



Telecommunications



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JIO continues to gain RMS as Idea and Vodafone slip

- Adjusted gross revenue (including NLD revenue) for the industry increased 1.3% qoq (down 12.0% yoy) to Rs321.8bn for Q1FY19, driven by NLD revenues. NLD revenue stood at Rs81.3bn, up 9% qoq and 15% yoy. JIO's revenue market share (RMS) stood at 22.4% in Q1FY19 and 19.8% in Q4FY18.
- Among the incumbents, Vodafone recorded the highest qoq revenue decline (7%), followed by Idea (5%). Meanwhile, Bharti Airtel recorded a 1% qoq increase in revenue with RMS of 31.7% (flat qoq). Vodafone + Idea combined revenue market share stood at 34.7%, down 281bps qoq.
- JIO has surpassed Vodafone to claim the no. 2 position. JIO is the no. 1 operator in 10 circles compared with 5 circles in Q4FY18. These circles contribute 47% of its revenue and 38% of the total industry revenue.
- Hyper-competition in the sector is expected to prevail as JIO's focus will remain on subscriber market share. In our view, incumbents' revenue should continue to remain under pressure in near term amid pricing pressure. We continue to believe that Idea and Vodafone are more vulnerable to market share losses to JIO during the transition period of their merger.
- Consolidated AGR (including NLD revenue) for the industry increased 1.3% qoq (down 12.0% yoy) to Rs321.8bn in Q1FY19, adversely affected by the continuing hyper competition in the sector. Vodafone and Idea reported a revenue decline of 7.1%/5.2% qoq, whereas Bharti reported a 1% increase qoq. The RMS of Bharti/Vodafone/Idea stood at 31.7%/19.3%/15.4%. JIO's RMS was 22.4% vs. 19.8% a quarter earlier up 253bps. The combined revenue of the incumbents declined 3% qoq (23% yoy), with market share contracting 290bps qoq to 66.4%, mainly due to the negative performance of Idea and Vodafone.
- RMS (ex-NLD revenue) of Airtel/Vodafone/Idea stood at 28.0%/18.6%/15.6%. However, note that all comparisons, unless specified, are based on revenue. Idea and Vodafone have lost market share in Andhra Pradesh, Gujarat, Rajasthan, Haryana and Madhya Pradesh, which contribute to 37% and 20% of their total respective AGR whereas JIO has gained market share in the above circles. The primary reason for this is the non-availability of circlewise NLD revenue. Our circle-wise analysis is based on revenue (ex-NLD).
- JIO: AGR (including NLD) increased 14% qoq to Rs72bn from Rs63bn. RMS expanded 253bps qoq to 22.4% from 19.8% in Q4FY18. Gross revenue (including NLD) stood at Rs100bn vs. Rs86bn in Q4FY18 up 16.1% qoq. JIO is the no. 1 operator in 10 circles vs. 5 circles in Q4FY18. These circles contribute 47% of JIO's revenue and 38% of the total industry revenue. The AGR of JIO's top-7 circles' rose 11% yoy.
- Airtel: AGR (including NLD) rose 1% qoq (down 18.0% yoy) to Rs102bn, with a RMS of 31.7% (-12bps qoq and -228bps yoy). Revenue from the top-7 circles declined 6% qoq and contributed 63% to the total revenue. Airtel reported revenue declines in 14 circles.
- Idea: Revenue (including NLD) declined 5% qoq (29% yoy) to Rs49.6bn, with a RMS of 15.4% (-106bps qoq and -355bps yoy). Sixteen circles registered a sequential decline in revenue. The top-7 circles (contributing 74% to AGR) saw a decline of 6% qoq (36% yoy).
- Vodafone: AGR (including NLD) declined 7% qoq (25% yoy) to Rs62bn, with a RMS of 19.3% (-175bps qoq and -342bps yoy). Of the 22 circles, 17 saw revenue declines. AGR for the top-7 circles (contributing 65% to the total revenue) was down 1% qoq (33% yoy).
- Others: BSNL recorded a 12.6% qoq decline in revenue, with a RMS of 4.5% (-59bps qoq).
 MTNL reported a 3% qoq increase in revenue, driven by a meaningful increase in the revenue of the Mumbai circle.

Bharti Airtel	HOLD
CMP	Target Price
377	356

Price Performance											
(%)	1M	3M	6M	12M							
Absolute	3	(1)	(12)	(12)							
Rel. to Nifty	-	(10)	(21)	(26)							

Source: Bloomberg

Relative price chart



Source: Bloomberg

Idea Cellular	SELL
CMP	Target Price
50	39

Price Perform	Price Performance											
(%)	1M	3M	6M	12M								
Absolute	(12)	(20)	(41)	(43)								
Rel. to Nifty	(15)	(28)	(47)	(52)								

Source: Bloomberg

Relative price chart



Source: Bloombera

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Exhibit 1: Circle-wise AGR trend (Rs mn)

Circle	Q1FY18	Q4FY18	Q1FY19	QoQ	YoY		Rank		
Circle	QIFTIO	Q4F110	QIFTIS	QUQ	101	Bharti	Vodafone	Idea	JIO
Metros									
Delhi	15610	9,084	10,629	17%	-32%	1	3	7	2
Mumbai	14243	10,110	11,218	11%	-21%	3	1	5	2
Kolkata	6472	5,893	5,228	-11%	-19%	2	1	4	3
A Circles									
Maharashtra	26202	22,833	21,142	-7%	-19%	4	3	1	2
Gujarat	15386.5	14,353	13,948	-3%	-9%	4	1	3	2
Andhra Pradesh	24318	21,760	21,266	-2%	-13%	1	5	3	2
Karnataka	22532	18,610	18,481	-1%	-18%	1	3	4	2
Tamil Nadu & Chennai	26464	20,402	21,826	7%	-18%	1	2	5	3
B Circles									
Kerala	14767	11,636	11,426	-2%	-23%	5	2	1	3
Punjab	9440	7,875	8,102	3%	-14%	2	5	3	1
Haryana*	4702.4	5,802	4,121	-29%	-12%	4	2	3	1
UP - West	13772.5	11,771	10,792	-8%	-22%	3	4	2	1
UP - East	22144.9	16,483	15,995	-3%	-28%	2	3	4	1
Rajasthan	14464	11,573	11,654	1%	-19%	2	3	4	1
Madhya Pradesh	15522.3	14,038	13,819	-2%	-11%	3	5	2	1
West Bengal	10857	8,921	10,005	12%	-8%	3	1	4	2
C Circles									
HP	1936	1,733	1,870	8%	-3%	2	6	4	1
Bihar	18071.2	15,769	13,748	-13%	-24%	2	4	3	1
Odisha	6009	6,229	5,665	-9%	-6%	2	3	5	1
Assam	5896	4,568	4,823	6%	-18%	2	3	5	1
North East	3210	2,110	2,438	16%	-24%	1	3	5	2
J&K	2993	1,822	2,353	29%	-21%	1	5	4	2
Total	295010	243376	240548	-1%	-18%	2	3	4	1

Source: Company, Emkay Research. * Sharp increase in AGR in Haryana is attributable to BSNL's negative AGR in Q3FY18 turning positive in Q4FY18

Exhibit 2: Sequential AGR growth/decline trend across major circles

AGR (% qoq)	Q4FY17	Q1FY18	Q1FY18	Q2FY18	Q3FY18	Q4FY18	Q1FY19
Delhi	-31%	0%	-12%	0%	-20%	-27%	17%
Mumbai	-24%	0%	-8%	5%	-14%	-21%	11%
Maharashtra	-11%	0%	-6%	1%	-9%	-6%	-7%
Gujarat	-21%	0%	-7%	10%	-7%	-9%	-3%
Andhra Pradesh	-14%	0%	-6%	7%	-9%	-9%	-2%
Karnataka	-19%	0%	-6%	4%	-11%	-11%	-1%
Tamil Nadu & Chennai	-22%	0%	-5%	5%	-10%	-19%	7%
UP - East	-7%	0%	0%	-1%	-10%	-16%	-3%
Madhya Pradesh	-14%	0%	1%	5%	-9%	-5%	-2%
Bihar	-3%	0%	1%	2%	-11%	-4%	-13%
Total	-17%	0%	-5%	4%	-11%	-12%	-1%

Source: Company, Emkay Research

Exhibit 3: Market share of proposed merged entities

AGR market share	Q4FY17	Q1FY18	Q2FY18	Q3FY18	Q4FY18	Q1FY19
Bharti + Telenor + Tata	42%	41%	36%	34%	31%	31%
Vodafone + Idea	44%	45%	38%	38%	38%	34.2%

Source: Company, Emkay Research

Exhibit 4: AGR including NLD AGR (Rs mn)

	Q1Y17	Q2Y17	Q3Y17	Q4Y17	Q1Y18	Q2Y18	Q3Y18	Q4Y18	Q1Y19	%QoQ	%YoY
Bharti Airtel	1,46,329	1,43,582	1,34,100	1,25,209	1,24,240	1,16,334	1,06,883	1,00,983	1,01,921	0.9%	-18.0%
Vodafone	98,574	95,975	91,838	83,370	83,096	75,425	70,226	66,838	62,068	-7.1%	-25.3%
Idea Cellular	83,625	79,020	75,436	70,475	69,417	61,835	57,381	52,359	49,630	-5.2%	-28.5%
JIO						44,014	53,375	63,043	72,004	14.2%	na
RCom	19,930	15,963	15,362	13,240	10,749	11,528	5,735	2,521	2,956	17.2%	-72.5%
Tata Tele	28,231	27,199	23,656	20,633	18,645	17,674	12,836	3,740	5,540	48.1%	-70.3%
BSNL	33,486	37,807	34,009	33,369	32,889	28,063	17,854	23,706	25,312	6.8%	-23.0%
Aircel	23,583	23,205	21,100	17,237	17,156	15,487	12,737	0	0		
MTNL	1,355	1,461	1,691	1,266	1,370	983	412	868	895	3.1%	-34.7%
Shyam Sistema	3,027	2,745	2,001	1,577	1,192	811	230	0	0		
HFCL Infotel Ltd.	509	237	335	42	0	46	119	59	59	-0.5%	na
Uninor	10,519	8,892	8,603	8,148	7,157	6,458	4,916	3,573	1,441	-59.7%	-79.9%
DB Etisalat	0	0	0	0	0	0	0	0	0		
Stel	0	0	0	0	0	0	0	0	0		
Videocon	0	0	0	0	0	0	0	0	0		
Total	4,49,167	4,36,084	4,08,131	3,74,566	3,65,910	3,78,657	3,42,704	3,17,691	3,21,826	1.3%	-12.0%

Exhibit 5: AGR market share including NLD revenue (in %)

Q1Y17	Q2Y17	Q3Y17	Q4Y17	Q1Y18	Q2Y18	Q3Y18	Q4FY18	Q1FY19
32.6%	32.9%	32.9%	33.4%	34.0%	30.7%	31.2%	31.8%	31.7%
21.9%	22.0%	22.5%	22.3%	22.7%	19.9%	20.5%	21.0%	19.3%
18.6%	18.1%	18.5%	18.8%	19.0%	16.3%	16.7%	16.5%	15.4%
0.0%	0.0%	0.0%	0.0%	0.0%	11.6%	15.6%	19.8%	22.4%
4.4%	3.7%	3.8%	3.5%	2.9%	3.0%	1.7%	1.2%	0.9%
6.3%	6.2%	5.8%	5.5%	5.1%	4.7%	3.7%	7.5%	1.7%
7.5%	8.7%	8.3%	8.9%	9.0%	7.4%	5.2%	0.0%	7.9%
5.3%	5.3%	5.2%	4.6%	4.7%	4.1%	3.7%	0.3%	0.0%
0.3%	0.3%	0.4%	0.3%	0.4%	0.3%	0.1%	1.2%	0.3%
0.7%	0.6%	0.5%	0.4%	0.3%	0.2%	0.1%	0.0%	
0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2.3%	2.0%	2.1%	2.2%	2.0%	1.7%	1.4%	1.1%	0.0%
	32.6% 21.9% 18.6% 0.0% 4.4% 6.3% 7.5% 5.3% 0.3% 0.7%	32.6% 32.9% 21.9% 22.0% 18.6% 18.1% 0.0% 0.0% 4.4% 3.7% 6.3% 6.2% 7.5% 8.7% 5.3% 5.3% 0.3% 0.3% 0.7% 0.6% 0.1% 0.1%	32.6% 32.9% 32.9% 21.9% 22.0% 22.5% 18.6% 18.1% 18.5% 0.0% 0.0% 0.0% 4.4% 3.7% 3.8% 6.3% 6.2% 5.8% 7.5% 8.7% 8.3% 5.3% 5.3% 5.2% 0.3% 0.3% 0.4% 0.7% 0.6% 0.5% 0.1% 0.1% 0.1%	32.6% 32.9% 32.9% 33.4% 21.9% 22.0% 22.5% 22.3% 18.6% 18.1% 18.5% 18.8% 0.0% 0.0% 0.0% 0.0% 4.4% 3.7% 3.8% 3.5% 6.3% 6.2% 5.8% 5.5% 7.5% 8.7% 8.3% 8.9% 5.3% 5.3% 5.2% 4.6% 0.3% 0.3% 0.4% 0.3% 0.7% 0.6% 0.5% 0.4% 0.1% 0.1% 0.1% 0.0%	32.6% 32.9% 32.9% 33.4% 34.0% 21.9% 22.0% 22.5% 22.3% 22.7% 18.6% 18.1% 18.5% 18.8% 19.0% 0.0% 0.0% 0.0% 0.0% 0.0% 4.4% 3.7% 3.8% 3.5% 2.9% 6.3% 6.2% 5.8% 5.5% 5.1% 7.5% 8.7% 8.3% 8.9% 9.0% 5.3% 5.3% 5.2% 4.6% 4.7% 0.3% 0.3% 0.4% 0.3% 0.4% 0.7% 0.6% 0.5% 0.4% 0.3% 0.1% 0.1% 0.1% 0.0% 0.0%	32.6% 32.9% 32.9% 33.4% 34.0% 30.7% 21.9% 22.0% 22.5% 22.3% 22.7% 19.9% 18.6% 18.1% 18.5% 18.8% 19.0% 16.3% 0.0% 0.0% 0.0% 0.0% 11.6% 4.4% 3.7% 3.8% 3.5% 2.9% 3.0% 6.3% 6.2% 5.8% 5.5% 5.1% 4.7% 7.5% 8.7% 8.3% 8.9% 9.0% 7.4% 5.3% 5.3% 5.2% 4.6% 4.7% 4.1% 0.3% 0.3% 0.4% 0.3% 0.4% 0.3% 0.7% 0.6% 0.5% 0.4% 0.3% 0.2% 0.1% 0.1% 0.1% 0.0% 0.0% 0.0%	32.6% 32.9% 32.9% 33.4% 34.0% 30.7% 31.2% 21.9% 22.0% 22.5% 22.3% 22.7% 19.9% 20.5% 18.6% 18.1% 18.5% 18.8% 19.0% 16.3% 16.7% 0.0% 0.0% 0.0% 0.0% 11.6% 15.6% 4.4% 3.7% 3.8% 3.5% 2.9% 3.0% 1.7% 6.3% 6.2% 5.8% 5.5% 5.1% 4.7% 3.7% 7.5% 8.7% 8.3% 8.9% 9.0% 7.4% 5.2% 5.3% 5.3% 5.2% 4.6% 4.7% 4.1% 3.7% 0.3% 0.3% 0.4% 0.3% 0.4% 0.3% 0.1% 0.7% 0.6% 0.5% 0.4% 0.3% 0.2% 0.1% 0.1% 0.1% 0.1% 0.0% 0.0% 0.0% 0.0%	32.6% 32.9% 32.9% 33.4% 34.0% 30.7% 31.2% 31.8% 21.9% 22.0% 22.5% 22.3% 22.7% 19.9% 20.5% 21.0% 18.6% 18.1% 18.5% 18.8% 19.0% 16.3% 16.7% 16.5% 0.0% 0.0% 0.0% 0.0% 11.6% 15.6% 19.8% 4.4% 3.7% 3.8% 3.5% 2.9% 3.0% 1.7% 1.2% 6.3% 6.2% 5.8% 5.5% 5.1% 4.7% 3.7% 7.5% 7.5% 8.7% 8.3% 8.9% 9.0% 7.4% 5.2% 0.0% 5.3% 5.3% 5.2% 4.6% 4.7% 4.1% 3.7% 0.3% 0.3% 0.3% 0.4% 0.3% 0.1% 0.1% 0.0% 0.7% 0.6% 0.5% 0.4% 0.3% 0.2% 0.1% 0.0% 0.1% 0.1% 0.1% 0.0% 0.

Source: Company, Emkay Research

Exhibit 6: Adjusted gross revenue (AGR): Rs mn

Operator	Q1Y17	Q2Y17	Q3Y17	Q4Y17	Q1Y18	Q2Y18	Q3Y18	Q4FY18	Q1FY19	% QoQ	% YoY
Bharti Airtel	1,28,583	1,24,932	1,14,957	1,03,619	98,883	88,466	76,594	70,865	67,235	-5.12%	-32.0%
Vodafone	90,045	87,548	83,045	72,581	70,894	63,044	56,565	50,958	44,837	-12.01%	-36.8%
Idea Cellular	77,989	73,178	69,580	64,011	61,609	53,078	47,461	40,334	37,431	-7.20%	-39.2%
JIO						42,736	54,072	62,176	71,257	14.60%	
RCom	13,610	11,106	9,677	7,330	7,481	8,278	3,712	811	1,491	83.93%	-80.1%
Tata Tele	26,205	25,313	22,094	18,773	17,323	16,655	12,028	2,710	5,540	104.42%	-68.0%
BSNL	18,741	19,982	20,930	19,673	16,167	15,279	9,174	12,514	10,940	-12.58%	-32.3%
Aircel	19,858	19,352	17,639	13,607	14,236	12,856	10,117	0	0		-100.0%
MTNL	1,353	1,459	1,690	1,265	1,369	981	411	868	895	3.09%	-34.6%
Shyam Sistema	3,027	2,743	1,997	1,575	1,191	810	230	0	0		-100.0%
HFCL Infotel	509	237	335	42	0			59	59	-0.51%	
Telenor	8,601	7,169	7,038	6,508	5,859	5,362	3,551	2,080	862	-58.56%	-85.3%
Total	3,88,520	3,73,019	3,48,979	3,08,984	2,95,010	3,07,545	2,74,032	2,43,376	2,40,547	-1.2%	-18.5%

Exhibit 7: AGR market share (%)

Operator	Q1Y17	Q2Y17	Q3Y17	Q4Y17	Q1Y18	Q2Y18	Q3Y18	Q4FY18	Q1FY19
Bharti Airtel	33.1%	33.5%	32.9%	33.5%	33.5%	28.8%	28.0%	29.1%	28.0%
Vodafone	23.2%	23.5%	23.8%	23.5%	24.0%	20.5%	20.6%	20.9%	18.6%
Idea Cellular	20.07%	19.6%	19.9%	20.7%	20.9%	17.3%	17.3%	16.6%	15.6%
JIO						13.9%	19.7%	25.6%	29.6%
RCom	3.5%	3.0%	2.8%	2.4%	2.5%	2.7%	1.4%	0.3%	0.6%
Tata Tele Services	6.7%	6.8%	6.3%	6.1%	5.9%	5.4%	4.4%	1.1%	2.3%
BSNL	4.8%	5.4%	6.0%	6.4%	5.5%	5.0%	3.3%	5.1%	4.5%
Aircel	5.1%	5.2%	5.1%	4.4%	4.8%	4.2%	3.7%	0.0%	0.0%
MTNL	0.3%	0.4%	0.5%	0.4%	0.5%	0.32%	0.15%	0.4%	0.37%
Shyam Sistema	0.8%	0.7%	0.6%	0.5%	0.4%	0.3%	0.1%		
HFCL Infotel	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%		
Telenor	2.2%	1.9%	2.0%	2.1%	2.0%	1.7%	1.3%	0.9%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.4%

Source: Company, Emkay Research

Exhibit 8: AGR market share (%) - Time series of RMS

Operator	Q4FY16	Q1FY17	Q2FY17	Q3FY17	Q4FY17	Q1FY18	Q2FY18	Q3FY18	Q4FY18	Q4FY18	Q1FY19
Bharti Airtel	31.8%	33.1%	33.5%	32.9%	33.5%	33.5%	28.8%	28.0%	28.0%	29.1%	28.0%
Vodafone	22.7%	23.2%	23.5%	23.8%	23.5%	24.0%	20.5%	20.6%	20.6%	20.9%	18.6%
Idea Cellular	20.2%	20.1%	19.6%	19.9%	20.7%	20.9%	17.3%	17.3%	17.3%	16.6%	15.6%
JIO							13.9%	19.7%	19.7%	25.5%	29.6%
Tata Teleservices	6.9%	6.7%	6.8%	6.3%	6.1%	5.9%	5.4%	4.4%	4.4%	1.1%	2.3%
BSNL	5.8%	4.8%	5.4%	6.0%	6.4%	5.5%	5.0%	3.3%	3.3%	5.1%	4.5%
MTNL	0.5%	0.3%	0.4%	0.5%	0.4%	0.5%	0.3%	0.1%	0.1%	0.4%	0.4%
Rcom	3.6%	3.5%	3.0%	2.8%	2.4%	2.5%	2.7%	1.4%	1.4%	0.3%	0.6%
Aircel	5.3%	5.1%	5.2%	5.1%	4.4%	4.8%	4.2%	3.7%	3.7%	0.0%	0.0%
Others	3.3%	3.1%	2.7%	2.7%	2.6%	2.4%	2.0%	1.4%	1.4%	0.9%	0.4%

Source: Company, Emkay Research

Exhibit 9: YoY Incremental AGR (Rs mn)

Operator	Q2Y16	Q3Y16	Q4Y16	Q1FY17	Q2FY17	Q3FY17	Q4FY17	Q1FY18	Q2Y18	Q3Y18	Q4FY18	Q1Y19
Bharti Airtel	15,240	13,842	15,934	13,288	11,065	-1,890	-16,706	-29,700	-36,466	-38,363	-32,754	-31,647
Vodafone	9,247	5,557	7,880	5,534	5,696	654	-13,581	-19,151	-24,504	-26,480	-21,623	-26,057
Idea Cellular	12,456	11,730	12,669	7,967	4,600	-2,145	-12,620	-16,379	-20,100	-22,118	-23,677	-24,178
JIO									42,736	54,072	62,176	71,257
RCom	-1,542	-3,060	-4,699	-5,029	-5,226	-5,862	-6,280	-6,129	-2,828	-5,964	-16,063	-5,990
Tata Tele	1,677	1,248	1,513	321	-20	-3,113	-7,185	-8,882	-8,659	-10,066	-7,159	-11,783
BSNL	3,132	5,083	3,315	-583	-1,976	-1,124	-2,242	-2,574	-4,702	-11,757	-13,607	-5,227
Aircel	1,283	1,069	310	-209	-389	-1,979	-6,421	-5,622	-6,496	-7,522	-397	-14,236
MTNL	-243	-170	85	-256	-158	129	-624	15	-478	-1,279	-16,063	-474
Shyam Sistema	656	211	232	-135	-576	-1,074	-1,565	-1,837	-1,933	-1,766	-1,575	-1,191
HFCL Infotel	-253	64	-29	383	237	-92	10	-509	-191	-216	17	59
Telenor	1,550	1,065	928	283	-1,144	-1,288	-2,059	-2,743	-1,807	-3,487	-4,427	-4,997
Videocon	102	352	28	-517	-447	-632	-590	0	0	0	0	0
Total	42,677	36,991	38,165	21,048	11,664	-18,416	-69,863	-93,510	-65,427	-74,947	-65,609	-54,463

Source: Company, Emkay Research

Exhibit 10: Incremental AGR market share (%)

Operator	Q2Y16	Q3Y16	Q4Y16	Q1FY17	Q2FY17	Q3FY17	Q4FY17	Q1FY18	Q2Y18	Q3Y18	Q4FY18	Q1Y19
Bharti Airtel	35.7%	37.4%	41.7%	63.1%	94.9%	-10.3%	-23.9%	-31.8%	-55.7%	-51.2%	-49.9%	-58.1%
Vodafone	21.7%	15.0%	20.6%	26.3%	48.8%	3.6%	-19.4%	-20.5%	-37.4%	-35.3%	-33.0%	-47.8%
Idea Cellular	29.2%	31.7%	33.2%	37.9%	39.4%	-11.6%	-18.1%	-17.5%	-30.7%	-29.5%	-36.1%	-44.4%
JIO									65.3%	72.1%	94.6%	130.8%
RCom	-3.6%	-8.3%	-12.3%	-23.9%	-44.8%	-31.8%	-9.0%	-6.6%	-4.3%	-8.0%	-9.9%	-11.0%
Tata Tele Services	3.9%	3.4%	4.0%	1.5%	-0.2%	-16.9%	-10.3%	-9.5%	-13.2%	-13.4%	-24.5%	-21.6%
BSNL	7.3%	13.7%	8.7%	-2.8%	-16.9%	-6.1%	-3.2%	-2.8%	-7.2%	-15.7%	-10.9%	-9.6%
Aircel	3.0%	2.9%	0.8%	-1.0%	-3.3%	-10.7%	-9.2%	-6.0%	-9.9%	-10.0%	-20.7%	-26.1%
MTNL	-0.6%	-0.5%	0.2%	-1.2%	-1.4%	0.7%	-0.9%	0.0%	-0.7%	-1.7%	-0.6%	-0.9%
Shyam Sistema	1.5%	0.6%	0.6%	-0.6%	-4.9%	-5.8%	-2.2%	-2.0%	-3.0%	-2.4%	-2.4%	-2.2%
HFCL Infotel	-0.6%	0.2%	-0.1%	1.8%	2.0%	-0.5%	-0.0%	-0.5%	-0.4%	-0.3%	-0.0%	-0.1%
Telenor	3.6%	2.9%	2.4%	1.3%	-9.8%	-7.0%	-2.9%	-2.9%	-2.8%	-4.7%	-6.7%	-9.2%
Videocon	0.2%	1.0%	0.1%	-2.5%	-3.8%	-3.4%	-0.8%					

Source: Company, Emkay Research

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JIO - the market share gain continues

- AGR increased 15% qoq to Rs71bn from Rs62bn. RMS expanded 408bps qoq to 29.6% from 25.5% in Q4FY18. Gross revenue stood at Rs93bn vs. Rs80bn in Q4FY18, up 16.3% qoq.
- JIO is the no. 1 operator in 10 circles vs. 5 circles in Q4FY18. These circles contribute 47% of its revenue and 38% of industry's revenue. AGR from the top-7 circles grew 11% yoy.

Exhibit 11: Circle-wise revenue trend for JIO

Cirolo (Do mn)	Gro	oss revenue		Adjuste	d gross rever	nue	(GR-AGR)	
Circle (Rs mn)	Q3FY18	Q4FY18	Q1FY19	Q3FY18	Q4FY18	Q1FY19	Q3FY18	Q4FY18	Q1FY19
Andhra Pradesh	5,962	6,389	7,442	4,433	4,932	5,583	1,530	1,457	1,860
Assam	1,395	1,753	2,200	1,001	1,460	1,812	393	293	388
Bihar	4,920	6,000	7,302	3,435	4,770	5,735	1,484	1,229	1,568
Tamil Nadu	4,943	5,487	6,287	3,909	4,740	5,380	1,034	747	907
Delhi	4,460	4,535	5,048	2,984	3,158	3,147	1,476	1,377	1,901
Gujarat	5,261	5,575	6,184	3,943	4,318	4,582	1,318	1,258	1,602
Haryana	2,073	1,866	2,202	1,511	1,468	1,754	562	398	448
Himachal Pradesh	694	827	982	520	666	813	174	160	169
Jammu & Kashmir	945	1,097	960	691	904	735	254	193	225
Karnataka	4,194	4,219	4,829	2,948	2,926	3,365	1,246	1,293	1,464
Kerala	2,227	1,940	2,340	1,848	1,604	2,014	379	337	326
Kolkata	2,197	2,348	2,488	1,357	1,416	1,323	840	932	1,166
Madhya Pradesh	4,381	5,134	6,277	3,312	4,203	5,159	1,068	930	1,117
Maharashtra	5,648	6,187	7,243	4,212	4,639	5,189	1,436	1,549	2,054
Mumbai	3,568	3,843	3,772	2,275	2,621	2,659	1,293	1,222	1,113
Odisha	2,007	2,409	2,800	1,439	1,944	2,233	568	465	567
Punjab	3,345	3,163	3,708	2,554	2,556	3,043	791	607	664
Uttar Pradesh (E)	4,673	5,399	6,608	3,116	3,992	4,805	1,557	1,406	1,803
Uttar Pradesh (W)	3,748	3,900	4,556	2,832	3,145	3,654	916	755	903
West Bengal	4,045	3,169	3,984	3,050	2,614	3,261	994	555	723
North East	685	701	924	518	581	775	167	119	149
Rajasthan	2,799	4,326	5,186	2,185	3,517	4,237	614	808	950
Total	74,166	80,265	93,322	54,072	62,176	71,257	20,094	18,089	22,065

Source: Company, Emkay Research

Exhibit 12: Gross revenue in top-7 circles

Circle (Rs mn)	Q3FY18	Q4FY18	Q1FY19	QoQ increase
Andhra Pradesh	4,433	4,932	5,583	13%
Bihar	3,435	4,770	5,735	20%
Tamil Nadu	3,909	4,740	5,380	14%
Delhi	2,984	3,158	3,147	0%
Gujarat	3,943	4,318	4,582	6%
Maharashtra	4,212	4,639	5,189	12%
Mumbai	2,275	2,621	2,659	1%
Total	25,191	29,178	32,275	11%

Source: Company, Emkay Research

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Exhibit 13: JIO (excluding spectrum-sharing deals with RCOM)

Circles	Speci	trum holdir (Mhz)	ng	Rank	Revenue Contribution	AGR Marke	t Share	Gross Reven Shar	
Oil Gles	800	1800	2300	Q1FY19	AGR (Q1FY19)	Q4FY18	Q1FY19	Q4FY18	Q1FY19
Delhi	-	5.4	30.0	2	4.4%	35%	30%	14%	17%
Mumbai	5.0	6.6	30.0	2	3.7%	26%	24%	14%	16%
Kolkata	-	10.0	30.0	3	1.9%	24%	25%	21%	27%
Maharashtra	-	5.0	30.0	2	7.3%	20%	25%	16%	23%
Gujarat	5.0	6.0	30.0	2	6.4%	30%	33%	21%	26%
Andhra Pradesh	-	5.8	30.0	2	7.8%	23%	26%	20%	25%
Karnataka	-	5.0	30.0	2	4.7%	16%	18%	13%	17%
Tamil Nadu & Chennai	-	6.8	30.0	3	7.6%	23%	25%	19%	22%
Kerala	-	5.0	30.0	3	2.8%	14%	18%	12%	16%
Punjab	3.8	5.2	20.0	1	4.3%	32%	38%	20%	26%
Haryana	5.0	5.0	20.0	1	2.5%	25%	43%	17%	25%
UP - West	-	5.0	20.0	1	5.1%	27%	34%	19%	26%
UP - East	5.0	6.4	20.0	1	6.7%	24%	30%	18%	24%
Rajasthan	5.0	10.0	20.0	1	5.9%	30%	36%	21%	27%
Madhya Pradesh	5.0	6.4	30.0	1	7.2%	30%	37%	24%	30%
West Bengal	-	10.6	30.0	2	4.6%	29%	33%	20%	27%
HP	5.0	10.4	30.0	1	1.1%	38%	43%	25%	32%
Bihar	5.0	5.0	30.0	1	8.0%	30%	42%	23%	31%
Orissa	5.0	5.0	30.0	1	3.1%	31%	39%	26%	34%
Assam	5.0	5.4	30.0	1	2.5%	32%	38%	26%	33%
North East	5.0	6.4	30.0	2	1.1%	28%	32%	18%	25%
J&K	5.0	10.0	20.0	2	1.0%	50%	31%	29%	27%
Total	64	146	600	1	100.0%	26%	30%	19%	24%

Source: Company, Emkay Research

Airtel - Sustains RMS in hyper competitive scenario

- Q1FY19 AGR declined 5.1% qoq (32.0% yoy) to Rs67bn, with a RMS of 28.0% (-117bps qoq and -557bps yoy).
- Revenue from the top-7 circles declined 5% qoq and contributed 63% to the total revenue. Airtel reported revenue declines in 14 circles.

Exhibit 14: Circle-wise revenue trend

Circle (Rs mn)	Q1FY18	Q4FY18	Q1FY19	QoQ	YoY
Andhra Pradesh	11310	8709.2	8126	-7%	-28%
Assam	2194.7	1695.4	1599.5	-6%	-27%
Bihar	9587.9	6405.7	4768.9	-26%	-50%
Tamil Nadu	9240.6	7449.2	7870.1	6%	-15%
Delhi	6260.1	3138.6	3922.9	25%	-37%
Gujarat	1842	1139.1	969.2	-15%	-47%
Haryana	741.5	821.1	568.9	-31%	-23%
Himachal Pradesh	1046.9	652.2	685.5	5%	-35%
Jammu & Kashmir	1352.3	258.7	1074.6	315%	-21%
Karnataka	11781.3	9305	9344.9	0%	-21%
Kerala	1713.8	1434.8	1187.9	-17%	-31%
Kolkata	1783.1	1878.6	1459.9	-22%	-18%
Madhya Pradesh	3904.6	3071	2753	-10%	-29%
Maharashtra	4073.8	3283.9	3162	-4%	-22%
Mumbai	3224.2	1822.5	1915	5%	-41%
Odisha	3106.1	2521.7	2061.1	-18%	-34%
Punjab	3479.5	2218.9	2064.8	-7%	-41%
Uttar Pradesh (E)	7482.6	5470.5	4489.5	-18%	-40%
Uttar Pradesh (W)	2680.8	2421.9	1959.5	-19%	-27%
West Bengal	3675.9	2186.6	2270.1	4%	-38%
North East	1532.3	924.9	1017.3	10%	-34%
Rajasthan	6868.8	4055.4	3964.8	-2%	-42%
Total	98,883	70,865	67,235	-5%	-32%
All India NLD	25357.2	30118	34685.8	15%	37%

Source: Company, Emkay Research

Exhibit 15: Top 7 revenue (AGR) contributing circles

Circle (Rs mn)	Q1FY18	Q4FY18	Q1FY19	QoQ	YoY
A. P.	11,310	8,709	8,126	-7%	-28%
Bihar	9,588	6,406	4,769	-26%	-50%
Tamil Nadu	9,241	7,449	7,870	6%	-15%
Delhi	6,260	3,139	3,923	25%	-37%
Karnataka	11,781	9,305	9,345	0%	-21%
U. P. (E)	7,483	5,471	4,490	-18%	-40%
Rajasthan	6,869	4,055	3,965	-2%	-42%
Total	62,531	44,534	42,487	-5%	-32%
Contribution to AGR	63%	63%	63%		

Source: Company, Emkay Research

Exhibit 16: Bharti Airtel

Circles		Spectrum (Mhz	_		Rank	Revenue Contribution	AGR Marke	t Share	Gross Reven	
Circles	900	1800	2100	2300	Q1FY19	AGR (Q1FY19)	Q4FY18	Q1FY19	Q4FY18	Q1FY19
Delhi	6.0	7.0	10.0	30.0	1	5.8%	35%	37%	41%	40%
Mumbai	5.0	20.2	5.0	30.0	3	2.8%	18%	17%	30%	27%
Kolkata	7.0	13.4	-	30.0	2	2.2%	32%	28%	35%	30%
Maharashtra	-	23.2	10.0	20.0	4	4.7%	14%	15%	21%	19%
Gujarat	-	20.6	10.0	30.0	4	1.4%	8%	7%	20%	18%
Andhra Pradesh	9.0	21.4	5.0	30.0	1	12.1%	40%	38%	41%	39%
Karnataka	8.8	13.2	10.0	30.0	1	13.9%	50%	51%	50%	50%
Tamil Nadu & Chennai	-	12.4	10.0	30.0	1	11.7%	37%	36%	40%	38%
Kerala	-	15.6	10.0	20.0	5	1.8%	12%	10%	18%	15%
Punjab	10.0	14.4	5.0	20.0	2	3.1%	28%	25%	36%	32%
Haryana	-	20.6	10.0	20.0	4	0.8%	14%	14%	27%	23%
UP - West	-	22.6	10.0	20.0	3	2.9%	21%	18%	24%	22%
UP - East	6.2	17.2	5.0	20.0	2	6.7%	33%	28%	33%	31%
Rajasthan	6.0	10.0	15.0	20.0	2	5.9%	35%	34%	42%	39%
Madhya Pradesh	-	23.2	10.0	20.0	3	4.1%	22%	20%	27%	24%
West Bengal	6.6	10.6	5.0	30.0	3	3.4%	25%	23%	35%	30%
HP	7.4	14.6	5.0	30.0	2	1.0%	38%	37%	49%	42%
Bihar	7.8	19.4	10.0	30.0	2	7.1%	41%	35%	45%	42%
Orissa	7.4	17.4	5.0	30.0	2	3.1%	40%	36%	45%	41%
Assam	8.0	15.5	5.0	30.0	2	2.4%	37%	33%	43%	38%
North East	8.8	10.0	5.0	30.0	1	1.5%	44%	42%	53%	48%
J&K	6.2	5.0	10.0	20.0	1	1.6%	14%	46%	46%	50%
Total	110	348	170	570	2	100.0%	29%	28%	35%	32%

Source: Company, Emkay Research* Note: We have not merge the Tata Teleservices spectrum holding

Exhibit 17: Bharti Airtel

		Gross Re	venue Marke	et Share			Increment	al AGR Mark	et Share	
Circle	Q1FY18	Q2FY18	Q3FY18	Q4FY18	Q1FY19	Q1FY18	Q2FY18	Q3FY18	Q4FY18	Q1FY19
Delhi	41%	38%	40%	41%	40%	40%	50%	53%	53%	47%
Mumbai	28%	27%	28%	30%	27%	30%	48%	43%	36%	43%
Kolkata	32%	28%	30%	35%	30%	18%	33%	32%	-9%	26%
Maharashtra	21%	19%	19%	21%	19%	21%	40%	39%	24%	18%
Gujarat	20%	17%	18%	20%	18%	20%	49%	43%	45%	61%
Andhra Pradesh	46%	39%	40%	41%	39%	36%	89%	78%	76%	104%
Karnataka	51%	46%	48%	50%	50%	57%	76%	63%	57%	60%
Tamil Nadu & Chennai	36%	32%	33%	40%	38%	36%	48%	55%	34%	30%
Kerala	16%	15%	15%	18%	15%	0%	-3%	-4%	2%	16%
Punjab	39%	33%	34%	36%	32%	26%	61%	65%	65%	106%
Haryana	23%	22%	23%	27%	23%	19%	30%	9%	-2%	30%
UP - West	23%	20%	22%	24%	22%	22%	59%	28%	14%	24%
UP - East	34%	30%	31%	33%	31%	5%	26%	27%	30%	49%
Rajasthan	47%	41%	43%	42%	39%	47%	76%	65%	89%	103%
Madhya Pradesh	27%	23%	25%	27%	24%	17%	72%	51%	54%	68%
West Bengal	36%	32%	30%	35%	30%	43%	78%	260%	74%	165%
HP	52%	42%	47%	49%	42%	39%	114%	90%	189%	553%
Bihar	50%	44%	43%	45%	42%	57%	-8616%	171%	144%	111%
Orissa	50%	41%	42%	45%	41%	43%	101%	106%	157%	303%
Assam	38%	35%	34%	43%	38%	51%	68%	61%	41%	55%
North East	50%	44%	42%	53%	48%	51%	72%	83%	52%	67%
J&K	46%	42%	43%	46%	50%	42%	31%	-129%	128%	43%
Total	35%	31%	32%	35%	32%	32%	56%	51%	50%	58%

Source: Company, Emkay Research. *Due to low base percentage change reflect erratic change

Idea - the market share loss continues

- Revenue declined 7% qoq (39% yoy) to Rs37.4bn, with a RMS of 15.6% (-101bps qoq and -532bps yoy).
- Sixteen circles registered a sequential decline. The top-7 circles (contributing 74% to the AGR) registered a decline of 6% qoq (36% yoy).

Exhibit 18: Circle-wise revenue (AGR) trend

Circle (Rs mn)	Q1FY18	Q4FY18	Q1FY19	QoQ	YoY
Andhra Pradesh	4391	1589	1919	21%	-56%
Assam	5902	3586	4000	12%	-32%
Delhi	3497	2768	2558	-8%	-27%
Gujarat	7156	5987	4402	-26%	-38%
Maharashtra	7099	5544	5868	6%	-17%
Mumbai	2389	2038	1825	-10%	-24%
Odisha	1953	1492	814	-45%	-58%
Tamil Nadu	3193	2409	2125	-12%	-33%
West Bengal	1093	793	525	-34%	-52%
Jammu & Kashmir	3203	2345	1808	-23%	-44%
Kolkata	4616	3128	3534	13%	-23%
North East	1522	2274	754	-67%	-50%
Himachal Pradesh	3623	2411	2042	-15%	-44%
Rajasthan	7022	3826	4321	13%	-38%
Uttar Pradesh (E)	7071	5533	4901	-11%	-31%
Haryana	2604	1848	1074	-42%	-59%
Kerala	1109	816	283	-65%	-74%
Uttar Pradesh (W)	1333	1026	931	-9%	-30%
Madhya Pradesh	613	416	385	-8%	-37%
Bihar	283	172	117	-32%	-59%
Punjab	1091	849	639	-25%	-41%
Karnataka	132	109	10	-91%	-92%
Total	70,894	50,958	44,837	-12%	-37%
All India NLD	7808	12026	12199	1%	56%

Source: Emkay Research, Company

Exhibit 19: Idea's top-7 revenue (AGR) contributing circles

Circle (Rs mn)	Q1FY18	Q4FY18	Q1FY19	QoQ	YoY
A. P.	6,552	4,747	4,614	-3%	-30%
Gujarat	4,160	2,873	2,649	-8%	-36%
Maharashtra	10,387	7,543	6,992	-7%	-33%
Kerala	6,420	4,312	4,009	-7%	-38%
U. P. (W)	5,007	2,906	2,625	-10%	-48%
M. P.	7,890	5,324	5,134	-4%	-35%
Punjab	3,184	1,875	1,796	-4%	-44%
Total	44,765	34,478	29,580	-14%	-34%
Contribution to AGR	73%	85%	79%		

Source: Company, Emkay Research

Exhibit 20: Idea Cellular

Circles		Spec	trum hole (Mhz)	ding		Rank	Revenue Contribution	AGR Mar	ket Share	Gross Reven	
	900	1800	2100	2300	2500	Q1FY19	AGR (Q1FY19)	Q4FY18	Q1FY19	Q4FY18	Q1FY19
Delhi	5.0	8.6	-	-	-	7	0.3%	3%	1%	11%	11%
Mumbai	-	6.4	5.0	-	-	5	1.4%	5%	5%	9%	10%
Kolkata	-	5.0	5.0	-	-	4	0.9%	7%	6%	6%	7%
Maharashtra	9.0	11.0	5.0	10.0	10.0	1	18.7%	33%	33%	27%	30%
Gujarat	5.0	10.0	5.0	-	10.0	3	7.1%	20%	19%	18%	18%
Andhra Pradesh	5.0	6.0	5.0	-	10.0	3	12.3%	22%	22%	20%	20%
Karnataka	5.0	6.0	-	-	-	4	4.6%	11%	9%	10%	10%
Tamil Nadu & Chennai	-	11.4	-	-	-	5	2.6%	5%	4%	6%	6%
Kerala	6.0	10.0	5.0	10.0	10.0	1	10.7%	37%	35%	33%	33%
Punjab	5.6	10.0	5.0	-	-	3	4.8%	24%	22%	21%	21%
Haryana	6.0	10.8	5.0	-	10.0	3	1.6%	13%	15%	20%	20%
UP - West	5.0	9.4	5.0	-	10.0	2	7.0%	25%	24%	25%	27%
UP - East	-	6.2	10.0	-	10.0	4	4.2%	11%	10%	12%	12%
Rajasthan	-	11.2	5.0	-	10.0	4	2.3%	9%	7%	11%	11%
Madhya Pradesh	7.4	11.6	5.0	10.0	20.0	2	13.7%	38%	37%	36%	35%
West Bengal	-	11.3	-	-	10.0	4	1.7%	9%	6%	8%	7%
HP	-	9.8	5.0	-	10.0	4	0.4%	7%	8%	11%	12%
Bihar	-	10.7	5.0	-	10.0	3	3.9%	10%	11%	12%	13%
Orissa	-	10.0	-	-	10.0	5	0.7%	5%	5%	5%	5%
Assam	-	10.0	-	-	10.0	5	0.5%	4%	4%	5%	5%
North East	-	11.0	-	-	10.0	5	0.2%	4%	3%	4%	4%
J&K	-	10.0	5.0	-	10.0	4	0.3%	4%	5%	6%	7%
Total	59	206	80	30	170	4	100.0%	16.6%	15.6%	16%	16%

Exhibit 21: Idea Cellular

Cinala		Gross Re	venue Marke	et Share		Incremental AGR Market Share					
Circle	Q1FY18	Q2FY18	Q3FY18	Q4FY18	Q1FY19	Q1FY18	Q2FY18	Q3FY18	Q4FY18	Q1FY19	
Delhi	12%	11%	11%	11%	11%	9%	15%	17%	20%	50%	
Mumbai	10%	9%	8%	9%	10%	12%	15%	17%	16%	63%	
Kolkata	8%	7%	6%	6%	7%	-6%	-1%	17%	20%	45%	
Maharashtra	34%	29%	29%	27%	30%	32%	54%	49%	61%	54%	
Gujarat	23%	19%	18%	18%	18%	21%	39%	36%	63%	151%	
Andhra Pradesh	25%	21%	20%	20%	20%	26%	55%	43%	54%	37%	
Karnataka	12%	10%	10%	10%	10%	3%	10%	12%	12%	26%	
Tamil Nadu & Chennai	6%	5%	5%	6%	6%	4%	9%	9%	5%	27%	
Kerala	39%	35%	34%	33%	33%	70%	86%	87%	64%	28%	
Punjab	28%	23%	21%	21%	21%	22%	30%	38%	51%	42%	
Haryana	28%	22%	21%	20%	20%	27%	52%	15%	-122%	132%	
UP - West	33%	27%	26%	25%	27%	28%	86%	71%	116%	47%	
UP - East	14%	12%	11%	12%	12%	17%	39%	34%	24%	44%	
Rajasthan	14%	11%	11%	11%	11%	10%	16%	19%	27%	56%	
Madhya Pradesh	45%	36%	37%	36%	35%	33%	115%	89%	184%	48%	
West Bengal	10%	8%	7%	8%	7%	4%	11%	64%	17%	127%	
HP	13%	10%	10%	11%	12%	19%	41%	27%	54%	187%	
Bihar	15%	13%	12%	12%	13%	7%	-857%	30%	46%	35%	
Orissa	7%	5%	5%	5%	5%	4%	13%	12%	13%	131%	
Assam	5%	5%	4%	5%	5%	1%	3%	5%	6%	37%	
North East	4%	4%	3%	4%	4%	2%	3%	4%	2%	30%	
J&K	7%	6%	5%	6%	7%	9%	-38%	35%	12%	26%	
Total	19%	16%	16%	16%	16%	18%	31%	30%	36%	48%	

Source: Company, Emkay Research.

Vodafone - AGR declines 12% qoq, with a RMS of 18.6% (-230bps qoq)

- AGR declined 12% qoq (37% yoy) to Rs45bn, with a RMS of 18.6% (-230bps qoq and -537bps yoy).
- Of the 22 circles, Vodafone recorded revenue declines in 17. AGR for the top-7 circles (contributing 65% to the total revenue) declined 1% qoq (33% yoy).

Exhibit 22: Circle-wise revenue (AGR) trend

Circle (Rs mn)	Q1FY18	Q4FY18	Q1FY19	QoQ	YoY
Delhi	4391	1589	1919	21%	-56%
Mumbai	5902	3586	4000	12%	-32%
Kerala	3497	2768	2558	-8%	-27%
Maharashtra	7156	5987	4402	-26%	-38%
Tamil Nadu	7099	5544	5868	6%	-17%
Kolkata	2389	2038	1825	-10%	-24%
Andhra Pradesh	1953	1492	814	-45%	-58%
Karnataka	3193	2409	2125	-12%	-33%
Punjab	1093	793	525	-34%	-52%
Uttar Pradesh (W)	3203	2345	1808	-23%	-44%
West Bengal	4616	3128	3534	13%	-23%
Haryana	1522	2274	754	-67%	-50%
Rajasthan	3623	2411	2042	-15%	-44%
Uttar Pradesh (E)	7022	3826	4321	13%	-38%
Gujarat	7071	5533	4901	-11%	-31%
Bihar	2604	1848	1074	-42%	-59%
Madhya Pradesh	1109	816	283	-65%	-74%
Assam	1333	1026	931	-9%	-30%
North East	613	416	385	-8%	-37%
Jammu & Kashmir	283	172	117	-32%	-59%
Odisha	1091	849	639	-25%	-41%
Himachal Pradesh	132	109	10	-91%	-92%
Total	70,894	50,958	44,837	-12%	-37%
All India NLD	12202	15880	17231	9%	41%

Source: Company, Emkay Research

Exhibit 23: Top 7 revenue (AGR) contributing circles

Circle (Rs mn)	Q1FY18	Q4FY18	Q1FY19	QoQ	YoY
Delhi	4,391	1,589	1,919	21%	-56%
Mumbai	5,902	3,586	4,000	12%	-32%
Maharashtra	7,156	5,987	4,402	-26%	-38%
Tamil Nadu	7,099	5,544	5,868	6%	-17%
West Bengal	4,616	3,128	3,534	13%	-23%
Uttar Pradesh (E)	7,022	3,826	4,321	13%	-38%
Gujarat	7,071	5,533	4,901	-11%	-31%
Total	43,258	29,193	28,946	-1%	-33%
Contribution to AGR	61%	57%	65%		

Source: Company, Emkay Research

Exhibit 24: Vodafone

Circles	;	Spectrum (Mhz			Rank	Revenue Contribution	AGR Marke	et Share	Gross Revenue Market Share		
	900	1800	2100	2500	Q1FY19	AGR (Q1FY19)	Q4FY18	Q1FY19	Q4FY18	Q1FY19	
Delhi	5.0	10.0	5.0	20.0	3	4.3%	17%	18%	28%	26%	
Mumbai	11.0	8.2	5.0	20.0	1	8.9%	35%	36%	37%	35%	
Kolkata	7.0	10.0	5.0	20.0	1	4.1%	35%	35%	32%	30%	
Maharashtra	5.0	1.3	10.0	20.0	3	9.8%	26%	21%	26%	21%	
Gujarat	6.0	10.8	5.0	20.0	1	10.9%	39%	35%	33%	31%	
Andhra Pradesh	-	6.8	-	-	5	1.8%	7%	4%	8%	7%	
Karnataka	-	13.0	5.0	-	3	4.7%	13%	11%	16%	13%	
Tamil Nadu & Chennai	6.2	1.8	15.0	-	2	13.1%	27%	27%	26%	26%	
Kerala	6.4	9.9	5.0	10.0	2	5.7%	24%	22%	25%	23%	
Punjab	-	11.1	5.0	10.0	5	1.2%	10%	6%	14%	11%	
Haryana	6.2	4.9	10.0	10.0	2	1.7%	39%	18%	28%	24%	
UP - West	6.2	4.9	5.0	10.0	4	4.0%	20%	17%	23%	19%	
UP - East	5.6	8.5	10.0	10.0	3	9.6%	23%	27%	29%	27%	
Rajasthan	6.4	5.0	10.0	10.0	3	4.6%	21%	18%	23%	19%	
Madhya Pradesh	-	6.9	-	-	5	0.6%	6%	2%	8%	6%	
West Bengal	6.6	11.9	5.0	10.0	1	7.9%	35%	35%	36%	34%	
HP	-	5.7	-	-	6	0.0%	6%	1%	8%	6%	
Bihar	-	6.9	-	-	4	2.4%	12%	8%	12%	10%	
Orissa	5.0	6.9	5.0	10.0	3	1.4%	14%	11%	14%	12%	
Assam	-	14.9	5.0	10.0	3	2.1%	22%	19%	23%	20%	
North East	-	14.7	5.0	10.0	3	0.9%	20%	16%	22%	18%	
J&K	-	6.9	-	-	5	0.3%	9%	5%	7%	6%	
Total	83	181	115	200	3	100.0%	20.9%	18.6%	23%	20%	

Exhibit 25: Vodafone

		Gross Re	venue Marke	et Share		Incremental AGR Market Share					
Circle	Q1FY18	Q2FY18	Q3FY18	Q4FY18	Q1FY19	Q1FY18	Q2FY18	Q3FY18	Q4FY18	Q1FY19	
Delhi	29%	26%	26%	28%	26%	34%	39%	36%	39%	50%	
Mumbai	38%	35%	34%	37%	35%	30%	43%	60%	53%	63%	
Kolkata	36%	30%	31%	32%	30%	34%	60%	69%	48%	45%	
Maharashtra	27%	23%	25%	26%	21%	24%	40%	31%	25%	54%	
Gujarat	40%	32%	33%	33%	31%	35%	66%	56%	81%	151%	
Andhra Pradesh	10%	8%	8%	8%	7%	7%	17%	18%	14%	37%	
Karnataka	16%	14%	15%	16%	13%	8%	19%	22%	17%	26%	
Tamil Nadu & Chennai	26%	22%	23%	26%	26%	20%	31%	33%	23%	27%	
Kerala	25%	24%	24%	25%	23%	14%	26%	29%	23%	28%	
Punjab	17%	14%	13%	14%	11%	21%	37%	32%	21%	42%	
Haryana	32%	27%	27%	28%	24%	27%	49%	16%	114%	132%	
UP - West	25%	21%	22%	23%	19%	13%	37%	34%	44%	47%	
UP - East	31%	28%	28%	29%	27%	25%	55%	43%	49%	44%	
Rajasthan	24%	21%	22%	23%	19%	13%	28%	28%	35%	56%	
Madhya Pradesh	10%	8%	8%	8%	6%	7%	19%	19%	16%	48%	
West Bengal	41%	36%	33%	36%	34%	40%	68%	250%	71%	127%	
HP	11%	8%	8%	8%	6%	8%	14%	11%	10%	187%	
Bihar	15%	12%	11%	12%	10%	10%	-3088%	49%	29%	35%	
Orissa	19%	14%	14%	14%	12%	10%	34%	39%	62%	131%	
Assam	23%	19%	19%	23%	20%	25%	53%	47%	27%	37%	
North East	20%	17%	17%	22%	18%	11%	21%	26%	15%	30%	
J&K	10%	8%	8%	7%	6%	5%	-5%	59%	14%	26%	
Total	25%	21%	22%	23%	20%	20%	37%	35%	33%	48%	

Source: Company, Emkay Research. *Due to low base percentage change reflect erratic change

Others

BSNL recorded a 12.6% qoq decline in revenue, with a RMS of 4.5% (-59bps qoq). MTNL reported a 3% qoq increase in revenue, driven by a meaningful increase in the revenue of the Mumbai circle.

Exhibit 26: Annual AGR trend (Rs mn)

Operator	FY12	FY13	FY14	FY15	FY16	FY17	FY18	YoY (%)
Bharti Airtel	3,04,226	3,13,404	3,56,551	4,06,772	4,66,332	4,72,090	3,34,807	-29.1%
Vodafone	2,12,462	2,31,564	2,65,631	3,01,679	3,34,917	3,33,219	2,41,461	-27.5%
Idea Cellular	1,42,554	1,57,910	1,93,194	2,36,070	2,86,955	2,84,757	2,02,482	-28.9%
JIO							1,58,984	
RCom	79,124	77,168	83,883	76,811	64,119	41,723	20,282	-47.3%
Tata Tele	90,057	86,217	85,735	96,426	1,02,382	92,385	48,715	-33.0%
BSNL	71,097	72,411	76,722	71,484	85,250	79,325	53,134	-47.2%
Aircel	47,284	51,526	63,848	74,953	79,454	70,456	37,209	-37.1%
MTNL	4,952	4,059	7,100	7,191	6,676	5,767	3,629	-47.3%
Loop Mobile	5,866	5,062	2,996	1,358				
Sistema	10,336	12,091	8,336	10,960	12,692	9,342	2,231	-76.1%
HFCL Infotel	1,147	1,112	1,233	929	584	1,123	224	-80.1%
Telenor	17,893	20,948	20,972	28,204	33,524	29,316	16,851	-42.5%
Videocon	1,343	0	1,110	1,599	2,185			
Total	9,89,253	10,33,472	11,67,310	13,14,438	14,75,069	1419503	1,12,0010	-3.8%

Source: Company, Emkay Research

Exhibit 27: Annual AGR market share

Operator	FY13	FY14	FY15	FY16	FY17	FY18	YoY (bps)
Bharti Airtel	30.3%	30.5%	30.9%	31.6%	33.3%	29.9%	-336
Vodafone	22.4%	22.8%	23.0%	22.7%	23.5%	21.6%	-192
Idea Cellular JIO	15.3%	16.6%	18.0%	19.5%	20.1%	18.1% 14.2%	-198
RCom	7.5%	7.2%	5.8%	4.3%	2.9%	1.8%	-113
Tata Tele Services	8.3%	7.3%	7.3%	6.9%	6.5%	4.3%	-216
BSNL	7.0%	6.6%	5.4%	5.8%	5.6%	4.7%	-84
Aircel	5.0%	5.5%	5.7%	5.4%	5.0%	3.3%	-164
MTNL	0.4%	0.6%	0.5%	0.5%	0.4%	0.3%	-8
Loop Mobile	0.5%	0.3%	0.1%				0.00
Sistema	1.2%	0.7%	0.8%	0.9%	0.7%	0.2%	-46
HFCL Infotel	0.1%	0.1%	0.1%	0.0%	0.1%		-6
Telenor	2.0%	1.8%	2.1%	2.3%	2.1%	1.5%	-56
Videocon	0.0%	0.1%	0.1%	0.1%			
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Source: Company, Emkay Research

Exhibit 28: Annual incremental AGR (Rs mn)

Operator	FY13	FY14	FY15	FY16	FY17	FY18
Bharti Airtel	9,178	43,147	50,221	59,560	5,757	-1,37,282
Vodafone	19,102	34,068	36,048	33,237	-1,697	-91,759
Idea Cellular	15,356	35,284	42,877	50,885	-2,198	-82,275
JIO						1,58,984
RCom	-1,956	6,715	-7,072	-12,692	-22,397	-21,441
Tata Tele	-3,840	-482	10,691	5,956	-9,997	-43,670
BSNL	1,314	4,311	-5,238	13,765	-5,925	-26,191
Aircel	4,242	12,322	11,106	4,500	-8,997	-33,248
MTNL	-893	3,041	92	-515	-909	-2,138
Loop Mobile	-804	-2,066	-1,638	-1,358		
Sistema	1,755	-3,755	2,624	1,732	-3,350	-7,111
HFCL Infotel	-35	121	-304	-345	538	-899
Telenor	3,055	24	7,231	5,320	-4,208	-12,464
Videocon	-1,343	1,110	490	586	-2,185	
Total	44,219	1,33,838	1,47,127	1,60,632	-55,567	-2,99,493

Exhibit 29: Annual incremental AGR market share

Operator	FY13	FY14	FY15	FY16	FY17	FY18
Bharti Airtel	20.8%	32.2%	34.1%	37.1%	10.4%	-45.8%
Vodafone	43.2%	25.5%	24.5%	20.7%	-3.1%	-30.6%
Idea Cellular	34.7%	26.4%	29.1%	31.7%	-4.0%	-27.5%
JIO						53.1%
RCom	-4.4%	5.0%	-4.8%	-7.9%	-40.3%	-7.2%
Tata Tele Services	-8.7%	-0.4%	7.3%	3.7%	-18.0%	-14.6%
BSNL	3.0%	3.2%	-3.6%	8.6%	-10.7%	-8.7%
Aircel	9.6%	9.2%	7.5%	2.8%	-16.2%	-11.1%
MTNL	-2.0%	2.3%	0.1%	-0.3%	-1.6%	-0.7%
Loop Mobile	-1.8%	-1.5%	-1.1%	-0.8%	0.0%	-2.4%
Shyam Sistema	4.0%	-2.8%	1.8%	1.1%	-6.0%	-0.3%
HFCL Infotel	-0.1%	0.1%	-0.2%	-0.2%	1.0%	-4.2%
Telenor	6.9%	0.0%	4.9%	3.3%	-7.6%	-0.0%
Videocon	-3.0%	0.8%	0.3%	0.4%	-3.9%	-2.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Company, Emkay Research

Exhibit 30: Quarterly gross revenue (Rs mn)

Operator	Q3Y16	Q4Y16	Q1Y17	Q2Y17	Q3Y17	Q4Y17	Q1Y18	Q2Y18	Q3Y18	Q4Y18	Q1Y19	%QoQ	%YoY
Bharti Airtel	1,52,386	1,56,449	1,65,363	1,62,114	1,54,243	1,47,250	1,50,505	1,46,208	1,36,568	1,49,878	1,26,264	-15.8%	-16.1%
Vodafone	1,11,003	1,14,418	1,18,007	1,15,304	1,09,538	1,03,296	1,06,083	99,852	92,075	98,530	78,932	-19.9%	-25.6%
Idea Cellular	91,278	95,752	97,400	92,304	87,243	82,012	83,030	76,084	67,516	68,330	63,060	-7.7%	-24.1%
JIO								67,991	74,166	80,265	93,322	16.3%	
RCom	25,030	24,570	24,570	20,629	18,853	16,537	14,405	11,879	4,859	1,591	2,128	33.7%	-85.2%
Tata Tele	31,891	32,751	32,868	32,184	28,740	24,523	22,172	20,127	14,402	12,060	10,358	-14.1%	-53.3%
BSNL	24,950	24,551	21,222	23,307	23,679	22,097	18,406	16,844	14,366	14,145	11,967	-16.3%	-35.0%
Aircel	26,527	27,695	28,749	28,158	25,669	22,135	21,065	18,877	14,857	0	0		
MTNL	1,704	2,364	1,761	1,716	1,886	1,340	1,521	1,233	452	902	920	2.0%	-39.5%
Shyam Sistema	3,617	3,588	3,515	3,138	2,297	1,761	1,347	995	246	0	0		
HFCL Infotel	817	808	797	728	675	387	0	184	333	445	423	-4.8%	0
Uninor	11,322	12,015	12,841	12,662	11,734	10,590	9,848	8,389	6,116	6,010	2,165	-64.0%	-78.0%
Videocon	1,265	1,109	0	0	0	0	0	0	0	0	0		
Total	4,81,791	4,96,070	5,07,091	4,92,244	4,64,557	4,31,928	4,28,381	4,68,661	4,25,957	4,32,156	3,89,538	-10%	-9%

Exhibit 31: Quarterly gross revenue market share

Operator	Q2Y16	Q3Y16	Q4Y16	Q1Y17	Q2Y17	Q3Y17	Q4Y17	Q1Y18	Q2Y18	Q3Y18	Q4Y18	Q1FY19
Bharti Airtel	31.3%	31.6%	31.5%	32.6%	32.9%	33.2%	34.1%	35.1%	31.2%	32.1%	34.7%	32.4%
Vodafone	23.1%	23.0%	23.1%	23.3%	23.4%	23.6%	23.9%	24.8%	21.3%	21.6%	22.8%	20.3%
Idea Cellular	18.5%	18.9%	19.3%	19.2%	18.8%	18.8%	19.0%	19.4%	16.2%	15.9%	15.8%	16.2%
JIO									14.5%	17.4%	18.6%	24.0%
RCom	5.5%	5.2%	5.0%	4.8%	4.2%	4.1%	3.8%	3.4%	2.5%	1.1%	0.4%	0.5%
Tata Tele Services	6.8%	6.6%	6.6%	6.5%	6.5%	6.2%	5.7%	5.2%	4.3%	3.4%	2.8%	2.7%
BSNL	5.2%	5.2%	4.9%	4.2%	4.7%	5.1%	5.1%	4.3%	3.6%	3.4%	3.3%	3.1%
Aircel	5.7%	5.5%	5.6%	5.7%	5.7%	5.5%	5.1%	4.9%	4.0%	3.5%	0.0%	0.0%
MTNL	0.4%	0.4%	0.5%	0.3%	0.3%	0.4%	0.3%	0.4%	0.3%	0.1%	0.2%	0.2%
Shyam Sistema	0.8%	0.8%	0.7%	0.7%	0.6%	0.5%	0.4%	0.3%	0.2%	0.1%	0.0%	0.0%
HFCL Infotel	0.0%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%
Telenor	2.4%	2.4%	2.4%	2.5%	2.6%	2.5%	2.5%	2.3%	1.8%	1.4%	1.4%	0.6%
Videocon	0.3%	0.3%	0.2%									0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Company, Emkay Research

Exhibit 32: Quarterly gross revenue market share including NLD revenue

	Q1Y17	Q2Y17	Q3Y17	Q4Y17	Q1Y18	Q2Y18	Q3Y18	Q4Y18	Q1Y19
Bharti Airtel	32.2%	32.4%	33.0%	33.9%	35.2%	32.1%	33.5%	35.4%	42.2%
Vodafone	22.1%	22.1%	22.4%	22.8%	23.6%	20.6%	21.1%	22.4%	25.1%
Idea Cellular	18.0%	17.5%	17.6%	17.6%	18.1%	15.6%	15.5%	15.8%	19.7%
JIO						13.5%	15.5%	16.5%	1.7%
RCom	5.6%	4.8%	4.9%	4.7%	3.8%	2.8%	1.4%	0.7%	1.0%
Tata Tele Services	6.3%	6.3%	6.0%	5.4%	4.8%	3.9%	3.1%	2.6%	2.6%
BSNL	6.1%	7.2%	6.8%	6.9%	6.8%	5.2%	4.5%	4.9%	6.7%
Aircel	5.9%	6.0%	5.8%	5.4%	5.0%	4.1%	3.6%	0.0%	0.0%
MTNL	0.3%	0.3%	0.3%	0.3%	0.3%	0.2%	0.1%	0.2%	0.2%
Shyam Sistema	0.6%	0.5%	0.4%	0.3%	0.3%	0.2%	0.0%	0.0%	0.0%
HFCL Infotel	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%
Telenor	2.6%	2.7%	2.6%	2.5%	2.3%	1.8%	1.5%	1.5%	0.7%
Videocon	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Company, Emkay Research

Exhibit 33: Yearly gross revenue (Rs mn)

Operator	FY13	FY14	FY15	FY16	FY17	FY18	YoY (%)
Bharti Airtel	4,51,594	5,04,654	5,62,724	6,06,869	6,28,971	5,83,159	-7.3%
Vodafone	3,39,643	3,82,468	4,26,007	4,46,428	4,46,145	3,96,540	-11.1%
Idea Cellular	2,25,712	2,67,703	3,20,744	3,64,091	3,58,958	2,94,959	-17.8%
JIO						2,22,423	
RCom	1,18,426	1,24,673	1,16,966	1,02,602	80,588	32,735	-59.4%
Tata Tele	1,27,123	1,20,608	1,30,766	1,29,660	1,18,314	68,761	-41.9%
BSNL	97,886	1,01,376	95,494	95,817	90,305	63,913	-29.2%
Aircel	76,460	87,709	1,03,536	1,08,244	1,04,711	54,798	-47.7%
MTNL	6,762	8,285	7,925	7,580	6,703	4,107	-38.7%
Loop Mobile	6,216	3,894	998				
Sistema	15,954	11,926	13,868	14,720	10,711	2,588	-75.8%
HFCL Infotel	1,726	2,759	3,536	2,448	2,587	961	-62.8%
Telenor	33,816	32,864	43,193	46,228	47,828	30,364	-36.5%
Videocon	0	2,321	4,948	4,971			
Total	15,01,316	16,51,240	18,30,705	19,29,657	18,95,820	17,55,307	-7.4%

Exhibit 34: Yearly gross revenue market share

Operator	FY13	FY14	FY15	FY16	FY17	FY18
Bharti Airtel	30.1%	30.6%	30.7%	31.4%	33.2%	33.2%
Vodafone	22.6%	23.2%	23.3%	23.1%	23.5%	22.6%
Idea Cellular	15.0%	16.2%	17.5%	18.9%	18.9%	16.8%
JIO						12.7%
RCom	7.9%	7.6%	6.4%	5.3%	4.3%	1.9%
Tata Tele Services	8.5%	7.3%	7.1%	6.7%	6.2%	3.9%
BSNL	6.5%	6.1%	5.2%	5.0%	4.8%	3.6%
Aircel	5.1%	5.3%	5.7%	5.6%	5.5%	3.1%
MTNL	0.5%	0.5%	0.4%	0.4%	0.4%	0.2%
Loop Mobile	0.4%	0.2%	0.1%	0.0%	0.0%	0.0%
Sistema	1.1%	0.7%	0.8%	0.8%	0.6%	0.1%
HFCL Infotel	0.1%	0.2%	0.2%	0.1%	0.1%	0.1%
Telenor	2.3%	2.0%	2.4%	2.4%	2.5%	1.7%
Videocon	0.0%	0.1%	0.3%	0.3%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Company, Emkay Research

Bharti Airtel RECOMMENDATION HISTORY TABLE

Date	Closing Price	TP	Period (months)	Rating	Analyst
27-Jul-18	365	356	12m	Hold	Naval Seth
26-Apr-18	409	442	12m	Hold	Naval Seth
26-Feb-18	423	478	12m	Hold	Naval Seth
29-Jan-18	441	478	12m	Hold	Naval Seth
19-Jan-18	498	564	12m	Accumulate	Naval Seth
24-Nov-17	497	600	12m	Accumulate	Naval Seth
02-Nov-17	543	600	12m	Accumulate	Naval Seth
14-Oct-17	431	460	12m	Accumulate	Naval Seth
21-Sep-17	400	340	12m	Reduce	Naval Seth
26-Jul-17	426	340	12m	Reduce	Naval Seth
09-Jun-17	368	306	12m	Reduce	Naval Seth
10-May-17	373	306	12m	Reduce	Naval Seth
27-Feb-17	356	306	12m	Reduce	Naval Seth
01-Feb-17	345	306	12m	Reduce	Naval Seth
25-Jan-17	311	306	12m	Reduce	Naval Seth
26-Oct-16	318	306	12m	Reduce	Naval Seth
01-Sep-16	311	306	12m	Reduce	Naval Seth
30-Aug-16	332	337	12m	Reduce	Naval Seth
29-Jul-16	362	337	12m	Reduce	Naval Seth
29-Apr-16	364	337	12m	Reduce	Naval Seth
18-Mar-16	344	304	12m	Reduce	Naval Seth
29-Jan-16	290	304	12m	Reduce	Naval Seth
30-Nov-15	334	324	12m	Reduce	Naval Seth
27-Oct-15	353	360	12m	Reduce	Naval Seth

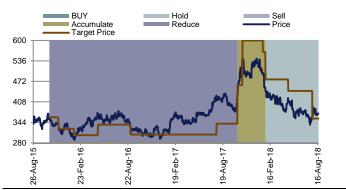
Source: Company, Emkay Research

Idea Cellular RECOMMENDATION HISTORY TABLE

Date	Closing Price	TP	Period (months)	Rating	Analyst
01-Aug-18	54	39	12m	Sell	Naval Seth
02-May-18	67	62	12m	Sell	Naval Seth
26-Feb-18	82	62	12m	Sell	Naval Seth
29-Jan-18	94	62	12m	Sell	Naval Seth
24-Nov-17	95	91	12m	Hold	Naval Seth
15-Nov-17	94	91	12m	Hold	Naval Seth
21-Sep-17	80	70	12m	Reduce	Naval Seth
31-Jul-17	92	74	12m	Reduce	Naval Seth
09-Jun-17	79	70	12m	Reduce	Naval Seth
15-May-17	86	70	12m	Reduce	Naval Seth
27-Feb-17	115	-	12m	UR	Naval Seth
13-Feb-17	107	-	12m	UR	Naval Seth
01-Feb-17	107	-	12m	UR	Naval Seth
25-Oct-16	75	74	12m	Reduce	Naval Seth
10-Oct-16	80	74	12m	Reduce	Naval Seth
01-Sep-16	84	81	12m	Reduce	Naval Seth
10-Aug-16	93	103	12m	Reduce	Naval Seth
02-May-16	118	118	12m	Reduce	Naval Seth
22-Jan-16	107	112	12m	Reduce	Naval Seth
27-Nov-15	144	143	12m	Reduce	Naval Seth
23-Oct-15	140	143	12m	Reduce	Naval Seth

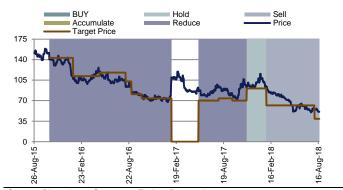
Source: Company, Emkay Research

RECOMMENDATION HISTORY CHART



Source: Bloomberg, Company, Emkay Research

RECOMMENDATION HISTORY CHART



Source: Bloomberg, Company, Emkay Research

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BUY Expected total return (%) (Stock price appreciation and dividend yield) of over 25% within the next 12-18 months.

ACCUMULATE Expected total return (%) (Stock price appreciation and dividend yield) of over 10% within the next 12-18 months.

Expected total return (%) (Stock price appreciation and dividend yield) of upto 10% within the next 12-18 months.

REDUCE Expected total return (%) (Stock price depreciation) of upto (-) 10% within the next 12-18 months.

SELL The stock is believed to underperform the broad market indices or its related universe within the next 12-18 months.

Completed Date: 29 Aug 2018 22:47:20 (SGT) Dissemination Date: 29 Aug 2018 22:48:20 (SGT)

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