

ELECTRONICS

September 2009

Overview of Indian electronics industry

- Industry size in 2008–09:

Hardware: Rs 94,690 crore

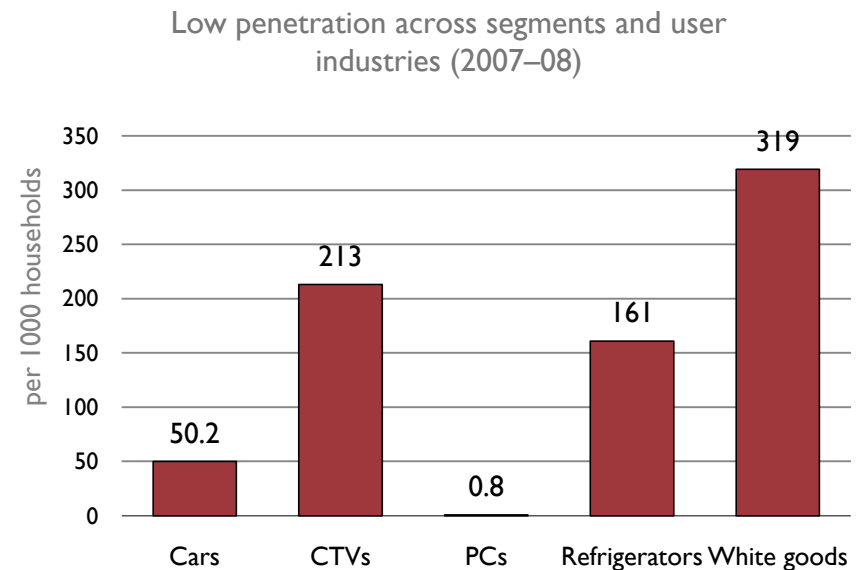
Software: Rs 273,530 crore

- Production value growth at 24.5 per cent over the last year (2008)
- Low penetration levels

The industry is one of the fastest growing in India, driven by growth in key sectors such as IT, consumer electronics and telecom

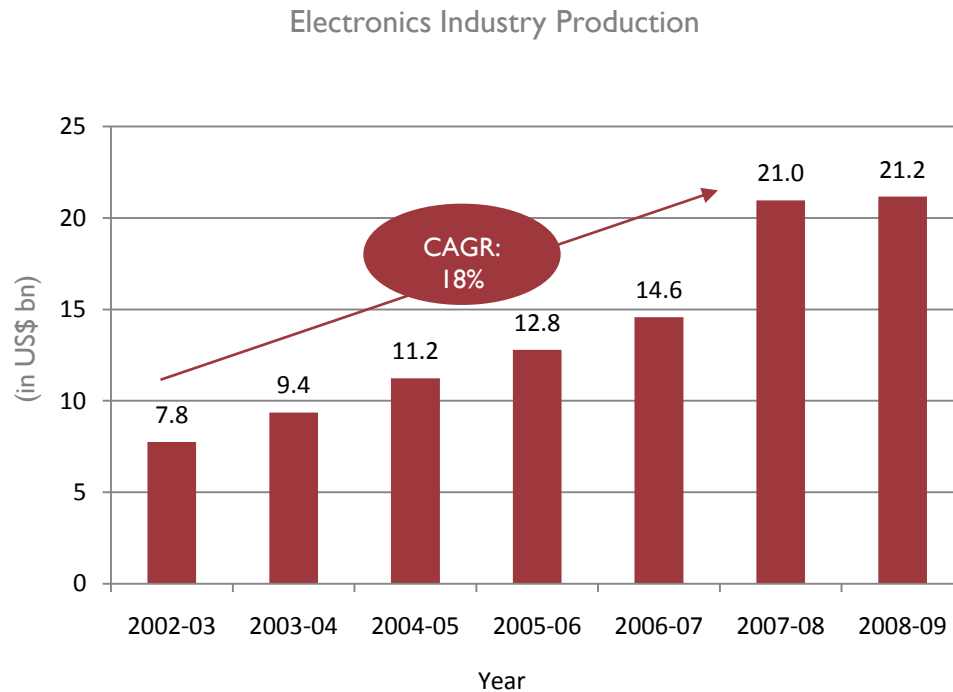
Low penetration levels of user industries indicate potential for continued growth

- The demand for electronics is expected to be fuelled by the growth of:
 - High-end colour TVs and LCD TVs (over 130 per cent growth in 2008–09 over 2007–08)
 - Telecommunications (479.04 million subscribers as of July 2009)
 - PCs and notebooks (over 6.7 million units in 2008–09)
 - Broadband connectivity reaching rural areas



Source: www.mit.gov.in

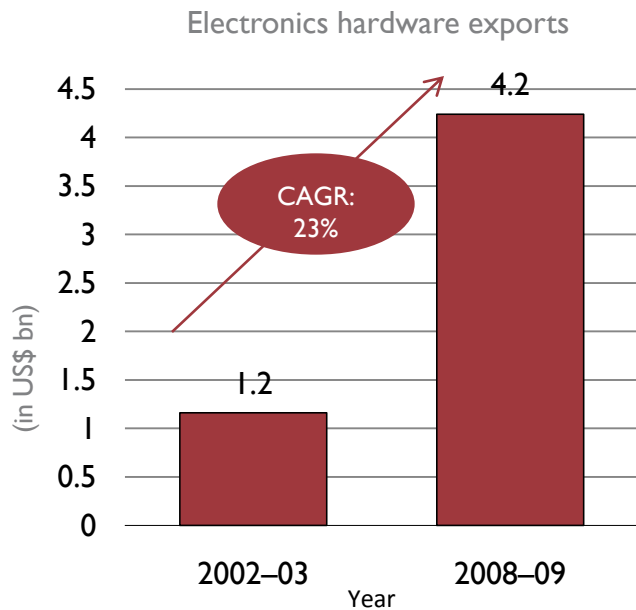
Low penetration levels of user industries indicate potential for continued growth



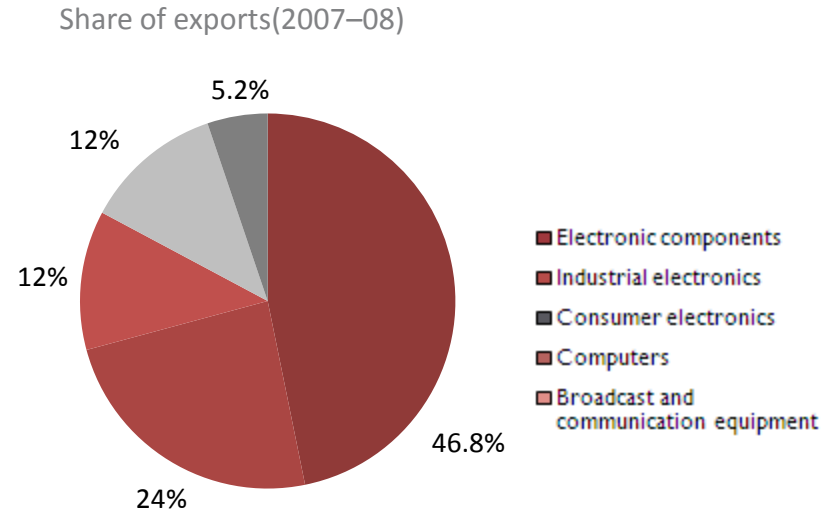
Source: NCAER

Exports have also grown across segments

- Electronic exports have seen a healthy CAGR of 23 per cent over the period 2002–03 to 2008–09
- Electronic components contributed the major share to exports at nearly 47 per cent in 2007–08



Sources: www.elcina.com, www.mit.gov.in



Source: Electronics and Computer Software Exports Promotion Council; www.escindia.in

A key factor driving exports has been the increasing trend of contract manufacturing

MNC contract manufacturing facilities in India

JABIL

- It has a 175,000-sq ft facility located at Ranjangaon, near Pune, in the state of Maharashtra.
- It offers printed circuit board, enclosure integration, and distribution and repair services with in-region design services support.
- The company services the consumer, instrumentation, networking, peripherals and telecommunications industries.

FLEXTRONICS

- Flextronics acquired three design-centric companies — Hughes Software Systems, DeccaNet and FutureSoft — and consolidated the software companies into a new subsidiary based in India.
- It offers higher-value, higher-margin design services for mobile phone and telecom/networking software.
- Nokia and Alcatel are among its existing customers.
- The company also maintains an ongoing investment in Celetronix, one of the largest electronic equipment manufacturers in India.

MNC contract manufacturing facilities in India



- Manufactures 4 million to 6 million handsets per year
- Elcoteq Bangalore was inaugurated in 2005
- It is one of Elcoteq's four volume manufacturing plants in the Asia-Pacific region and the first one in India
- Elcoteq's main businesses in India are wireless communication terminal products, wireless communications network equipments and after-sales services

Indian players such as TVS Electronics and D-Link are also established in this domain

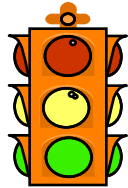
Key policies and regulations

Key policy initiatives include:

- Customs duty on ITA-I items (217 items) has been abolished from March 2005.
- Excise duty on computers has been removed. Microprocessors, hard disc drives, floppy disc drives and CD ROM drives exempt from excise duty.
- 100 per cent foreign equity participation is permissible.
- Robust intellectual property (IP) act to facilitate innovation, growth and development in the sector.
- Government has decided to set up information technology investment regions (ITIRs) for providing superior infrastructure support.
- Mean rate of excise duty (CENVAT) for electronics hardware has been reduced to 8 per cent with effect from February 24, 2009.
- Central sales tax (CST) has been reduced from 3 per cent to 2 per cent with effect from June 1, 2008.

All segments of the industry have been growing as a result of market forces and policy support

Sector presents attractive opportunities for investment and growth



High
Medium
Low

Threat of new entrants

- Many MNCs are already present and well established
- Requires investment in localisation, distribution reach
- High growth potential could attract new entrants

Supplier power

- Adequate supplier base
- Most suppliers are small in scale and size as compared to manufacturers

Competitive rivalry

- Well established, strong players
- Brand, cost and distribution are key differentiators
- Ample opportunities for growth

Customer power

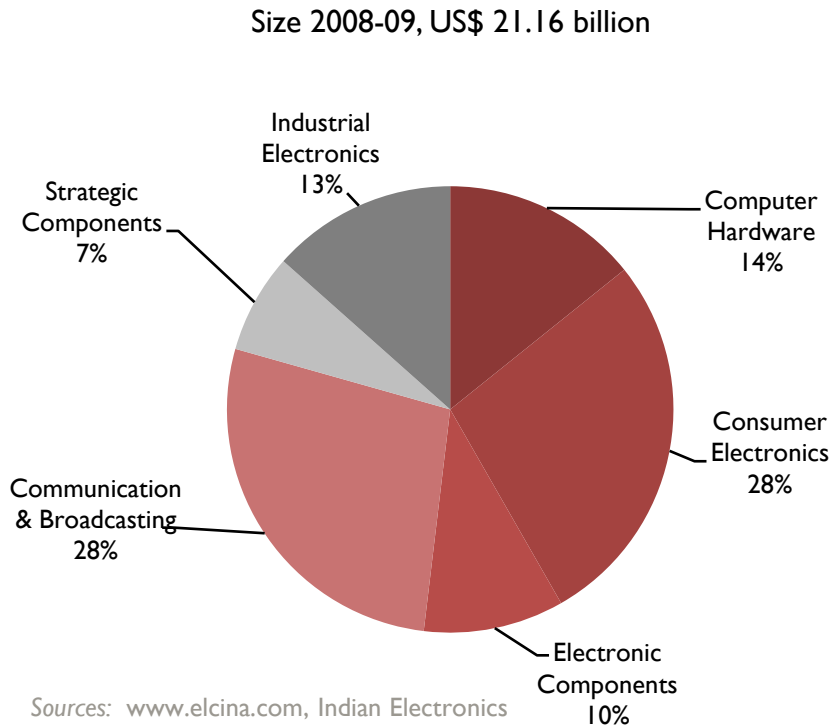
- Wide choice of products
- Well informed, increasingly demanding customers
- Low penetration levels, large untapped market

Threat of substitutes

- No substitutes currently for products in the sector

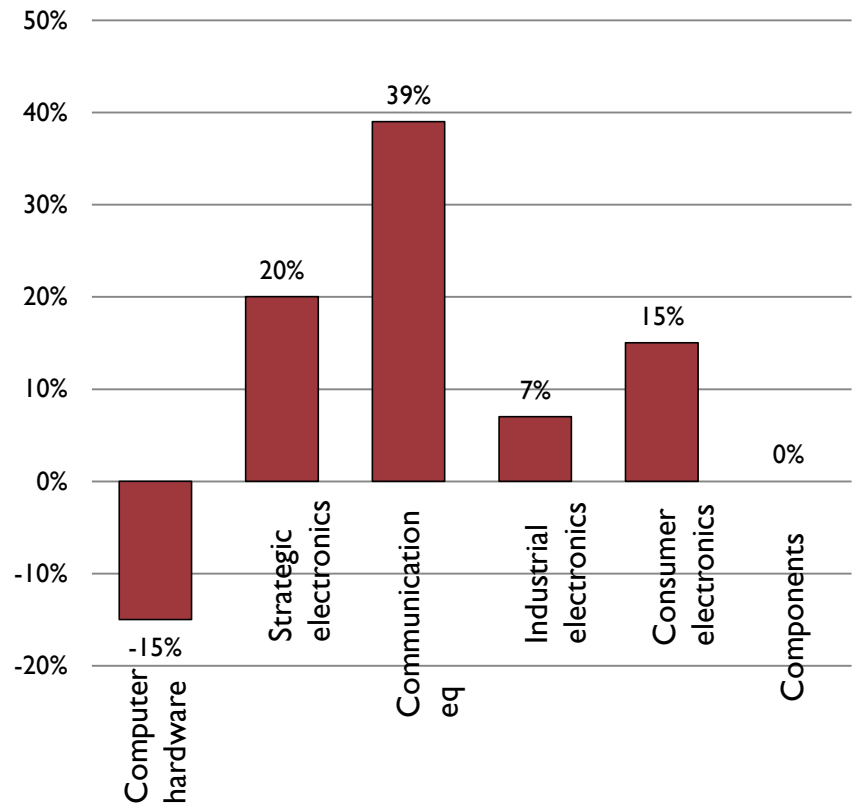
Communication equipment and consumer electronics are key sectors

Size and break up of Indian electronics market (2008-09)



Sources: www.elcina.com, Indian Electronics industry – overview, www.mit.gov.in

CAGR of electronics sector for the period 2007 to 2009



The Indian electronics market was worth US\$ 21.16 billion in 2008-09

Attractive states for investments

Andhra Pradesh and Punjab appear attractive locations for the sector, based on the following factors:

Key parameters	Andhra Pradesh	Punjab	Orissa	Chhattisgarh	West Bengal
Attractiveness of factor conditions (labour, materials)	High	High	Moderate	Moderate	High
Attractiveness of support infrastructure	High	High	High	High	Moderate
Specific government incentives	High	High	High	Moderate	Moderate
Overall attractiveness	High	High	Moderate	Moderate	Moderate

Brief case studies of successful MNCs — LG Electronics

Established in 1997, LG Electronics India (LGEI) is a wholly-owned subsidiary of LG Electronics, South Korea. It is one of the leading companies in consumer electronics, home appliances and computer peripherals in India.

Key success factors

- **Innovative marketing:** LG was the first brand to enter cricket in a big way by sponsoring the 1999 World Cup; it followed it up in 2003 as well.
- **Local and efficient manufacturing to reduce cost:** To overcome high import duties, LG manufactures PC monitors and refrigerators in India at its manufacturing facility at Noida, Uttar Pradesh.
 - Commissioned contract manufacturing at Mohali, Kolkata and Bhopal for colour TVs
- **Product localisation:** This is a key strategy used by LG; the company came out with Hindi and regional language menus on its TVs.
- **Regional distribution model:** This has resulted in quicker rotation of stocks and better penetration into the B, C and D class markets.
- **Leveraging India's IT advantage:** LG Electronics has awarded a contract to LG Soft India (LGSi) to develop IT solutions; the project involves development and support for ERP, SCM, CRM and IT-enabled services for LG.

Brief case studies of successful MNCs — Phillips

Philips India had more than 4,500 employees and a turnover of over US\$ 333 million in 2003. The company is a leader in lighting, semiconductors, consumer electronics, medical systems, domestic appliances and personal care products.

Key success factors

- **Effective localisation of global products:** The company recognised different cultural and lifestyle needs, and customised products and technologies accordingly. For example, when audio equipment worldwide shifted to CD systems, Philips India developed a combined tape recorder and CD player since both media were prevalent in the country.
- **Global technology support:** It has introduced latest technologies, such as integrated wireless FM, digital widescreen TVs, high-definition rear projection TVs with DVD, amongst several others, to the Indian consumer.
- **Tapping rural India:** The company designed products specifically targeted at the semi-urban and rural consumer in India. For example, as power supply in rural India is erratic, Philips has customised its televisions to work on a voltage range of 90 volts to 270 volts.
- **Enhancing distribution:** It has high penetration levels in the rural and semi urban areas through an extensive distribution network

Key takeaways for potential investors

- India's electronics sector presents several attractive options for growth.
- Consumer electronics, electronic components and computer hardware are attractive segments offering both size and growth potential.
- Contract manufacturing is an emerging option, especially for exports out of India.
- In terms of location, Andhra Pradesh and Punjab could be attractive options.
- Addressing the Indian market would require:
 - The right technology and cost
 - Good understanding of local market and product customisation to suit local needs
 - Distribution and reach

Profiles of key players ... (1/2)

<p>Phillips India Ltd (PIL)</p>	<ul style="list-style-type: none"> • PIL is a leader in lighting, consumer electronics, semiconductors, domestic appliances and personal care products, with an unmatched range of products backed by superior design and technology. PIL also has an excellent distribution and after-sales service network. Philips has a plant each in Thane, Pune, Loni-Kalbhori, Mohali and Baroda, and three plants in Kolkata.
<p>Videocon International Ltd</p>	<ul style="list-style-type: none"> • In 1985, through a technical tie-up with Toshiba Corporation of Japan, Videocon International Limited launched India's first world-class colour TV. Today, Videocon International Ltd, the flagship company of the Videocon Group, is India's leading manufacturer of consumer electronic products. Videocon is now a global player, the first Indian company to win the prestigious Conformance Europe (CE) approval for exporting colour TVs to Europe. Videocon is now entering the world market with operations in the Middle East, Europe, Indonesia and South Africa.
<p>Mirc Electronics</p>	<ul style="list-style-type: none"> • The company manufactures and markets the Onida brand of products. Today, apart from being a leading player in the colour TV market, it also manufactures other household appliances such as air-conditioners, washing machines, DVDs, plasma TVs and home theatre systems. For office use, Onida has also introduced state-of-the-art, multi-media presentation products.

Profiles of key players ... (2/2)

HCL Infosystems Ltd	<ul style="list-style-type: none"> • HCL Infosystems manufactures and markets personal computers, PC servers and RISC/UNIX servers. It offers IT consulting, technology integration services, turnkey software development, and functional consulting and implementation services for enterprise resource planning. The company made a net profit of US\$ 70 million with revenues of US\$ 2,628 million in 2005.
Samsung India Electronics Ltd	<ul style="list-style-type: none"> • Samsung India Electronics Ltd, a subsidiary of the US\$ 56 billion Samsung Electronics Co. Ltd, has been operating in India since 1995. It is a leading provider of high-tech consumer electronics, home appliances, IT and telecom products in the country. Samsung India has set up manufacturing facilities for color TVs, microwave ovens, washing machines, air conditioners, color monitors and, more recently, refrigerators in the country. It has a plant in Noida, Uttar Pradesh. Its revenue for 2005 stood at US\$ 1,086 million.
Solectron Centum Electronics Ltd	<ul style="list-style-type: none"> • Solectron Centum Electronics Ltd is the leading Indian company offering state-of-the-art solutions for frequency control products (FCP), electronic manufacturing services (EMS) and hybrid-micro circuits (HMC). Solectron has a manufacturing unit and design centre in Bengaluru and a post-manufacturing centre in Mumbai. The EMS operation focusses primarily on the domestic market, and the company's revenue for 2006 was US\$ 19 million.

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