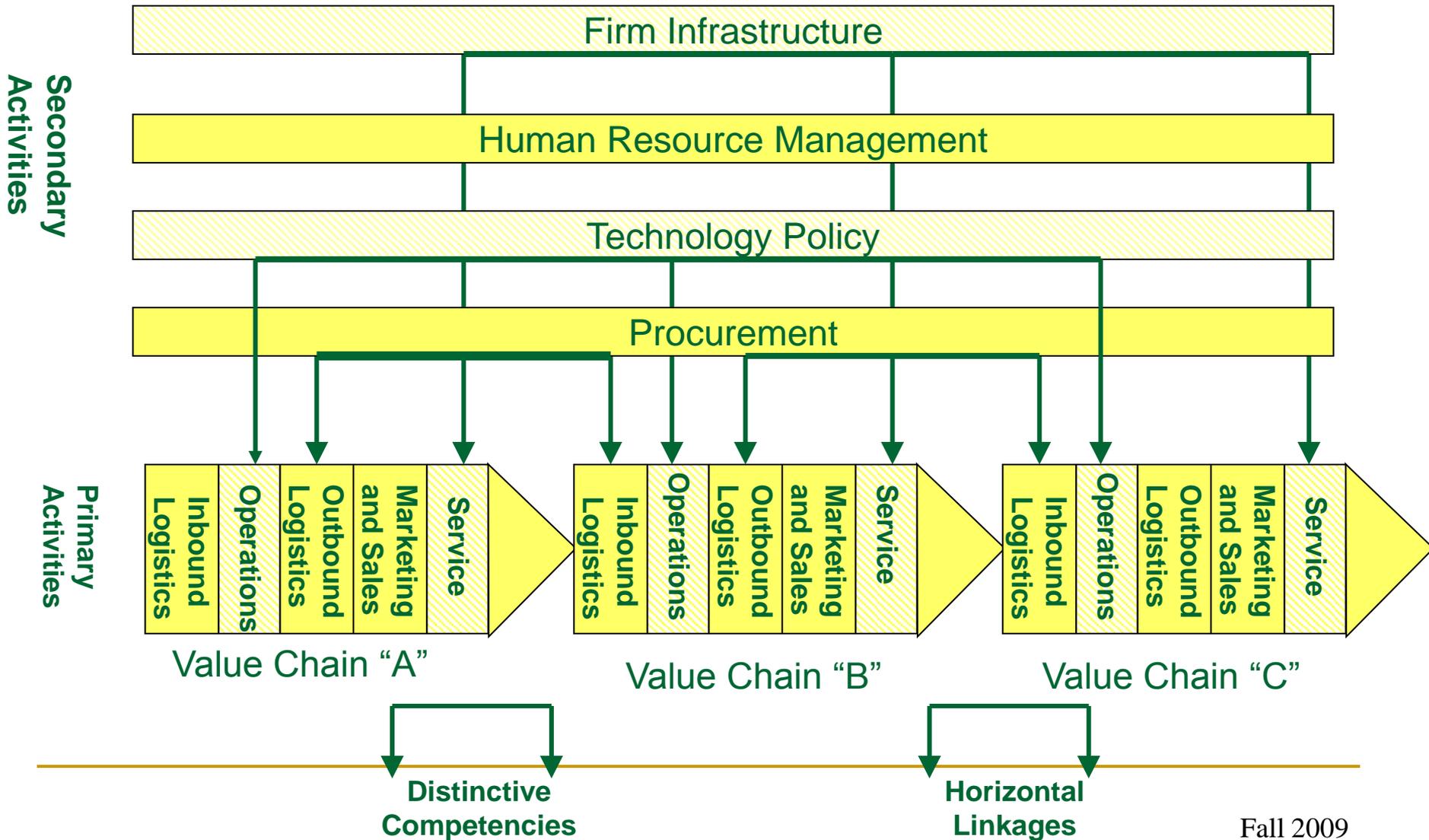
Firm Infrastructure: Financial Resources
Human Resource Management: Finance, Negotiations
Technology Policy: Demographic Trend Analysis
Procurement: Land Valuation and Purchase Techniques

**Primary
Activities**

Inbound Logistics	Operations	Outbound Logistics	Marketing and Sales	Service
Locate and Purchase Suitable Sites	Determine Optimal Use; Obtain Local Approvals	Maintain Tight Control of Site Work	Identify and Sell to Optimal Mix of Clients	Help Clients Obtain Local Use Permits



Sources of Competitive Advantage: Distinctive Competencies and Horizontal Linkages



MIT OpenCourseWare
<http://ocw.mit.edu>

1.463J The Impact of Globalization on the Built Environment
Fall 2009

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.