THE U.S. BOAT BUILDING AND REPAIRING INDUSTRY: NATIONAL TRENDS AND CHARACTERISTICS

An Initial Report of the Center for Competitive Analysis

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Introduction

This report from the Center for Competitive Analysis (CCA) of the University of Missouri is intended to provide basic background information about the Boat Building and Repairing (BBR) industry (SIC code 3732, essentially the same as NAICS code 336612, but the latter does not include boat repairing). Nationally, average 1998 weekly earnings for workers in this industry were $465.79, or in the middle third of all SIC four-digit industries ranked by weekly earnings. This industry has thirty-seven firms in Missouri, employing slightly over two thousand persons. These raw numbers understate the importance of this industry for Missouri, for three reasons. First, much of the activity in Missouri BBR takes place in the Lebanon-Springfield corridor; this industry is clearly important for that region of the state. Second, we suspect that a large number of Missouri-made boats are sold outside the state, which could mean that the quality of output of this industry may very well influence the reputation of Missouri manufacturers in general. Finally, the largest Missouri BBR firm, Tracker Marine of Springfield, is affiliated with the Bass Pro Shops enterprise, which is a well-known national brand.

Based on early 1999 national rankings, Missouri is a relatively important player in the BBR industry. It is ranked 16th nationally in total sales (1.91% of the national total), 10th in employees (3.4%), and 22nd in number of businesses (1.2%). Its national ranking is 5th in employees per business (with 57.6 employees per business), 9th in sales per business (with $3.19 million per business), and 30th in sales per employee (with $68,017 per employee).

In the sections that follow, characteristics of the national BBR industry will be summarized. The primary sources of data are articles in trade publications, proprietary business databases, and U.S. government statistics. We first examine recent sales trends and customer characteristics. An analysis of the extent and types of competition in the industry is presented, followed by an examination of the impact of technology on manufacturing processes and product characteristics. We conclude the report with a discussion of the challenges facing the BBR industry and a discussion of the issues warranting further research. While this initial report focuses primarily on the national picture for the industry, its main purpose is to identify issues that will be examined in the context of the Missouri BBR industry.

Sales Trends and Consumer Characteristics

Recent Sales Trends

Overall, boat sales have been flat (i.e., no growth) over the past few years. Retail expenditures in the boating sector declined slightly from 1997 to 1998, from $19.34 billion to $19.15 billion, or about 1%. This follows on the heels of a 9% increase from

1996 to 1997.[1] From the third quarter of 1996 through the third quarter of 1998, the number of employees in this industry in the United States grew from 57,171 to 60,343 (5.55%), while the number of businesses grew from 2,642 to 2,986 (13.02%). The figures for Missouri over the same period indicate a 30.57% *decline* in the number of employees (from 3,072 to 2,133) and a slight increase in the number of businesses, from 35 to 37. *U.S. Industry and Trade Outlook* projects that five-year growth in the market will likely mirror the overall economy's trend line growth of 2% annual growth, while real domestic shipments should increase by approximately 2% annually. The recreational marine market in the United States will either be flat or grow at a modest rate in 1999, according to Bombardier Capital Inc., and The CIT Group/Sales Financing Inc., two major lenders to boating industries interests. In the following paragraphs, issues associated with recent sales trends will be addressed.

The market for outboard motor-powered boats is highly fragmented, with some segments encountering flat or declining demand and several other product segments exhibiting growth. Measured in deliveries to dealers, bass boats, the single largest outboard category, were down 10%, but center console and "walkaround" fishing boats, often used on larger bodies of water and on the ocean, were up as much as one-third.

The strong stock market, following on the heels of the 1993 repeal of the 10% tax on boats with six-figure and up prices, is driving growth in the market for "big" boats, with sales of boats with million-dollar and up price tags doubling over the past five years. Prices for boats in this upper end of the market are rising faster than overall inflation, but buyers seem undeterred. Of course, a stock market correction could turn this picture around quickly.

One of the main trends dominating the U.S. recreational marine products market, and to a lesser extent the overseas market, is the sale of small water-pump-propelled craft, such as personal watercraft (PWC) and jet boats. Once considered complementary, or at the very worst, a minor competitive annoyance, PWC now are seen as a bigger threat to conventional powerboat sales. Until recently this segment had experienced rapid growth (double-digit growth through most of the 1990s), but a fall in sales took place over the past three years. This was caused largely by consumer concerns about safety and environmental problems, with some consumers hesitating out of a fear that PWC would be banned in many places. The three-person PWC is now the top seller, reflecting an interest in broadening the activity to include water skiing and tubing and involving others. Furthermore, jet boats and personal watercraft have attracted many *new* boaters. The industry remains positive that increased sales of jet boats and personal watercraft will eventually lead to future sales of all boat products, despite the fact that the relatively low retail prices of these craft have lowered the annual dollar volume of sales.

Consumer Issues

Who Are the Customers? Individual consumers, who buy a boat primarily for use in recreational activities, make up the largest demand segment for the U.S. BBR industry,

[1]The same source reports that *unit* sales fell in the first nine months of 1997. This combination of increased dollar sales with decreased unit sales might be explained by the simultaneous drop in "jet ski" sales and rise in sales of more expensive boats.

accounting for 79.4% of the value of sales in 1996. The commercial (6.9%) and "other" (13.7%) segments account for the remainder of the market. Because of general demographic trends over the past twenty years, the age range of customers buying the largest number of boats has changed from the 18-to-34 age group to the over-44 age group. This shift to the older population segment should cause manufacturers to rethink marketing strategies. Furthermore, a recent NMMA study showed that a useful way to identify market segments is to look at the *activities* in which the boaters are interested, and these older boaters tend to prefer cruising with the family over, for example, boating for skiing.

Consumer Financial Issues. Given current prices for recreational boats, which start at around five thousand dollars and can approach hundreds of thousands of dollars, many buyers must borrow money to make the purchase. Their ability to obtain bank loans is therefore important to the ability of boat makers (and dealers) to make sales. Fortunately, despite mergers and acquisitions in banking, lenders appear committed to the recreational marine business, both in terms of inventory loans to dealers and for loans to ultimate buyers. An end-of-year survey indicates that almost 70% of National Marine Banker Association (NMBA) members reported increases in boat loan business of between 20% and 30% in 1997 over 1996. A "typical" borrower has an $80,000 household income and is about 42 years old; 82% are homeowners and 68% have working spouses.

On a related note, consumers' financial positions are important for the boating industry. In the first six months of 1996, the consumer debt as a percentage of personal income was at 17.8%, the highest level in the 1990s. The last time this debt ratio was over 17%, the industry went into a major recession. During previous recessions, boat manufacturers and dealers had high inventories, causing some of them to go out of business. Of course, many consumers are doing quite well in today's rising stock market, so the 17% value may no longer be a critical point, but the high consumer debt ratio should at least raise some eyebrows among boat makers.

New Product Technologies. New technologies associated with the product and its manufacture can make boats more attractive to consumers. Satellite phones let the boater take the power of global satellite communications out on the water. Inmarsat (one standard for satellite communications) is an 80-nation organization created in 1979 to provide quality worldwide mobile satellite communications for the maritime industry. Global positioning system (GPS) equipment manufacturers are updating their products to be more useful. Some equipment is being integrated with other marine electronics, such as fishfinders and cell phones. As the technology advances, one manufacturer predicts quality will increase and prices will drop. Manufacturers have been able to enhance boat designs largely because of the advent of specialty computer software packages, generally termed computer-aided design (CAD) or computer-aided modeling (CAM) programs.

Industry Competitive Analysis

Industry Structure

General. In 1997, more than 40% of dollar sales in the *recreational* boating market was controlled by six producers—Brunswick, Outboard Marine, Genmar, Yamaha Motor, Bombardier, and McAndrews & Forbes. The top two companies, Brunswick and Outboard Marine, alone account for over 27.5% of recreational boat sales and approximately 40% of the engine market, expressed in terms of value of shipments.[2] Many major powerboat firms experienced big changes in 1998. Large recreational boat firms, such as Brunswick (already the industry leader with 20.3% of recreational boat sales in 1997), have been growing.

The U.S. BBR industry is relatively unconcentrated. Data from the 1992 Census of Manufactures, which is based on the official SIC 3732 industry definition, show that the largest four, eight, twenty, and fifty firms controlled, respectively, 32%, 38%, 48%, and 61% of the total industry value of shipments. Thus, the top four firms averaged 8% apiece; firms ranked 5 through 8 averaged 1.5% apiece; firms ranked 9 through 20 averaged 0.83% apiece; and firms ranked 21 through 50 averaged 0.43% apiece. The industry's Herfindahl-Hirschmann Index (HHI)[3] for 1992 was 383. To put these figures in perspective, the 1992 four-, eight-, twenty-, and fifty-firm concentration ratios and HHI for Motor Homes (SIC 3716) were, respectively, 53%, 68%, 87%, 97%, and 929. The corresponding figures for Motorcycles, Bicycles, and Parts (SIC 3751) were 65%, 78%, 85%, 94%, and 1,419. Clearly, the BBR industry is significantly less concentrated than these other recreation related industries. (A potentially important caveat regarding the Census data is that foreign firms are not included.)

More recent data from other sources suggest that there has been some increase in concentration from1992 through1997. In 1996, the top three competitors in the U.S. BBR industry accounted for 36.3% of the market between them (Brunswick Corp. had 19.6%, Outboard Marine had 10.0% and Minstar had 6.7%). The fourth largest firm, Tracker Marine of Springfield, MO, held a 2.2% market share, bringing the unofficial four-firm sales concentration ratio to 38.5%. This represents a 6.5 percentage point increase in the concentration ratio, or a 20% increase in the share held by the top four firms. Since these data are from sources other than the Census of Manufactures, however, comparisons with the 1992 data may not be wholly appropriate.

Consolidation Trends. Merger and buyout activities clearly affect industry structure. Beginning in the mid-1980s, consolidation within the recreational boating industry increased, as the primary marine engine suppliers (Brunswick and Outboard Marine) decided to use forward integration to expand their hold on the recreational boat market.

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[2] Note that these data include boat motors as well as boats, and are therefore not directly comparable with data reported for SIC industry 3732, Boat Building and Repairing, which does not include motors. It is not clear whether the value of shipments for SIC 3732 includes integrated motors; it probably does not include motors sold separately from "finished" boats.

[3] The HHI is calculated by summing the squares of each firm's market share, expressed as a percent. Its range is therefore 0 to 10,000.

Under this approach, also known as downstream integration, engine makers became boat builders as well, either by acquiring existing manufacturers or by building their own boat making facilities. Furthermore, pressures may be pushing the industry toward *up*stream integration. Some observers believe that the boating industry will continue facing quality-control problems unless suppliers and boat builders agree to work as teams to solve problems, with a possible solution involving upstream integration by builders who purchase parts suppliers.

The vast majority of recreational boating products are sold through retail establishments, which receive the products, either directly from the original equipment manufacturer (OEM) or through a wholesale distributor. Although many manufacturers have begun targeting marketing efforts directly at consumers rather than at retailers, there does not seem to be any evidence that manufacturers are integrating downstream to become dealers themselves. (Also see the discussion about marketing below.)

Most recent merger and acquisition activity has involved mid-sized boat manufacturers who are attempting to diversify their product offerings or capture a niche market. Thus, the bulk of the latest consolidations appear to be horizontal in nature. In response to the fact that used boat sales now account for almost two-thirds of all boat sales, some dealerships and builders are also adding brokerage arms, while many brokerage firms are aggressively expanding their sales forces.

Firm Characteristics: Product Line Breadth

The recreational boating industry is composed of a wide variety of firms, from those that specialize in a particular product (e.g., navigational tools, sailboats) to integrated firms that participate in all product segments (e.g., Outboard Marine). The typical approach is somewhat difficult to discern, as is any trend; different sources reach slightly different conclusions. One view is that most participants fall somewhere in between these two extremes, offering a limited number of products. Others suggest that a majority of firms within the recreational boating industry have adopted a focus strategy in which production is dedicated to a specific product. The pattern of increasing consolidation is expected to continue, reflecting the competitive advantages offered by full-line suppliers in a market with limited incremental growth opportunities. It is not clear from available information whether this sort of consolidation consists of industry leaders buying smaller firms to increase market breadth, or whether smaller "niche" companies are merging to accomplish that goal.

Competition

Existing Firms. Competition among existing players is relatively strong throughout the industry in general and is even more intense within specific product segments. Consolidation within the industry and relative market maturity have contributed to competition, as have the limited opportunities for true product differentiation. Brunswick will continue to benefit from the fact that no single producer competes with the company in all product segments. Brunswick's boat division competes primarily with Genmar, McAndrews & Forbes, and Outboard Marine. Honda Motor, Outboard Marine, Volvo Penta, and Yamaha are Brunswick's primary competitors in marine engines.

Product marketing and customer service are receiving more attention from both manufacturers and dealers. Effective marketing is essential to create a unique position for a particular product line and to attract new customers. Marketing efforts over the past few years have focused on reaching demographic groups that were previously not frequent purchasers of recreational boats, such as women and minorities. Recreational marine boat builders can capitalize on a potentially big and untapped market in minority groups by knowing how to service each group's unique needs. Manufacturers are now placing advertising in non-boating recreational magazines, reasoning that people who spend money on other types of recreation might also be interested in boating. Outboard Marine Corp. hopes to change its corporate culture from a cost-plus, engineering-driven firm to a more market-oriented company in order to compete better with rival Brunswick Corp.

Manufacturers have traditionally marketed only to dealers and then offered the retailers co-op money for local advertising. The vast majority of recreational boating products are sold through retail establishments, which receive the products, either directly from OEM or through a wholesale distributor. Some changes from these past practices are being observed. Many manufacturers have begun targeting marketing efforts directly at consumers rather than at retailers. In the past, boat shows were the only place where direct manufacturer-consumer interactions took place and are likely to remain the primary source of such contact. Dealers are trying new approaches, such as having dealerships in shopping malls, even though malls have some shortcomings for the sale of such large items: low ceilings and the height and width of doorways. Furthermore, the explosion of Internet commerce in many other products raises the question of its suitability for the boating industry. The Internet site "BoatSeeker.com" is a conduit for used boats and is trying to get new boat builders and dealers to join as well. It remains to be seen whether these new approaches can be successful.

Service is seen as the primary method for building customer loyalty, an essential component of long-term success in an industry in which replacement purchases account for the majority of demand. Responding to consumer research that indicates both new and "pre-owned" boat purchasers are looking for higher levels of service from builders and retailers, leading makers and sellers are working more closely together to deliver more positive experiences. Nearly one-third of those surveyed rated their most recent encounter with the repair system as fair or poor, in part because nearly half of boat repairs take four or more days to complete. Looking carefully at boat repair practices from the *customers'* perspective will lead to improved service. Improving general customer treatment, building on the wide variety of activities available to families from all-purpose boats, and the ability to cater to a particular angler's fancy with a "species-specific" fishing machine and all variations in between, are powerful formulas for success. Towing service membership is being marketed by boat makers as a value-added service in order to make the impression that problems in new boats are uncommon. Providing towing service membership in new boat sales is a means of assuring satisfaction after the sale. Of course, boat manufacturers can help in the area of service by adopting quality-control procedures designed to avoid the need for service altogether.

In addition, used boats are an important part of the business. Dealers must make allowances for the used-boat market in terms of planning sales space, and manufacturers

may find that they are "competing" against their own previously sold boats. Used boats have the potential to bring more budget-minded households into the boating lifestyle. But significant challenges remain, particularly the lack of an efficient wholesale market for used boats. The Internet is likely to provide an important source of improved used boat markets; BoatSeeker.com is an early entrant into this type of used boat sales.

Import Competition in U.S. Markets. Imported products are improving in quality, and foreign manufacturers are mounting stiffer competition for U.S. manufacturers in markets outside the United States as well. Boating in foreign markets is growing rapidly as foreign manufacturers service their own markets, catch up to U.S. manufacturers in economies of scale, and provide new price-competitive products. On the other hand, many consumers in overseas markets look for the "Made in the USA" label because they believe that U.S. manufacturers provide the highest-quality products available.

Imports increased dramatically in recent years, from about $257 million in 1992 to $997 million in 1996.[4] Much (approximately 64%) of this $740 million increase in imports can be attributed to activity in Canada, for three reasons. First, Canada already was the source of the majority of U.S. boat imports, with a 55% import market share; its share of the 1992-1996 increase was only slightly higher. Second, Canada is home to the largest maker of PWC, sales of which greatly increased in the United States over this period. And third, many U.S. manufacturers have purchased Canadian boat makers and shifted production to the newly purchased plants. It was projected that, over the 1996-98 period, imports would decline while exports would increase, cutting the $378 million 1996 boat trade deficit to about $150 million over those two years.[5] Further discussion of imports in the context of challenges and opportunities for the U.S. BBR industry appears in a later section of this report.

Exports: U.S. Firms in Foreign Markets. From 1992 through 1996, the value of U.S. BBR industry exports declined, from about $714 million to $621 million. (The latter figure actually represents a rebound from a low of $504 million in 1994.) Most of this decline can be attributed to a reduction in sales to Western Europe, which in 1996 still accounted for nearly 40% of U.S. exports; sales to Latin American countries also slid. Exports to Canada and Mexico were essentially flat, making up approximately one-quarter of U.S. BBR industry exports. Increases in exports to Asia (not including Japan) and "Rest of World" (mainly Australia and Africa) were significant in percentage terms but not in dollar value.

Our initial research revealed some other tidbits of information concerning U.S. BBR export markets. In no particular order, they are:

[4]Despite their recent rapid growth, imports still represent only about 5% of total U.S. boat sales.

[5]Since detailed import-export data become available with a lag, we will not be able to confirm the accuracy of this projection for one or two more years.

a. Germany's watersports industry appears to be emerging from a recession, according to the latest economic survey conducted by the Federal Association of the Watersports Industry (BWVS).

b. Marina projects were put on hold and consumer market growth was delayed, but Southeast Asia continues to offer significant growth opportunities for the boating industry.

c. It is believed British consumers will be reluctant to spend this year because of worries about the impact of the collapse of several Asian economies and adverse exchange rates with Europe.

d. The Philippines, which was relatively unscathed by the economic turmoil, is another country offering growth potential for boating.

e. The East Bay Economic Initiative, a group of Rhode Island boat builders and local business and government leaders, will try to lure buyers mainly from the UK, Germany and the Netherlands through sales promotions such as airfare reimbursements to buyers and by creating a Web site for foreign customers.

f. Semicustom boat builder Sea Sport Boats of Bellingham, WA, has been marketing its Northwest-style sportfishing boats in Japan since a boat dealer in Kumamoto port sought out the manufacturer almost three years ago. Sea Sports' typical Japanese customers are wealthy, or they buy in groups because of the high price of fuel and moorage. This type of fishing boat, popular among open water anglers, is best known for its enclosed cabin, durability and dependability. Manufacturers of this "sport utility vehicle for the water" say these factors help extend the boat's popularity to new market regions.

g. The medium and long-term prospects for the growth of the boating industry are good in Southeast Asia. With a total of more than 400 million consumers, there appears little doubt that the region will come back as a growth area during the next decade.

h. Finland and Sweden had robust boating markets in 1998 and are expected to be relatively strong in 1999, while the Danish and Norwegian markets can be described as lukewarm at best.

i. The rigid inflatable boat (RIB) segment of the U.S. recreational boating industry is in its infancy when compared with that of Europe.

j. Although the pleasure boat markets in most of the emerging economies of the Third World are not as developed as the U.S. market, they have a vast potential for increased boating activities.

Further discussion of exports in the context of challenges and opportunities for the U.S. BBR industry appears in a later section of this report.

Barriers to Entry and Potential Competition. One important feature of an industry that affects competitiveness among firms is the presence of barriers to entry. If barriers

are high, entry is difficult and the threat of new competition will be reduced. This may not be a good thing for consumers, particularly if the incumbent firms are able to (tacitly) cooperate in the absence of new competition. But it is generally good for the incumbent firms. It may help existing small firms retain market share more easily, helping them in their battle with industry giants like Brunswick. The barriers to entry are largely financial in nature—capital requirements are high to establish a viably-sized facility, and skilled labor is expensive.

Some smaller incumbent firms join together to obtain volume discounts from parts manufacturers, which helps those firms but may make it more difficult for new entrants who may not be offered membership in the buyer groups. Most in the industry note that a middleman tier is necessary in a business where so many entrepreneurial fabrications and boat builders buy small amounts of yardage (materials?). In some areas such as marine fabrics, however, it is becoming more commonplace for mills to sell directly to the boat companies, which may make things difficult (i.e., more costly) for small market entrants who buy in small quantities.

Our research to date has not uncovered information concerning consumer brand loyalty. Such loyalty, if strong, can pose a significant entry barrier. This is because extensive advertising or other kinds of sales promotions may be required to overcome brand loyalty and establish a new brand. This problem can be reduced somewhat if dealers are willing to take on new brands and provide the required point-of-sale promotion, but getting dealers to take new brands can be difficult if "shelf space" is limited. Of course, a firm that is well-established in another industry may be able to use goodwill involving its existing products to overcome the brand awareness problem. One example of this is Toyota's entry into the high-end ski boat market. This is an area that deserves additional attention in continuing research on the U.S. BBR industry.

Technology: Product Characteristics and Manufacturing Processes

Recreational boating products are becoming increasingly complex in design, due in part to the evolution of high-tech product development techniques. Technological change affects the market for a product in either (or both) of two general ways: the production process or the characteristics of the product. While either of these can occur in isolation, they can also occur together, such as when the development of new hull materials require new production processes but also alter the consumer's perception of the good.

Issues related mostly to product characteristics include:

a. Global positioning system (GPS) equipment manufacturers are updating their products to be more useful. Some equipment is integrated with other marine electronics, such as fishfinders and cell phones. As the technology advances, one manufacturer predicts quality will increase and prices will drop.

b. New types of paint for boat bottoms, which must prevent marine growth from building up on boats' hulls, have been developed, primarily in response to the environmental problems associated with coatings containing arsenic, lead,

mercury, and copper. New coatings depend on the paints surface to prevent build-up, either by flaking as an organism attempts to attach itself, or by being so slippery as to prevent attachment initially or to cause boat use and wave action to wash off organisms.

c. New product technologies strengthen the need to educate salespeople as well as customers. Boaters are much more knowledgeable today than just a few years ago. While this may seem at first to be exclusively a dealer's problem, manufacturers need to be sure that the people in direct contact with customers know what they are talking about. Obviously, fewer sales by a dealer will quickly translate into fewer sales by the manufacturer. It may be worthwhile for manufacturers to educate someone else's—the dealer's—employees. This is a common practice in many other industries.

The most important development in materials over the past few years is the dramatic increase in the use of plastics in boats. Plastic use is an example of technology affecting both the manufacturing process and the nature of the product. Though not suitable for applications involving proximity to heat, plastics are lighter and easier to maintain than the traditionally used woods (such as teak) and in some cases, metals. Plastics have been used for hull materials for some time but are now finding their way into uses such as decorative trim, decking materials, doors, ladders, etc. Polypropylene, polyethylene, and polyolefins can be obtained in sheets, and can be sawed, drilled, and shaped much like wood. Furthermore, cost-effective techniques of making large parts—such as entire hulls—through injection-molding processes have been developed.[6]

Environmental concerns about hydrochlorofluorocarbons (HCFCs) have forced manufacturers of air-conditioning and refrigerating equipment to use new materials, such as reformulated freons, as refrigerants. Boat repairs involving replacing refrigerants must be done carefully to stay within environmental rules governing HCFC discharges into the environment.

The U.S. BBR industry is unique in that it has a highly labor-intensive (and therefore relatively expensive) production process, yet it manufactures boats domestically that are in demand worldwide. Labor-intensive yacht building has become the cornerstone of some economic development efforts in Rhode Island and Florida; it is estimated that $40,000 "worth of" boat provides one job. A shortage of qualified domestic labor may be a bigger challenge for many U.S. yacht builders than competition from yacht builders in countries with low-cost labor.

A labor-related issue facing many industries, especially those such as boat building that require qualified technicians, is employee retention. Boat builders use a variety of techniques to retain employees, including profit sharing and promoting trust and open communications between employers and workers. Outsourcing, which effectively

[6]Our research has not determined whether these new injection molding techniques will affect economies of scale, but it is possible that the "minimum efficient scale" of manufacture could be increased by such capital-intensive production technologies.

eliminates the retention issue for the boat builder, can be effective since it shifts the profit-making burden to suppliers and tends to stimulate creativity.

Finally, boat builders continue to seek ways to improve efficiency by replacing labor with capital equipment. For example, OMC has recently spent $1.5 million to upgrade its Hydra-Sports brand plant in South Carolina, primarily in order to reduce its "headcount."

General Strategic Issues

The profitability of a business depends upon both the overall degree of competition in an industry and the position of the business relative to its rivals. A business has little control over the general degree of competition in its industry but can take strategic actions to position itself favorably relative to its rivals and thereby influence its profitability. Businesses that earn profits above the industry average typically do so because they find a sustainable competitive advantage. This advantage allows such firms to position themselves relative to their rivals in ways that emphasize their relative strengths; and this in turn allows them to better cope with the various forces of competition.

It is common to distinguish between two broad strategies to achieve competitive advantage. The first is cost leadership, and the second is product differentiation. Each of these strategies represents a different route to sustainable competitive advantage and above-average profitability. Moreover, no matter which of these approaches is adopted, a firm also needs to determine whether it will compete for all buyers in a particular market or focus on just a target segment of market. Successful firms will choose a strategy and target segment based upon their own individual strengths and weaknesses.

Cost leadership is a strategy of attempting to become the low-cost supplier in the industry. Sources of cost leadership are varied but would include such things as pursuit of scale economies, use of proprietary technology, preferential access to raw materials and other inputs, and specific knowledge of customer needs. Firms pursuing this strategy must seek out all sources of cost advantage while at the same time produce a product that is perceived as comparable to that of rival firms.

In a **differentiation strategy** a business attempts to make itself unique in an industry along dimensions that are considered valuable by buyers. The business needs to find attributes that buyers perceive as important and position itself to meet those needs. The attributes along which differentiation may be achieved are extremely broad, including the product or service itself, the delivery system used, the marketing approach adopted, and so forth. To be successful in a differentiation strategy, a business must choose attributes to emphasize which will allow it to be perceived as distinct from its rivals. For products sold to consumers, rather than to firms processing them for later sale, differentiation is often a more promising strategy.

No matter whether cost leadership or product differentiation is pursued, a firm must also decide how broadly over the market it should compete. Most markets contain so-called segments. These segments are distinct customer groups who possess a common set of characteristics or special needs. In consumer goods industries, for example, buyers may be segmented by income levels, frequency of purchase, knowledge of the product, and so forth. Industrial goods buyers may be segmented by size of buyer, willingness to

trade price for quality, location, or special product needs. A firm needs to determine whether it will attempt to serve all of the market segments or focus upon target segments.

When a firm focuses it aims to better serve a single or small number of buyer segments in an industry. For some segments this will require a firm to be a low-cost producer. In other segments a firm may compete by offering a differentiated product. Firms that become very narrowly focused (specializing perhaps in as little as one segment with a single product) are often said to be following a "niche strategy."

By their very nature, small businesses typically must focus on only one or a few segments of an industry. Whether a strategy of low cost or product differentiation is appropriate depends upon the nature of the buyers in the segments being pursued and the positions of rival firms competing for those same buyers. Consider for example the following sets of questions in reference to a particular buyer segment:

1. Are the products or services produced for this segment virtually standardized? Purchase of standardized goods and services are generally made on the basis of price alone.
2. Can the attributes of the product or service and its quality be ascertained by the buyer prior to purchase? Such products can be judged as to acceptability by buyers, and for a given quality a supplier must also offer the lowest price.
3. Are the buyers extremely price sensitive and unwilling to pay much of a premium for enhanced quality or image? In some cases nothing matters other than price. As a result, only firms able to offer the lowest prices are able to survive.
4. Is little post-sale service required for this product? Competition in segments in which post-sale has little or no significance often will turn on price alone.

If each of these questions is answered affirmatively, then for this particular segment cost leadership is likely to be the dominant strategy. Segments displaying these characteristics offer little scope for creating value to buyers through differentiation efforts. Successful firms will be those that manage to achieve minimum cost in serving this type of target segment.

Product differentiation becomes a more viable strategy in segments where the conditions given in the questions above do not prevail. Under these circumstances firms have the opportunity to offer differentiated products or services with attributes that are especially desired by buyers. Firms successful in product differentiation benefit through the ability to obtain price premiums for their products.

The relatively flat demand in some segments of the BBR industry suggests that small boat builders are likely to face significant competitive pressures in the near future. Some builders may deal with this by taking every measure possible to enhance efficiency and reduce costs. Such a strategy will allow them to compete on price within their buying segment in the industry. Other builders may find it possible to successfully differentiate their products through utilizing new product technologies (e.g., GPS), delivering improved repair services, or marketing their product specifically for the older buying population. Also, boat builders ought to look closely at the possibility of increasing sales through exporting.

In addition to concerns about demand growth, the BBR industry faces other challenges including environmental and safety regulations and intensified global competition. Firms that succeed in this industry will be those that are capable of dealing with the changes. Firms that evaluate their strengths and weaknesses and develop a coherent strategy for competing in this market will have a greater chance at success.

Challenges: Opportunities and Threats

Environmental and Safety Regulations

The boating industry continues to worry about the prospects of legislation regulating and taxing the industry. Perhaps the biggest challenge will come from changes in environmental regulations, particularly those governing emissions from outboard engines. The U.S. Environmental Protection Agency (EPA) and the industry began implementing stricter emissions standards to be gradually phased in from 1997. Although new technologies for two-stroke outboard marine engines will be required, the U.S. industry believes it can meet those standards over the phase in period. With the implementation of new regulations by the EPA requiring the reduction of boat engine emissions by 75%, most of the major engine producers, especially Outboard Marine (OMC), have focused additional research and development efforts on designing cleaner running propulsion systems. To spread out the high costs associated with development, OMC formed a joint venture with Suzuki (Japan), which will supply OMC with four-stroke outboard motors. This agreement is centered around making OMC more competitive on the prices of its motors. A prototype of Mohawk Innovative Technology, Inc.'s oil-free turbocharger for use in diesel engines has been in development for two years. The prototype cuts vehicle exhaust gases, boosts speed, limits pollution, and has possibilities within certain horsepower ranges for the marine market.

Other regulations will affect U.S. manufacturers' ability to compete in export markets, but international standardization will make the task easier than trying to meet a variety of rules promulgated on a country-by-country basis, as has been the case in the past. The worldwide recreational marine industry now has a window of opportunity to prepare for harmonized exhaust and sound emissions regulations. These proposed regulations would allow manufacturers of recreational boats and engines to market their products without trade restrictions for the first time throughout the European Union (EU). For the marine industry the time to act is now because the new exhaust and sound emissions regulations are scheduled to take effect on January 1, 2002, for compression-ignition (C.I.) and spark ignition (S.I.) 4-stroke engines. In many cases, work on meeting U.S. regulations will also allow U.S. manufacturers to meet the E.U. rules, since there is some similarity. Meeting E.U. regulations on sound levels will be more difficult, since the United States has no such rules on the books.

Concerns about air, water, and noise pollution, safety issues, and impacts on wildlife have prompted the National Park Service to propose rules governing the use of personal watercraft in certain national parks and recreation areas. The boating industry and the general public have until November 16 to submit written comments about the proposed regulations. PWC use in some areas (including Missouri's National Scenic Riverways) is and will continue to be banned outright. In other areas, PWC will be allowed a two-year

grace period during the completion of environmental impact studies. Such regulations could have a significant impact, since these watercraft make up the fastest growing segment of the recreational boating market.

Recent increases in the number of boating accidents are prompting the U.S. Coast Guard to consider imposing tougher safety regulations. The Coast Guard is working to develop federal standards governing PWC, which it hopes to have in place by the end of 2000. These "water scooters" are at present exempt from Coast Guard rules governing small boats. (Bombardier, which markets the Sea Doo brand of PWC, recently said it would not make any such craft that could exceed 65 m.p.h.; this shouldn't be difficult, since none of its current models is that fast.)

In addition, the Coast Guard is looking at ways to improve life jacket performance and is considering making wearing a life jacket (rather than just having it on board) mandatory for occupants of small boats. This proposal has thus far met with a large volume of complaints. If it does indeed become a formal rule, a challenge for the BBR industry will be to develop life jackets that are safer *and* more comfortable. It is possible that the need to wear a life jacket would cause fewer people to buy boats, but such an effect is likely to be insignificant.

Expanding U.S. Exports and Competing with Imports

The international side of the boating industry is a very dynamic part of the business, affecting U.S. manufacturers' opportunities in foreign markets as well as bringing more import competition to the United States. The "Import Competition in U.S. Markets" and "Exports: U.S. Firms in Foreign Markets" sections above presented some recent statistics regarding U.S. foreign trade in boats.

It seems that U.S. manufacturers may gain some advantage in the world market by virtue of being ahead of the curve regarding environmental regulations in other countries. But the development of new ISO standards may muddy the waters for U.S. boat makers. Although U.S. manufacturers generally build to the highest set of voluntary standards, possibly stricter new standards would in fact impose a burden. Still, in *relative* terms, the U.S. industry may have a "head start" on other countries because of its long experience in the industry, particularly the recreational segment.

Directions for Future Research

This initial research has yielded much useful information about the characteristics of the U.S. BBR industry, but it has also raised several questions that should be addressed in future research. Perhaps the most important questions of interest to the CCA have to do with the applicability of the general information provided here to the specifics of the Missouri BBR industry. Missouri boat manufacturers, while certainly sharing some of the conditions, problems, and opportunities of the nationwide industry, is by no means just a miniature version of its national counterpart. For example, the CCA is interested in the extent to which Missouri manufacturers export their products to other states and countries. Also of interest are the market shares of Missouri boat makers in more specific product categories, such as aluminum fishing boats and pontoon boats. In addition, we are quite curious about the data indicating a large reduction in the number of employees

in the Missouri BBR industry from ‘97 to ‘98—from 3,009 to 2,133 employees. Finally, does activity in the used boat market affect Missouri manufacturers. That is, are used boats more or less commonly found (relative to the overall industry average) in those segments in which Missouri BBR firms operate?

We have also raised in the preceding sections many questions about the national industry, the answers to which would likely be applicable to Missouri BBR industry members. Three of these key questions are:

1. To what extent are new approaches to retailing, such as boat stores in malls and on the Internet, being successfully implemented? How do these changes affect the vertical structure of the industry?
2. How does the use of new manufacturing materials and techniques affect the minimum efficient scale (MES) of operations for firms? If the new technologies lead to a marked increase in the MES, barriers to entry are effectively raised, which could have important consequences for potential competitors.
3. What is the importance of brand loyalty in the industry? How important is it to build a reliable brand name, and to what extent are buyers willing to pay a premium for particular brands, all else equal?

As the research of the CCA and its contractors continues, we look forward to discovering the answers to these and other questions that are certain to arise.