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
Understanding of the Environment

Understanding of the Company’s Capabilities

Input

Decision Making Process

Output

Selection of Optimal Target Markets

Fall 2009
Global Economic Conditions

Supply & Demand

High Level of Competition

Globalization of Industry

Commodity Nature of Basic Construction

Pressure on Fees

Desire to Minimize

Find Ways of Providing Additional Value

Increasing Need for Specialization

Increasing Customer Sophistication

Need to Understand

Increasing Importance of Marketing
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

Long term Marketing Strategy  Business Development  Area of Concentration

Effect of well defined strategy and good control

Current and suggested practice with regard to marketing
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.

- Inappropriate Measures of Performance and Control Mechanisms
- Structure of the Marketing Department
- Emphasis on Individuals not the organization
- Fear and Lack of Confidence
- Company History
- Customer Relationships
- Who is involved
- Inconsistent Information Resources
An illustration of the thought process involved when gathering and subsequently using information.
Companies commonly serve a range of customers

e.g. public works

Current Trend

Always a share

Lost for good

e.g. partnering contracts

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

<table>
<thead>
<tr>
<th>Market Attractiveness</th>
<th>Substantial Advantage</th>
<th>Parity</th>
<th>Substantial Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td><strong>Black</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td><strong>Hatched</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td><strong>Solid</strong></td>
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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

- Core Benefit
- Generic Service
- Expected Service
- Augmented Service
- Potential Service
An Illustration of the Elements that Should be Considered in Developing the Price Component of the Strategy
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.
The Iterative process of business and marketing strategy development
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<td>Construction mgmt., consulting, general contracting &amp; design/build</td>
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<td>Raytheon Eng &amp; Constructors</td>
<td>1968</td>
<td>3,000</td>
<td>16,000 (17)</td>
<td>Civil eng., petroleum, chemical, industrial &amp; environmental</td>
<td>Design, procurement, eng., construction &amp; financing</td>
</tr>
<tr>
<td>Turner Construction Co.</td>
<td>1902</td>
<td>2,600</td>
<td>2,500 (45)</td>
<td>Commercial, healthcare, amusement, hotel public &amp; manufacturing</td>
<td>Construction mgmt., program mgmt. &amp; general contracting</td>
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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
<table>
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<tr>
<th>Period</th>
<th>U.S.</th>
<th>Europe</th>
<th>Japan</th>
<th>Others</th>
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<td>Before 1960</td>
<td>Cost/quality leader</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960s</td>
<td>Differentiation &amp; diversity</td>
<td></td>
<td>Protected market</td>
<td></td>
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<tr>
<td>1970s</td>
<td>Design leader, managerial skills &amp; Financial competence</td>
<td>Technical advances</td>
<td>Technical &amp; Financial competence</td>
<td>Rising competence</td>
</tr>
<tr>
<td>1980s</td>
<td>Declining market, concentration on CAD and specialty constr.</td>
<td>Entering new markets in U.S.</td>
<td>Total package strategy new</td>
<td>Low cost leader, cheap labor</td>
</tr>
<tr>
<td>1990s</td>
<td>Niche Market - high tech - environment - Proj Mgmt.</td>
<td>Expansion in U.S. thru acquisition</td>
<td>Setback, recession debt</td>
<td>Emergence of Greece, Turkey, Russia Financing</td>
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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 invectives 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

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

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

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
Examples of Methods of Segmentation and Their Benefits

<table>
<thead>
<tr>
<th>Method of Segmentation</th>
<th>Benefit</th>
<th>Examples of Companies Using this Method</th>
</tr>
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<tr>
<td>Geographic</td>
<td>Provides insight into the different service requirements of separate regions. Assists planning of resource allocations.</td>
<td>Turner, Gilbane, Morse Diesel Int.</td>
</tr>
<tr>
<td>Service Type</td>
<td>Helps an organization identify and anticipate trends and to assess in which areas the company should focus its attention.</td>
<td>Brown &amp; Root Inc., Bechtel P, C &amp; I, Raytheon E &amp; C</td>
</tr>
<tr>
<td>Customer Industry</td>
<td>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.</td>
<td>Morse Diesel Int., Macomber, Kennedy &amp; Rossi</td>
</tr>
<tr>
<td>Customer’s Perceived Value of Construction Services</td>
<td>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.</td>
<td>Bechtel, Macomber</td>
</tr>
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</table>
First-step Segmentation of U.S. E&C Market into Competitive Arenas
Segmentation of the U.S. Homebuilding Market

Approximate Price of Home Desired by Buyers

$1,000,000+

Super Luxury Custom Homes

Luxury Custom Homes

High-end Speculative Housing

Luxury Condominiums

Tract Homes

Low-End Condominiums

Prefabri cated Homes

Mobile Homes

Standardized Characteristic of Homes Provided Customized
Primary and Secondary Activities in a Value Chain

**Firm Infrastructure**
**Human Resource Management**
**Technology Policy**
**Procurement**

**Inbound Logistics**  **Operations**  **Outbound Logistics**  **Marketing and Sales**  **Service**
Simplified Value Chain for Homebuilding
Firm Infrastructure: Financial Resources

Human Resource Management: Finance, Negotiations

Technology Policy: Demographic Trend Analysis

Procurement: Land Valuation and Purchase Techniques

Inbound Logistics
- Locate and Purchase Suitable Sites

Operations
- Determine Optimal Use; Obtain Local Approvals

Outbound Logistics
- Maintain Tight Control of Site Work

Marketing and Sales
- Identify and Sell to Optimal Mix of Clients

Service
- Help Clients Obtain Local Use Permits

Secondary Activities

Outbound Logistics

Inbound Logistics

Operations

Outbound Logistics

Marketing and Sales

Service
Sources of Competitive Advantage: Distinctive Competencies and Horizontal Linkages

Primary Activities
- Inbound Logistics
- Operations
- Outbound Logistics and Sales
- Marketing
- Service

Value Chain “A”

Secondary Activities
- Human Resource Management
- Technology Policy
- Procurement

Value Chain “B”

Distinctive Competencies

Value Chain “C”

Horizontal Linkages

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