

# Avalon Technologies

Estimate change	↔
TP change	↔
Rating change	↔

Bloomberg	AVALON IN
Equity Shares (m)	66
M.Cap.(INRb)/(USDb)	58.4 / 0.7
52-Week Range (INR)	1074 / 425
1, 6, 12 Rel. Per (%)	4/23/61
12M Avg Val (INR M)	394

## Financials & Valuations (INR b)

Y/E Mar	FY25	FY26E	FY27E
Sales	11.0	14.1	18.0
EBITDA	1.1	1.6	2.2
Adj. PAT	0.6	1.1	1.6
EBITDA Margin (%)	10.1	11.3	12.1
Cons. Adj. EPS (INR)	9.6	16.1	23.8
EPS Gr. (%)	125.2	67.4	48.3
BV/Sh. (INR)	92.4	108.5	132.3

## Ratios

Net D:E	0.1	(0.1)	(0.1)
RoE (%)	10.9	16.0	19.8
RoCE (%)	10.1	14.3	18.8

## Valuations

P/E (x)	91.4	54.6	36.8
EV/EBITDA (x)	52.9	36.2	26.4

## Shareholding Pattern (%)

As on	Mar-25	Dec-24	Mar-24
Promoter	50.6	50.6	50.9
DII	17.3	20.9	22.5
FII	7.1	5.4	2.4
Others	25.0	23.2	24.2

Note: FII includes depository receipts

**CMP: INR879 TP: INR1,030 (+17%) Buy**

## Healthy growth momentum continues across geographies

### In-line operating performance

- Avalon Technologies (AVALON) reported a strong quarter, with revenue growing 58% YoY in 4QFY25, fueled by a stellar performance in the India (+73% YoY) and US (+47% YoY) businesses. EBITDA improved (+410bp) due to a rise in domestic manufacturing (87% vs. 77% in 4QFY24) and favorable operating leverage.
- The company is witnessing growth across all the business segments, with the orderbook growing 29% YoY (INR17.6b). AVALON is expanding its manufacturing footprint and is also entering into strategic collaborations (with companies like Zepco) to enhance profitability. As a result, management has guided for an 18-20% YoY revenue growth with an expected gross margin of 33-35%.
- We broadly maintain our EPS estimates for FY26/FY27. **Reiterate BUY with a TP of INR1,030 (premised on 43x FY27E EPS).**

### Operating leverage underpins EBITDA margin expansion

- AVALON's consolidated revenue grew 58% YoY to INR3.4b, driven by growth in both the domestic (up 73% YoY due to traction in the mobility and clean energy businesses) and US (up 47% YoY) businesses.
- Gross margin contracted 250bp YoY to 35%, led by a change in the product mix (the management had previously guided for a sustainable gross margin range of 33-35%). Consolidated EBITDA surged 2.4x YoY to INR414m, with EBITDA margin expanding 410bp to 12.1%, driven by operating leverage. This was reflected in a 420bp YoY decline in employee expenses as a percentage of sales to 16.6% and a 240bp decline in other expenses to 6.4%. Consequently, the company reported an adjusted PAT of INR243m, marking a 3.4x jump YoY.
- The total order book stood at INR28.8b with the short-term order book (executable within 14 months) at INR17.6b (up 29% YoY/11% QoQ) and the longer executable order book (from 14 months up to three years) at INR11.23b (up 18% YoY).
- Gross debt as of Mar'25 was INR1.4b vs. INR1.6b as of Mar'24. Net working capital days dipped to 124 from 150 days as of Dec'24, led by lower inventory days (down 17 days) and trade receivables days (down 10 days).
- In FY25, revenue/EBITDA/Adj. PAT increased 27%/77%/2.2x YoY to INR10.9b/INR1.1b/INR634m.

### Highlights from the management commentary

- Guidance & outlook:** Management has guided an 18-20% growth in revenue, with significant growth anticipated in 2HFY26. AVALON has secured several new projects that have moved from the design/prototype stage to the production stage. Many of these are expected to ramp up in the current financial year.

- **Collaboration with Zepco:** AVALON is enhancing its technical competence via strategic collaborations, including its partnership with Zepco Technologies. Zepco is involved in the design and manufacture of motors, drives, controllers, and power solutions, serving sectors such as drones, EVs, and defense.
- **Capex.** AVALON plans to incur a capex of INR450-500m in FY26, which may include capex on a new export facility in Chennai and a domestic facility located ~30km away from the existing Tamil Nadu facility. The capacity expansion is done to take care of the large businesses expected to come into India from the European and GCC customers, which are currently being dominated by Japanese customers.

### Valuation and view

- With the company witnessing growth across both the Indian and US businesses, we expect AVALON's revenue and profitability to experience a healthy improvement going forward.
  - Further, the company's long-term revenue trajectory is anticipated to be strong, backed by: 1) the addition of new customers in the US and Indian markets, 2) order inflows from the high-growth/high-margin industries, such as clean energy, mobility, and industrials, 3) strategic collaborations, which will enhance competence and margin, and 4) venturing into advanced technology segments.
  - We estimate AVALON to post a CAGR of 28%/40%/58% in revenue/EBITDA/adj. PAT over FY25-FY27 on account of strong growth and healthy order inflows.
- Reiterate BUY with a TP of INR1,030 (premised on 43x FY27E EPS).**

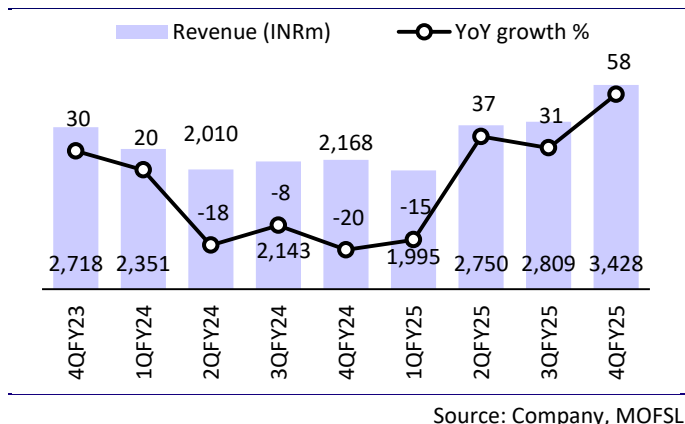
### Consolidated - Quarterly Earnings Model

(INR m)

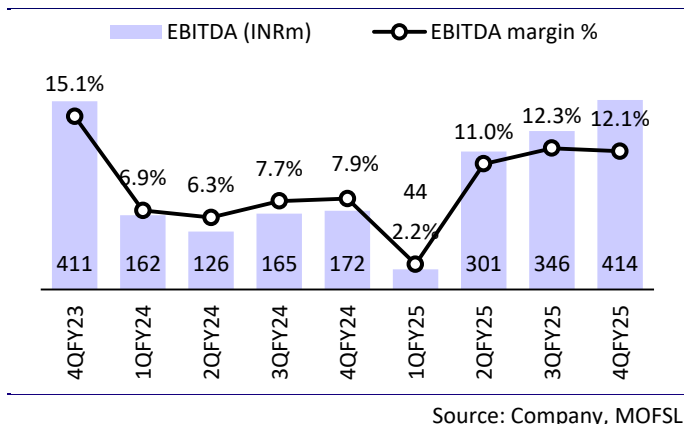
Y/E March	FY24				FY25				FY24	FY25	FY25	Var
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q			4QE	%
<b>Gross Sales</b>	<b>2,351</b>	<b>2,010</b>	<b>2,143</b>	<b>2,168</b>	<b>1,995</b>	<b>2,750</b>	<b>2,809</b>	<b>3,428</b>	<b>8,672</b>	<b>10,981</b>	<b>3,079</b>	<b>11</b>
YoY Change (%)	19.9	-17.9	-7.9	-20.2	-15.2	36.8	31.1	58.1	-8.2	26.6	42.0	
Total Expenditure	2,189	1,884	1,977	1,996	1,951	2,449	2,462	3,014	8,046	9,876	2,675	
<b>EBITDA</b>	<b>162</b>	<b>126</b>	<b>165</b>	<b>172</b>	<b>44</b>	<b>301</b>	<b>346</b>	<b>414</b>	<b>626</b>	<b>1,105</b>	<b>403</b>	<b>3</b>
Margins (%)	6.9	6.3	7.7	7.9	2.2	11.0	12.3	12.1	7.2	10.1	13.1	
Depreciation	53	55	60	61	66	69	74	77	229	286	78	
Interest	56	32	36	39	42	37	45	42	164	167	35	
Other Income	51	47	22	28	44	39	100	32	148	215	63	
<b>PBT before EO expense</b>	<b>105</b>	<b>86</b>	<b>91</b>	<b>99</b>	<b>-20</b>	<b>234</b>	<b>327</b>	<b>326</b>	<b>381</b>	<b>867</b>	<b>353</b>	
Extra-Ord expense	0	0	0	0	0	0	0	0	0	0	0	
<b>PBT</b>	<b>105</b>	<b>86</b>	<b>91</b>	<b>99</b>	<b>-20</b>	<b>234</b>	<b>327</b>	<b>326</b>	<b>381</b>	<b>867</b>	<b>353</b>	
Tax	34	13	25	29	3	60	87	83	101	233	97	
Rate (%)	32.4	15.2	27.5	29.0	-14.5	25.4	26.7	25.5	26.5	26.8	27.5	
Minority Interest & Profit/Loss of Asso. Cos.	0	0	0	0	0	0	0	0	0	0	0	
<b>Reported PAT</b>	<b>71</b>	<b>73</b>	<b>66</b>	<b>71</b>	<b>-23</b>	<b>175</b>	<b>240</b>	<b>243</b>	<b>280</b>	<b>634</b>	<b>256</b>	
<b>Adj PAT</b>	<b>71</b>	<b>73</b>	<b>66</b>	<b>71</b>	<b>-23</b>	<b>175</b>	<b>240</b>	<b>243</b>	<b>280</b>	<b>634</b>	<b>256</b>	<b>-5</b>
YoY Change (%)	-23.9	-50.7	14.7	-68.9	NA	140.1	264.7	243.8	-46.7	126.7	262.6	
Margins (%)	3.0	3.6	3.1	3.3	-1.2	6.4	8.5	7.1	3.2	5.8	8.3	

## Key exhibits

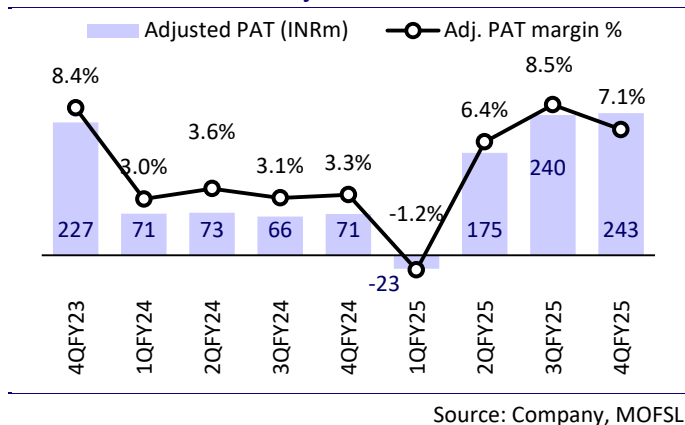
**Exhibit 1: Consolidated revenue trend**



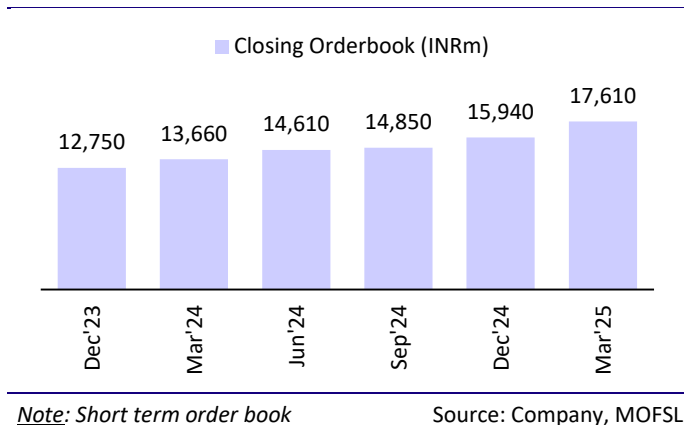
**Exhibit 2: Consolidated EBITDA trend**



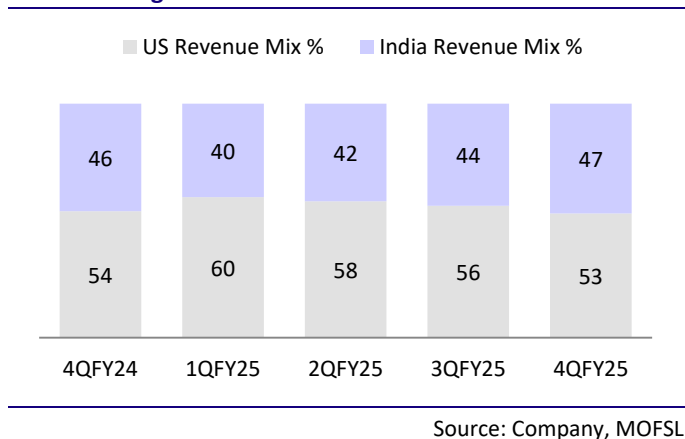
**Exhibit 3: Consolidated Adj. PAT trend**



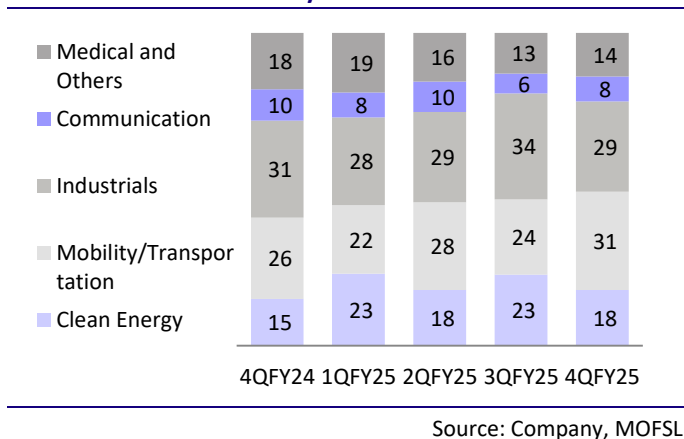
**Exhibit 4: Order book trend**



**Exhibit 5: Region mix**



**Exhibit 6: End-user industry mix**





## Highlights from the management commentary

### Guidance and Outlook

- The management has guided for an 18-20% growth in revenue, showing a cautious approach due to rising volatility globally. Management is open to revising its guidance as the financial year progresses.
- Gross margins are expected to be in the 33-35% range for FY26. The margin can vary quarterly due to changing product mix.
- The company expects to double its revenue over FY24-27, led by key growth drivers in the form of 1) continued expansion in India, 2) Deeper penetration with existing customers, and 3) New customer additions in the US
- Management would like to take the ratio of sales to 50:50 between India and the US, which stands at 47:53 as of FY25.

### Operating performance

- Working capital days improved significantly to **124 days**, a reduction of **37 days** YoY, exceeding the company's guidance of a 10–15 day improvement.
- Management aims to maintain and further improve its working capital cycle going forward.
- For FY25, cash flow from operations reached INR250m, up from INR170m in FY24. The improvement is due to better working capital management and profitable growth. As of Mar'25, total outstanding debt stood at INR14b with cash equivalents and investments at INR1.3b, resulting in a net debt position of INR70m.
- In 4QFY25, the US manufacturing plant contributed 17% of total revenue, while India-based operations, which catered to both domestic and global customers, accounted for 83% of the revenue.
- The Indian operations remained highly profitable, delivering an EBITDA/PAT margin of 14.8%/9.6%.

### Capex

- Capex for 4QFY25 and FY25 was INR250m and INR578m, respectively. Asset turn stood at 7.5x.
- The company plans to initiate capacity expansion as and when utilization crosses the 70% mark.
- Company plans to incur INR450-500m in FY26, which may include capex on a new export facility in Chennai and a domestic facility located ~30km away from the existing Tamil Nadu facility.

### Order book mix

- Orderbook growth remains well-balanced and diversified across geographies and sectors, with the order book mix well-aligned to the revenue mix, 45% India and 55% US.
- New products are being developed across key industry verticals, including rail, industrial infrastructure, clean energy, and communications.
- Recent order wins include projects in Backup power systems, Transmission systems, Aerospace cabin products, and Locomotive engine systems.
- Over the past year, Avalon has secured several new projects that have moved from design/prototype to the production stage. Many of these are expected to ramp up in the current financial year, supporting the company's goal of deepening customer engagement across diverse end markets.

### Collaboration with Zepco

- The company is enhancing its technical competence through strategic collaborations, including its partnership with Zepco Technologies. Zepco involves the design and manufacture of motors, drives, controllers, and power solutions, serving sectors as drones, electric vehicles, and defense
- Zepco, the design arm of a clean energy client, is increasingly engaging Avalon for design work in India.
- Avalon is expected to co-develop future products with Zepco. It may also support Avalon in drone motor manufacturing in future phases.

### Others

- The company has entered into **sophisticated advanced technology segments** focused on next-generation technologies and Digital infrastructure. These initiatives are in early stages, but the company sees **encouraging potential** and plans to provide further updates in the upcoming quarters.
- The company, in the clean energy segment, is not into rooftop solar products, so tariffs may not adversely impact its clean energy segment.
- Tariff costs are 100% passed on to the customers.
- Raw materials are sourced from India and abroad. However, due to increasing PLI benefits, the company prefers to source raw materials from India.

### Valuation and view

- With the company witnessing growth across both the Indian and US businesses, we expect AVALON's revenue and profitability to experience a healthy improvement going forward.
- Further, the company's long-term revenue trajectory is anticipated to be strong, backed by: 1) the addition of new customers in the US and Indian markets, 2) order inflows from the high-growth/high-margin industries, such as clean energy, mobility, and industrials, 3) strategic collaborations, which will enhance competence and margin, and 4) venturing into advanced technology segments.
- We estimate AVALON to post a CAGR of 28%/40%/58% in revenue/EBITDA/adj. PAT over FY25-FY27 on account of strong growth and healthy order inflows.  
**Reiterate BUY with a TP of INR1,030 (premised on 43x FY27E EPS).**

### Exhibit 7: Changes to our estimates

Earnings change (INR m)	Old		New		Change	
	FY26E	FY27E	FY26E	FY27E	FY26E	FY27E
Revenue	14,353	19,090	14,056	17,992	-2%	-6%
EBITDA	1,722	2,405	1,588	2,177	-8%	-9%
Adj. PAT	1,102	1,644	1,062	1,575	-4%	-4%

## Financials and valuations

Consolidated - Income Statement							(INRm)	
Y/E March	FY20	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E
<b>Total Income from Operations</b>	<b>6,419</b>	<b>6,905</b>	<b>8,407</b>	<b>9,447</b>	<b>8,672</b>	<b>10,981</b>	<b>14,056</b>	<b>17,992</b>
Change (%)	NA	7.6	21.8	12.4	-8.2	26.6	28.0	28.0
RM Cost	4,128	4,574	5,552	6,067	5,545	7,055	9,066	11,515
Employees Cost	1,162	1,192	1,314	1,605	1,815	1,986	2,390	3,059
Other Expenses	484	478	566	647	685	836	1,012	1,241
<b>Total Expenditure</b>	<b>5,774</b>	<b>6,243</b>	<b>7,432</b>	<b>8,319</b>	<b>8,046</b>	<b>9,876</b>	<b>12,468</b>	<b>15,815</b>
% of Sales	90.0	90.4	88.4	88.1	92.8	89.9	88.7	87.9
<b>EBITDA</b>	<b>645</b>	<b>662</b>	<b>975</b>	<b>1,128</b>	<b>626</b>	<b>1,105</b>	<b>1,588</b>	<b>2,177</b>
Margin (%)	10.0	9.6	11.6	11.9	7.2	10.1	11.3	12.1
Depreciation	155	158	172	197	229	286	340	384
<b>EBIT</b>	<b>490</b>	<b>504</b>	<b>803</b>	<b>931</b>	<b>397</b>	<b>819</b>	<b>1,248</b>	<b>1,793</b>
Int. and Finance Charges	450	270	248	348	164	167	104	48
Other Income	113	54	309	144	148	215	281	360
<b>PBT bef. EO Exp.</b>	<b>153</b>	<b>288</b>	<b>864</b>	<b>727</b>	<b>381</b>	<b>867</b>	<b>1,425</b>	<b>2,105</b>
EO Items	0	0	0	0	0	0	0	0
<b>PBT after EO Exp.</b>	<b>153</b>	<b>288</b>	<b>864</b>	<b>727</b>	<b>381</b>	<b>867</b>	<b>1,425</b>	<b>2,105</b>
Total Tax	30	58	183	202	101	233	363	530
Tax Rate (%)	19.4	19.9	21.1	27.8	26.5	26.8	25.5	25.2
Minority Interest	8	16	50	0	0	0	0	0
<b>Reported PAT</b>	<b>115</b>	<b>215</b>	<b>632</b>	<b>525</b>	<b>280</b>	<b>634</b>	<b>1,062</b>	<b>1,575</b>
<b>Adjusted PAT</b>	<b>115</b>	<b>215</b>	<b>632</b>	<b>525</b>	<b>280</b>	<b>634</b>	<b>1,062</b>	<b>1,575</b>
Change (%)	NA	86.1	193.9	-16.9	-46.7	126.7	67.4	48.3
Margin (%)	1.8	3.1	7.5	5.6	3.2	5.8	7.6	8.8

Consolidated - Balance Sheet							(INRm)	
Y/E March	FY20	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E
Equity Share Capital	15	16	16	116	131	132	132	132
Preference Capital	356	388	388	0	0	0	0	0
Total Reserves	450	584	856	5,254	5,342	5,983	7,045	8,620
<b>Net Worth</b>	<b>822</b>	<b>988</b>	<b>1,260</b>	<b>5,370</b>	<b>5,473</b>	<b>6,115</b>	<b>7,177</b>	<b>8,753</b>
Minority Interest	-431	-317	0	0	0	0	0	0
Total Loans	2,388	2,775	2,789	3,063	1,642	1,800	800	400
Deferred Tax Liabilities	-263	0	0	0	15	19	19	19
<b>Capital Employed</b>	<b>2,515</b>	<b>3,445</b>	<b>4,049</b>	<b>8,433</b>	<b>7,129</b>	<b>7,934</b>	<b>7,996</b>	<b>9,171</b>
Gross Block	1,126	1,335	1,512	1,861	2,285	2,950	3,283	3,750
Less: Accum. Deprn.	139	295	390	586	815	1,101	1,441	1,825
<b>Net Fixed Assets</b>	<b>987</b>	<b>1,041</b>	<b>1,123</b>	<b>1,275</b>	<b>1,470</b>	<b>1,849</b>	<b>1,842</b>	<b>1,925</b>
Goodwill on Consolidation	0	0	0	0	0	0	0	0
Capital WIP	27	0	20	153	196	104	271	304
<b>Total Investments</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>755</b>	<b>349</b>	<b>349</b>	<b>349</b>
Current Investments	0	0	0	0	755	332	332	332
<b>Curr. Assets, Loans&amp;Adv.</b>	<b>3,197</b>	<b>4,084</b>	<b>4,738</b>	<b>10,375</b>	<b>6,886</b>	<b>8,096</b>	<b>8,858</b>	<b>10,650</b>
Inventory	1,553	1,458	2,330	3,179	3,163	3,379	4,098	5,205
Account Receivables	1,138	1,819	1,774	2,062	1,869	3,160	2,888	3,697
Cash and Bank Balance	266	335	101	4,222	1,065	1,015	888	668
Loans and Advances	241	472	532	912	789	542	984	1,080
<b>Curr. Liability &amp; Prov.</b>	<b>1,719</b>	<b>1,680</b>	<b>1,831</b>	<b>3,370</b>	<b>2,178</b>	<b>2,465</b>	<b>3,325</b>	<b>4,057</b>
Account Payables	1,369	1,289	1,242	1,418	974	1,894	1,863	2,366
Other Current Liabilities	216	253	449	1,823	1,048	422	1,265	1,439
Provisions	134	138	141	130	156	149	197	252
<b>Net Current Assets</b>	<b>1,478</b>	<b>2,404</b>	<b>2,906</b>	<b>7,005</b>	<b>4,708</b>	<b>5,631</b>	<b>5,533</b>	<b>6,592</b>
Misc Expenditure	0	0	0	0	0	0	0	0
<b>Appl. of Funds</b>	<b>2,516</b>	<b>3,445</b>	<b>4,049</b>	<b>8,433</b>	<b>7,129</b>	<b>7,934</b>	<b>7,996</b>	<b>9,171</b>



## Financials and valuations

### Ratios

Y/E March	FY20	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E
<b>Basic (INR)</b>								
<b>EPS</b>	<b>2.0</b>	<b>3.7</b>	<b>10.9</b>	<b>9.1</b>	<b>4.3</b>	<b>9.6</b>	<b>16.1</b>	<b>23.8</b>
Cash EPS	4.7	6.4	13.9	12.5	7.7	13.9	21.2	29.6
BV/Share	14.2	17.0	21.7	92.7	83.3	92.4	108.5	132.3
DPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Payout (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Valuation (x)</b>								
P/E	439.7	236.3	80.4	96.7	205.8	91.4	54.6	36.8
Cash P/E	187.7	136.4	63.2	70.4	113.2	63.0	41.4	29.6
P/BV	61.8	51.4	40.3	9.5	10.5	9.5	8.1	6.6
EV/Sales	8.2	7.7	6.4	5.3	6.6	5.3	4.1	3.2
EV/EBITDA	81.4	80.0	54.8	44.0	91.8	52.9	36.2	26.4
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FCF per share	8.4	-2.4	-0.4	-7.0	-2.8	-3.2	10.5	-2.0
<b>Return Ratios (%)</b>								
RoE	14.1	23.8	56.2	15.8	5.2	10.9	16.0	19.8
RoCE	15.1	12.8	22.5	12.4	5.2	10.1	14.3	18.8
RoIC	21.4	17.7	20.2	17.7	6.4	10.4	14.4	18.7
<b>Working Capital Ratios</b>								
Fixed Asset Turnover (x)	5.7	5.6	5.9	5.6	4.2	4.2	4.5	5.1
Asset Turnover (x)	1.5	1.3	1.4	0.8	0.9	1.1	1.2	1.4
Inventory (Days)	98	120	125	166	209	169	165	165
Debtor (Days)	65	78	78	74	83	84	75	75
Creditor (Days)	87	106	83	80	79	74	75	75
<b>Leverage Ratio (x)</b>								
Current Ratio	1.9	2.4	2.6	3.1	3.2	3.3	2.7	2.6
Interest Cover Ratio	1.1	1.9	3.2	2.7	2.4	4.9	12.0	37.4
Net Debt/Equity	2.6	2.5	2.1	-0.2	0.0	0.1	-0.1	-0.1

### Consolidated - Cash Flow Statement

(INRM)

Y/E March	FY20	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E
OP/(Loss) before Tax	153	288	856	727	381	867	1,425	2,105
Depreciation	155	158	180	197	229	286	340	384
Interest & Finance Charges	434	222	209	244	113	143	-177	-312
Direct Taxes Paid	-47	-35	-125	-189	-164	-194	-363	-530
(Inc)/Dec in WC	-121	-561	-805	-1,125	-414	-883	-30	-1,279
<b>CF from Operations</b>	<b>574</b>	<b>72</b>	<b>315</b>	<b>-147</b>	<b>145</b>	<b>218</b>	<b>1,195</b>	<b>369</b>
Others	83	-17	-158	13	28	32	0	0
<b>CF from Operating incl EO</b>	<b>657</b>	<b>55</b>	<b>157</b>	<b>-133</b>	<b>173</b>	<b>250</b>	<b>1,195</b>	<b>369</b>
(Inc)/Dec in FA	-170	-192	-177	-273	-355	-462	-500	-500
<b>Free Cash Flow</b>	<b>487</b>	<b>-137</b>	<b>-21</b>	<b>-406</b>	<b>-182</b>	<b>-212</b>	<b>695</b>	<b>-131</b>
(Pur)/Sale of Investments	-24	29	0	0	-1,121	955	0	0
Others	2	-104	-6	2	15	44	281	360
<b>CF from Investments</b>	<b>-192</b>	<b>-267</b>	<b>-184</b>	<b>-271</b>	<b>-1,461</b>	<b>538</b>	<b>-219</b>	<b>-140</b>
Issue of Shares	0	73	0	798	8	15	0	0
Inc/(Dec) in Debt	-296	461	158	128	-1,580	122	-1,000	-400
Interest Paid	-426	-217	-189	-283	-88	-111	-104	-48
Dividend Paid	-4	-37	-38	-37	-41	-52	0	0
Others	302	22	-138	3,915	-807	-497	0	0
<b>CF from Fin. Activity</b>	<b>-424</b>	<b>301</b>	<b>-207</b>	<b>4,522</b>	<b>-2,508</b>	<b>-523</b>	<b>-1,104</b>	<b>-448</b>
<b>Inc/Dec of Cash</b>	<b>42</b>	<b>89</b>	<b>-234</b>	<b>4,118</b>	<b>-3,796</b>	<b>265</b>	<b>-128</b>	<b>-220</b>
Opening Balance	204	246	335	101	4,219	423	1,015	888
Other cash & cash equivalent	20	0	0	3	643	328	0	0
<b>Closing Balance</b>	<b>266</b>	<b>335</b>	<b>101</b>	<b>4,222</b>	<b>1,065</b>	<b>688</b>	<b>888</b>	<b>668</b>

Investment in securities market are subject to market risks. Read all the related documents carefully before investing

## NOTES



Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	< - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

\*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall be within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

#### Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Depository participant services & distribution of various financial products. MOFSL is a listed public company, the details in respect of which are available on [www.motilaloswal.com](http://www.motilaloswal.com). MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://online.reports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>

MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

A graph of daily closing prices of securities is available at [www.nseindia.com](http://www.nseindia.com), [www.bseindia.com](http://www.bseindia.com). Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

#### Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

#### For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg. No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

#### For U.S.

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act") and together with the 1934 Act, the "Acts", and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

#### For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets (Singapore) Pte. Ltd. ("MOCMSPL") (UEN 201129401Z), which is a holder of a capital markets services license and an exempt financial adviser in Singapore. This report is distributed solely to persons who (a) qualify as "institutional investors" as defined in section 4A(1)(c) of the Securities and Futures Act of Singapore ("SFA") or (b) are considered "accredited investors" as defined in section 2(1) of the Financial Advisers Regulations of Singapore read with section 4A(1)(a) of the SFA. Accordingly, if a recipient is neither an "institutional investor" nor an "accredited investor", they must immediately discontinue any use of this Report and inform MOCMSPL.

In respect of any matter arising from or in connection with the research you could contact the following representatives of MOCMSPL. In case of grievances for any of the services rendered by MOCMSPL write to [grievances@motilaloswal.com](mailto:grievances@motilaloswal.com).

Nainesh Rajani

Email: [nainesh.rajani@motilaloswal.com](mailto:nainesh.rajani@motilaloswal.com)

Contact: (+65) 8328 0276

#### Specific Disclosures

- Research Analyst and/or his/her relatives do not have a financial interest in the subject company(ies), as they do not have equity holdings in the subject company(ies).  
MOFSL has financial interest in the subject company(ies) at the end of the week immediately preceding the date of publication of the Research Report: Yes.  
Nature of Financial interest is holding equity shares or derivatives of the subject company
- Research Analyst and/or his/her relatives do not have actual/beneficial ownership of 1% or more securities in the subject company(ies) at the end of the month immediately preceding the date of publication of Research Report.  
MOFSL has actual/beneficial ownership of 1% or more securities of the subject company(ies) at the end of the month immediately preceding the date of publication of Research Report: No
- Research Analyst and/or his/her relatives have not received compensation/other benefits from the subject company(ies) in the past 12 months.  
MOFSL may have received compensation from the subject company(ies) in the past 12 months.
- Research Analyst and/or his/her relatives do not have material conflict of interest in the subject company at the time of publication of research report.  
MOFSL does not have material conflict of interest in the subject company at the time of publication of research report.
- Research Analyst has not served as an officer, director or employee of subject company(ies).
- MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months.
- MOFSL has not received compensation for investment banking /merchant banking/brokerage services from the subject company(ies) in the past 12 months.

8. MOFSL may have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company(ies) in the past 12 months.
9. MOFSL may have received compensation or other benefits from the subject company(ies) or third party in connection with the research report.
10. MOFSL has not engaged in market making activity for the subject company.

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance.
- received compensation/other benefits from the subject company in the past 12 months
- any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

#### Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

#### Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

#### Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

This report is meant for the clients of Motilal Oswal only.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 - 71934200 / 71934263;

www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000. Details of

Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No.:022-40548085.

Grievance Redressal Cell:

Contact Person	Contact No.	Email ID
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com
Mr. Ajay Menon	022 40548083	am@motilaloswal.com

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN : 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products.

Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.