Understanding India's Construction Equipment Market
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Opportunities within India's construction equipment market

India's growth story has witnessed many cyclical changes across a wide range of industries from agriculture and retail to software, IT and real estate, all of which serve as key drivers of the country's economy.

Volatile real estate and related industries, such as construction equipment, has resulted in demand-supply gaps that hamper analysis of the sector and its trends.

Demand for construction equipment is a reflection of broader macroeconomic trends such as interest rates, infrastructure investment and liquidity, which themselves indicate the health of the overall economy. This demand equipment is expected to grow in line with the expansion of real estate development from India's key urban centres into tier-2 and tier-3 cities.

This paper provides insight into opportunities for various construction equipment original equipment manufacturers (OEMs) in terms of business channels, as well as outlining the market structure by manufacturers and segments while indicating the road ahead in terms of infrastructure requirements.

Market overview

The global construction equipment market was estimated at INR5,551bn (US$90.5bn) last year and is expected to reach INR7,310bn by 2016, representing CAGR of 7.7 per cent. Emerging markets such as China and India are becoming increasingly important on the global stage as key players shift their production bases to Asia to drive revenue by benefitting from the region’s growing infrastructure investment, favourable government policies and mass-scale domestic markets.

India's construction equipment market, meanwhile, outpaced global growth trends with the market estimated at INR208.4bn at the end of last year. Revenue is expected to reach INR461.5bn by 2016, CAGR of 20.5 per cent.

The sector is made up of five main segments: earthmoving equipment, road construction equipment, concrete equipment, material handling equipment, and material processing equipment.

Earthmoving equipment and road construction equipment account for close to 70 per cent of India’s construction equipment market. Backhoe loaders, which comprise tractors, front shovel/bucket backhoes and small backhoes, account for 65 per cent of the earthmoving equipment and road construction segment.

Concrete equipment is the second largest segment with a market share of approximately 14 per cent. It comprises asphalt finishers, transit mixers, concrete pumps and batching plants. Material handling equipment and material processing equipment account for 10 per cent and 6 per cent of the market respectively. Cranes are the largest category within the material handling equipment.

<table>
<thead>
<tr>
<th>Construction &amp; Material Handling Equipment Industry</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Products</td>
<td>56%</td>
</tr>
<tr>
<td>Spare Parts</td>
<td>21%</td>
</tr>
<tr>
<td>Unorganized Sector</td>
<td>15%</td>
</tr>
<tr>
<td>Services</td>
<td>6%</td>
</tr>
<tr>
<td>Exports</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: Datamonitor, BMI

Figure 1: Overview of the construction equipment sector

Source: Datamonitor, BMI

Figure 2: Construction equipment market share by segment, 2012
Key players

Major national and international players such as ECEL, JCB and Action Construction Equipment dominate India’s construction equipment market. The recent influx of foreign direct investment in the construction sector saw many new entries to market, either in the form of joint ventures with Indian companies or by foreign firms setting up their own local manufacturing facilities. Key players operating across most market segments are JCB, Escorts, ACE and BEML.

<table>
<thead>
<tr>
<th>Segments</th>
<th>Market dynamics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Backhoe loaders</strong></td>
<td>JCB is the market leader with a 25% market share followed by ACE, Escorts and Terex Equipment.</td>
</tr>
<tr>
<td><strong>Excavators</strong></td>
<td>Telcon (a joint venture between Tata and Hitachi Construction Machinery) is the market leader followed by L&amp;T Komatsu.</td>
</tr>
<tr>
<td><strong>Wheeled loaders</strong></td>
<td>Major players include Caterpillar India, Telcon, JCB and BEML.</td>
</tr>
<tr>
<td><strong>Skid steer loaders</strong></td>
<td>Market remains untapped. JCB, Terex, Doosan and Gamzen are prominent players.</td>
</tr>
<tr>
<td><strong>Crawler loaders</strong></td>
<td>Major players include Volvo and Sany.</td>
</tr>
<tr>
<td><strong>Crawler dozers</strong></td>
<td>Primarily used in the mining sector. Major players include BEML, L&amp;T Komatsu, John Deere and Caterpillar.</td>
</tr>
<tr>
<td><strong>Crawler graders</strong></td>
<td>Market leader is Caterpillar followed by L&amp;T Komatsu and TIPL.</td>
</tr>
<tr>
<td><strong>Rigid &amp; articulated dump trucks</strong></td>
<td>Dominated by Hitachi, L&amp;T Komatsu, Terex, Volvo and Tata Motors.</td>
</tr>
<tr>
<td><strong>Vibratory &amp; static compaction equipment</strong></td>
<td>L&amp;T Komatsu and Schwing Stetter are market leaders.</td>
</tr>
</tbody>
</table>

Concrete equipment

<table>
<thead>
<tr>
<th>Segments</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Asphalt finishers</strong></td>
<td>Gujarat Appolo commands the largest share closely followed by Witgen in the large machine segment.</td>
</tr>
<tr>
<td><strong>Transit mixers</strong></td>
<td>Key players include Schwing Stetter, Greaves India, Axial Fiori and Telcon.</td>
</tr>
<tr>
<td><strong>Concrete pumps (boom &amp; line)</strong></td>
<td>Putzmeister leads the market with a 60% share followed by Schwing Stetter and Sany.</td>
</tr>
<tr>
<td><strong>Batching plants</strong></td>
<td>Universal Construction Machinery &amp; Equipment leads the market with a 40% share followed by Macons Equipment and Cosmos Construction Machineries and Equipment.</td>
</tr>
</tbody>
</table>

Concrete pumps (boom & line)

**Concrete equipment**

**Cranes**

Account for the largest market share. They include:
- **Crawler cranes**: Telcon is the sole player in the Indian crawler crane segment though some other equipment is imported.
- **Tower cranes**: Major players include Manitowoc Group, ACE, ECEL and Zoomlion. The 5-6 tonne segment accounts for 75-80% of the segment.
- **Pick & carry cranes**: ECEL is the market leader with a 45% share followed by ACE and Voltas.
- **Slew cranes**: Tractors India Ltd and ECEL are the key players.

**Diesel, electric and LPG forklifts**

Godrej and Voltas are dominant players.

Crushing equipment

Large capacity crushers (about 300 tonnes per hour) are more in demand than mid size crushers (about 150-200 tonnes per hour). Major players include Terex and Puzzolona.
Key drivers and challenges

Key drivers

- Robust economic development: India’s 12th Five Year Plan is targeting 11 per cent growth for the construction sector up from 7.8 per cent in the previous plan.
- Infrastructure growth: Substantial infrastructure investment of INR45 trillion under the 12th plan will drive higher demand for construction equipment.
- Growing OEM presence: India offers significant potential as an OEM hub due to its lower costs and the availability of skilled labour. At least 10 new equipment manufacturers are expected to establish bases in India this year.
- Higher FDI in construction: Increased construction activities create favourable conditions for foreign direct investment in the equipment sector. Cumulative FDI inflows of INR7.8bn in the earthmoving machinery segment from April 2000 to December 2011.

Key challenges

- Limited land banks: Scarcity of land for infrastructure development hinders growth of Indian construction equipment market.
- Project bottlenecks: Regulatory issues, environmental concerns and delays in project approval hampers construction projects and limits sales of construction equipment in India.
- Rising crude prices: Rising oil prices increase other input costs, such as fuel, which erodes profits of end users and reduces demand for equipment.
- Higher steel prices: Rising cost of steel weakens profits and significantly hinders market growth.
- Lack of skilled labour: There are few government incentives to build a skilled workforce within the construction equipment market. Major construction equipment companies have to resort to establishing costly training centres to upgrade the skills of their workers.

Opportunities

End User Analysis

Infrastructure

<table>
<thead>
<tr>
<th>Sector</th>
<th>Costs of construction equipment as share of total projects</th>
<th>Planned investment (INR, billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads</td>
<td>21-23%</td>
<td>3,142</td>
</tr>
<tr>
<td>Railways</td>
<td>6-8%</td>
<td>2,618</td>
</tr>
<tr>
<td>Ports</td>
<td>5-7%</td>
<td>880</td>
</tr>
<tr>
<td>Airports</td>
<td>21-23%</td>
<td>310</td>
</tr>
<tr>
<td>Irrigation projects</td>
<td>21-23%</td>
<td>2,533</td>
</tr>
<tr>
<td>Urban development</td>
<td>21-23%</td>
<td>1,437</td>
</tr>
<tr>
<td>Power</td>
<td>5-7%</td>
<td>6,665</td>
</tr>
<tr>
<td>Storage</td>
<td>4-5%</td>
<td>224</td>
</tr>
<tr>
<td>Telecom</td>
<td>21-23%</td>
<td>2,584</td>
</tr>
</tbody>
</table>

The construction equipment industry received a huge fillip in the 12th Five Year Plan compared to the previous plan due to surging construction activity, especially civil engineering projects. Infrastructure investment was supported by key events such as the 2010 Commonwealth Games, which fuelled the need for worldclass facilities.

Real estate

<table>
<thead>
<tr>
<th>Real estate sector</th>
<th>Cost of construction equipment as share of total projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings</td>
<td>4-5%</td>
</tr>
<tr>
<td>Medium-size industry</td>
<td>7-9%</td>
</tr>
<tr>
<td>Mineral plants</td>
<td>20-22%</td>
</tr>
</tbody>
</table>

Despite cyclical fluctuations in the real estate sector, analysts predict the market will grow at 14.2 per cent CAGR from 2011-20, a dynamic which will provide numerous opportunities for construction equipment OEMs. Even though tracts of residential and commercial land currently remain unsold, the long-term outlook is positive due to the scarcity of available space in major metropolitan areas as well as tier-1 and tier-2 cities. This anticipated growth in the construction industry augurs well for the construction equipment sector.
Gujarat

- Gujarat increased construction spending by 33 per cent to INR505.99bn in its 2012-13 budget.
- Project investment over the past five years totals INR39601.48bn.
- Space and environmental constraints restrict expansion in Tamil Nadu and Delhi for major tier 1, 2 and 3 manufacturers.
- Abundance of non-agricultural land in Gujarat makes it an attractive site for manufacturing plants.
- Investment-friendly government and relative transparency eases the business set-up process.

Madhya Pradesh

- Madhya Pradesh is targeting economic growth of 12 per cent under the 12th Five Year Plan with the state government focusing on infrastructure development through public-private partnerships.
- The state government plans to invest about INR35bn to develop 77 industrial areas to facilitate investment.
- The planning commission approved investments of INR280bn from 2012-13.
- Some 150 new projects are expected to be developed in the state with power generation a major investment draw.
- Government announced the availability of 20,000 hectares of land in the state.
- Madhya Pradesh is also focusing on the development of 27 new industrial estates in the state.

West Bengal

- Thirty-five per cent of the INR233.71bn budget for 2012-13 has been set aside to develop infrastructure and power facilities in the state.
- State government announced plans to strengthen and widen 1,046km of roads in 11 under-developed districts and construct eight new bridges.
- Constructing affordable housing for low-income families was another key state initiative.
- Urban infrastructure development has been allotted a 40 per cent share of investments.

Orissa

- Infrastructure development accounts for INR61bn of the INR172bn 2012-13 budget.
- Orissa announced plans to invest INR50bn in developing public-private partnerships for roads and buildings, housing and urban development and the energy sector.
- The state has emerged as major hub for mineral and metal industries. Both sectors use construction equipment on a large scale.
- The Public Works Division is planning to construct 606km of roads and 16 bridges.
- The Housing and Urban Development Department has been allocated INR15.74bn from 2012-13.

The road ahead

As India’s economic growth continues expanding into less-developed states such as Orissa, West Bengal and Madhya Pradesh, it has become imperative that key players in the construction equipment market not only establish manufacturing facilities in India, but also ensure they have a strong distribution structure that enables them to penetrate more remote parts of the country. The construction equipment market provides both established players and new entrants with a range of opportunities. While established players can leverage their existing distribution structure to reach potential customers in these emerging regions, new players can make their foray into the market through joint ventures with companies. The fact that each state government has a separate budget for infrastructure development provides a platform which should enable all construction OEMs to get a substantial slice of the pie.
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