India’s Machine tool industry - highlights

- India stands 17th in production and 12th in consumption of machine tools in the world\(^1\)

- The sector is largely unorganised – about 160 players in a total of around 400 players in the market are organised\(^2\)

- Top 10 companies contribute to around 70 per cent of the total production, with Hindustan Machine Tools Limited (HMT) contributing around 32 per cent\(^1\)

- Majority of Indian machine tool producers have ISO certification and manufacturers also have CE certification to cater to the European markets\(^1\)

- The industry employs around 65,000 skilled and unskilled personnel\(^1\)

*The Machine Tool industry forms the backbone of the manufacturing sector and is a key contributor to the economy*

The industry can be segmented in different ways

Classification of Indian Machine Tool Industry

Based on how the metal is shaped
- Metal Cutting Machines
- Metal Forming Machines
- Conventional Machines
- CNC Machines

Based on how tool selection/movement is controlled

Based on usage purpose
- General Purpose Machines
- Special Purpose Machines
Metal Cutting CNC machines form the bulk of the industry

CNC machines have been outpacing conventional ones in both volume and value terms

Machine Tool Production (Nos)

<table>
<thead>
<tr>
<th>Year</th>
<th>CNC</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>2880</td>
<td>3749</td>
</tr>
<tr>
<td>2004-05</td>
<td>3755</td>
<td>3095</td>
</tr>
<tr>
<td>2005-06</td>
<td>4432</td>
<td>3094</td>
</tr>
<tr>
<td>2006-07</td>
<td>5344</td>
<td>2455</td>
</tr>
</tbody>
</table>

Machine Tool Production (Value)

<table>
<thead>
<tr>
<th>Year</th>
<th>CNC</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>120.42</td>
<td>52.98</td>
</tr>
<tr>
<td>2004-05</td>
<td>177.66</td>
<td>66.38</td>
</tr>
<tr>
<td>2005-06</td>
<td>211.95</td>
<td>91.79</td>
</tr>
<tr>
<td>2006-07</td>
<td>266.17</td>
<td>128.59</td>
</tr>
</tbody>
</table>

- Computer Numerical Control (CNC)
- Conventional
Metal Cutting CNC machines form the bulk of the industry

Focus on improved productivity and costs in user industries is likely to sustain the demand for CNC machines

Share of Revenues 2006-07

Source: IMTMA
The industry has been driven by India’s strong economy, which fuelled demand from user industries

Key user industries for the Machine Tools sector have been performing well:

Auto and Auto Components

• Components grew at 27 per cent CAGR in 2004-08
  Strong growth is expected to sustain over the next decade

• Exports growing at over 25 per cent CAGR

Earth Moving Equipment

• Growing at over 40 per cent CAGR
The industry has been driven by India’s strong economy, which fuelled demand from user industries

Key user industries for the Machine Tools sector have been performing well:

Consumer Goods
  • Grew at 10 per cent in 2006-07
  • All segments are experiencing strong growth

Capital Goods
  • Growing at per cent over 20 per cent in 2007-08
  • Import intensive, indicating potential for increase in domestic manufacture

Agricultural Equipment
  • Tractors growing at CAGR of 15 per cent

Sources: ACMA; Dept. of Heavy Industry; CMIE; CII; FICCI; Cygnus Research
Domestic production has not kept pace with the demand, leading to increase in imports

The gap in domestic supply indicates potential for fresh investment in this sector

Imports vs. Indigenous (US$ million)

- Imports growing at 59% CAGR
- Indigenous manufacturing growing at 29% CAGR

Source: Annual Report, IMTMA, 2005-06; KPMG Analysis
The sector offers opportunities for growth that need to be tapped to reduce dependence on imports

**Threat of New Entrants**
- Well established large players
- Requires significant investment in technology scale
- Gap in domestic supply offers attractive opportunity for new entrants

**Supplier Power**
- Adequate supplier base for domestic supplies
- Increasing dependence on imports

Source: KPMG Analysis
The sector offers opportunities for growth that need to be tapped to reduce dependence on imports

**Competitive Rivalry**
- Fragmented industry, dominated by a few large players
- Significant growth opportunities for current and new players

**Customer Power**
- User industries growing strongly
- Demand outstripping domestic supply

**Threat of Substitutes**
- While there are no product substitutes, increasing imports are a threat to domestic industry

Source: KPMG Analysis
Given the industry growth and trends, a few key factors emerge for players to succeed

**Trends**
- Dominance of CNC machines
- Highly demanding user industries
- Demand growing faster than domestic supply
- Imports gaining significance

**Key Success Factors**
- Design and innovation capability
- Product development
- Access to technology
- Productivity improvement and cost management
Segments offering key investment opportunities include

Products catering to high growth user industries

• Specifically automotive, capital goods and consumer durables sectors

High precision CNC machines

• To meet current gap in domestic design and engineering capabilities

Design/R&D Centres

• Need to upgrade R&D in domestic industry
• Design/Innovation gaining importance as a key differentiator
Attractive States/Locations for investment in the sector

Criteria used to assess states:

• Growth of the user industries
• Government policy initiatives
• Factor conditions - R&D infrastructure, quality manpower, etc.

Based on the above factors, the following states could be attractive locations:

• Gujarat
• Karnataka
• Haryana
• Uttarakhand
• Punjab
• Tamil Nadu
• Maharashtra
Profile of Key Players

Asea Brown Boveri Limited (ABB)

• ABB India is a subsidiary of ABB Ltd., Zurich

• The parent company is a leader in automation and power technologies

• The company operates in around 100 countries and employs more than 0.12 million people. The company had net sales and other income of US$ 984 million in 2006. The company had retained earnings of US$ 66 million in 2006

• ABB India caters to power industry

• The company has eight extensive manufacturing units with a vast installed base and a nationwide marketing and service presence

• ABB has set up a global R&D centre in Bangalore
Profile of Key Players

HMT Ltd

- HMT Ltd. was incorporated in 1953 by the Government of India
- HMT has diversified into watches, tractors, printing machinery and metal forming presses and others over the years. It has collaborated in all product groups with world class manufacturers and also has an in-house R&D
- HMT comprises of six subsidiaries under the ambit of a holding company, which also manages the tractors business directly
- The company had earnings of US$ 90 million in 2007-08
Profile of Key Players

Siemens

• Siemens Ltd. was incorporated in 1957 under the flagship of Siemens Group

• Siemens AG, the parent company holds 54.63 per cent in Siemens Ltd

• The company is into power generation and distribution equipment, industrial projects and equipment, transportation systems, communication and healthcare products. It has five plant locations

• The sales for 2007-08 was around US$ 1.92 billion
Profile of Key Players

Larsen & Toubro

• The public sector enterprise was incorporated in the year 1964 and is India’s largest engineering and construction conglomerate

• The four major segments of L& T are Engineering & Construction, Cement, Electrical & Electronics and diversified business

• It has 19 subsidiaries. They have three plants in the south

• The company had income of around US$ 6.17 billion million for the FY 2006-07
Profile of Key Players

Bharat Heavy Electrical Ltd. (BHEL)

• The public sector enterprise was incorporated in 1964

• BHEL is a major single point supplier of all systems and equipment for the power sector

• It has 14 manufacturing Plant, eight service centres and four power sector regional centres besides project sites and regional offices spread all over India and abroad

• The company registered a turnover of US$ 4.65 billion million for the FY 2007-08
Profile of Key Players

Crompton Greaves

• Crompton Greaves Ltd. is part of the B.M. Thapar Group

• It is India’s largest private sector enterprise in the business of electrical engineering

• The products range from power systems and industrial systems to consumer products, and digital products

• The company has plants at five locations. The company registered an operating revenue of US$ 1.04 million for FY’08,
Profile of Key Players

Cummins India

• The public enterprise was incorporated in year 1987.

• Cummins India manufactures a variety of engines operating on diesel, natural gas and dual fuel. The applications of these are in power generation, construction and mining, compressors, automotives, fire pumps and cranes, etc.

• The company has five plant locations.

• The sales in 2007-08 were US$ 0.5 billion
Profile of Key Players

Kirloskar Oil Engines

• The company is the leader in engines, engine bearings, valves, diesel generating sets, etc

• The company’s engines find application in agricultural machinery, construction & material handling equipments, marine applications, and military.

• The company registered sales income of US$ 446 million in FY’07.

• The company has around 2000 employees working in their manufacturing plants.
Profile of Key Players

Elgi Equipments

• The company is a market leader in air compressors and automobile service station equipment. The company’s products have wide applications.

• They are used in mining, defence, transport, pharmaceuticals, power, oil, etc.

• The company has two manufacturing units in India.

• The total income in FY’07 has been US$ 85 million.
Profile of Key Players

Bharat Fritz Werner Limited (BFW)

• BFW was incorporated in the year 1961

• The company had a turnover of US$ 70 million in FY’08

• Some of the customers of BFW are Automotive Axles, Bharat Forge, L&T Komatsu, M&M, Rane, Maruti Udyog, JCB India and others. The company is the largest machine tool manufacturer in the private sector

• The company has German collaboration

• The company has its head office in Bangalore and has regional offices at 7 locations in India

• The company specializes in horizontal and vertical machining centres, CNC milling machines and special purpose machines
Industry Association & Contact

Indian Machine Tool Manufacturers Association
Plot 249 F, Phase IV
Udyog Vihar, Sector 18
Gurgaon 122 015, Haryana, India
Tel: +91-124- 4014101/02/03/04
Fax: +91-124 4014108
Email: imtma@del2.vsnl.net.in
DISCLAIMER

This presentation has been prepared jointly by the India Brand Equity Foundation ("IBEF") and KPMG Advisory Services Private Limited ("Author").

All rights reserved. All copyright in this presentation and related works is owned by IBEF and the Authors. The same may not be reproduced, wholly or in part in any material form (including photocopying or storing it in any medium by electronic means and whether or not transiently or incidentally to some other use of this presentation), modified or in any manner communicated to any third party except with the written approval of IBEF.

This presentation is for information purposes only. While due care has been taken during the compilation of this presentation to ensure that the information is accurate to the best of the Author’s and IBEF’s knowledge and belief, the content is not to be construed in any manner whatsoever as a substitute for professional advice.

The Author and IBEF neither recommend or endorse any specific products or services that may have been mentioned in this presentation and nor do they assume any liability or responsibility for the outcome of decisions taken as a result of any reliance placed in this presentation.

Neither the Author nor IBEF shall be liable for any direct or indirect damages that may arise due to any act or omission on the part of the user due to any reliance placed or guidance taken from any portion of this presentation.