

Halonix Limited – the product portfolio dilemma

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Year 2009-2010: Today, Halonix is considered as a reputed player in the manufacturing of high-quality halogen lamps and compact fluorescent lamps (CFLs). Started in 1991, the company has come a long way during last two decades to become a USD 83.3 million[1] player. There is high demand potential and high growth prospect in both automotive halogen lamps and CFL. However, we need to evaluate the current business strategy and make a decision on the future business strategy to withstand the increasing competition, particularly in CFL segment. How should we maintain the profitability in both the product segments in future?

These were the comments made by Mr Pawan Kumar Sharma (General Manager, Halonix Limited), when asked about Halonix[2].

Phoenix Lamps Ltd was incorporated in 1991 in India. The use of automotive halogen lamps was in infancy in India in 1990s. It was a bold decision by Mr B.K. Gupta[3] to setup a business venture for the production of halogen lamps in India in 1991. With focus on quality, the company gained reputation over the years of operation and was regarded as a global brand and preferred supplier to leading original equipment manufacturer (OEM) in automobile industry in India and abroad. In 1998, the company made another pioneering effort by setting up a CFL manufacturing setup in India. With limited prior existence in consumer lighting segment, Halonix used the same business strategy and maintained focus on quality to become a preferred supplier to leading original lamp manufacturer (OLM) in India[4].

The CFL industry

Global evolution trends

The incandescent lamp dominated the residential lighting sector ever since the Eureka moment, when Edison invented incandescent lamp in 1879. This radical innovation was followed by a series of incremental innovations to increase the working life and luminous efficiency of incandescent bulbs over the years. Since 1980s, it competed with a new lighting technology worldwide, known as CFL. Philips was the first manufacturer to bring CFL in the European market in the early 1980s. Based on the principle of fluorescence and lumens, this CFL technology was far superior in terms of luminous efficiency and working life as compared to the incandescent lamp. Still, it faced a hard time in displacing the incandescent technology. The incandescent technology benefited from a long learning process, considerable economies of scale in production and a multitude of network externalities (distribution network, technology advancement and available brands) and user perception that electricity meant only “incandescent bulb”.

To balance the competition between the two technologies and to progress towards energy efficiency and conservation, different countries implemented public policies and incentive programs to accelerate the adoption and diffusion of CFL technology. As technology push strategy, demand side management (DSM)[5] programs were launched by America in

This case was made possible through the generous co-operation of Halonix Limited. The case is intended as a basis for class discussion rather than to illustrate either effective or ineffective handling of management situations.

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mid-1980s followed by similar measures across the Europe. Lighting was chosen as a target due to the potential for environmental, better technological and energy saving reasons.

Different incentive measures were used to facilitate adoption of the CFL in the residential sector: information, public awareness programmes (on the energy and environmental stakes), direct installation or free distribution. The incentive measures led to the increasing awareness and demand for CFL (Figure 1). On the demand side, this resulted in major progress in the diffusion of CFL among the masses. On the supply side, this acted as a major motivation for more and more players (new and existing) to make a foray in the CFL industry, particularly at low-cost locations like China, India, other Asian countries, etc.

India trends

In India in 1999-2000, electricity consumption in the domestic sector was 86.6 billion kWh, accounting for almost 22 per cent of the total electricity consumption in India, which stood at 395 billion kWh (Kumar *et al.*, 2003). The lighting consumed around 18 per cent of the total power in India against the average of 12 per cent in developed economies. The lighting industry grew at around 12 per cent during 2005-2008 (from USD 937.5[1] million in 2005 to USD 1343.75[1]million in 2008) in India[6].

Like other nations, India also felt the need for energy efficiency measures, which prompted the India Government to devise an energy efficiency roadmap. Since late 1990s, the Indian Government and industry association took a series of steps in this direction (Table I), based upon the lessons learnt from similar measures being taken in America, Europe and Asian countries like China. The objective was to promote the adoption of energy efficiency measures and technologies without having an adverse impact on quality and environment. The government support enabled the growth and expansion of CFL industry both in terms of sales and manufacturing volumes in India (Figure 2). Considering the huge demand potential, a number of players entered the CFL industry like Philips, Halonix, Havells, Osram, GE, Bajaj, Wipro, China imports, etc. (Table II), which led to increasing competition in the evolving industry.

Figure 1 Global CFL scenario

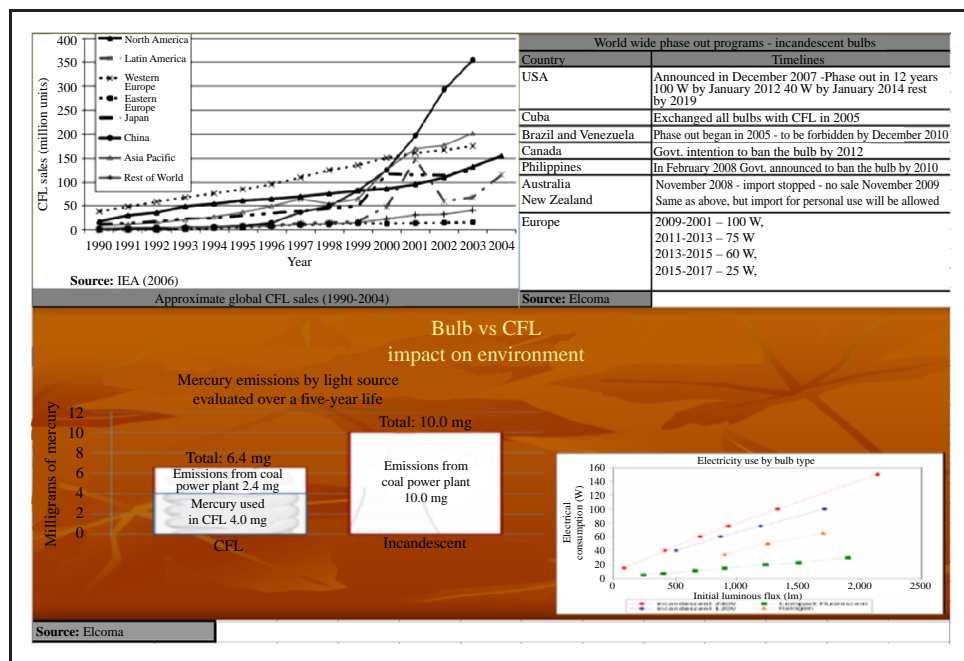


Table I Role of industry and Government in India

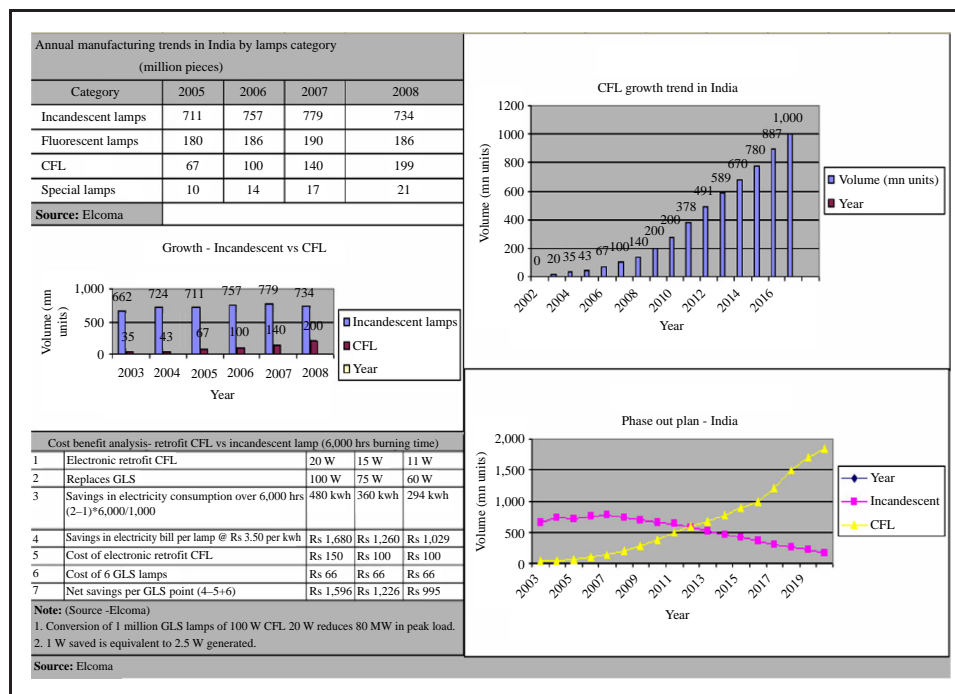
Industry initiatives	<p>Regular price reduction</p> <p>Reduced from Rs. 350 five years back to < Rs. 120</p> <p>Reduced Rs. 10 after reduction in excise in budget</p> <p>Reduced further proportionately on volume increase</p> <p>One year warranty introduced to reassure quality</p> <p>Coordination with BIS on mandatory standards</p> <p>Dialogue with BEE on Labeling program</p> <p>Regular interaction with governments initiate awareness programs</p> <p>Launched consumer reach program</p> <p>Press/electronic media</p> <p>Exhibitions/seminars</p> <p>Pilot projects on clean development mechanism (CDM)</p> <p>Joining Asia quality charter</p>
Setup lighting excellence centre	<p>To be set up by 2012</p> <p>Dialogue on with BEE, NPL, ISLE and Govt.</p> <p>To focus on R&D for energy efficient products.</p> <p>To facilitate information exchange to students, designers, architects, etc.</p> <p>Equipped with world-class library and test facilities</p>
Elcoma contribution	<p>Guidelines for safe disposal of waste lighting products</p> <p>Working towards reduction of mercury content in fluorescent lamps – BIS Standard – < 5 mg</p> <p>Statutory notice on CFL package “This lamp contains small quantity of mercury which can be harmful if mishandled. Please dispose off safely”</p> <p>Innovating and promoting more efficient lighting products to save energy (CFL, electronic ballast, metal halide lamps, luminaries etc)</p>
Government initiatives	<p>Subsidies or reduction of duties on various raw material</p> <p>VAT reduction to 4% throughout the country</p> <p>Setting up of IREDA, BEE and BIS for standards and processes and CFL diffusion activities.</p> <p>Launch of BLY</p> <p>CDM based CFL scheme</p>

Notes: BIS: The Bureau of Indian Standards is the national standards body of India working under the aegis of Ministry of Consumer Affairs, Food and Public Distribution and Government of India. The organization was erstwhile known as the Indian Standards Institution which was founded in the year 1947; BEE: the Bureau of Energy Efficiency is an agency of the Government of India, under the Ministry of Power created in March 2002 under the provisions of the nation's 2001 Energy Conservation Act. The agency's function is to develop programs which will increase the conservation and efficient use of energy in India. The government has proposed to make it mandatory for all appliances in India to have ratings by the BEE starting in January 2010; IREDA: Indian Renewable Energy Development Agency Limited was established on 11 March 1987 as a Public Limited Government Company under the Companies Act, 1956 and it promotes, develops and extends financial assistance for renewable energy and energy efficiency/conservation projects VAT: value-added tax is similar to a sales tax. It is a tax on the estimated market value added to a product or material at each stage of its manufacture or distribution, ultimately passed on to the consumer; BLY: Bachat Lamp Yojana is a program by the government of India to reduce the purchase price of CFLs (i.e. energy saving lights) for consumers. Implemented through the BEE in India's Ministry of Power, the program's goal is to deliver CFLs at the cost of normal light bulbs. The difference in cost will be covered by the sale of Certified Emission Rights under the CDM of the Kyoto Protocol. BEE officials expect the plan to cover all of India by 2011; ELCOMA: Electric Lamp and Component Manufacturers Association of India was founded on 29 June 1970 to represent the entire lighting industry. The main purpose was to establish liaison with government bodies and to support each other in matters connected with lighting industry

About Halonix

When asked about Halonix, Mr Pawan Sharma[2] replied:

We are one of the largest manufacturers of CFLs and halogen lamps in India. We have fully automated plants and rigorous quality standards. We provide contract manufacturing to leading OEMs and OLMs in India. We have built upon from scratch into a global brand and have a global clientele of leading OEMs and OLMs across the globe.

Figure 2 India CFL scenario

The views of Mr Pawan Kumar were clearly supported by looking at the evolution and history of Halonix.

Evolution

Halonix was engaged in manufacturing CFLs and halogen lamps, suitable for commercial as well as residential establishments. The company started as Phoenix Lamps Ltd in 1991 in technical collaboration with Phoenix Electric Co. and Soei Tsusho Co. (Japan). Within first year of operation, Phoenix Japan pulled out and Phoenix India was left to fend on its own. The company started the production of automotive halogen lamps at Noida Export Promotion Zone (NEPZ)[7] in 1991 and setup a fully automatic manufacturing setup for the production of CFL at NEPZ in 1998. In both the product segments, it became a pioneer in bringing those technologies to India on a mass scale and became one of the largest manufacturers in both the product segments with tight control on quality and processes. By 2006, the company became one of the largest producers of CFL and halogen lamps in India and built up a market image of one of the most preferred manufacturers and suppliers of CFLs for general lighting segment and halogen lamps for automotive segment. The company saw change in ownership in the year 2007 and was taken over, by Actis (the UK), a major private equity player (Figure 3). This led to the reorganization of the management structure and change in focus on increasing the brand image and distribution reach both within India and across the globe. In 2008-2009, the company name was changed from Phoenix Lamps Limited to Halonix Limited to bring synergy between company name and market brand. Halonix scaled up the manufacturing capacity to 75 million CFLs per annum and 70 million automotive halogen lamps per annum in year 2009. This made it one of the largest manufacturing players in India in both the product segments.

Organization structure

Actis (the UK-based private equity player) held the majority share in Halonix since 2007. The company had a top-down hierarchical organization structure (Figure 4) with directors

Table II Comparison of major CFL players in India

Comparison – major CFL players in India							
Attributes	Philips	Halonix	Rank 2	Rank 4	Havells	QSRAM	Others
India – CFL market share	23	23	Rank 2	Rank 4	22	9	33
India – consumer voice survey performance ^a	Rank 1					Rank 7	1. Includes Indo-Asian (5% market share), Bajaj, GE, Orpat, Wipro, Cema, Anchor, Surya, China brands, etc.
India – manufacturing setup (lighting)	Limited CFL production setup in India	5 CFL and halogen lamps plants in Noida, Haridwar and Dehradun	Lighting	CFL plant at Neemrana (capacity of 4 million CFL per month)	Switchgear, cables, lighting, electricals	Four plants for lighting components in India (started in 1994) including CFL Lighting	2. These brands are also ramping up the production capacity and quality of CFL rapidly, considering the huge demand
Market segments	Lighting, healthcare, consumer life-style	Lighting			electricals		3. Future competition in CFL arena will be more intense and subject to quality, cost, distribution reach and product differentiation
Revenues ^b (year 2007-2008)	EUR 26.79 billion (globally) USD 0.6 billion (India)	USD 78.98 million			USD 1,042.28 million (consolidated) USD 428.24 million (stand-alone)	EUR 4.7 billion (globally) USD 62.5 million (India)	
Overall strengths	<div>1. Leading global innovator since 1891</div> <div>2. Global premium brand image</div> <div>3. Technology, R&D, innovation and quality leader</div> <div>4. Member of global energy associations</div> <div>5. ISO14001 certified globally</div> <div>6. About 22% of sales from green products in 2008</div> <div>7. About 58% of sales in 2008 from innovative products launched since 2005</div> <div>8. Across 100 countries and 155 production sites</div> <div>9. Having seven research labs, three incubators, 55,000 patents, 33,000 registered trademarks, 49,000 design rights and 2,600 domain names</div>	<div>1. Leading manufacturing player in CFL and halogen lamps in India</div> <div>2. Technology, R&D, innovation and quality focus</div> <div>3. Strong relationship with global OEMs and OLMs</div> <div>4. Six Sigma driven and compliance to global quality certifications and processes like:</div> <div>4.1. ISO 9001:2000 and ISO/TS 16949:2002 (since December 2001) by TÜVNORD, Germany</div> <div>4.2. ISO14001:2004 and OHSAS: 18001:2007 since February 2005</div> <div>4.3. NABL accreditation for calibration and testing labs and SA 8000 certification in progress.</div> <div>4.4. RoHS compliance – first in India</div>	<div>1. Leading electrical and power distribution equipment manufacturer in India since 25+ years</div> <div>2. Having seven manufacturing plants in India and nine manufacturing plants in Europe, Latin America and Africa</div> <div>3. Continuous process improvement, technology absorption and automation</div> <div>4. Global quality and process certifications like BASEC, CSA, KEMA, CB, CE, ASTA, CPA, SEMKO, SIRIUM (Malaysia), SPRING (Singapore), TSE (Turkey), SNI (Indonesia) and EDD (Bahrain)</div> <div>5. Global foot-prints (50+ countries) with acquisition of Sylvania in 2007</div> <div>6. Strength in distribution network (20 000 +), quick adaptability and large-scale and efficient manufacturing capabilities</div>	<div>1. Among top two leading lighting manufacturers in world</div> <div>2. Energy efficient products account for 60% of overall sales in 150 + countries</div> <div>3. Trend-setter in energy saving lamps since 1985 with electronics integrated in the base</div> <div>4. Technology, R&D, innovation and quality focus</div> <div>4.1. Award for OSTARLEDS-based upon thin-film technology</div> <div>5. Focus on CDM and social welfare programmes</div> <div>5.1 Partner in Clinton climate initiative</div> <div>5.2 CDM approval from UN in 2007</div>			
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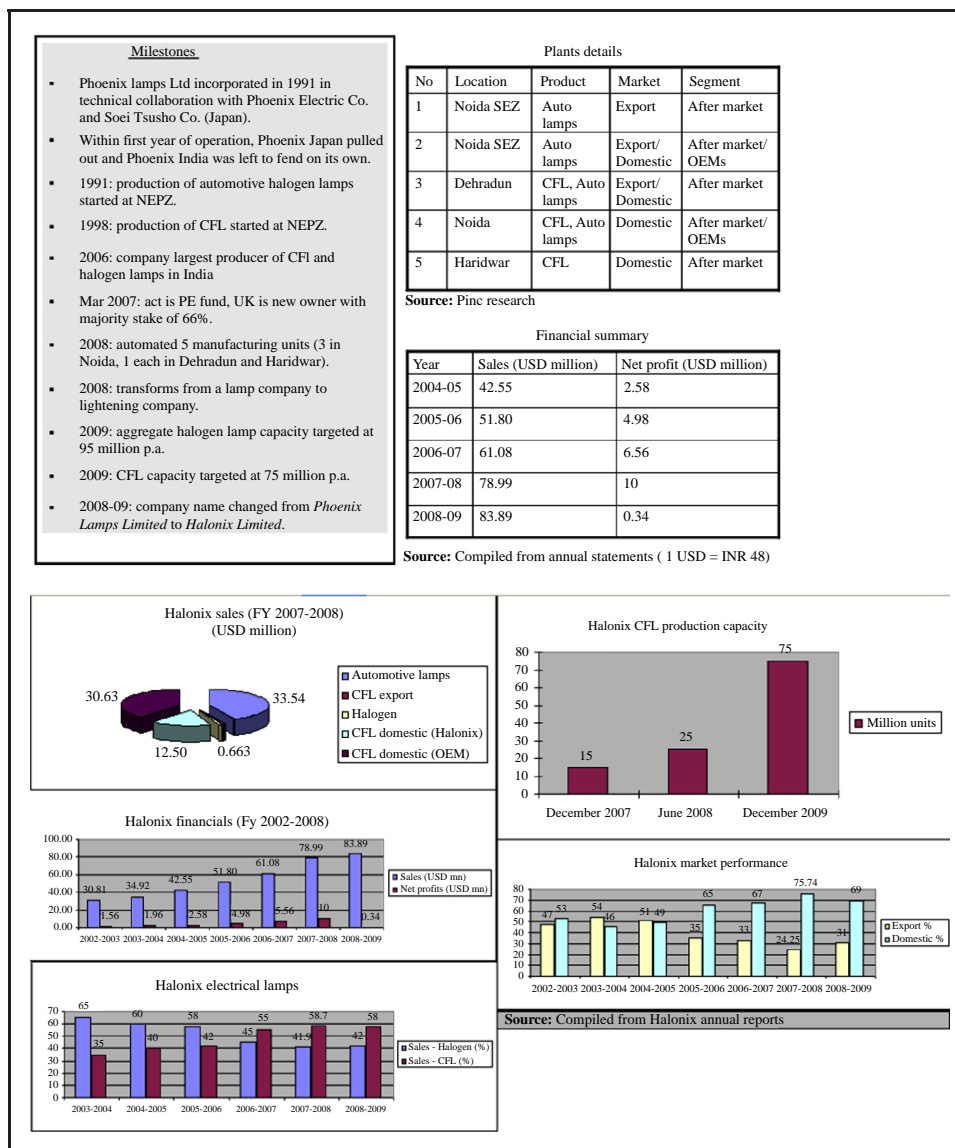
Table II

Attributes	Comparison – major CFL players in India			
	Philips	Havells	QSRAM	Others
Challenges in India	<p>1. Need for continuous capacity expansion and low pricing product mix for price sensitive consumers.</p> <p>2. Emergence of new technologies like LED, OLED, etc.</p> <p>3. Compliance with energy standards and policies like HPF, mercury recycling, CDM, etc.</p> <p>3. Competition from major and emerging players as well as imports from China</p>			
India achievements (lighting industry – India)	<p>1. Consistent growth</p> <p>2. New product-mix introduced</p> <p>3. New avenues established as rural and replacement market</p> <p>4. Airport lighting and infrastructure projects executed</p>	<p>1. Consistent growth in volumes, customers and exports</p> <p>2. Leading manufacturing player in India for CFL and halogen lamps</p> <p>5. Government infrastructure projects for lighting solutions</p>	<p>1. Sylvania acquisition for global brand image</p> <p>2. Launched Green CFL in India</p> <p>2.1. Using pill dosing technology(PDT) to use amalgamated mercury pills of < 4.5mg dosage (than liquid one) in CFL (RoHS compliant)</p>	<p>1. Launch of CDM scheme with BEE to distribute more than two million Osram DULUX[®] EL energy-saving lamps</p> <p>1.1. In AP, Haryana, and Maharashtra</p> <p>2. Sonipat plant awarded best 4</p>

Notes: ^aAccording to Consumer Voice Survey, October, 2006; ^bUSD 1 = INR48; others include GE, Cema, Bajaj, Orpat, Wipro, Anchor, Surya, Crompton Greaves, Angelo, Leuci, etc.; Best 4 → Business Excellence Sustainability Task. This indicates compliance with international standards ISO 9001 (quality), ISO 14001 (environment), OHSAS 18001 (health and safety) and SA 8000 (social accountability)

Source: Compiled by author from the Annual Reports (2007-2008) of the companies

Figure 3 Halonix company overview

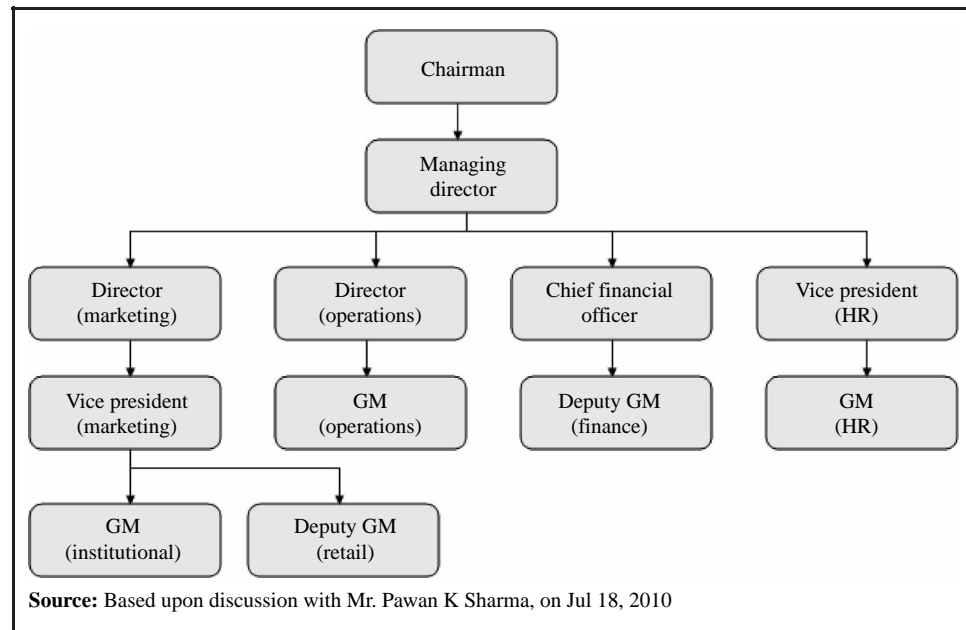


managing the key functions like marketing, operations, finance, HR, etc. The marketing and operations functions were common for both CFL and automotive halogen lamps product segments.

Product portfolio

The main product segments of Halonix comprised CFL and automotive halogen lamps. The product range comprised more than 200 types of lamps in general lighting segment catering to both domestic and international markets. The products were in line with latest available technologies, met stringent quality requirements as per European and restriction of hazardous substances (RoHS) standards. The product range included CFLs, fluorescent lamps, high-intensity discharge lamps, halogen lamps and incandescent bulbs in general lighting segment, luminaries, light emitting diode (LED) application and automotive products like H4 and HS1 and H6M (M5), H1 and H7, H3, H8/H9/H11, 9,000 Series and H13.

Figure 4 Halonix organization chart



Manufacturing

By 2008-2009, the company setup five state-of-the-art manufacturing plants (three in Noida, one each in Dehradun and Haridwar) in tax concession zones, with an investment of USD 70 million (Figure 3 and Table III). Setting up the manufacturing plants in tax concessions zones (in Noida, Haridwar and Dehradun[8]) enabled the company to gain competitive advantage over the rivals as well as large expansion in capacity leading to readiness for growth opportunities. Each plant was having the manufacturing setup (Figure 5 for CFL and halogen manufacturing life-cycle) and processes as per international standards, managed by a skilled manpower. With a collective capacity of producing over 140 millions lamps annually, Halonix became the leading manufacturer of halogen lamps and CFL in India and captured a major portion of the domestic and international markets.

Standards and processes

Halonix held strong belief and focus on adherence to international standards and processes. The certifications included ISO: 9001:2000[9], ISO/TS16949:2002, ISO: 14001:2004[10] and occupational health and safety (OHSAS): 18001:2007[11] by TUVNORD, Germany. It was one of the first companies in India to achieve RoHS[12] compliance (valid till 2013). All the units got certified for ISO: 14001:2004 and OHSAS: 1800:2007 till 2011. All Noida units got certified as ISO: 9001:2008 and TS16949:2002[13] till 2012. The Dehradun Unit got certified to ISO9001:2008 and TS16949:2002 till 2010. The Haridwar Unit got certified to ISO: 9001:2000 till 2011. The company targeted National Accreditation Board for Testing and Calibration Laboratories[14] accreditation and SA 8000[15] certification in year 2009-2010.

Technology and R&D

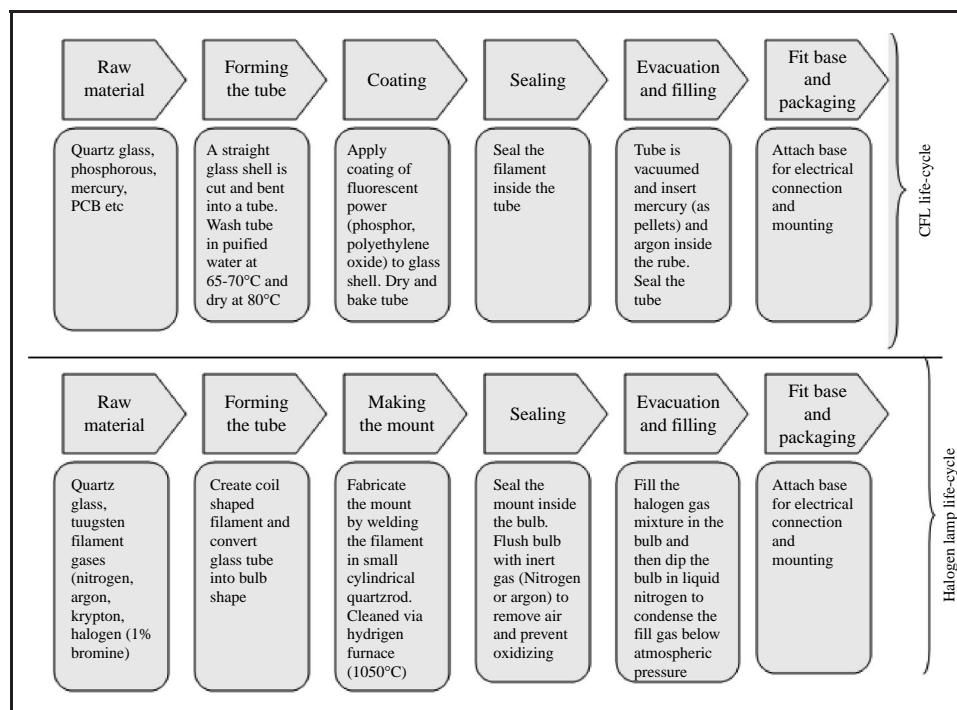
Halonix had a R&D setup, which was focused on continuous improvement of existing products and processes as per the demands resulting from the market, government regulatory requirements or competitive trends. Some of the major initiatives undertaken involved[16] introduction of Sparkle for mass consumer understanding of LED[17], launch of CFL on high power factor (HPF) (0.85) with effect from 1 November 2009 rather than current low power factor (LPF) (0.5) based CFL to comply with Bureau of Energy Efficiency (BEE) directive. The R&D

Table III Halonix capacity (expansion and utilization)

Halonix capacity expansion (FY 2004-2008)			
Date	Location	Capacity (million units)	Government benefits
1 April 2004	Dehradun	20	About 100% excise duty exemption for ten years and 100% income tax exemption for five years followed by 30% income tax exemption for next five years Tax benefits during setup About 100% excise duty exemption for ten years and 100% income tax exemption for five years followed by 30% income tax exemption for next five years
1 April 2005	SEZ Unit II, Noida	13.39	
1 July 2007	Haridwar	43	
Halonix capacity and utilization (FY 2002-2009)			
Year	Installed capacity (million units)	Actual production (million units)	Capacity utilization (%)
2002-2003	61.30	34.90	56.93
2003-2004	61.30	39.69	64.75
2004-2005	75.11	45.14	60.10
2005-2006	89.43	56.69	63.39
2006-2007	95.01	65.34	68.77
2007-2008	101.71	79.2	79.20
2008-2009 ^a	127	83.83	66.01

Notes: ^aCapacity utilization decreased in year 2008-2009 due to change (later deferred) in the BIS Standard for the CFL from LPF to HPF. This was to enable the Distcoms to save T&D losses. Owing to the ensuing confusion about

Source: Compiled from annual statements (2002-2009)

Figure 5 CFL and halogen-manufacturing life cycle

maintained an ongoing focus related to lumens efficiency and cost effective manufacturing. The R&D scope also included work on introducing organic LED, sensors and commercialization of LED technology. It had global patents on products (H7, H8, H9, H11 and H13) for the five axis focusing.

Competition

Halonix was a pioneer in bringing the technology for end to end and mass manufacturing of automotive halogen lamps and CFL to India. With focus on high-quality manufacturing processes and standards, it gained competitive advantage in both the product segments.

When asked about the nature of competition in CFL and halogen lamps, Mr Pawan Sharma replied[2]:

In CFL product segment, we have around 20% market share (Year 2008-09). The CFL industry in India has a compounded annual growth rate (CAGR) of 35% to 40% in next 5-10 years. The competition is very intense and margins are quite low due to the presence of 12 major players (like Philips, Havells, Osram, Bajaj, etc.) and unorganized market bringing bulk import from China.

Mr Pawan Sharma further commented[2]:

However, in automotive halogen lamps product segment, we have around 70% to 80% (two wheelers and four wheelers automobiles) of the market share (Year 2008-09). The automotive halogen lamps industry in India has a CAGR of 15% to 20% in next 5-10 years. The margins are better for us due to market leadership position and weak competition from other players in India.

When studied further, it became apparent that the CFL market in India comprised the following types of players (Table II *for comparison of major players in India*):

- Global lighting players having global brand image and manufacturing setup in general lightening segment (GLS)[18] and CFL. They also had global distribution network. These players were synonymous with wide range of quality products in lighting industry. Examples included Philips, Havells, Osram, etc.
- Indian lighting players having strong brand image, manufacturing and distribution setup in GLS segment. They also relied on CFL imports from China to meet market demand. CFL was one of the many products in their portfolio. Examples included Bajaj, Wipro, etc.
- Indian lighting players having strong CFL manufacturing setup in India and considered as preferred suppliers to leading OLMs. These were more known as lamp makers rather than lighting solution providers and had narrow presence in lighting industry. Examples included Halonix.
- Unorganized players importing from China having cheap quality and selling at cheap price. They accounted for more than 20 per cent of the overall market share in CFL industry. The import from China was one of the major drivers of competition and supply in India.

The major competition attributes in CFL industry, which became apparent were cost and quality focus relative to incandescent lamp, low scope for differentiation, high technology and capital requirements.

Customers

Halonix followed de-risked business model by targeting diverse customer segments as retail, institutional, government, exports and outsourcing to global OEM and leading OLM in India. The institutional market (government, OEM, OLM, etc.) in India accounted for the majority of the sales of Halonix. However, it had a limited presence in retail market segment.

Marketing and sales

The company managed most of the things right and built up a competency in delivering large volume of high-quality CFL and automotive halogen lamps at competitive prices.

Considering the high demand of halogen lamps and CFLs, the greater focus in marketing and sales was on the OLM, OEM and government customers. It exported its products to more than 75 countries including Europe, the USA, Australia, Middle East and Latin America[19].

In automotive halogen lamps, it was having a market share of around 55 per cent in four-wheelers and around 80 per cent in two-wheelers in 2008. Halonix was a market leader in automotive halogen lamps in India with supplies to all major OEMs in four-wheeler and two-wheeler industry. It was also a major exporter to developed countries, exporting up to 60 per cent of the 70 million units being produced annually. It faced less competition from its rivals because of its reach and range of products. It expanded exports of automotive lamps to new markets like the USA, Europe, Kuwait and Nepal. With the expected increase in domestic auto lamp OEM and replacement sales, exports percentage share was coming down[20]. Only 25-30 per cent of the production was being sold under "Halonix" brand name. The rest was sold to other leading OLMs, who used to sell under their own brand names.

The FY08 sales mix between automotive and CFL was around 55:45. While automotive lamp sales were growing at a CAGR of 15-20 per cent over the next three years, the explosive scale up envisaged in the CFL segment (35-40 per cent) altered the sales mix to 45:55 in favour of the latter by year 2009 (Table IV for financial highlights). However, due to high intensity of competition in CFL as compared to leadership position in automotive halogen lamps, Halonix had higher profit margins in halogen product segment (2:1 approximately) as compared to CFL product segment.

Realizing the role of mass consumers and potential growth in demand for CFL, Halonix was contemplating on future business strategy to leverage the opportunities and counter the threats, mainly in CFL business. It needed to improve upon its brand awareness and distribution reach to the end consumers in household segment. The other major players like Philips, Bajaj, Orpat, Osram, Wipro, Havells and General Electric, etc. were having greater brand awareness among the masses and country wide distribution network due to their existing presence in incandescent lamps and other electrical segments.

The current situation – problem or opportunity

There was a compounded growth in demand and supply of CFL in India market since the year 2000. The cheap imports from China, government support framework and industry association (Electric Lamp and Component Manufacturer's Association (ELCOMA) of India) played an important role in the same.

Table IV Halonix financial overview (FY02-FY08)

<i>Halonix financials and segment wise performance break-up (FY 2002-2008)</i>								
<i>Year</i>	<i>Sales (USD mn)</i>	<i>Net profits (USD mn)</i>	<i>Domestic (%)</i>	<i>Export (%)</i>	<i>Sales-halogen (%)</i>	<i>Sales-CFL (%)</i>	<i>Approximately production and sales growth-halogen (%)</i>	<i>Approximately production and sales growth-CFL (%)</i>
2002-2003	30.81	1.56	53	47	70	30	9	158
2003-2004	34.92	1.96	46	54	65	35	25	50-60
2004-2005	42.55	2.58	49	51	60	40	10	33
2005-2006	51.80	4.98	65	35	58	42	15	25
2006-2007	61.08	6.56	67	33	45	55	12	27
2007-2008	78.99	10	75.74	24.26	41.3	58.7	10-12	20-25
2008-2009 ^a	83.89	0.34	69	31	42	58	Not available	Not available

Notes: ^aNet profit decreased in year 2008-2009 due to following reasons: change (later deferred) in the BIS Standard for the CFL from LPF to HPF. This was to enable the Distcoms to save T&D losses. Owing to the ensuing confusion about

Source: Compiled from annual statements (2002-2009)

The CFL market in India was complex, comprising of 12 major brands and hundreds of small players. About 40-50 per cent of the market was dominated by the unorganized sector. The industry depended on large amounts of imports, with even branded products using large amount of imported components. The unorganized and import-based nature of the industry made the regulatory and quality control challenge difficult but critical[21].

The Indian Government launched various initiatives in this direction as a part of DSM programme to promote the diffusion of CFL by increasing the rate of adoption. Some of them proved quite effective during the last decade. The CFL demand in India increased from 20 million in year 2000 to around 300 million by year 2009.

When asked about the significance of government initiatives, Mr Pawan Sharma replied[2]:

The government has launched Bachat Lamp Yojana (BLY)[22] scheme for diffusion of CFLs among masses. As a part of that scheme, we have also supplied CFLs to government in Himachal Pradesh. This scheme has been first launched in Yamunanagar in Haryana. We foresee a tremendous scope in demand for CFLs due to consumer awareness resulting from such schemes.

Mr Pawan Sharma further commented[2]:

However, there is still lack of awareness among rural and semi-urban buyers. The pricing is still acting as a barrier in switching over to CFL due to large price differential with respect to incandescent lamp. Also there is lack of reliability of available CFL due to shoddy CFL imported from China by some players despite anti-dumping duty. This has an adverse impact on the overall industry.

There were many challenges in the CFL industry, which resulted in increasing competition. For example, Though, government in India came out with anti-dumping duty, low-quality imports from china were still reaching the consumers in India. The price of inputs like mercury, phosphorous, glass and printed circuit board (PCB)[23] was quite high as compared to inputs in incandescent lamps and was subjected to volatility in market exchange rates. There was change in government regulations, especially Bureau of Indian Standards (BIS)[24] norms, like the one for HPF compatibility. There were an increasing number of competitors thereby accelerating towards maturity phase of life cycle and evolution of substitute technologies like LED, etc. For end-users, the initial cost of ownership for good quality CFL was more than ten times as compared to the cost of incandescent lamp. This acted as a “psychological barrier” for the majority of consumers to make a choice for CFL over incandescent lamp. The CFL companies realized the imperative need for lowering their prices to less than four to five times of the price of incandescent bulb. This required continuous incremental innovation both at product and process level as well as increase in manufacturing capacities and economies of scale.

There were increasing global concerns regarding CFL mercury hazard and recycling of CFL (Figure 1). This posed complexities for CFL manufacturers due to stringent government policies and doubt in the mind of consumers regarding safe adoption of CFL.

So, definitely, CFL industry was a promising but challenging opportunity for the industry players, considering the huge demand potential in next ten years.

Being capital intensive manufacturing and cost focus customer, this industry was becoming hyper-competitive where brand and cost played a decisive factor in gaining market share.

The decision issue

Mr Pawan Kumar Sharma was having lot of thoughts going in his mind. Being one of the most experienced and oldest employees of Halonix (Incorporated as Phoenix Lamps Ltd in 1991), he had witnessed the tremendous growth of the company since 1991. The company was having a global brand image in automotive halogen lamps and became a dominant player in CFL market in India.

However, he was also aware, that the opportunist selling philosophy, which was quite successful till year 2007, was no longer that effective in hyper-competitive phase of CFL

industry in India. The company needed to decide upon the future product portfolio mix and strategy to be adopted to gain the maximum benefit in current scenario.

The profit margins were shrinking in CFL market. All the major competitors were expanding the manufacturing capacity thereby nullifying the differentiating factor for Halonix till now. The CFL market was becoming hyper-competitive despite being in the investment phase. The competition was increasing with expansion of existing players, entry of new players and increasing imports from China. On the other hand, automotive halogen lamp (another important product of Halonix) despite being a mature market was showing increasing demand potential due to increasing volumes of automobiles manufacturing in India. But, despite that, there was healthy profitability, high standing for Halonix due to strong brand name, good margins and export market and high entry barriers.

The two businesses were very different with different growth drivers. The picture was getting confusing as CFL was in investment phase and halogen was in harvesting phase. Both the product segments had capabilities to generate high revenues but needed different approach and focus from Halonix.

Notes

1. USD 1 = INR 48.
2. Personal Interview with Mr Pawan K. Sharma, on 29 May 2010.
3. The Chairman B.K. Gupta was the pioneer in bringing halogen and CFL technology to India in 1989. In a short time, his company Phoenix Lamps controlled 98 per cent of the market share in the halogen lamp sector and 55 per cent of the share in CFL. The setup comprised state-of-the-art manufacturing facility with machines from Japan and automatic lines from the UK. After selling his majority stake in Phoenix Lamps to Actis (P/E UK) in March 2007, He promoted IndoSolar in year 2008 for manufacturing of multi-crystalline solar cells.
4. Source: compiled by author from company literature.
5. DSM was coined during the time of the 1973 energy crisis and 1979 energy crisis. This entails actions that influence the quantity or patterns of use of energy consumed by end-users, such as actions targeting reduction of peak demand during periods when energy-supply systems are constrained.
6. Source: Elcoma.
7. NEPZ Setup in 1985, this was converted into a Noida Special Economic Zone by the government in 2006. NEPZ benefits from corporate tax holidays, duty-free imports, exemption from excise duty and several other levies.
8. Noida, Haridwar and Dehradun are cities in UP and Uttarakhand states in India.
9. ISO 9000 is a family of standards for quality management systems. ISO 9000 is maintained by ISO, the International Organization for Standardization and is administered by accreditation and certification bodies.
10. ISO 14001 – environmental management standards.
11. OHSAS is a cross-disciplinary area concerned with protecting the safety, health and welfare of people engaged in work or employment.
12. RoHS is often referred to as the lead-free directive, but it restricts the use of the lead (Pb), mercury (Hg), cadmium (Cd), hexavalent chromium (Cr6+), polybrominated biphenyls, polybrominated diphenyl ether.
13. ISO/TS 16949 – quality management system requirements for automotive-related products suppliers.
14. NABL is an autonomous body under the aegis of Department of Science and Technology, Government of India. Government of India has authorized NABL as the sole accreditation body for testing and calibration laboratories.
15. SA 8000 is a global social accountability standard for decent working conditions, developed and overseen by Social Accountability International.

Keywords:
Product management
product mix,
Value chain,
Value analysis industry,
Organizational structures,
Strategic management,
India

16. Compiled by authors from annual reports of Halonix.
17. LED is a semiconductor light source.
18. GLS is a incandescent and fluorescent lamps.
19. Compiled from sources – <http://money.umakant.info/2009/11/indian-auto-ancillaries-industries.html> and www.business-standard.com/india/storypage.php?autono=325458
20. Source: compiled from company literature and secondary data.
21. www.cseindia.org/node/542
22. BLY was designed as a public-private partnership between the Government of India, private sector CFL suppliers and State level Electricity Distribution Companies (DISCOMs). This was launched nationwide on May 28, 2007 by BEE as a part of CDM drive in India. This envisaged distribution of CFLs to a target population at the price of an incandescent bulb. The deficit was recovered through certified emission reduction under the CDM of the Kyoto Protocol. CDM allowed emission-reduction projects in developing countries to earn carbon credits.
23. PCB is used to mechanically support and electrically connect electronic components using conductive pathways, tracks or traces etched from copper sheets laminated onto a non-conductive substrate.
24. BIS is the national standards body of India working under the aegis of Ministry of Consumer Affairs, Food & Public Distribution and Government of India. The organization was erstwhile known as the Indian Standards Institution which was founded in the year 1947.

Reference

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