

HAIER GROUP: THE HOUSEHOLD APPLIANCES AND CONSUMER ELECTRONICS SEGMENTS OF THE DURABLE GOODS INDUSTRY

Yongjun Lu
Research Assistant
Management Department

Dr. Robert J. Mockler
Joseph F. Adams Professor of Management
Tobin College of Business – Graduate Division

Marc Gartenfeld
Associate Director
Strategic Management Research Group
Management Department
St. John's University
Jamaica, New York, USA

INTRODUCTION

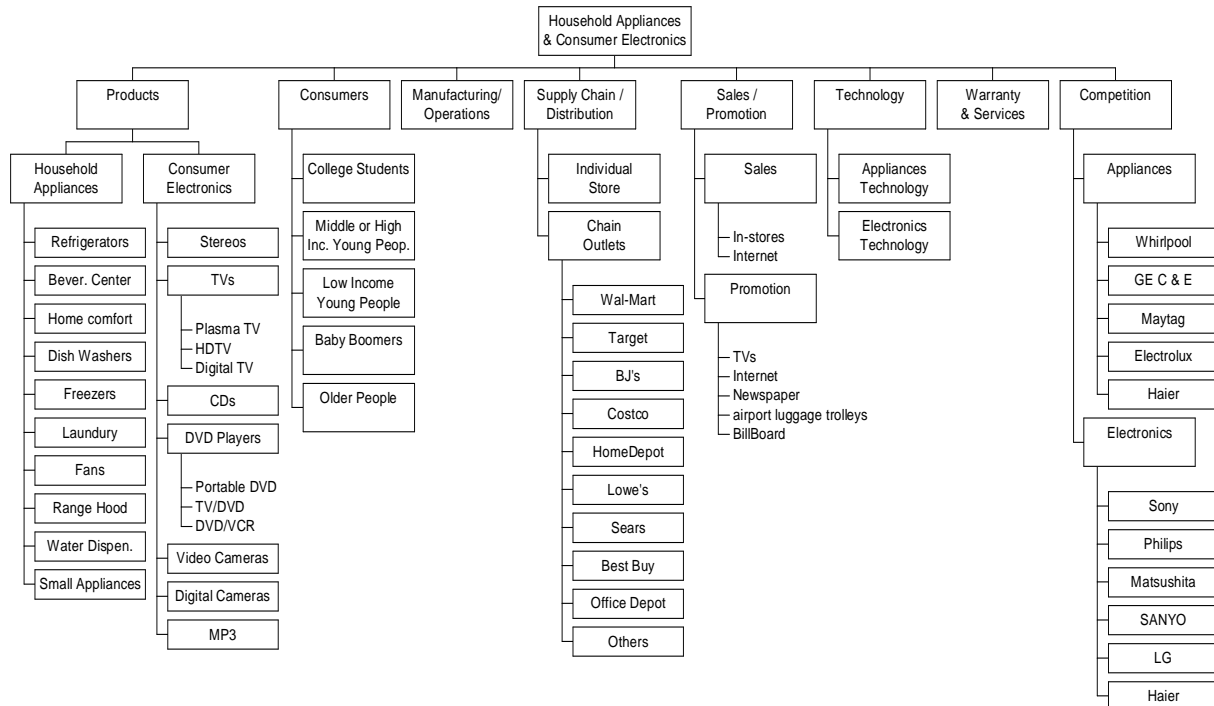
On February 23, 2004, Haier Group, a major home electrical appliance maker in China, was listed as the only Chinese name brand among the world's 100 most recognizable brands in a global name brand list edited by World Brand Laboratory [Xinhua, 2004]. The 20-year old Haier had built a network composed of 18 design centers, 10 industrial parks, 30 overseas factories and manufacturing bases, 58,800 sales offices, and 96 product group categories ranging from refrigerators, washing machines, and air conditioners to cell phones and televisions. As China's domestic markets mushroomed over the past two decades, Haier had built a reputation at home for quality, innovation, and customer service. It had enjoyed a leading position in domestic market shares in washing machines, refrigerators, vacuum cleaners, and air conditioners. Encouraged by its government, Haier strove to create truly international brands. Haier executives believed that they could extend its strong domestic brand reputation into the West by introducing innovative products for niche consumer markets and then expanding into bigger ones – a strategy that would enable the company to enjoy the higher margins that came with brand sales instead of slugging it out as a low-cost supplier to Western companies. Zhang Ruimin, the CEO of Haier Group, announced in November 2004, the main job of the company was to continuously increase the volume of products sold in the U.S., and modify the company's products to meet American people's demand [*Business Week*, 2004]. After the announcement, on December 22, 2004, Haier signed on with A&E Factory Service, one of the U.S.' leading service companies, as a primary service provider for repairs on products under Warranty and Service Contract in the U.S. and Puerto Rico. Such a business strategy showed Haier commitment to the U.S. market, and to the American consumers' wants and needs along with the aggressive pursuit of quality assurance. The task for Mr. Zhang Ruimin was to develop an effective enterprise-wide strategy if Haier Group was to survive and prosper against aggressive competition in the U.S. over the intermediate and long-term future. For the fourth quarter of 2004, U.S. industry demand for major appliances increased 10.7% from the prior year. For the full year, industry unit shipments grew 8.3 percent. Economists expected industry shipments in 2005 to increase approximately 2 percent. Based on sales from manufacturers to dealers, the U.S. market for consumer electronics products was expected to total \$125.7 billion in 2005, up 11% from 2004's estimated level, according to projections from the Consumer Electronics Association [Usernomics, 2005]. Benefiting from the continuously growing economy in the U.S., consumer disposable income increased, and relatively low mortgage rates maintained a fairly high demand for new homes. These positive factors stimulated people's consumption of durable goods including Household Appliances and Consumer Electronics. The US economy performed well in 2004, with consumer spending, fiscal stimulus, and low interest rates boosting a

4.1% increase of GDP, up from a 3.1% in 2003. In addition, consumer spending remained strong, ending the year at 6.1%, up from a 5.2% in 2003. Despite a soft patch in the third quarter, the number of jobs increased by 2.2 million in 2004, the best year for job growth since 1999 [Latella, 2005]. Consumer spending on appliances and furniture outpaced overall spending, rising 7.6% for the year, compared to 2.7% for the full year 2003. Consumer confidence was strong, with the Consumer Board's Consumer Confidence Index at 103.4 as of January 2005, the highest level since July 2004. Housing sales were also strong, with sales for new and existing homes in 2004 up 9.4% and 8.9%, respectively, according to the National Association of Realtors, a real estate trade association [Glynn and Normand, 2005]. Group was organized into Haier China, Haier Europe, Haier America, Haier Middle East, Haier Spain, and Haier New Zealand. Each company had its own manufacture base and sales and marketing department. Haier America, founded in 1999, was the U.S. Sales & Marketing division of the international Haier Group. Haier invested \$15 million in a purchase of the Landmark 'Haier Building' in New York City as its headquarters in the U.S., and invested another \$40 million on the site of Haier America Industrial Park located in Camden, South Carolina, which in 2005 mainly produced high-cubic-foot refrigerators that were primarily sold in the U.S. market. Most of Haier other products sold in the U.S. were imported from Haier China or the other subsidiaries of Haier Group that had a production cost advantage. Although Haier had a good reputation in the 'white goods' market (white goods referred to major appliances like refrigerators, washing machines, and air conditioners), the brand was still relatively new in the U.S., and the company faced a number of long-term decisions in order to build an America's presence. Some of the decisions included: how to integrate itself with the locality and build brand recognition, how to create the products that could meet American people's needs, how to achieve the cost control needed to maintain its price advantage, and how to continuously improve its services to build the trust of local customers. The main problem to be resolved for Haier Group was how to differentiate itself from such domestic big players as GE consumer & electrical, Whirlpool, and Maytag, and so achieve a winning edge over these competitors within intensely competitive, rapidly changing immediate, intermediate, and long-term time frames.

OVERVIEW OF THE INDUSTRY AND ITS STRUCTURE

Figure 1 illustrates the household appliances and consumer electronics segment business model. It serves as the framework in discussing these two segments.

Figure 1
HOUSEHOLD APPLIANCES AND CONSUMER ELECTRONICS SEGMENT BUSINESS MODEL



Each manufacturer in household appliance and consumer electronics industries tried to differentiate itself by offering products with unique features or technologically advanced products to attract either general consumers or some specific consumer groups. Further, to gain price advantage, manufacturers put more focus on streamlining production and implementing cost control of both production processes and supply chain and distribution management. Most major manufacturers and retailers had regional distribution facilities located strategically near a cluster of stores. Since competition was intense within the industry, manufacturers had been trying to gain advantages by launching aggressive advertisement campaigns on mass media or by doing in-store promotion frequently. The participants in these two industries included manufacturers that produced household appliances such as the Swedish manufacturer Electrolux (AE), Whirlpool, and Maytag, and manufacturers that produced consumer electronics such as Sony, Phillips and Sanyo. Some multinational firms, such as Matsushita, LG and Haier Group, produced both household appliance and consumer electronics products.

Products

The household appliances included washing machines, clothes dryers, dishwashers, ranges, refrigerators, freezers, microwave ovens, air conditioners and small appliances. “Smart” appliances were being introduced that would make life easier for users. Examples include Whirlpool’s Polara combination oven/refrigerator and Electrolux’s robot vacuum cleaner. The consumer electronics usually included Stereos, TVs, CDs, DVDs, Cell Phones and Video Cameras. Digital growth was on the rise in nearly every product category across the consumer electronics spectrum, including audio, video, imaging, information technologies, networking and mobile electronics.

Consumers

The consumers of household appliances and consumer electronics in the U.S. could be segmented by the age and income level, covering college students, lower-income young people, middle or higher-income young people, baby boomers (40s-60s) and older people (>60s). Baby boomers, older people and middle or higher-income young people became the main targets of most major manufacturers in the U.S. (such as GE, Whirlpool and AE in household appliance industry, and Sony, Philips and Panasonic in consumer electronics industry). To gain their market presences among serious competition, some multinational firms (such as Haier Group and LG) put more focus on attracting the preferences of college students and lower-income young people.

Manufacturing/Operation

The recently volatile economy had forced most manufacturers to explore outsourcing. Many companies saw it as an opportunity to reduce costs, improve flexibility and streamline production processes. In 2004, the household appliance industry was significantly affected by increases in material and logistics costs. Major manufacturers, such as Whirlpool, responded to the rising costs by implementing appropriate global price increases, aggressively driving higher levels of controllable productivity, reducing non-product related spending, and accelerating the introduction of new product innovations. By implementing appropriate strategies like what Whirlpool did, manufacturers could mitigate some losses in sales in middle or low-end markets caused by the rising material costs. In order to thrive in an industry punctuated by dramatic swings in demand and short product lifecycles, manufacturers of consumer electronics must deliver technical innovations and satisfy customer demands while containing costs. These competitive imperatives had led to the adoption of outsourced manufacturing strategies in order to reduce costs while enhancing operational flexibility. Manufacturers either used electronics manufacturing service (EMS) providers (offers customers a comprehensive, integrated, lower total cost of ownership approach to product design and manufacturing services) to handle the entire product design and manufacturing process or outsourced just the manufacturing process. The object of this strategy was to reduce total manufacturing cost and provide higher manufacturing responsiveness to changes in volume.

Supply and Distribution

Manufacturers were working closely with retailers to increase the efficiency of the supply chain—from source to consumer. Manufacturers and retailers were reducing order cycle time by sharing information through collaborative planning, forecasting and replenishment (CPFR). To enhance distribution efficiency, companies often used sophisticated cantilever racking and computer-controlled random-access inventory storage. In addition, many manufacturers employed their own drivers (rather than subcontracting the work), maintained a fleet of trucks and

trailers to ensure quality control, and offered customers delivery and set-up at no additional cost. The distribution of final products was accomplished by two main channels: outlet chain stores and individual stores. More than 80% of household appliances and consumer electronics were purchased by consumers from chain store outlets. Sales of products in individual stores were also important because individual stores usually had intimacy, friendly image and good relationships with local people.

Sales and Promotion

Sales of household appliances and consumer electronics could be completed either in stores or on the Internet. Consumers usually purchased expensive major appliances such as ranges, refrigerators and washers & dryers in the stores because these kinds of products needed special instructions or professional assistance for installation. Stores usually provided the services for installation and charge reasonable fees. Consumers would also purchase small inexpensive appliances and most consumer electronics directly from the Internet. Because the lower cost of Internet sales, Internet sellers could offer more attractive prices or free shipping to consumers. Advertisement on mass media such as the Internet, newspapers, billboards and airport luggage trolleys were the normal ways that most manufacturers used to increase their brand recognition and enforce their brand image. Advertisement on TV was the more expensive but the effective way to be recognized and only some of the major players such as GE, Sony and Phillips would like to do expensive commercials on TVs.

Technology

Product development involved the ability to create new technology and design more features based on current technology. Technology was leading to improvements in products. “Smart” appliances were being introduced that would make life easier for users. Also the “smart kitchen” concept had captured the attention of both the appliances industry and companies that traditionally specialize in kitchen products. For example, Samsung had introduced the “Home PAD Refrigerator,” which detected the shelf life of food and automatically displayed a list of items stored in the fridge on the door. Portable entertainment devices were the new trend in consumer electronics. Advances in technology were not only changing the types of portable entertainment devices the consumers used, but also how they were used. The outcome of this digital movement was that consumers could access their content – especially entertainment content – wherever they go.

Technology shifts, shorter product life cycles and other unanticipated requirements had become part of the industry's new dynamics, but chipmakers and consumer electronics manufacturers were clearly experiencing pressure to produce new and compelling products with new features and better performance at lower production costs.

Warranty and Services

Warranty and services was probably the most important part of ensuring that manufactures would keep its long-term reputation, profitability and continuous penetration within existing market segments. And by providing well-functioned warranty and services, the company would also remain its intimacy and good relationships with its loyal consumers and at the same time it would attract some new consumers.

COMPARATIVE COMPETITIVE POSITION EVALUATION

Haier core products were its household appliances. Haier ranked third for sales, in the major appliances industry in the world. Consumer electronics was its secondary product line, a diversification designed to leverage the synergy of its existing consumer bases. In the United States, four companies, the Swedish manufacturer Electrolux, GE, Whirlpool and Maytag, dominated the core appliance market, which consisted of washers, dryers, refrigerators, freezers, dishwashers, and freestanding and built-in ranges. Together these four firms accounted for about 95% of the core appliance market share, which left Haier only less than 5% of the major appliance market share. The major problem for Haier household appliances was its brand recognition. Although since 1998 Haier had imported its major appliances into the U.S. market, the company's development strategy was conservative. Haier first captured the niche market in college dorms and hotel rooms by introducing its compact refrigerators. And it also pioneered electric wine cellars--those inexpensive stand--alone cabinets for wine lovers. Such a moderate footprint in the niche market did not help Haier to gain the sufficient brand recognition in the major appliances market in the U.S.. The next problem was its weakness in TV advertising. Compared with such major names as GE's and Whirlpool's heavy advertisement strategy, Haier advertising was limited to airport trolleys, billboards and

newspapers. In addition, Haier America's website design looked less sharp than most of its rivals'. Compared with its main competitors, Whirlpool, GE and Maytag, the price advantages of Haier major appliances had a strong appeal to U.S. consumers. This price advantages arose because most of its appliances were imported from its China's and Asia's manufacturing bases, where labor costs were much lower than in America. Another strength of Haier was the advanced feature designs on its major appliances. In terms of production, Haier tried to analyze customer groups and understand their needs thoroughly so as to provide specific products for each distributor or customer group. For example, Haier wine cooler had a digital thermostat operated by remote control. Its chest freezer had an innovative cooling section in addition to the freezing compartment. Unlike some portable AC models on the market, which used a water bucket that must be emptied, all Haier portable AC models had an "Auto Evaporation" function, which allowed continuous operation without water removal. To manage the costs of manufacturing many different product models, Haier products were based on modules of components and subsystems and on basic platforms that could be varied. Periodically, the company would add some new features, but the basic model would not be changed randomly. According to sales figures, the consumer electronics market in the U.S. was dominated by Matsushita, Sony, Philips Electronics, SANYO and LG Electronics. Compared with most of these major brands, Haier consumer electronics products had no competitive advantages either in technological advances or in quality of products, except its relatively lower prices. Worldwide, Sony remained the overall consumer electronics leader in market share, through a highly respected brand name, a wider variety of products than most of its competitors, greater market presence through advertising and wholly owned stores, and a higher perceived level of overall quality of its products in most sectors. Haier major market for its consumer electronics was in the Asian market, where the Hair brand had strong recognition. Haier rich feature designs and its competitive prices, plus its strong brand recognition, led it to a very strong competitive position in the consumer electronics industry in China.

THE COMPANY

Haier was incorporated in 1984 to produce mainly household refrigerators. Over the past 20 years, the company had witnessed significant growth and was now a transnational organization widely recognized in the world community. In 2004, Haier global sales hit \$12 billion and the Haier brand, valued at \$7.4 billion, topped all Chinese trademarks in a nationwide survey. Haier leadership position in the Chinese home appliance industry had been solidified by obtaining a domestic market share of 21% for overall appliances, far ahead of all its competitors, with 34% for white goods and 14% for small electric appliances. Haier international promotion framework encompassed global networks for design, procurement, production, distribution and after-sales services. Haier was ranked fourth in the revenue from the global sales of white goods in 2004. Haier was determined to gain the top position in this sector. In the world market, Haier had gained the first place in the United States for sales of compact refrigerators and wine coolers, in Iran for washing machines, and in Cyprus for air conditioners. On March 4, 2002, Haier unveiled its American headquarters in a landmark neo-classical building, the former offices of the Greenwich Savings Bank, on Broadway, Manhattan, New York, an indication that Haier had moved into a new phase for globalization of product design, manufacturing and sales. And Haier had a strong commitment to long-term development in the United States. On August 20, 2003, Haier erected an electric billboard in the shopping district of Ginza, Tokyo, symbolizing Haier determination to also reach Japanese marketplace. Figure 2 (next page) shows a company overview.

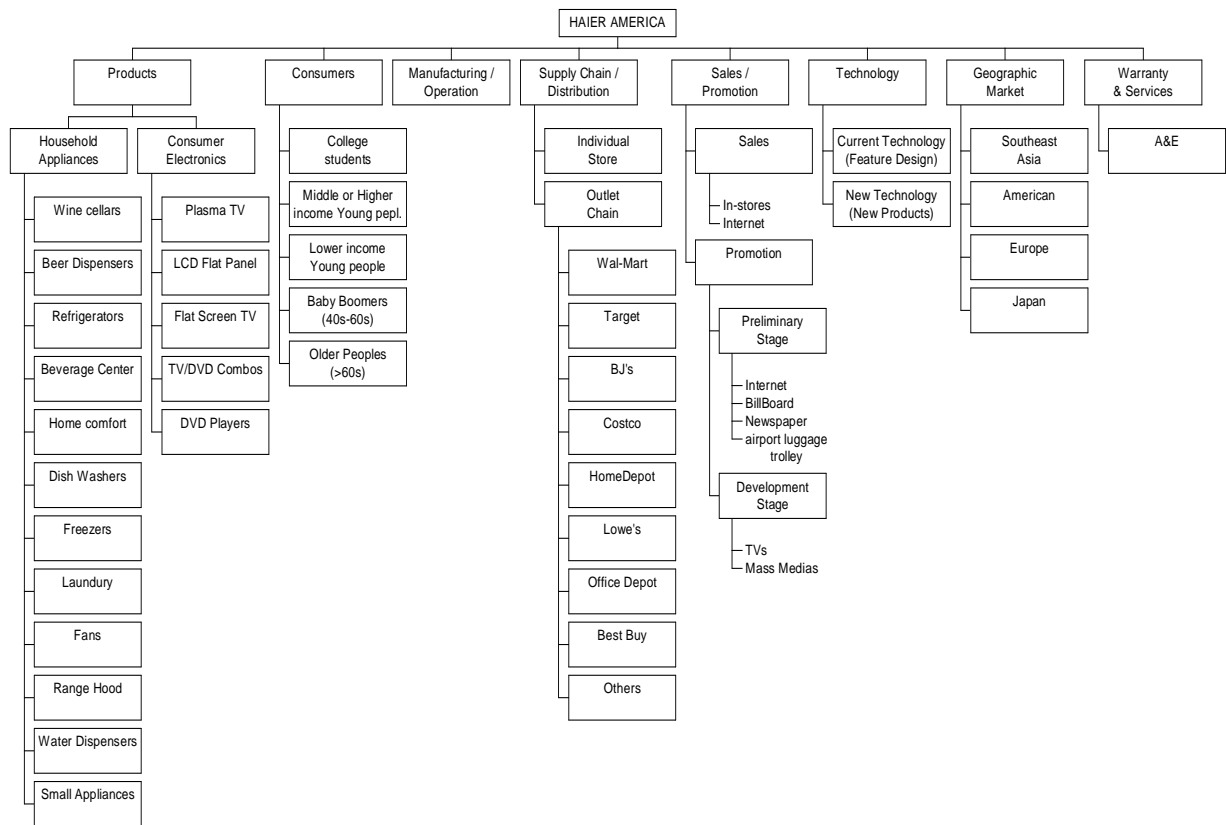
Products

The company was not started from scratch. Since it began exporting to the U.S. in the early 1990s, Haier had captured about half the U.S. market for compact refrigerators, the kind seen in college dorms or hotel rooms. It also pioneered electric wine cellars--those inexpensive stand-alone cabinets for wine lovers who lack drafty chateaus in which to store their treasures. Haier started with three refrigerator products in 1998 and had advanced to over 250 products including both household appliances and consumer electronics in 2004. Haier offered a variety of household appliance products, which included, but were not limited to, wine cellars, refrigerators, freezers, air conditioners, dishwashers, laundry products, and small appliances. Haier core products were its household appliances such as refrigerators, washers & dryers and air conditioners. According to sales, Hair ranked the third in the major appliances industry in the world. Haier also offered consumer electronics products, which included televisions with plasma and flat screen models, VCDs, DVDs and TV/DVD Combos. Consumer electronics was its secondary product line, a diversification designed to leverage the synergy of its existing consumer bases.

Consumers

The consumers of Haier products included college students, middle or higher- income young people, lower-income young people, baby boomers (40s-60s) and older people (>60s). For household appliances, the company primarily targeted lower income young people and college students by offering relatively low prices on its compact appliance products. Currently Haier was planning to capture the attention of the middle or higher income young people and baby boomers. To achieve its goal of manufacturing its major appliance products locally, Haier set up its high cubic refrigerators production line in South Carolina. Such strategy would increase its responsive rate to the local market trends and attract more consumers in the middle or high-end markets to improve its competitiveness. For the consumer electronics, Haier mainly target the lower income young people and college students. Currently Haier imported most of its electronics from the Asia and China manufacture bases, where the prices of manpower was much lower than that in America. Haier price advantages on such imported electronics as TVs/DVD Combo, LCD and DVD attracted some attention from its existing consumers in the low-end markets.

Figure 2
HAIER AMERICA



Manufacturing/Operation

Haier Group had 30 overseas factories around the world; the one in South Carolina currently mainly manufactured large capacity refrigerators for the American market. Although Haier had only one manufacturing base in America, the land available was big enough for continuous expansion.

Supply and Distribution

At this time, most of Haier products sold in the U.S. market were imported from its China's and Asia's manufacture bases. The supply and distribution functions were extremely important to Haier business development. It would determine how fast the company would respond to the emerging market needs and how well the company would control its logistics costs. On October 25, COSCO, the China's biggest oversea shipping company, and Haier reached a strategic cooperation agreement. Under the new agreement, COSCO was going to provide supply chain management based on its strong global network resources and to help Haier explore business opportunities overseas. Haier delegated COSCO as one of the leading logistics service providers for Haier transportation and distribution of appliance and electronics and supply of its raw materials and parts. Haier product distribution in the U.S. was nationwide and could be found in most major chain stores. A brief listing of outlets include Wal-Mart, Lowe's, Best Buy, Home Depot, Office Depot, Target, Sam's Club, Fortunoff, Menards, Bed Bath and Beyond, P.C. Richards, BJ's, Fry's, ABC, BrandsMart; and the list is growing daily.

Sales and Promotion

Like most of the other manufacturers, Haier sold its household appliances and consumer electronics either in stores or through the Internet. Sale staffs' knowledge about Haier products, the image designs on the Internet and sellers' promotion were the most important factors that would affect its sales. Since 2001, Haier products had entered the top 10 chain stores in the world and major chain stores in China. About 85% of Haier orders in America and Europe came from the top 10 chain stores in those areas. Haier also had broad networks with the major Internet sellers such as Ebay, Amazon and AJMadison. And Haier products could also be found from the websites of the top chain stores in the U.S.. The company had been promoting the Haier brand mostly through outdoor advertising, airports and magazines, and also did heavy advertising in trade publications or on the Internet. Haier infrequently launched in-store promotions on its overstocked or outdated products. In its latest step toward internationalizing the Haier brand, the company began sponsoring an Australian basketball team now known as the Melbourne Haier Tigers in 2004. Haier also was planning to do commercials on TV or sponsor sports teams in the U.S. to improve its brand recognition.

Technology

Product development involved the ability to create new technology and design more features based on current technology. Technology development was always an important factor that would determine whether the company would be successful when facing serious competition in the current market or continuously remain competitive in the future. Haier had strong feature designs capabilities on its core appliances products. Haier wine cooler had a digital thermostat operated by remote control. Its chest freezer had an innovative cooling section in addition to the freezing compartment. Unlike some portable AC models on the market, which used a water bucket that must be emptied, all Haier portable AC models had an "Auto Evaporation" function, which allowed continuous operation without water removal. Haier also kept advances on new technology development on some of its consumer electronics (such as cell phones). The invention of the Haier P7 cell phone was the next step in the evolution of technology and style.

Warranty and services

Haier America had signed on with A&E Factory Service as a primary service provider for products under Warranty and Service Contract in the United States and Puerto Rico. Haier planned to transfer these services to A&E with the target date of February 15th, 2005 for full implementation. A&E was one of the nation's leading service providers, which covered approximately 90% of the U.S.. It currently also serviced such companies as Whirlpool, Electrolux, Sears, GE, Fisher & Paykel and Sharp. The commitment between Haier and A&E would benefit customers with professional, courteous service from highly trained technicians and prompt service delivery using cutting edge dispatch routing software. Only one telephone number would be needed for service inquiries and technician dispatch.

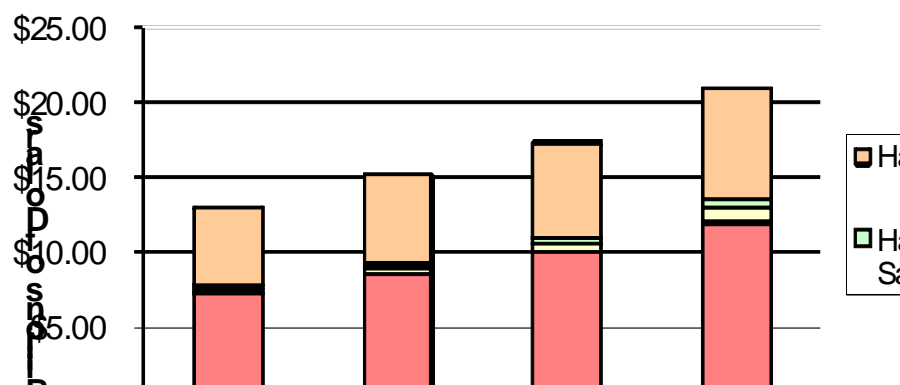
FINANCIALS

During the 17 year period from 1984 to 2001, Haier Group had experienced a rapid steady development, with an average annual growth rate of 78%, growing from a small collectively-run factory with a debt of \$177,000 to the No.1 Chinese household appliance giant with a global business turnover of \$7.25 billion. In 2001, Haier

group's export from China was \$280 million and Haier America's revenue was \$ 250 million. In 2002, Haier group's global sales reached \$8.66 billion; its exports reached \$400 million. In the U.S., Haier America's sales increased to \$300 million. The company also claimed a 9% market share in the U.S. freezer market in 2002 and a 2% market share in standard-sized refrigerators. In 2003, Haier Group's global sales reached \$10 billion, its exports were \$500 million from China, and it was ranked as No.1 domestic electrical appliance producer in China. The latest Euromonitor statistics on company sales also showed that Haier Group ranked the fourth among the global white goods manufacturers, behind Whirlpool, Electrolux, and Bosch-Siemens, with the largest world market brand share of refrigerators. In the first half of 2004, Haier exported \$530 million worth of products, a rise of 107% year-to-year. Haier posted a 12% rise in fourth quarter net earnings in 2004, even as fierce competition, soaring raw material costs, and a cut in export tax rebates ate into full-year profit. Haier was the first Chinese brand to have more than 100 billion yuan (\$12 billion) assets. Haier reported an export of more than 1 billion US dollars. Sales in the US market also reached to about half a billion dollars. And Haier Group ranked the third in major appliance sales worldwide. Figure 3 shows Haier financial data from 2001-2004. Haier Group's annual sales grew 1.7 times during the 3 year periods and its sales in the U.S. market doubled during the same period. Haier total export was more than tripled, reaching \$1 billions in 2004. Its brand value increased by 40% and Haier became the No.1 most valuable brand in China.

Figure 3
HAIER GROUP FINANCIAL DATA 2001-2004

Net Sales	2001	2002	2003	2004
Haier Group	\$ 7.25b	\$ 8.60b	\$ 10.00b	\$ 12.00b
Export	\$ 280mil.	\$ 400mil.	\$ 500mil.	\$ 1b
Haier America	\$ 250mil.	\$ 300mil.	\$ 420mil.	\$ 500mil.
Brand Value	\$ 5.26b	\$ 5.90b	\$ 6.40b	\$ 7.44b



LOOKING TOWARDS THE FUTURE

Zhang Ruimin, the CEO of Haier, and his colleagues had turned Haier from a collectively run workshop into an international enterprise. In the past three years, Haier had won access to major U.S. distributors, but its brand still remained unfamiliar to the mainstream U.S. consumers. Many analysts were convinced that Haier had put its eggs in too many baskets, and that it ought to be focusing on appliances - its core strength products, which did not have a reputation in the U.S. and Europe. Haier had to build up its brand recognition and enhance its brand image. There already had been some stumbling blocks, notably in personal computers, which the company exited in 2001 after four unimpressive years. Haier faced its biggest challenge: expanding its modest U.S. footprint and becoming a genuine global brand. Both of the following new strategies focused on expanding Haier market shares in U.S.; however, it needed to be determined whether the company wanted to achieve this goal by introducing more existing products into the U.S. market or by mainly depending on applying more feature designs on existing core products to increase its competitiveness.

The first alternative considered by management was for Haier America to introduce more of its existing product categories into the U.S. market. This could be achieved by building up national distribution centers to more effectively enforce the networks connected to chain stores and individual stores. Under the plan, Haier would import most of its products from Haier Group global manufacturing bases and offer U.S. customers more choices among its wide range of products within the company's present product categories. Also Haier would need to improve efficiency of its distribution networks by implementing collaborative planning, forecasting and replenishment (CPFR).

The second alternative was for Haier America to emphasize developing new functions and features on its present core products such as refrigerator and air conditioner in the U.S. market. This could be achieved by adding new core product lines in the South Carolina factory, such as air conditioners and washers & dryers, and move toward the company's goal of manufacturing core products locally. At the same time it would improve its existing refrigerator product lines by changing the modules of the components and subsystems to add some new features, for example, upright freezers, chest freezers, and refrigerators with freezers on the bottom.

These were the kinds of alternatives that Mr. Zhang Ruimin, the CEO of Haier Group, had to evaluate in order to decide what alternative was most efficient and effective for Haier America to achieve success in its product area, as well as in other operating areas such as consumer, manufacturing, supply & distribution, sales & promotion, technology, and maintenance & services.

SOURCES

- Business Week* (2004). [Online]. Nov.8. http://www.businessweek.com/magazine/content/04_45/b3907008.htm
Accessed March 03, 2005.
- CEA (2003-2004). "Video Trends in 2003-2004". [Online].
http://www.ce.org/publications/books_references/digital_america/video/default.asp Accessed March 03, 2005.
- CEA (2004). "CEA Announces Another All-Time High For DTV As Cumulative Sales Top 13 Million Units".
[Online]. Nov.22 http://www.ce.org/press_room/press_release_detail.asp?id=10616. Accessed March 03, 2005.
- China (2005). "China's Electric Appliance Prices Expected to Rise". [Online]. *Appliance Magazine* Feb 17, 2005.
<http://www.appliancemagazine.com/news.php?article=8145&zone=0&first=51>. Accessed Feb. 01, 2005.
- Corporate Report (2003-2004). [Online]. March.
http://www.ce.org/publications/corporate_report/corporate_report_2004.pdf. Accessed March 05, 2005.
- Econoday (2005). [Online]. Feb. 24.
http://fidweek.econoday.com/reports/US/EN/New_York/dgo/year/2005/yearly/02/index.html Accessed March 03, 2005.
- Glynn, A. and Normand, M. (2005) "Home Furnishings & Appliances Analyst". March 17. Accessed Mar. 28, 2005.
- IMS (2005). Press release [Online]. Feb.02. <http://www.imsresearch.com/members/pr.asp?X=174>. Accessed March 03, 2005.
- ISM Report (2005). "January Manufacturing ISM Report On Business®". [Online]. Feb.01.
<http://www.ism.ws/ISMReport/ROB022005.cfm>. Accessed March 03, 2005.
- Latella, R.W. (2005). "National Retail Market Overview". [Online]. March.
<http://valuation.cushwake.com/Documents/22305.pdf>. Accessed March 28, 2005.
- NAHB (2005). [Online]. Feb. 16. http://www.nahb.org/news_details.aspx?newsID=1359. Accessed March 08, 2005.
- NAR (2004). "Most Metro Area Home Price Gains Strong But Cooler – NAR". [Online]. Feb. 12.
<http://www.realtor.org/publicaffairsweb.nsf/Pages/MetroPrices4thQtr03?OpenDocument> Accessed March 08, 2005.
- Rismedia (2005). [Online]. Feb 17. <http://www.rismedia.com/index.php/article/articleview/9361/1/1/>. Accessed March 28, 2005.
- Russell, J. (2005). "53rd Annual Appliance Industry Forecasts - North America". [Online]. Jan.
http://www.appliancemagazine.com/zones/consumer/07_ce/editorial.php?article=699&zone=7&first=1.
Accessed March 08, 2005.
- Tewary, A. (2004). "Home Furnishings & Appliances Analyst". May 6. Accessed March 03, 2005.

- Twice (2005). "CEA Says '05 Sales Will Grow 10.7%". [Online]. Jan. 22.
<http://www.twice.com/article/CA498488.html?verticalid=820&industry=By+The+Numbers&industryid=23106&pubdate=01/24/2005>. Accessed Feb. 28, 2005.
- Usernomics (2005). [Online]. Jan. 17. <http://www usernomics.com/news/2005/01/1257-blm-of-consumer-electronics-will.html>. Accessed Feb. 28, 2005.
- Washington (2005). "Goods orders rise 0.6% in December". [Online]. Jan. 27.
http://www.mabico.com/en/news/20050127/foreign_exchange/article16574/. Accessed Feb. 28, 2005.
- Whirlpool (2005). "Whirlpool Reports Record 2004 Sales". Appliance Magazine Feb 3.
<http://www.appliancemagazine.com/news.php?article=8084&zone=0&first=101>. Accessed Feb. 28, 2005.
- Xinhua (2004). "Haier Listed in World's Top 100 Recognizable Brands" [Online]. February 3
<http://www.china.org.cn/english/BAT/86101.htm>. Accessed Feb. 28, 2005.