MindTree Limited

Industry	IT
Bloomberg	MTCL IN
BSE CODE	532819

Revenue growth to be in low teens in FY20

RATING	NEUTRAL
CMP	967
Price Target	983
Potential Upside	2%

Rating Change	⟷
Estimate Change	↓
Target Change	⟷

4QFY19 Result Update

- Mindtree 4QFY19 result reported a mix bag of numbers. Revenue grew 3.9% in cc terms beating our estimates whereas margin came at 15.2% in line with our estimates. PAT for the quarter stood at Rs 192 crore. For the full year Mind tree exited the year on strong revenue growth of 19.4%YoY in constant currency terms and margin expansion of 160 bps.
- Digital continued its growth journey and grew 3.8%sequentially and 32%growth for the full year. It now contributes 50% of the overall revenue.
- The company in 4QFY19 signed deal worth USD 242 million of which renewal was USD 158million and new contracts were USD 84 million .Digital contract signed in this quarter was USD 126 million. Overall TCV signed in FY19 crossed a billion dollar. The company expects digital TCV to continue to grow in FY20.
- The company for the first time gave its guidance on revenue and margin performance for FY20.Mangement have given a low teens revenue guidance which is lower than the growth achieved in FY19 (19%YoY).Mind tree have also guided of 100 to 120 bps improvement in margins
- Mindtree has announced a final dividend of Rs 3 and special dividend of Rs20per share, taking the total dividend to Rs33per share, which resulted in payout of 72% in FY19.

View and Valuation

FY19 was strong growth year for mind tree. The company clocked a 19%YoY in constant currency terms which is above industry average and doubled it growth from FY18 (8.6%YoY).Even despite supply constraints and higher sub contracting, the margin managed to continue to post growth by expanding 160 bps for the year. Going forward we expect Mind tree to clock slower revenue growth as compared to FY19(somewhere in low teens).The growth in revenue is expected to driven by new TCV wins (which rose16.7%QoQ from USD 72million to USD84million) and continued growth in digital share(now contributes 50% of the revenue and sequentially grew 3.8% in 4QFY19). Total TCV for 4QFY19 stood at USD242 million , a decline of 5.5% sequentially which is lowest in last 6 quarters, however with 10% rise in short duration project is giving a some confidence of revenue visibility going ahead. Even the management has guided of low teens growth for FY20 considering all the macro factors and challenges.

On margin front, we expect the margin to improve 100bps in FY20 mainly led operational efficiency and Pricing given the traction in Digital. However Subcontracting costs which are expected to continue to inch a little more in FY20 (now at 7% of revenues) and challenges in Utilization can offset some benefit in FY20.

Seeing the macro challenges and concerns related to L&T open offer issue, we largely maintain our target at Rs 983 and recommend Neutral.

Key Risks to our rating and target

- Delay in deal execution.
- Uncertainty on client front with related L&T issue .

Stock Info

52wk Range H/L	1182/753
Mkt Capital (Rs Cr)	15881
Free float (%)	63%
Avg. Vol 1M (,000)	1504
No. of Shares (Cr)	16
Promoters Pledged (Cr)	0

KEY FINANCIAL/VALUATIONS	FY16	FY17	FY18	FY19	FY20E
Net Sales	4673	5236	5463	7022	8009
EBITDA	821	705	741	1065	1324
EBIT	655	519	569	900	1103
PAT	553	419	570	754	878
EPS (Rs)	33	25	35	46	53
EPS growth (%)	-49%	-24%	40%	32%	16%
ROE (%)	23%	16%	21%	23%	23%
ROCE (%)	26%	19%	19%	27%	29%
BV	144	153	167	201	231
P/B (X)	4.5	2.9	4.4	4.8	4.2
P/E (x)	19.8	18.2	21.4	21.1	18.1

Research Analyst
NIHARIKA OJHA
niharika@narnolia.com
+91-22-62701230

The views expressed above accurately reflect the personal views of the authors about the subject companies and its(their) securities. The authors have not and will not receive any compensation for providing a specific recommendation or view. Narnolia Financial Advisors Ltd. does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

4QFY19 Results

Margins in line

Financials	4QFY18	1QFY19	2QFY19	3QFY19	4QFY19	YoY %	QoQ%	FY18	FY19	YoY %
Net Sales /	1,464	1,640	1,755	1,787	1,839	**25.6%**	**2.9%**	5,463	7,022	**28.5%**
Other Income	59	28	52	(20)	29	**-51%**	**-245%**	190	89	**-53.0%**
Employee	930	1,040	1,117	1,114	1,150	**23.7%**	**3.2%**	3,564	4,421	**24.0%**
Other Expenses	298	369	368	390	409	**37.0%**	**4.9%**	1,158	1,536	**32.6%**
EBITDA	236	231	270	283	280	**19.0%**	**-1.1%**	705	741	**5.1%**
Dep and	39	40	40	41	43	**10.9%**	**4.4%**	172	164	**-4.3%**
EBIT	197	191	230	242	238	**20.6%**	**-2.0%**	569	900	**58.2%**
Interest	6	3	0	-	-			17	3	**-82.8%**
PBT	250	216	282	222	267	**6.5%**	**12.2%**	742	987	**32.9%**
Tax	68	58	76	31	68	**-0.3%**	**119.0%**	172	233	**35.1%**
Exceptional	-	-	-	-	-			-	-	
PAT	182	158	206	191	198	**9.1%**	**3.8%**	570	754	**32.3%**

4QFY19: Revenue beat estimates, margin in line

- The company in 4QFY19 signed deal worth USD 242 million of which renewal were USD 158million and new contracts were USD 84 million .Digital contract signed in this quarter was USD 126 million Mindtree 4QFY19 revenue grew by 4.2% in USD terms to 262 million which is above our estimates of USD 259 million.

- In constant currency term, revenue increased 3.9%QoQ, resulted in full year growth of 19%YoY.Volume growth was strong at 5.6% QoQ and 18.3% YoY as compared to 1.1% decline in 3QFY19.Blended pricing declined from 33.5 to 33.1 during the quarter.

Strong growth in BFSI and Retail

Verticals (USD Mn)	2QFY18	3QFY18	4QFY18	1QFY19	2QFY19	3QFY19	4QFY19	QoQ%	CC QOQ
Retail	48	50	53	56	54	56	58	**3.5%**	**1.3%**
BFSI	51	53	51	54	55	55	57	**4.8%**	**2.1%**
Technology	77	79	86	94	97	99	104	**4.9%**	**5.3%**
Travel & Hospitality	30	33	36	38	41	42	43	**2.5%**	**-0.7%**

- As per the industry, Growth during the quarter was driven by BFSI (4.8% QoQ), HiTech (4.9% QoQ) and Retail & Manufacturing (3.5% QoQ). This was offset by muted growth in Travel and Hospitality (2.5% QoQ).

- On the geography side, the growth was broad based. India led the growth by growing 7.1%QoQ, Followed by Us which grew 4.5% QoQ, while Europe inched up 3.1% QoQ ,ROW grew by 4.2% QoQ in 4QFY19.

Continued growth seen in across geographies

Geography(USD Mn)	2QFY18	3QFY18	4QFY18	1QFY19	2QFY19	3QFY19	4QFY19	QoQ%	YoY %
US	139	149	161	176	181	185	193	**4.5%**	**20.0%**
Europe	47	45	48	49	46	47	48	**3.1%**	**1.5%**
India	7	7	7	7	8	9	10	**7.1%**	**33.9%**
Rest of the World	13	13	11	10	11	11	11	**4.2%**	**3.5%**

Robust growth in IP led revenue, softness seen in packaging service

Service Line (in	2QFY18	3QFY18	4QFY18	1QFY19	2QFY19	3QFY19	4QFY19	QoQ%	YoY %
ADM	103	108	114	123	125	128	133	**4.2%**	**16.7%**
Consulting	8	9	9	8	8	8	9	**7.4%**	**-2.0%**
Package	23	24	25	26	22	23	21	**-6.2%**	**-16.3%**
IP led	2	2	2	1	2	2	3	**43.2%**	**41.5%**
Independent Testing	25	27	29	32	32	32	34	**4.2%**	**17.6%**
IMS	45	45	48	52	58	59	61	**3.7%**	**28.5%**

Subdued growth in deal wins

- Deal wins during the quarter were USD242 million (declined of 5.5%QoQ) which is lower than the USD256m in the previous quarter. Total TCV signed in FY19 crossed a billion dollar to 1075 million .However renewal revenue which hold majority of deals decline 14.1%QoQ to USD 158 million as compared to 184million in previous year.
- The company signed new contracts were USD 84 million which increased 16.7%QoQ .Digital contract signed in this quarter was USD 126 million.

70bps decline in margin was in line with the estimates

- EBITDA for the quarter stood at Rs280crore, a decline 1.1%QoQ.Margin contracted 50 bps to 15.2%as compared to 15.9% in 3QFY19. The reason contributed to margin contracted was currency fluctuation which impacted 50 bps and higher attrition .Even subcontracting cost increased in 4QFY19.
- PAT for the quarter stood at Rs 198.4 crore, a growth of 3.8% mainly had driven by higher other income.

Concall highlights

- **Margin performance in 4QFY19**: Currency headwind impacted margins by 50 bps. Utilization to trainee improved to 75.8% as compared to 74.6% last quarter. Attrition inched up little in 4QFY19 due to seasonality; however the company is not seeing it as cause of concern at this stage for the company.

- **Digital service** line continues to grow ahead of mind tree average .The digital grew 3.8%sequentially and 32%growth for the full year.

- **Continued investment seen in 4QFY19**: The Company continued its investment in 4QFY19 by hiring and creating specialty to help the client. During the quarter, the company inaugurated their re imagination centre and also created sale force centre to continue to meet the demand.

- **Top-customer:** Amongst top-10, two customers have been since inception. The company sees on reasonably broad-based growth. The traction is much coming from travel, Hi-tech and Retail/CPG verticals. Top customer growth is broad based, both top-client to 2-10 and also 11-20 are posting strong growth.

- **BFSI:** The Company expects BFSI vertical to improve in FY20.BFSI margins were seeing some softness in last few quarters due to client specific issue however the management expects margin to improve soon.

- **Higher capex:** The Company's strategy to invest in onshore requires higher capex .The Company continues to have higher capex in FY20too. The company sees investment in capex as a mechanism to drive growth momentum forward and also a mechanism to make sure local force to support the company's onshore work

- **Demand environment :** The company sees a optimistic demand environment across all the verticals in FY20.With strong pipeline and robust delivery track record gives the company the confidence to continue to maintain the growth momentum in FY20.Taking all the factor in consideration , the company is confident of growing FY20 revenue in lower teens range in constant currency terms .
- **L&T bid**: The Company has examined the legal issue related to open offer news and have asked SEBI for the classification.

- **Outlook on margins for FY20:**

  - For full year, the company in FY20 is going through salary revision in two rounds that will impact the margins accordingly.
  - New accounting standards for Lease effective April 1, 2019 which defines single lessee accounting model that will bring substantial visibility of office lease commitment and improve the transparency of financial closure .With the implementation of this standard, the company's reported EBITDA is expected to increase by 100 to 150 bps due to reclassification and minor drop in PAT and earnings per share for FY20.
  - The company plans to hire 2200 campus graduates during the year. The company has applied for lesser number of visas, thus the visa cost impact in 1QFY20 and for FY20 will be insignificant .The company plan to hire only local workforce.
  - The company target is to improve margins by 100-120bp (excluding currency) for the full year. The levers that are expected to support 1) Operational parameters leveraging the pyramid, [2] Pricing given the traction in Digital. Subcontracting costs may inch a little more in FY20 (now at 7% of revenues).

Exhibit: Revenue trend

Large order booking and continued growth in segment, resulted in 19% YoY in FY19.

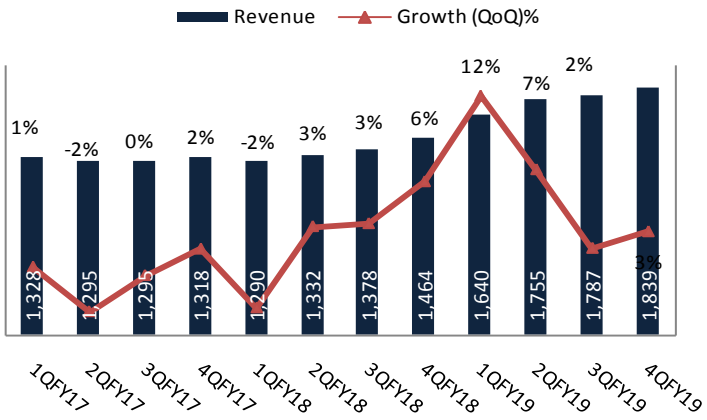


Exhibit: Digital Revenue

Momentum continued in digital, now contributes approx half of the revenue (49.5%).

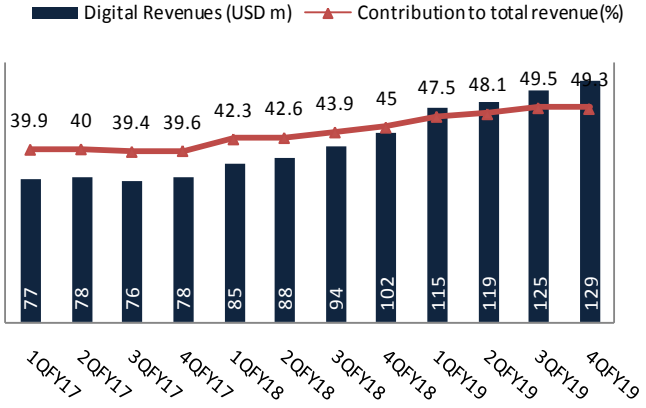


Exhibit: Margin Trend

Investment led margin decline in 4QFY19.FY20 to see margin improvement.

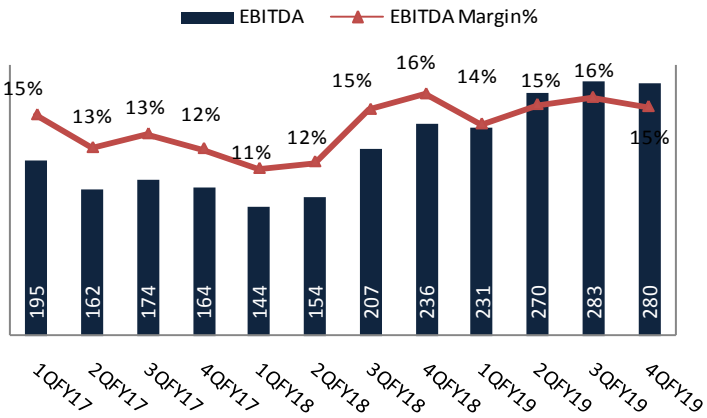


Exhibit: Attrition trend

Attrition is still in controlled level, however further increase can become concern for the company .

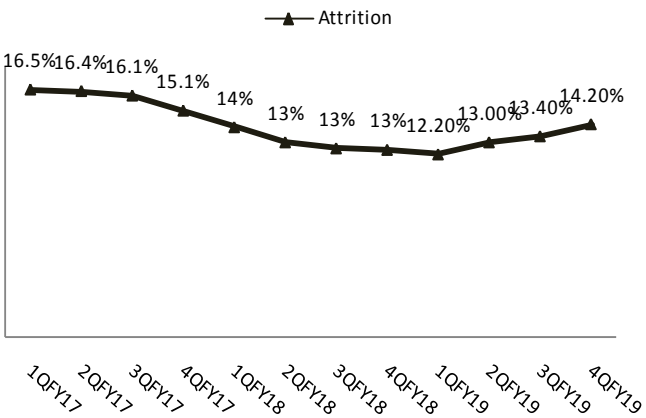


Exhibit: Deal wins

Deal wins lowest in last few quarters

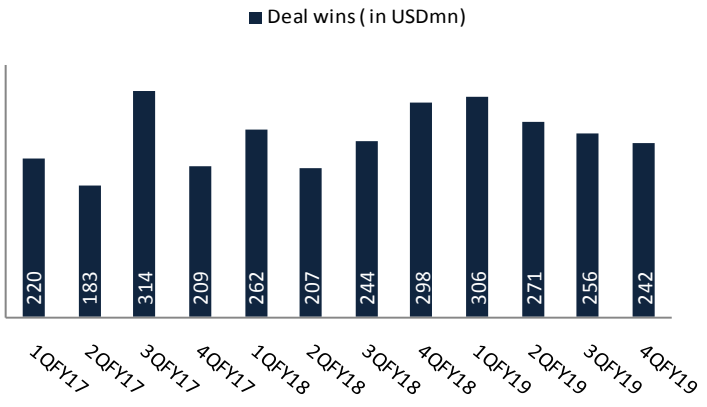
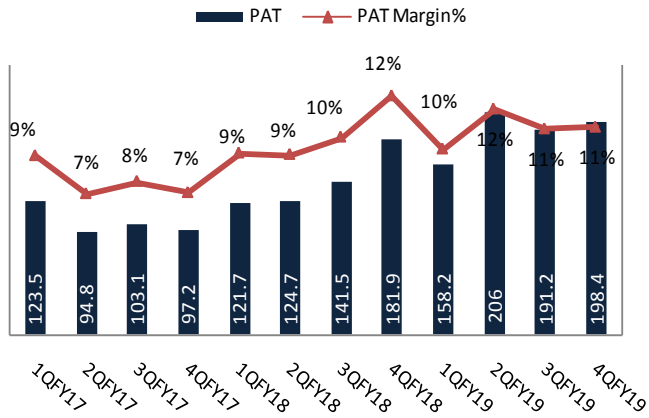


Exhibit: Attrition trend

Other income led to Pat growth in 4QFY19



Operational Details

Industry Revenue	1QFY18	2QFY18	3QFY18	4QFY18	1QFY19	2QFY19	3QFY19	4QFY19
Technology	37.9%	37.8%	36.6%	37.6%	38.9%	39.3%	39.3%	39.6%
BFSI	25.1%	24.8%	24.8%	22.5%	22.3%	22.4%	21.7%	21.8%
Retail,CPG & Mfg	22.7%	22.9%	23.3%	24.0%	23.1%	21.7%	22.3%	22.2%
Travel & Hospitality	14.3%	14.5%	15.3%	15.9%	15.8%	16.7%	16.7%	16.4%
Service offering	**1QFY18**	**2QFY18**	**3QFY18**	**4QFY18**	**1QFY19**	**2QFY19**	**3QFY19**	**4QFY19**
ADM	51.2%	50.0%	50.2%	50.3%	50.8%	50.8%	50.7%	50.7%
Consulting	3.4%	4.0%	4.0%	3.9%	3.4%	3.1%	3.2%	3.3%
Package Implementation	11.5%	11.2%	11.3%	11.2%	10.6%	8.8%	9.0%	8.1%
IP Led	1.1%	1.0%	0.9%	0.9%	0.6%	0.8%	0.8%	1.1%
Independent Testing	11.8%	12.1%	12.6%	12.7%	13.1%	13.1%	12.9%	12.9%
IMS	21.0%	21.8%	21.1%	21.0%	21.6%	23.4%	23.4%	23.3%
Geography	**1QFY18**	**2QFY18**	**3QFY18**	**4QFY18**	**1QFY19**	**2QFY19**	**3QFY19**	**4QFY19**
US	69.6%	67.5%	69.7%	71.0%	72.7%	73.6%	73.4%	73.6%
Europe	21.1%	22.8%	20.9%	21.1%	20.1%	18.7%	18.7%	18.5%
India	3.0%	3.5%	3.2%	3.2%	3.1%	3.3%	3.6%	3.7%
Rest of the World	6.3%	6.3%	6.2%	4.7%	4.2%	4.4%	4.2%	4.2%
Project Type	**1QFY18**	**2QFY18**	**3QFY18**	**4QFY18**	**1QFY19**	**2QFY19**	**3QFY19**	**4QFY19**
Fixed Cost	52.9%	55.5%	56.4%	56.8%	56.4%	56.1%	56.0%	55.9%
Time & Materials	47.1%	44.5%	43.6%	43.2%	43.6%	43.9%	44.0%	44.1%
Utilization	**1QFY18**	**2QFY18**	**3QFY18**	**4QFY18**	**1QFY19**	**2QFY19**	**3QFY19**	**4QFY19**
Including Trainees	73.2%	73.2%	72.8%	73.8%	75.4%	74.5%	74.6%	75.3%
Excluding Trainees	73.8%	74.6%	74.3%	75.2%	76.3%	76.5%	76.4%	77.1%
Client	**1QFY18**	**2QFY18**	**3QFY18**	**4QFY18**	**1QFY19**	**2QFY19**	**3QFY19**	**4QFY19**
Top Client	15.3%	16.1%	16.6%	17.8%	19.4%	20.2%	20.0%	19.8%
Top 5 Clients	30.1%	30.1%	31.6%	32.0%	32.3%	33.8%	33.8%	33.2%
Deal wins	**1QFY18**	**2QFY18**	**3QFY18**	**4QFY18**	**1QFY19**	**2QFY19**	**3QFY19**	**4QFY19**
Renewals	219	130	187	256	255	222	184	158
New	43	77	57	42	51	49	72	84
Total	262	207	244	298	306	271	256	242
Expiring within 1 year	198	166	206	237	259	198	212	218
Expiring within 1 year	64	41	38	61	47	73	44	23
Client Details	**1QFY18**	**2QFY18**	**3QFY18**	**4QFY18**	**1QFY19**	**2QFY19**	**3QFY19**	**4QFY19**
Number of Active clients	336	327	344	338	339	341	340	349
New Clients Added	20	24	28	23	24	18	23	15
$1 mn clients	113	114	114	118	117	111	116	120
$5 mn clients	33	38	37	38	39	44	44	45
$10 mn clients	16	16	15	17	19	21	21	23
$25 mn clients	3	3	3	4	4	4	4	4
$50 mn clients	1	1	1	1	1	1	1	1
$100 mn clients	1	1	1	1	1	1	1	1
Attrition(%)	**1QFY18**	**2QFY18**	**3QFY18**	**4QFY18**	**1QFY19**	**2QFY19**	**3QFY19**	**4QFY19**
Onsite	14.0%	13.0%	12.6%	12.5%	12.2%	13.0%	13.4%	14.2%
Employee metrics	**1QFY18**	**2QFY18**	**3QFY18**	**4QFY18**	**1QFY19**	**2QFY19**	**3QFY19**	**4QFY19**
Total Mindtree Minds	16561	16910	17200	17723	18990	19402	19908	20204
Software Professionals	15441	15782	16068	16595	17837	18214	18713	19017
Sales	268	276	273	255	242	243	257	256
Support	852	852	859	873	911	945	938	931
Gross Additions	645	856	857	1102	1934	1126	1214	1072
Net Additions	91	349	290	523	1267	412	506	296

Financial Details

Balance Sheet

Y/E March	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20E
Share Capital	42	42	84	168	168	164	164	164
Reserves	1272	1599	1929	2247	2409	2578	3142	3629
Networth	**1314**	**1641**	**2012**	**2415**	**2577**	**2741**	**3306**	**3793**
Debt	25	3	2	43	99	301	1	1
Other Non Cur Liab	6	17	33	86	30	9	17	17
Total Capital Employed	1344	1660	2049	2544	2706	3051	3324	3811
Net Fixed Assets (incl CWIP)	316	393	591	704	594	512	523	519
Non Cur Investments	23	18	1	6	6	6	120	120
Other Non Cur Asst	518	613	802	1443	1324	1228	1292	1288
Non Curr Assets	**541**	**631**	**802**	**1450**	**1330**	**1233**	**1412**	**1408**
Debtors	451	600	696	973	896	1016	1336	1523
Cash and cash equivalents	125	118	376	233	251	328	256	207
Other Curr Assets	128	173	162	115	103	129	227	259
Current investments	403	516	534	227	587	721	684	1086
current financial asset	43	61	84	280	224	310	265	267
Curr Assets	**1150**	**1469**	**1853**	**1827**	**2061**	**2503**	**2767**	**3342**
Creditors	19	8	54	189	165	171	213	243
Provisons	111	157	206	129	111	122	140	160
Other Curr Liab	217	274	347	105	113	180	243	278
Current tax liabilities	0	0	0	35	32	32	75	74.9
Other financial liability	0	0	0	275	264	181	184	183.7
Curr Liabilities	**347**	**439**	**606**	**733**	**684**	**686**	**855**	**938.868**
Net Curr Assets	803	1029	1246	1095	1377	1817	1912	2403.51
Total Assets	**1691**	**2099**	**2655**	**3277**	**3391**	**3736**	**4179**	**4749.97**

Income Statement

Y/E March	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20E
Revenue from Operation	**2,362**	**3,032**	**3,562**	**4,673**	**5,236**	**5,463**	**7,022**	**8,009**
Change (%)	23%	28%	17%	31%	12%	4%	29%	14%
	-	-	-	-	-	-	-	-
EBITDA	**452**	**610**	**709**	**821**	**705**	**741**	**1,065**	**1,324**
Change (%)	54%	35%	16%	16%	-14%	5%	44%	24%
Margin (%)	19%	20%	20%	18%	13%	14%	15%	17%
Depr & Amor.	62	81	102	166	186	172	164	221
EBIT	**390**	**529**	**607**	**655**	**519**	**569**	**900**	**1,103**
Int. & other fin. Cost	1	0	0	16	19	17	3	-
Other Income	35	50	84	84	55	190	89	100
EBT	**424**	**578**	**691**	**723**	**555**	**742**	**987**	**1,203**
Exp Item	-	-	-	-	-	-	-	-
Tax	85	128	155	171	136	172	233	325
Minority Int & P/L share of Ass.	-	-	-	-	-	-	-	-
Reported PAT	339	451	536	553	419	570	754	878
Adjusted PAT	**339**	**451**	**536**	**553**	**419**	**570**	**754**	**878**
Change (%)	55%	33%	19%	3%	-24%	36%	32%	16%
Margin(%)	14%	15%	15%	12%	8%	10%	11%	11%

Financial Details

Key Ratios

Y/E March	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20E
ROE	25.8%	27.5%	26.6%	22.9%	16.2%	20.8%	22.8%	23.1%
ROCE	29.0%	31.9%	29.7%	25.8%	19.2%	18.7%	27.1%	28.9%
Asset Turnover	1	1	1	1	1	1	1	2
Current Ratio	3	3	3	2	3	4	3	4
Debtor Days	70	72	71	76	62	68	69	69
Book Value Per Share	316	394	240	144	153	167	201	231
Payable Days	3	1	5	15	12	11	11	11
Earnings Per Share	82	108	64	33	25	35	46	53
P/E	11	12	20	20	18	21	21	18
Price / Book Value	3	3	5	5	3	4	5	4
EV/EBITDA	8	9	15	13	11	16	15	12
EV/Sales	2	2	3	2	1	2	2	2
Dividend Payout%	4%	6%	13%	38%	40%	29%	72%	37%

Cash Flow Statement

Y/E March	FY13	FY14	FY15	FY16	FY17	FY18	FY19E	FY20E
PAT	424	578	691	553	419	570	754	878
(inc)/Dec in Working Capital	-60	-177	3	-252	122	-83	-299	-138
Non Cash Op Exp	0	50	59	314	290	241	164	221
Int Paid (+)	0	0	0	0	0	0	0	0
Tax Paid	-97	-130	-154	-194	-177	-163	0	0
others	0	0	0	0	0	0	0	0
CF from Op. Activities	**266**	**322**	**598**	**421**	**654**	**564**	**1011**	**962**
(inc)/Dec in FA & CWIP	-107	-152	-200	-158	-87	-102	-175	-217
Free Cashflow	160	170	399	263	566	462	835	745
(Pur)/Sale of Inv	1022	1050	1025	1339	989	1377	0	0
others	-1320	-1426	-1435	-1923	-1530	-1679	-314	-837
CF from Inv. Activities	**-192**	**-224**	**-210**	**-426**	**-453**	**-200**	**-138**	**-620**
inc/(dec) in NW	32	6	7	2	1	0	1	0
inc/(dec) in Debt	-22	-25	0	41	55	196	-300	0
Int. Paid	-1	-1	0	0	0	-5	0	0
Div Paid (inc tax)	-21	-92	-144	-215	-193	-214	-645	-391
others	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CF from Fin. Activities	**-13**	**-111**	**-138**	**-172**	**-138**	**-288**	**-944**	**-391**
Inc(Dec) in Cash	62	-14	251	-176	63	77	-72	-49
Add: Opening Balance	**63**	**132**	**125**	**370**	**188**	**251**	**328**	**256**
Closing Balance	**125**	**118**	**376**	**194**	**251**	**328**	**256**	**207**

Narnolia Financial Advisors Ltd. is a SEBI registered Research Analyst having SEBI Registration No. INH300006500. The Company/Analyst (s) does/do not have any holding in the stocks discussed but these stocks may have been recommended to clients in the past. Clients of Narnolia Financial Advisors Ltd. may be holding aforesaid stocks.

The stocks recommended are based on our analysis which is based on information obtained from public sources and sources believed to be reliable, but no independent verification has been made nor is its accuracy or completeness guaranteed.

Disclosures: Narnolia Financial Advisors Ltd. (NFAL) (FormerlyMicrosec Capital Ltd.) is a SEBI Registered Research Analyst having registration no. INH300006500. NFALis engaged in the business of providing Stock Broking, Depository Participant, Merchant Banking, Portfolio Management & distribution of various financial products. Details of associate entities of NFAL is available on the website at www.narnolia.com

No penalties have been levied on NFAL by any Regulatory/Statutory authority. NFAL, it's associates, Research Analyst or their relative may have financial interest in the subject company. NFAL and/or its associates and/or Research Analyst may have 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. NFAL 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 NFAL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report. Research Analyst may have served as director/officer, etc. in the subject company in the last 12 month period. NFAL and/or its associates may have received compensation from the subject company in the past 12 months. In the last 12 months period ending on the last day of the month immediately preceding the date of publication of this research report, NFAL or any of its associates may have: a) managed or co-managed public offering of securities from subject company of this research report, b) received compensation for investment banking or merchant banking or brokerage services from subject company of this research report, c) received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report. d) Subject Company may have been a client of NFAL or its associates during 12 months preceding the date of distribution of the research report. NFAL and it's associates have not received any compensation or other benefits from the Subject Company or third party in connection with the research report. NFAL and / or its affiliates may do and seek to do business including Investment Banking with companies covered in the research reports. As a result, the recipients of this report should be aware that NFAL 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. Research Analyst's views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of NFAL or its associates maintains arm's length distance with Research Team as all the activities are segregated from NFAL research activity and therefore it can have an independent view with regards to subject company for which Research Team have expressed their views.

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.

Disclosure of Interest Statement-

Analyst's ownership of the stocks mentioned in the Report	NIL

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com.

Correspondence Office Address: Arch Waterfront, 5th Floor, Block GP, Saltlake, Sector 5, Kolkata 700 091; Tel No.: 033-40541700; www.narnolia.com.

Registered Office Address: Marble Arch, Office 201, 2nd Floor, 236B, AJC Bose Road, Kolkata 700 020; Tel No.: 033-4050 1500; www.narnolia.com

Compliance Officer: Manish Kr Agarwal, Email Id: mkagarwal@narnolia.com, Contact No.:033-40541700.

Registration details of Company: Narnolia Financial Advisors Ltd. (NFAL): SEBI Stock Broker Registration: INZ000166737 (NSE/BSE/MSEI); NSDL/CDSL: IN-DP-380-2018; Research Analyst: INH300006500, Merchant Banking: (Registration No.: INM000010791), PMS: (Registration No.: INP000002304), AMFI Registered Mutual Fund distributor: ARN 3087

Registration Details of Group entities: G. Raj & Company Consultants Ltd (G RAJ)-BSE Broker INZ260010731; NSDL DP: IN-DP-NSDL-371-2014 || Narnolia Commerze Limited (Formerly Microsec Commerze Ltd.)-MCX/NCDEX Commodities Broker: INZ000051636 || NarnoliaVelox Advisory Ltd.- SEBI Registered PMS: INP000005109 || Eastwind Capital Advisors Pvt Ltd. (EASTWIND)-SEBI Registered Investment Adviser: INA300005439 || Narnolia Insurance Brokers Limited (Formerly Microsec Insurance Brokers Ltd.)-IRDA Licensed Direct Insurance Broker (Life & Non-Life) Certificate No. 134, License No. DB046/02 || Narnolia Securities Ltd. (NSL)-AMFI Registered Mutual Fund distributor: ARN 20558, PFRDA NPS POP: 27092018 || Narnolia Capital Advisors Pvt. Ltd. - RBI Registered NBFC:B.05.02568.

Disclaimer:

This report has been prepared by Narnolia Financial Advisors Ltd. (NFAL)and is meant for sole use by the recipient and not for public 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 NFAL. 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. 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. 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.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 his/her/its own advisors to determine the merits and risks of such an investment. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. NFAL will not treat recipients as customers by virtue of their receiving this report. Neither the Company, 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 or lost opportunities that may arise from or in connection with the use of the information/report. The person accessing this information specifically agrees to exempt NFAL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold NFAL or any of its affiliates or employees responsible for any such misuse and further agrees to hold NFAL 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 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 NFAL & its group companies to registration or licensing requirements within such jurisdictions.