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GLOBALIZATION IN APPLIANCE INDUSTRY (A CASE STUDY OF INDIA AND CHINA)

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ABSTRACT

The home appliance industry has played a major role in the growth of economy in the west in the last two decades. The industry has undergone drastic changes in recent times. There has been enormous consolidation to achieve economics of scale, product synergies and strong brand presence. In the 1980s most of the corporations realized that their markets in Europe and USA were saturated. The potential for future growth for their markets therefore, lay in the emerging markets of Asia and Latin America and hence, the need for globalization.

The entry of multinationals in the Asian markets specially China and India has been representative of such a globalization trend. After liberalization global players targeted India and China as a key investment opportunity. Electrolux AB, Whirlpool Corporation, GE, Bosch Siemen and LG set up modern plants to manufacture Refrigerator, Washing machines, Microwave Ovens and other appliances. The manufacturing facilities were setup through acquisitions, JV's or wholly owned subsidiaries. In some cases success was achieved by setting up greenfield projects while inorganic route proved beneficial in others.

The paper deals with the Globalization process and the strategies adopted by multinationals for entry in the emerging markets. The study is based on analyses of an expert opinion survey and case studies of Globalization process adopted by leading global players in China and India – and their experience.

Keywords: Globalization, appliances, emerging markets strategy.

Introduction

After liberalization and globalization, all the leading global appliance manufacturers entered the emerging Asian markets. Since it is the endeavor of this paper to look at the appliance industry within the framework of a global strategy, a comparative look at China and India, the two important markets is pertinent. This is because of the similarities between the two economies and their emerging relevance in the global economy. To study the Chinese and Indian appliance industry, it is relevant to understand the socio- economic and industrial perspective of the two countries.

China and India - A Profile in Contrast

China and India, the two giants of the Asian continent, have several common features: a large population, ancient civilization and economic and social history. These countries, however, have differed in their racial origins, religion and political ideology. Both are rapidly changing over from a 'protectionist' past to a 'liberalizing' present. Therefore, in the context of globalization, with the

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collapsing national barriers and unification of economic systems under WTO, the world is watching keenly the emergence of India and China as competitors in the world arena. Interestingly, these are not only very attractive markets but also cheap labor-based offshore manufacturing sites for developed Western countries. The sustainability of change in the global business environment and a built-up of the competencies will indicate the robustness of the liberalization and globalization plan of each country. This will highlight the competitive advantage that each country will have.

Socio-Economic Factors

China

- China's GDP growth rate has been 7 per cent for the period 1979 – 2003, touching 14 per cent during 1984 and 11 per cent in 2007. (Forecast 9.6 Per cent in 2008)
- During this period the population growth rate fell drastically from 2.24 per cent to 1.04 per cent resulting in total employment rising to 50.72 per cent of the population.
- China's share of world export rose from 0.75 per cent in 1978 to 5.9 per cent in 2005.
- There has been considerable decentralization of decision-making at provincial and lower government levels.

In its efforts to reform the economy, China had brought 270 million Chinese out of absolute poverty by the end of 2005. It had tried to corporatize enterprises, developed financial markets and built national roads and rail infrastructure. The socialist housing system has been privatized and the tax system revised.

India

India had a low average GDP growth rate of 5-6 per cent during 1980-90 and 6-7 per cent during 1991-2000. However, it slumped to around 5 per cent in 2001, it rose to 8-9 per cent in 2007 (projected 8.8 Per cent in 2008). Illiteracy is high at 48 per cent and 43 per cent of the Indian population is below poverty line as compared to 12 per cent in China.

Industrial Perspective

China

China's economic policy since 1978 has been following the East Asian development path characterized by export of labor-intensive manufactured products. The share of manufactured goods has increased from 45 per cent in 1980 to over 80 per cent in 2005. In the industrial sector, faced with over-capacity, China has been looking for new markets both domestic and abroad. It had realized that having captured a large part of the domestic market with its perceived low quality and cheap products, it needed to take on the Multinationals head on for increased market share. For this, it has continuously been in search of state-of-art technology by way of foreign collaborations or Joint ventures in most industries including the appliance industry.

India

During the pre-independence industrialization, the emphasis was on the consumer sector with a focus on the large markets in India. This included setting up of cotton textile, jute, sugar and cigarette units, using imported machinery. Industrial production was biased towards products to be exported to the UK. However, post-independence, the focus was on self-sufficiency based on public/government sector units in core industries like steel, cement, chemicals and fertilizers. Adequate government control was exercised through the licensing policy and Monopolies and Restrictive Trade Practices Act (MRTP). Trade protection was through import duty, non-tariff

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restrictions as also exchange rate control. Private activities were further restricted by nationalization of banks, mines and insurance during 1969-73. The reform process was triggered off by internal and external reasons such as critical foreign exchange situation, losses in public sector and demand for superior imported goods, leading to liberalization in 1991. External developments like loss of support due to collapse of the erstwhile USSR and the successful reforms set in motion by China further prompted India to follow the policy of liberalization.

In the above socio-economic scenario of the emerging markets in China and India, the rising middle class had been starved of choices for 50 years. Hungry for consumer goods, which improved their quality of life, consumers were ready to spend for such products. After liberalization and globalization, the leading global manufacturers entered these markets and set up factories to manufacture home appliances.

The Asian appliance market is one of the fastest growing markets in the world. In 2005, over 100 million units were made and sold in Asia, eclipsing the European and North American markets. Multinational global strategy, including that of leading appliance manufacturers, Whirlpool and Electrolux targeted Asia as a key strategic interest for long-term success.

The most important appliance markets in Asia are China, Korea and India.

China Appliance Industry

There has been phenomenon growth in Chinese appliance industry, especially in the early 1980's after the liberalization of economy. President Xiao-Ping-Deng declared publicly that every household in China should have a TV, refrigerator, washing machine and an air conditioner. Government made large investment and encouraged industry in every possible way. Although domestic enterprises had to battle the problems of over-capacity and tough competition at home, they made great strides forward by aggressively expanding overseas markets, strengthening product structures and increasing investment in technology.

Several international firms successfully transferred their manufacturing base to China to maintain competitiveness in the international and local markets. This transfer had two purposes: with China's advantage in low-cost manufacturing, they could reduce operational costs and improve product competitiveness, and second, through local production in China, they could win market-share and brand recognition. Panasonic set up a plant in Guangzhou. Hitachi set up an air conditioning plant in Wuhu as its global base.

Production

The annual production of refrigerators in 2006 was 35.0 million units and washers 30.0 million. The better-known brands enjoyed greater market strength amidst continued consolidation. The production volume of the six largest manufactures of refrigerators accounted for 81 per cent, the six largest washing machines for 75 per cent and the six largest manufactures of air conditioners were responsible for 68 per cent of the country demand.

Major Appliance Manufacturers

The top Chinese appliance manufacturers in various sectors are (Data from China Household Electrical Appliances Association CHEAA).

Refrigerators

- Kelon Group
- Haier Group
- Henan Xinfei Appliance Company

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- Hefei Meiling Group

In 2006, the total production across brands was 35.0 million units up 25 per cent over 2005.

Washing Machines

- Hefei Rongshida Group Corporation
- Jiangsu Little Swan Group
- Haier Group
- Hangzhou Jingsong Group Company

In 2006, production was at 30.0 million units, up 15.3 per cent over 2005.

Air-Conditioners

- Zhuhai Gree Appliance Company
- Haier Group
- Guangdong Meidi Group
- Kelon Group

In 2006, output was 65 million units of which 40 million units were exported.

Microwave Ovens

- Shunde Galanz Appliance Company
- LG Electronics (Tianjin) Company Ltd

In 2006, production was 55 million units, of which 40 million were exported.

Having consolidated their position in the domestic market, Haier and Wuxi Little Swan embarked on an ambitious program of expansion into foreign markets in the mid 1990s, an exercise orchestrated by the government.

The most important appliance manufacturer in China has been Haier. It became the market leader in the Chinese market in 1999, closely followed by Guangdong based Kelon Appliances. Haier is also one of the leading washing machine producer in mainland China and occupied the second slot with respect to market shares behind Little Swan Washing Machines. In the domestic Air Conditioner market too, it is one of the leading firms. It is, in fact, interesting to note that the Chinese domestic appliance manufacturers have established almost complete dominance over the domestic market. Of the top 10 refrigerator brands, which together accounted for over 90 per cent of the sales in the mainland, only two were foreign brands – National and Samsung at the eighth and ninth positions respectively in terms of volume share. (Asia Pulse, 18 January 1999, retrieved from Reuters Business Briefings).

Table 1, shows the year-wise production of major appliances.

Exports

During the later half of the 1990s, exports of Chinese appliances increased steadily. Of the 223 countries Chinese appliances were exported to, the US was the largest market, accounting for US \$ 6.7 billion, 30 per cent of the total export value. Haier Appliances has been a front runner in this exercise: By end-1999, Haier had a marketing presence in 87 countries and had set up overseas processing/assembly plants in Indonesia, Philippines (for refrigerators) and Malaysia and Iran (for washing machines).

The export of appliances saw the fastest growth in the recent years. It was US \$ 21.68

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billions in 2006 against US \$ 2.71 billions in 1996: Compare the year wise figures and one marvels at the growth as shown in Table 2. Export of major appliances is shown in Table 3.

Table 1 - Production of Appliances year-wise (Units in million)

Product	2000	2001	2002	2003	2006
Refrigerator	12.8	13.5	16.0	22.1	35.0
Washer	14.4	13.3	15.8	19.4	30.0
Microwave	12.5	18.2	22.7	48.1	65.0
Air-Conditioner	18.2	23.1	31.3	36.6	50.0

Table 2 - Exports of Appliances year-wise

	1996	1998	2000	2001	2002	2003	2006
Exports US \$ (billion)	2.71	3.51	5.62	6.93	8.8	12.6	21.68

Table 3 - Exports of Appliances in 2006

Product	Export (million units)
Refrigerators	17.39
Washers	11.40
Microwave oven	46.41
Air-Conditioners	26.32

Future Trends

The Chinese government plans to implement a positive financial policy to improve the economic environment for the appliance industry. Technical improvements and new product developments will be strengthened. A Standard of Energy Savings for Refrigerators was set up in 1999, requiring manufactures and materials suppliers to adopt energy-saving technologies. In future, competition will focus on the combination of price, quality, function, brand and service.

The industry has established advanced manufacturing systems in the last two decades. It has led internationally in terms of production efficiency and costs. Many international companies (Panasonic, Hitachi and LG) have successfully moved manufacturing bases to China to maintain international competitiveness.

A major disadvantage, however, is the over-capacity in the industry. Many firms, which registered losses, have reassessed their strategy: Whirlpool has exited the air-conditioning and refrigeration market and is concentrating on washing machines and microwave ovens.

China after WTO

China joined the WTO (World Trade Organization) in December 2002. In the appliance industry, domestic manufacturers have already faced up to the international challenge. They have utilized multiple joint ventures to upgrade technical and manufacturing capabilities, and improve management expertise. Realizing the need to adapt to the new competitive environment, they have prioritized building brands and innovative products of high quality.

Although WTO compliance will eventually bring about basic structural change into many of China's industries, the appliance industry will continue to develop along the lines it has over the past 10 years, with steady growth.

Indian Perspective

Prior to liberalization in 1991, foreign firms could take an equity stake of only upto 40 per cent in white goods ventures in India. Also, they did not have an automatic right to use their

international brands in the Indian market as well; using foreign brands required special permission from the Government. Imports in the industry were also restricted: special import licenses were required to import refrigerators and washing machines, both in the complete knock-down kit form and assembled units. Import tariffs were high, particularly on completely built up units. The Indian white goods industry was, therefore, insulated from global competition by restrictions on trade and investment.

Until the 1990s, multinational corporations therefore had a nominal presence in India: White Consolidated Industries Inc., USA, had a minority stake and a technical collaboration agreement with Kelvinator of India Limited. In addition, there were domestic players which had technology licensing arrangements with foreign companies such as BPL with Sanyo, Videocon with Matsushita and Godrej with GE.

After the process of liberalization began in July 1991, international companies were allowed to invest and take equity up to 100 per cent. In 1992, multinational corporations were granted the right to launch international brands in India. Import policy was soon liberalized as well: import of refrigerators was allowed under the 'Open General License' from the mid-1990s.

Following the liberalization of inward direct investment norms, the industry has witnessed the entry of several global players. General Electric Appliances of the US was the first foreign entrant, through a joint venture with the Godrej Group. GE Appliances, however, withdrew from the JV in 2000 (joint press statement issued by Godrej Group and GE Appliances on 29 September 1999, VANS).

Whirlpool Corporation entered the Indian refrigerator market in 1995 by taking over Kelvinator of India. The acquisition involved a complex brand transfer arrangement. Electrolux made an entry in the Indian white goods industry by acquiring Intron Limited, a loss-making washing machine manufacturer, and Maharaja International Limited, a small-scale refrigerator manufacturer. Later, Electrolux invested Rs 200 crore in 1998-99 to acquire control over the white goods division (refrigerator and washing machine) of Voltas Limited, a Tata Group company. (*Capital Markets*, August 23, 1998, p.16).

These above leading global players were followed into the Indian market by the South Korean *chaebols*, Samsung, Daewoo and LG, in 1996-97. The South Korean companies depended on a combination of imports, local sourcing and manufacturing at their own plants in India. Two other Indian firms, BPL with Sanyo and Videocon with Matsushita had already entered the refrigerator, air conditioner and washing machine market in the 1990s.

Indian Home Appliance Market

The Indian refrigerator market, in terms of volume sales, was around five million units in 2006-07. The overall market has grown at an impressive rate over the 1990s. (Refer Table 4). Over the next five years, the refrigerator market is expected to grow a CAGR of 8-10 percent.

Table 4 - Indian Refrigerator Market - (In million units)

95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	06-07
2.25	2.3	2.5	3.0	3.0	3.2	3.5	4.0	4.5	5.0

Table 5 and Table 6 shows the market share of various refrigerator and washing machine brands in the Indian market. Prior to the entry of global manufacturers, four domestic firms had dominated this segment: of these Godrej and Kelvinator had more than 70 per cent market share, and Voltas and Allwyn had a large chunk of the remaining market. by 2000, foreign entrants had cornered over 60 per cent of the refrigerator market. The market share of Kelvinator,

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Voltas and Allwyn (all controlled by the Electrolux group in 2000) was more than 25 per cent. Videocon and BPL were the other domestic brands, which had a significant market presence through this period. Clearly, therefore, the decline in the market share of domestic brands had been increasingly taken up by multinational ones.

In the last few years, there has been a shift in the product range in the refrigerator segment. No-frost refrigerators were introduced in the Indian market in 1995, and have consistently gained in popularity. Similarly, there has been a shift towards semi-automatic and automatic washing machines. The market of split air conditioners as against the window models has also grown in the last three years but the volumes are very low. Microwave ovens have not made any dent in the market.

Table 5 - Market Share of Major Manufacturers of Refrigerators (Percentage Share)

Brand	1999	2000	2002	2003	2004	2007
Whirlpool	24	25	29	26	22.4	25
Godrej	24	17	20	20	20.1	19
Kelvinator-Elex.	22	22	19	15	11.7	12
LG	4	8	10	17	23.3	24
Samsung	2	3	4	7	8.9	12
Videocon	11	12	8	9	6.3	8
Voltas / Allwyn	11	8	6	5	7.3	
BPL	2	4	3	1	1	

Source: Companies Reports and ORG Survey.

The technology of manufacturing appliances has been at a mature stage, as domestic firms in the industry had technology collaboration agreements with Japanese, European and US companies even before liberalization began in the 1990s. It was therefore marketing which has proved to be the most critical activity in this industry and the crucial competitive dynamics occurred in marketing and distribution activities.

Table 6 - Washing Machines –(Percentage Share)

Company	2002	2003	2004	2007
Whirlpool	21	15	14.0	15
LG	21	24	33	29
Samsung	10	15	14.4	19
Godrej	6	6	7	10
Electrolux	3	2	2	3
Videocon	10	15	13.8	10
Others	22	19	15.8	13

Major Appliance Manufactures

Godrej-GE Appliances

GE Appliances was the first foreign entrant into the Indian market. The Godrej group hived off a stake in its white goods business to a joint venture with GE Appliances, but retained management control and majority equity. The foreign partner's main contribution lay in providing local managers with GE techniques in managing supply chains and inventories, and a positive impact on cost control. The JV also established a modern refrigerator plant in Mohali and a washing machine plant in Pune. However, Godrej did not go in for aggressive marketing and lost market share to its competitors.

Whirlpool of India

Kelvinator of India had been a leading manufacturer of refrigerators in India with 45 per cent market share till 1992, when, due to prolonged labor trouble, it lost considerable ground. Electrolux, through its purchase of White Consolidated Industries, had an 11.3 per cent minority

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stake, but its negotiations with Kelvinator of India to acquire 51 per cent equity fell through in 1994. KOI was acquired by Whirlpool Corporation in 1995. Between 1995 and 1999, Whirlpool of India integrated its operations with Kelvinator, built up the Whirlpool brand and pursued aggressive strategies of market penetration. The company went from red into black in 2000.

Electrolux India Ltd

After the collapse of negotiations with KOI, Electrolux AB acquired Intron and entered a JV with Maharaja. It also acquired Voltas to consolidate its marketing and manufacturing base. However, Electrolux sustained large losses in its initial years of operation in the Indian market. It could not meet the market competition and sold its operations to Videocon in 2007, which is struggling to survive.

Voltas Ltd

Voltas had been in the refrigerator and air-conditioning industry for four decades, but had placed emphasis on the air-conditioner segment. In refrigerators too, the company was profitable and was the first to introduce polyurethane foam technology in India. In 1993, Voltas made the disastrous acquisition of Hyderabad Alwyn, which had a bloated workforce. It sold part of its appliance division to Electrolux in 1996. Voltas was, however unable to sustain two consecutive loss-making years. While the multinationals' cash-rich parent companies underwrote their losses with equity infusion, Voltas could not sustain this hemorrhage. It has however shown a come back in 2007 in Air-conditioning segment

New Entrants in Indian Market

From this chronology of events, it can be observed that most of the leading players were from Europe or the US, and not from the Asia Pacific region, though brands from that region have been popular in India and their marketing strategy has been aggressive. The major entrants have been the Korean Chaebols.

Korean Chaebols

India is a key country in the Korean game plan. Learning from the experience of multinationals, which entered the Indian market in the 1990s, Korean companies have preferred to start green field projects. By then, government policies had been liberalized further: companies could set up wholly-owned subsidiaries. The chaebols also recognized the need to provide the latest models, not out dated ones. Further, they entered the market top-down, thus establishing quality: in refrigerators, they brought in frost-free models before direct cool ones.

Primarily, it has been the chaebols' marketing aggression, extensive advertising and stress on achieving sales targets that have converted their brands into household names in India. Samsung and LG control 55 per cent of the microwave oven market and 38 per cent of the air-conditioner segment. In the refrigerator segment, they have 33 per cent market share 21 per cent in fully automatic machines.

Samsung India Electronics Ltd.

Samsung set up a 100 per cent subsidiary and began operations by outsourcing refrigerators and washing machines from Voltas. It also imported high-end models. The company invested heavily in brand building and aggressive marketing. Samsung has established a refrigerator and washing machine manufacturing facility in Noida at a cost of US \$50 million. The new plant utilizes cutting edge technology and is its fifth largest in the world, after Korea, China, Mexico and Thailand. It was earlier putting stress on high end products, but the focus now is on expansion and deeper market penetration. H B Lee, the President and CEO South west Asia

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announced in January 2006 “Our strategy is to carry product innovation to the mass categories and build support for the Samsung brand not only at the premium end but also in the large volume categories.

LG Electronics

LG, or Lucky Goldstar as it was originally christened, is the rising star of the Indian appliance market. The company has already captured 60 per cent of the air conditioner market and 24 per cent of the refrigerator segment. It is the market leader in the no-frost refrigerator segment and in microwave ovens. LG has invested Rs 225 crore in establishing a refrigerator, washing machine and microwave oven manufacturing facility in Noida and Rs 150 crore in setting up a second plant in Ranjangaon.

Presently, the Indian firms including multinationals have been left behind and so have the mighty Japanese brands. And that leaves the Koreans reigning supreme and battling it out fiercely with one another.

Haier –India

In 2004, the US \$7 billion Chinese appliance manufacturer. Haier entered the Indian market through a wholly owned subsidiary. A market leader in China and the world’s second largest refrigerator brand after Whirlpool, Haier has established manufacturing facilities in the US, Europe and the Philippines. Haier planned to first market products outsourced locally before establishing a manufacturing facility in India. The company has also ventured into other appliance segments, such as washing machines, air conditioners, televisions and computers.

It plans to invest US \$ 200 million during 2007-08 to set up an integrated manufacturing facility exclusively, to manufacture refrigerators; and a research and development center. It has recently purchased a factory at Ranjangaon and has started operations..

TCL

Following the formation of a global JV between Thomson of France and TCL of China, the conglomerate is planning to enter the Indian market. TCL is considered a price warrior in China and the JV is expected therefore, to provide tough competition to Haier and other appliance manufacturers.

Matsushita, Japan

India appears to have been a low priority market for Japanese giants such as Toshiba, Sanyo, Sharp and Matsushita. They did not invest heavily in creating a marketing infrastructure in India. This has been partly due to Japan’s domestic economic problems, but primarily because the Japanese are by nature risk-averse reserved and consensus driven, which value teamwork over individual achievement. These traits make them less inclined to take bold decisions.

Japanese multinationals adopted a slow and conservative approach towards entry into the Indian market. The two companies that were among the first to enter the appliance sector in the late 1980s—Matsushita and Sanyo—remained small players. They provided only technical assistance to their Indian partners Panasonic, Sony and Sharp.

Impact of Multinationals in Appliance Industry

After liberalization, the Indian appliance industry saw the entry of a number of multinationals, resulting in increased competitive pressure and the launch of high-end products. The ensuing restructuring heralded the exit of most domestic enterprises, which were unable to compete with the new entrants. The reasons for this inability to compete have been:

- Technological obsolescence
- Protectionist mindset
- Inefficiency and high cost structures
- Inability to finance strategic investments

A study of the dynamics of competition between foreign entrants and domestic incumbents in the appliance industry makes it clear that domestic firms did not have major disadvantages in technology or cost of production. The multinational firms invested heavily in building marketing and distribution assets, at the cost of sustaining large operating losses. Domestic firms, which did not have the ability to underwrite large losses, could not match these moves: the 'strategy space' within which they operated was limited. MNC's took initial losses, a strategic investment to build market share.

Thus, it was primarily the asymmetrical capability to finance strategic investments that led to the exit of domestic enterprises. Newer entrants such as LG and Samsung have been following the same strategy to put competitive pressure on existing appliance players by setting up excess capacity, large infusion of funds, and aggressive marketing.

The experience of the Chinese appliance industry provides a sharp contrast to that of the Indian enterprises in this industry. Chinese firms were able to compete successfully with foreign entrants into their market and even ventured into foreign markets to emerge as major global competitors. The industrial policy context within which the Chinese success was obtained was, however, very different and the support that domestic firms received from the Government was extremely important. Interestingly, local Chinese producers have established almost complete dominance over the domestic market, displacing foreign firms.

Future Prospects

In May 2003, C.K. Prahalada, Professor of Corporate Strategy at University of Michigan Business School, postulated at the annual session of the Confederation of Indian Industry that the demand for consumer goods in India will explode as it did in China, if costs were cut by 20 per cent. He added that the 'Indian economy has a potential of an annual growth rate of 10-15 per cent if entrepreneurship and innovation are harnessed'. This is already happening. The economy is poised for a great leap forward, characterized by healthy expansion in terms of investment, employment and consumption. This is eminent from the feel good factor generated in the economy which has given rise to increased saving and investment.

As per CIA World Fact Book, 2004, India is one of the fastest growing economy in the world, though it is still behind China. Martins Wolf Editor, Financial Times, London predicts that India would overtake China and US by 2025 in terms of GDP growth. Leading international banker Goldman Sach's BRIC (Brazil-Russia-India-China) Report has projected India as a potential winner ahead of China by 2050. China Manufacturing Competitive survey by the Shanghai Chamber of Commerce in 2007 found that more than half of the 66 foreign invested Companies believe China is losing its competitiveness advantage over other low cost developing Countries such as India and Vietnam.

The impact of this turn around is being witnessed in all the sectors including the appliance industry

Current Status Appliance Industry - China versus India

Table 7 shows the production of major home appliances during 2006, in China and India

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The comparison of the two countries shows the disappointing picture of Indian appliance industry. The same is the case with several other manufacturing sectors. Table 8 gives a perspective of

Table 7- Production of Major Appliances (in millions)

	CHINA	INDIA
Refrigerators	35.0	5.0
Washing Machines	30.0	3.5
Air Conditioners	65.0	2.0
Microwave Ovens	50.0	1.0

Source: National Bureau of Statistics of China

Refrigerator Manufacturers' Association of India

Portrait of the Chinese Appliance industry – Oct 2007 issue of 'Appliance' magazine

Visits of researcher to plants in China

Chinese and Indian appliance industry.

GE Chairman and CEO Jeffrey Immett said in a meeting of CII at Bombay on 28 May 2004

Table 8- Appliance Industry Perspective

China	India
Industry started with economic reforms in 1979	Growth in industry started in 1995
Appliance industry of US\$ 75 billion	Appliance industry of US\$ 2 billion
Products cheaper due to – <ul style="list-style-type: none"> • Lower custom duties (0-15 per cent) • Zero duty on capital goods import • Lower power cost @ Rs 2/- unit and plentiful • High labor productivity (30 per cent higher than India) 	Products expensive due to – <ul style="list-style-type: none"> • High custom duties on import of raw materials (5-25 per cent) • 5-15 per cent import duty on capital goods • High power cost of the Rs 4 unit and scarce • Low labor productivity
Infrastructure better and cost effective Turnaround time in Shanghai port is 2 days	Poor infrastructure adds to cost Turnaround time in Kandla port is 8 days
Successful VAT taxation system	Present system adds 5 per cent cost to finished products
Higher GDP Per capita income \$ 870 (more money to spend)	Lower GDP Per capita income \$ 470 (poor purchasing power)
Govt. made large investment and encouraged industry. President Deng Xiaw Ping declared publicly that every household should have a TV, refrigerator, washing machines, microwave and an air conditioner	Govt. discouraged and strangled industry to grow. Considered it a luxury industry with high tariffs. Constraint on production and imports till 1992.
Chinese appliance industry expanded operation to overseas (Haier in USA)	Operations limited only to India
Low interest rates and low inflation fuel demand	High interest rate and inflation depress demand
Scale economics well established in bulk manufacture. Large capacities setup in refrigerators, air conditioners and microwaves	Air conditioners and microwaves production started only 3/4 years back with low production runs

Source – SIAM – AT Kearney and CII report 2003) – updated

'India remains an attractive investment option for international companies. At the same time, Immett said, "the Indian market has been a disappointment, as it has not grown at the rate we expected". He said that infrastructure, including transportation and health care are most important for India's progress and prosperity.

The global CEO compared India's performance with that of China. While India and China were at the same level in 1990, China has grown 20 times more than India in the area of energy over the last 15 years. Likewise, China's health care sector is five times that of India.

The reasons for such contrasts are as follows:

- China's decision to decentralize and give sufficient autonomy to provincial governments to shape unique routes to liberalization/globalization in coastal provinces not only gave the country learning about successful liberalization, but also built investor confidence and reinforced government seriousness in this matter. Besides testing expatriate Chinese willingness to invest and participate in Mainland China's liberalization exercise, it tested China's attractiveness as a huge market and source of cheap labor for offshore manufacturing by multinationals from USA, Japan, Korea and Europe.
- India's fluctuating performance on the liberalization front not only made its willingness to liberalize suspect but also directly linked it to political risk. China has shown an increasing share of world exports (5.9 per cent) and an increasing share of labor intensive manufacturing to 80 per cent of total exports indicating that it was a more attractive base for offshore manufacturing by MNCs.
- Unlike China, which had predominant state sectors before liberalization, India's mix of public and private sectors having different priorities, have prevented policy makers from taking uniform and consistent policy decisions in the process of liberalization. The vested interests arising out of this divergence have left issues of governance more wanting and complex than in China. In India, the centralized grant of license to foreign firms by FIPB has led to problems of these firms not obtaining infrastructure assistance, land and other facilities in time from local state governments making India an unattractive investment location. Chinese central authority had permitted local level government to undertake privatization to meet local needs based on local opportunity to attract foreign firms.
- It needs to be remembered that China's liberalization over the past two decades has been planned and executed by Deng and his group comprising handpicked people like Jeming and Rongji. The Communist Party mantles have also been passed onto them accordingly. Chaotic changes attempted by youth and intellectuals, outside the party system, were severely clamped down. On the other hand, India's leadership has seen changes too frequently for its fledgling liberalization hardly a decade old. With entire political regimes changing hands in short periods under a democratic electoral process, no succession planning was possible. Whenever political parties having very divergent ideologies attempt to run coalition governments, common minimum agenda has been drawn up. Often plans have been reversed for the sake of reversal as they are of the outgoing political party and not per se on the merit of the policy.

It will be a long way for the Indian manufacturing industry, including that of appliance industry to catch up with the Chinese. However, despite several handicaps, the Indian manufacturing industries have turned around. The fear of China wiping out its manufacturing base is over. The focus on cost cutting due to threat from Chinese manufacturing products is becoming an obsession with operations right across Indian industry.

Globalization in Appliance Industry (a Case Study of India and China)

This has led to a transition in Indian industries and the companies are:

- Building global size facilities
- Global outsourcing
- Investment abroad
- Booming Software exports
- Developing labor-intensive industries
- Setting up global quality R&D centers
- World-class quality products
- Developing clusters of SMEs
- Developing rural markets
- Developing SEZ's

India has a well-trained engineering and skilled manpower and has a demographic advantage. It is transitioning into a young, confident and technological competitive industry from a protective one. If China can be global manufacturing hub, India can be a servicing industries hub.

Conclusion

The above discussion raises a few pivotal issues on which the future competitiveness of China and India, including that of the home appliance sector, is expected to depend.

- Is the approach of liberalization through export-led growth, as in case of China and in line with East Asian economics or economic growth through domestic consumption and expenditure as in India better? Accordingly the competencies required to liberalize and globalize would be different. India's pattern will need to have necessary sophistication in local demand as globalization brings international competition. China's growth pattern may be exposed to the vagaries of global economic behavior as highlighted by the 'Asian Meltdown'. This raises several important questions:
- Is the choice of evolution of economic decision making at lower level in China better or is it more effective for India to continue with centrally planned economy?
- The cultural roots of business systems highlight remnants of traditional logic of doing business even in modern practices - both in China and India. Whereas in China, the lack of experience of working in a free market environment was the reason to resist change, in India it was occasionally vested interests of divergent groups, often political.
- The leadership in the two countries has an important bearing on liberalization. A better succession planning in the post-Deng period in China has pushed for liberalization consistently. In India, political parties with different ideological leanings have come to power and attempted to build liberalization and globalization into its agenda but with different perceptions.

The path followed by China and India for liberalization and globalization is different. Therefore, in the context of globalization, with the collapsing national barriers and unification of economic systems under WTO, the world is watching keenly the emergence of India and China as competitors in the global arena. Interestingly, they are also very attractive markets and cheap labor-based offshore manufacturing sites for developed Western countries. The sustainability of in the changed global business environment and build up of the competencies will indicate the robustness of liberalization and globalization plan of each country. This will highlight the competitive advantage that each country will have.

References

- *Asia Pulse*, 18 January 1999, retrieved from Reuters Business Briefings.
- Baden, Fuller, (1991). Globalization frustrated : The case of White Goods, *Strategic Management Journal*, 12 , 493-507
- Barlet, C. and Ghoshal, S. (1987). Management across borders: New Strategic Requirements, *Sloan Management Review*, Summer 7-17
- Christopher, A. and Ghoshal, S. (1965). Transnational Management, Text, Cases and Readings in Cross-Border Management. Irwin Homewood USA. Efforts Fail, *Harvard Business Review*, March – April
- *Euromonitor Database*(2002, 2003, 2004 & 2005) , Published by Euromonitor International Inc, USA
- Hamel, G. and Prahalad, C.K. (1994), *Competing For The Future*, Harvard Business School Press, 139-148
- Prahalad, C.K. and Lieberthal, K., (1998). The End of Corporate Imperialism, *Harvard Business Review*, Jul-Aug 69-79
- Quelch, J.A., (1997) "For White Goods, A World Beckons," *New York Times*, Nov 25, P.D1
- Shukla, R. (1999). *The Major Home Appliance Industry: A Global Perspective*, Harvard Business School Press
- Portrait of Chinese appliance industry '*Appliance*' magazine, USA, Oct 2005, Oct 2007 & Feb 2008 Issues.