

Porters 5 force model



Applying Porter's Five Forces Model: The Metal Container Industry The metal container industry historically has been characterized by relatively low growth, intense competition, and unattractive levels of profitability. During the sass, this industry was negatively affected by such factors as further consolidation of soft drink bottlers and a strong trend toward substitution by many types of plastic packaging. The underlying reasons for the slow growth and low profitability of the metal container industry can be best understood if we apply Porter's five forces model.

Many of the factors that depress the level of profitability in the metal entertainer industry have persisted without major changes since the mid-sass. Therefore, we will first provide a brief historical overview of the metal container industry as of 1976, followed by an analysis of this industry using Porter's five forces model. The industry With sales of \$7. 6 billion, metal containers made up almost a third of all packaging products used in the United States in 1976. Metal cans, made either from aluminum or tin-plated steel, represent the major segment within metal containers.

Between 1967 and 1976 the number of metal cans shipped grew with GNP. The greatest gains were in the beverage segment (soft drink and beer cans), while shipments of motor oil, paint, and other general packaging cans actually declined. Though there are about 100 firms in the metal container industry, it is dominated by four major manufacturers. Two giants, American Can and Continental Can, together make up 35 percent of all domestic production. National Can and Crown Cork and Seal are also major forces with market shares of 8. percent and 8. 3 percent, respectively. Because of the large number of competitors, the can industry is very price competitive.

Since variable costs, (material, 64 percent; labor, 15 percent; and freight, 8 percent) account for 87 percent of total cost, on average, there is very little operating leverage from extra sales volume. A new two-piece can plant costs only \$10 to \$ 15 million per line and the minimum efficient plant size is two to three lines. There are few financial or " scale" barriers to entry.

Through the sass, American steel companies were the sole suppliers of the metal used by the industry. Can companies, in turn, were the fourth largest consumer of steel. During the sass, aluminum came to dominate the traditional tin-plated steel markets. Also, of the four large aluminum producers, two had already integrated forward into manufacturing aluminum cans. On the customer side, over 80 percent of output is purchased by major food and beverage companies. The can constitutes about 45 percent of total cost to beverage companies.

Because can plants are often set up to supply a single customer, the loss of a large order from that customer greatly reduces efficiency and profits.

Several food and beverage companies have already integrated backward into can production. Campbell Soup is a major producer of three-piece steel cans. The proportion of " captive" production increased from 18 to 26 percent betterments and 1976. This backward integration has taken place primarily in three-piece cans, because buyers do not possess the technical skills to develop their own two-piece lines.

Five Forces Analysis The profit potential of the metal container industry is analyzed using the five forces framework. Bargaining Power of Suppliers Aluminum companies 1 . There are only four suppliers of aluminum (Alcoa,

Local, Reynolds, and Kaiser); further; these companies are much more concentrated than the metal container industry. 2. These suppliers have vast resources and pose credible threats of forward integration (in fact, Alcoa and Reynolds have already integrated forward into can manufacture) 3. Can manufacture do not pose threat of back ward integration.

Net conclusion: Aluminum companies can exert considerable amounts of bargaining power over metal can manufacturers in negotiating raw material prices. Steel companies 1. There are few suppliers of tin-plated steel. 2. Steel companies pose a credible threat of forward integration, but have not yet actually done so. 3. Can companies do not pose any threat of backward integration. Net conclusion: Steel companies can exert a good deal of bargaining power over metal can manufacturers. Bargaining Power of Customers Eighty percent of metal containers are purchased by food and beverages companies. . Buyers of cans are very large and powerful. 2. The cost of the can is a significant of the buyer's costs. 3. Customers buy in large quantities. 4. Customers buy an essentially undifferentiated product and face no switching costs. 5. Can manufacturers typically locate a plant to serve a single customer so that the loss of a large order from that customer could greatly cut into profits. . There is low customer loyalty. 7. Buyers pose a credible threat of backward integration. In fact, several food and beverage companies already make their own cans (e. . , Campbell Soup is a major producer of three-piece steel cans) 8. Can manufacturers have no ability to integrate forward into the food and beverages industry. Net conclusion: Buyers can exert a great deal of power over metal can producers. The Threat of Substitute Products Plastic 1. It is lighter 2. It's resistant to breakage. 3. It

has versatility, thereby lowering shelf-space requirements. Net conclusion: Plastics pose a significant threat to tinplate steel in many user segments. Fiber-foil 1. It's 20 percent lighter than steel cans 2.

It's 15 percent cheaper than steel cans. Net conclusion: In certain user segments (particularly for motor oil and frozen Juices), fiber-foil is a significant threat to tin-plated steel. Overall conclusion: With the exception of food cans, metal containers face a significant threat from substitute materials such as plastic and fiber-foil The Threat of New Entrants 1 .

Economics of scale in this industry are quite low and, as such cannot be used as an entry barrier; for example, the minimum efficient size for two piece can lines is two to three lines. 2.

Capital investments are certainly not an entry barrier (especially for suppliers and buyers); for example, for two piece can lines the per-line cost is \$10 to \$15 million. 3. Technology is not an entry barrier for three piece containers. However, the canning technology for the two piece lines is not available with buyers such as Campbell Soup. 4. Brand loyalty is absent and is not available as an entry barrier. Net conclusion: Metal container industry has very low entry barriers, as evident from the fact that this industry is characterized by a large number of small players.

The Intensity of Rivalry Notwithstanding the fact that there are only four major players in this industry (continental Can, American Can, National Can, and C; S), price rivalry is intense, for the following reasons: 1 . This is a slow growth, mature industry (3 percent annual growth rate). 2. Metal containers are largely undifferentiated products, forcing customers to choose on the

basis of price, if service is comparable. 3. The existence of close substitutes keeps the lid on prices. 4. Low-entry barrier puts a cap on selling prices. Presence of very powerful buyers and very powerful suppliers keeps the container prices down (as otherwise they will enter the industry). Net conclusion: Price competition is quite intense. Overall conclusion: Given the very high supplier power and buyer power, low barrier to entry, availability of close substitutes, and intense price competition among existing players, the profit potential in the metal container industry is expected to be low. In fact, in 1986, Forbes magazine ranked this industry at twenty-four out of the total of thirty-one industries in the United States on the criterion of return on equity.