

Productivity & Efficiency Gaps in Indian IT Hardware & Electronics Sector

As identified in the above sections, the major gaps that exist in Indian IT Hardware & Electronics sector that are impacting its competitiveness with respect to competing countries are:

Issues in availability of critical input material – Raw material, manpower and technology

- **Availability & cost of the most critical raw-material, i.e. semi-conductor and other precious metal and metal alloys**
 - Inverted duty structure in India. This means that finished products are imported at zero duty while import duty is levied on inputs/raw-materials.
 - India leads in semiconductor design, however has not been able to create the necessary eco-system for ATMP and downstream operations
 - Non-availability of precious metals, gold & palladium alloys, metals like 99.99% pure aluminium foil, cathode foil, anode foil etc.
 - Non-availability of other critical components like: electronic chemicals, Putin rubber, high garden tissue paper, tin coated copper leads, copper coated steel wires, single core high temperature cables, etc.

All of these deficiencies result in reliance on imports which puts pressures on cost as well as increases the cycle time of production.

- **Labour skill gaps & other labour issues.**
 - Skill gaps exist for CNC trained personnel. Basic knowledge of precision components & their assembly is also lacking in the industry
 - Support skills like Technicians/Engineers for repairs of imported machinery are missing.
 - Labour laws are relatively unfavourable to the trade, hence frequent labour issues are reported.
 - Lack of incentives for having hostels/in-house residential facilities for labours which could help increase productivity of labours.
- **Lack of technology & indigenous machinery**
 - Most of the electronic components & communication equipment manufacturing machinery is imported from countries like China, Taiwan & Japan.
 - Inadequate testing & certifying labs of global standards present in India
 - Lack of R&D and innovation in Indian electronic components industry. E.g. Very few companies are able to manufacture newest technologies like Tandem Capacitors, Through-hole components, etc.

Market Access Issues

- **Issues faced in domestic market:**
 - Lack of economies of scale, due to inability to get adequate market access and volumes.
 - No purchase preference for Indian manufactured electronic components in government departments/ government funded projects.

- **Issues faced in export market:**
 - Lack of export promotion of Indian ICTE products- no branding of Indian Products
 - Very limited companies following Technology Leadership Model, i.e. IPR & Strategic control resides in India
 - Lack of awareness of global standards like ROHS legislation of EU, CE certification etc.

Inadequate Support Infrastructure

- **Inadequate R&D infrastructure**
 - Lack of R&D funding/grants and long-term finance/WC.
 - No incentives for R&D and development of Indian products and IPR
 - Long approval process for R&D grants - it can take 6-9 months, by which the time-to-market advantage is lost
 - No efforts on R&D on organized reprocessing of electronic components.

- **Lack of awareness about government schemes & subsidies by MSME's.**
 - The government schemes & subsidies are not being availed by most of the SME's because of lack of awareness as well as paper work hassles.

- **Issues with Ports & Roads connectivity**
 - Traders in the Land locked regions like Pune, Delhi/NCR, Bangalore etc., which contribute majority share of Indian IT hardware & electronics trade incur higher costs of transportation. The inefficiency of the Indian inland transportation system is attributed to outdated transport Lorries, poor road conditions, unavailability of all-weather road connectivity, frequent road strikes, and rising fuel costs further adds to their woes.
 - Inland transport and port congestion is another major impediment to Indian exports. Besides, existing ports lack mechanized handling and loading equipment which adds to loading time, increases warehousing costs and adversely affects delivery schedules.