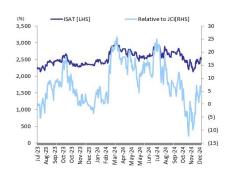


Overweight

(Maintained)

ISAT relative to JCI Index



TLKM relative to JCI Index



Source: Bloomberg

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Telco

OpenSignal 2H24 results: narrowing gaps but overall better network capacities

- TSEL remains the download speed leader at 26.3 Mbps, narrowing the gap with peers while intensively utilizing its network for FMC synergies.
- Hutch3 leads in upload speed at 11 Mbps and leads in gaming, video and voice experiences due to its stronger focus on latency experience.
- Maintain Overweight as price hikes, justified by improved networks, shall allow for better monetization on the seasonal 4Q24, 1Q25 demand.

Download (DL) speed improved; TSEL remains leader, but with smaller gap TSEL continues to lead the sector in DL speed in 2H24 with 26.3mbps on nationwide basis, although the gap with XL and IOH narrowed further, with IOH posting a double-digit % improvement. Assuming rate of capex rollouts remained constant among players, Opensignal findings suggest that TSEL has utilized its network more intensively relative to contender peers in 2H24. Contenders have improved relatively more on their DL capacity, which is important for streaming/ big files/ content downloads in the coming months.

Potentially more emphasis on Upload speed (UL) by contenders

Hutch3 overtakes TSEL as the sector leader for UL speed with 11mbps. While TSEL also improved its UL speed, Hutch3, Indosat, and XL recorded significantly greater improvements, each achieving double-digit % growth in UL capacity. Contender peers might be focusing more on enhancing end-user content generation through offering more bandwidth for uplink, while TSEL might have sold relatively more UL capacity in 2H24.

Video, and Voice Experience: Hutch is leader incl. gaming KPI now too

Hutch3 of IOH retains a marginal sector lead in 2 Opensignal categories of Video and Voice experience while gaining the lead in gaming experience (latency being key variable). Meanwhile, its sister network Indosat delivering the strongest improvement for video on a semester basis.

Telkomsel utilizing its network more intensively to gain advantage for FMC On average, TSEL appears to have utilized its network capacity more intensively than its competitors, which aligns with affirmations for TSEL's aggressive marketing in 2Q/3Q24, and this was also reflected in its lower overall ranking compared to previous semester. TSEL possibly put more emphasis on DL speed which relates more easily with end user (fast consumption, easy downloads etc) and thus effective for user acquisitions. This should also be useful later to cross-sell to Indihome.

IOH merger synergies reflected until today, setting example for EXCL-FREN IOH continues to benefit from its merger, achieving notable profitability while improving network capacity across sequential semesters. Both XL and Smartfren are focused on their operational integration following the merger announcement, with the potential to achieve progress similar to IOH.

Maintain Sector OW: Telcos positioned to supply network and monetize Maintain sector Overweight as Telcos are positioned to improve monetization with recent price hikes, as justified by better network performances. We anticipate the sector to achieve growth of over 2%+qoq in 4Q24, positioning to capitalize on the seasonal demand in 4Q24, 1Q25, setting the tone in FY25.

			Target Price	Market Cap.	P/E	Ξ (x)	P/B\	/ (x)	ROE (%)
Company	Ticker	Rec	(Rp)	(RpBn)	2024F	2025F	2024F	2025F	2025F
Indosat Ooredoo Hutchison	ISAT IJ	BUY	3,800	78,369.5	14.8	12.2	2.6	2.3	19.8
Telkom Indonesia	TLKM IJ	BUY	4,250	275,393.0	11.8	10.7	1.9	1.9	17.8
XL Axiata	EXCL IJ	BUY	3,500	30,065.5	14.5	11.4	1.1	1.1	9.8



Exhibit 1. Nationwide Mobile Network KPIs

Period	Operator	Download speed: Overall	Upload speed	Video Experience	Voice App. Experience	Gaming experience	Coverage Availability	5G Coverage Availability	_	Reliability Experience	Consistent Quality	
Nationwide	KPIs	(mb	ps)		scale 0-100		(%)	(%)	scale 1-10	scale 100 - 1000	%	Leading
	Indosat Oored	18.2	9.3	59.3	79.8	78.4	97.0	-	4.8	-	64.8	
	XL Axiata	22.8	9.5	56.4	79.5	79.0	96.8	-	4.5	-	58.7	
Aug 01 -	Smartfren	13.6	2.1	48.2	78.9	73.8	98.8	-	2.2	-	38.4	
Oct 29 2023	Telkomsel	26.1	11.1	61.4	79.3	77.1	95.5	-	8.5	-	61.7	1
	Hutchison 3	18.6	9.5	61.0	80.2	78.8	97.0	-	4.8	-	61.3	
	average	19.9	8.3	57.3	<i>7</i> 9.5	77.4	97.0		4.9		57.0	
				•	•			•			•	_
	Indosat Oored	19.7	8.8	60.1	79.7	78.7	97.4	-	4.9	854	67.0	
	XL Axiata	23.1	8.2	56.8	79.3	78.8	97.0	-	4.6	808	62.1	
Feb 01 -	Smartfren	13.7	2.0	48.2	77.9	72.3	98.7	-	2.2	668	33.1	
Apr 30 2024	Telkomsel	25.5	10.0	61.9	79.3	79.4	95.6	-	8.6	802	63.2	
-	Hutchison 3	19.9	9.0	62.1	80.5	80.9	97.1	-	4.9	863	65.1	
	average	20.4	7.6	57.8	79.3	78.0	97.2		5.0	799	58.1	
					•						•	_
	Indosat Oored	21.8	10.5	64.5	80.4	80.5	97.6	0.9	5.0	875	68.5	
Aug 01 -	XL Axiata	25.0	9.5	60.5	80.0	79.2	97.4	0.6	4.6	840	66.8	
Oct 29,	Smartfren	14.9	2.0	51.4	79.3	77.6	98.7	0.0	2.2	687	36.0	1
•	Telkomsel	26.3	10.4	63.7	79.6	80.1	96.0	2.2	8.6	825	66.5	
2024	Hutchison 3	22.0	11.0	65.1	80.9	82.2	97.2	0.7	5.0	884	68.8	
	average	22.0	<i>8.7</i>	61.0	80.0	79.9	97.4	0.9	5.1	822.2	61.3	

Exhibit 2. KPIs performance change (Aug-Oct 2024 vs Feb-Apr 2024)

Period	Operator	Download speed: Overall	Upload speed	Video Experience	Voice App. Experience	Gaming experience	Coverage Availability	5G Coverage Availability	_	Reliability Experience	Consistent Quality
Period	ic Change (Aug	ı - Oct, 20)24 vs. F	eb - Apr 2	024)						
	Indosat Ooredoo	2.1	1.7	4.4	0.7	1.8	0.2	n/a	0.1	21.0	1.5
periodic	XL Axiata	1.9	1.3	3.7	0.7	0.4	0.4	n/a	0.0	32.0	4.7
Δ - last	Smartfren	1.2	0.0	3.2	1.4	5.3	0.0	n/a	0.0	19.0	2.9
testing	Telkomsel	0.8	0.4	1.8	0.3	0.7	0.4	n/a	0.0	23.0	3.3
period	Hutchison 3	2.1	2.0	3.0	0.4	1.3	0.1	n/a	0.1	21.0	3.7
periou	average	1.6	1.1	3.2	0.7	1.9	0.2	-	0.1	23.2	3.2
	Indosat Ooredoo	10.7	19.3	7.3	0.9	2.3	-	-	2.0	2.5	-
	XL Axiata	8.2	15.9	6.5	0.9	0.5	-	-	0.7	4.0	-
periodic	Smartfren	8.8	0.0	6.6	1.8	7.3	-	-	0.0	2.8	-
Δ, %	Telkomsel	3.1	4.0	2.9	0.4	0.9	-	-	0.3	2.9	-
-, /*	Hutchison 3	10.6	22.2	4.8	0.5	1.6	ı	-	2.0	2.4	-
	average	7.9	14.2	5.6	0.9	2.4	=	-	1.0	2.9	-

Source: OpenSignal

Exhibit 3. Mobile network ranking (Aug-Oct 2024)

Period	Operator	Download speed: Overall	Upload speed	Video Experience	Voice App. Experience	Gaming experience	•	5G Coverage Availability	•	Reliability Experience	Consistent Quality			
					NETWO	RK RANKING (1-	5) 1 being the w	orst, 5 being the b	est					
Period: Aug01 - Oct29	2024	Download speed: Overall	Upload speed	Video Experience	Voice App. Experience	Gaming experience	Coverage Availability	5G Coverage Availability	Coverage experience	Reliability Experience	Consistent Quality	AVERAGE RANK Dec'24*	AVERAGE RANK Jun'24*	Δ
	Indosat Ooredoo	2	4	4	4	4	4	4	3	4	4	3.7	3.3	13.8%
No.	XL Axiata	4	2	2	3	2	3	2	2	3	3	2.6	2.4	9.5%
Network Performance	Smartfren	1	1	1	1	1	5	1	1	1	1	1.4	1.5	-6.7%
remonnance	Telkomsel	5	3	3	2	3	1	5	5	2	2	3.1	3.6	-14.5%
	Hutchison 3	3	5	5	5	5	2	3	3	5	5	4.1	4.0	2.5%
	Indosat Ooredoo	4	4	5	3	4	3		4	2	1	3.3	3.2	3.4%
	XL Axiata	3	3	4	3	1	4		2	5	5	3.3	2.4	36.4%
Network Improvement	Smartfren	2	1	3	5	5	1		1	1	2	2.3	2.8	-16.0%
Improvement	Telkomsel	1	2	1	1	2	4		2	4	3	2.2	2.3	-4.8%
	Hutchison 3	4	5	2	2	3	2		4	2	4	3.1	3.4	-9.7%

Simple average of the network KPI categories

Source: OpenSignal



Equity Research – Sector Update

Friday, 20 December 2024

Exhibit 4. Assessment on competition intensity

Increasing competition - IOH more aggressive	Increasing competition - TSEL more aggressive	Tight competition	Stable dynamics
Nusa Tenggara	Sumatera	East Java	Yogyakarta
	Jakarta Raya	Kalimantan	Sulawesi
	West Java		Banten
	Central Java		

Source: OpenSignal



Exhibit 5. Banten province KPIs performance

EXHIBIC 5.	Banten										
Period	Operator	Download speed: Overall	Upload speed	Video Experien ce	Voice App. Experience	Gaming experien ce					
Nationw		(mb _l			scale 0-100						
	Indosat Ooredoo	16.7	9.6	58.8	79.6	79.6					
Aug 01 -	XL Axiata	27.2	10.4	60.4	80.2	84.0					
Oct 29	Smartfren	14.0	2.2	49.4	79.3	77.1					
	Telkomsel	28.1	12.8	64.5	80.6	82.6					
2023	Hutchison 3	16.9	10.2	60.3	79.8	79.5					
	average	20.6	9.0	58.7	79.9	80.6					
	Indosat Ooredoo	19.2	8.5	60.2	79.7	80.9					
Feb 01 -	XL Axiata	27.0	8.6	60.2	79.6	83.3					
	Smartfren	14.7	2.2	50.6	78.6	76.5					
Apr 30	Telkomsel	30.0	12.3	65.7	80.5	84.1					
2024	Hutchison 3	17.9	7.6	60.9	80.5	83.0					
	average	21.8	7.8	59.5	79.8	81.6					
	-			•							
	Indosat Ooredoo	21.2	10.6	64.0	80.3	82.2					
Aug 01 -	XL Axiata	27.8	10.9	63.6	80.5	83.9					
Oct 29	Smartfren	15.9	2.0	52.6	79.4	80.4					
2024	Telkomsel	30.6	13.0	67.1	80.8	85.1					
2024	Hutchison 3	20.1	11.1	64.0	81.0	83.7					
	average	23.1	9.5	62.3	80.4	83.1					
Period	ic Change (Aug	- Oct, 20)24 vs. i		r 2024)						
. ,.	Indosat Ooredoo	2.0	2.1	3.8	0.6	1.3					
periodic	ALAXIUU	0.8	2.3	3.4	0.9	0.6					
Δ - last	0u eg . u	1.2	-0.2	2.0	0.8	3.9					
testing	Telkomsel	0.6	0.7	1.4	0.3	1.0					
period	Hutchison 3	2.2	3.5	3.1	0.5	0.7					
	average	1.4	1.7	2.7	0.6	1.5					
	Indocat Carada	10.4	247	6.2	0.0	1.0					
	Indosat Ooredoo	10.4	24.7	6.3	0.8	1.6					
periodic	XL Axiata	3.0 8.2	26.7 -9.1	5.6	1.1	0.7 5.1					
ı*	Smartfren Telkomsel	2.0	-9.1 5.7	4.0 2.1	1.0 0.4						
Δ, %	Hutchison 3	12.3	46.1	5.1	0.4	1.2 0.8					
	average	6.2	21.4	4.6	0.8	1.8					
	average	0.2	21.7	7.0	0.0	1.0					

Java – Banten: TSEL and XL marginally increased DL speed, while IOH improved significantly.

Telkomsel maintains a good lead in download speed maintained at 30-31mbps vs. close second XL for 2H24 in Banten province while IOH (both Indosat and Hutch3) showed 2-digit % improvements in DL. TSEL also maintains lead in Upload speed and Video experience, but IOH and XL posted major improvements in those 2 KPIs.



Exhibit 6. Jakarta Raya Province KPIs performance (Aug-Oct 2024 vs Feb-Apr 2024)

Jakarta Raya										
		Download		Video	Voice App.	Gaming				
Period	Operator	speed:	Upload .	Experie	Experienc	experie				
		Overall	speed	nce	e	nce				
Nationw	ide KPIs	(mb)	os)		scale 0-100					
	Indosat Ooredoo	18.8	10.1	60.9	80.0	80.2				
Aug 01 -	XL Axiata	28.9	11.9	62.6	80.6	84.2				
•	Smartfren	15.2	2.5	52.1	79.8	78.5				
Oct 29	Telkomsel	29.9	13.7	65.9	81.1	83.5				
2023	Hutchison 3	18.0	10.3	61.5	79.9	79.6				
	average	22.2	9.7	60.6	80.3	81.2				
					•					
	Indosat Ooredoo	21.0	8.9	62.0	80.0	81.8				
Feb 01 -	XL Axiata	29.2	10.4	63.5	80.2	83.9				
Apr 30	Smartfren	16.2	2.4	52.9	79.1	78.1				
•	Telkomsel	30.9	13.0	66.9	80.6	84.8				
2024	Hutchison 3	19.5	8.0	62.4	80.3	82.7				
	average	23.4	8.5	61.5	80.0	82.3				
	•				-					
	Indosat Ooredoo	22.8	11.0	64.8	80.7	82.9				
Aug 01 -	XL Axiata	29.1	11.7	66.2	80.8	83.2				
Oct 29	Smartfren	16.3	2.2	54.3	79.8	81.4				
2024	Telkomsel	30.6	13.4	67.7	80.8	85.1				
2024	Hutchison 3	21.4	11.2	64.6	80.9	83.6				
	average	24.0	9.9	63.5	80.6	83.2				
					0004					
Perioa	ic Change (Aug			reb - Ap		4.4				
noriodic	Indosat Ooredoo XL Axiata	1.8	2.1	2.8	0.7	1.1				
		-0.1 0.1	1.3	2.7	0.6 0.7	-0.7 3.3				
Δ - last	Smartfren Telkomsel	-0.3	-0.2 0.4	1.4 0.8						
testing	Hutchison 3	1.9	3.2	2.2	0.2 0.6	0.3 0.9				
period		0.7	1.4	2.0	0.6	1.0				
	average	0.7	1.4	2.0	0.6	1.0				
	Indosat Ooredoo	8.6	23.6	4.5	0.9	1.3				
	XL Axiata	-0.3	12.5	4.3	0.7	-0.8				
neriodic	Smartfren	0.6	-8.3	2.6	0.9	4.2				
The state of the s			3.1	1.2	0.2	0.4				
•	Telkomsel	<i>-1.0</i>	3.1	1.4						
Δ, %	Telkomsel Hutchison 3	-1.0 9.7	40.0	3.5	0.7	1.1				

Java – Jakarta Raya: TSEL and XL lowered DL mbps capacity while IOH improves

Telkomsel maintains sector lead in download speed with XL coming very close second, although both of their speeds underperformed vs. previous semester. Significant increases are seen in IOH's download, upload speeds and video experience shortening the distance with the leaders TSEL and XL. Hutch3 edged over TSEL in voice experience.



Exhibit 7. West Java Province KPIs performance (Aug-Oct 2024 vs Feb-Apr 2024)

		Wes	st Java			
Period	Operator	Downloa d speed: Overall	Upload speed	Video Experie nce	Voice App. Experienc e	_
Nationw	ide KPIs	(mb	ps)		scale 0-100	
	Indosat Ooredoo	16.7	10.0	58.8	80.1	80.5
Aug 01 -	XL Axiata	24.0	10.4	57.9	80.0	82.2
Oct 29	Smartfren	13.7	2.2	49.4	79.5	76.5
	Telkomsel	27.0	12.6	63.9	80.9	82.4
2023	Hutchison 3	16.8	10.8	60.1	80.3	80.4
	average	19.6	9.2	58.0	80.2	80.4
	Indosat Ooredoo	18.2	9.1	59.6	79.8	81.3
Feb 01 -	XL Axiata	24.0	8.8	57.9	79.4	81.7
Apr 30	Smartfren	14.2	2.1	49.4	78.3	74.8
•	Telkomsel	26.7	11.2	64.7	80.5	83.6
2024	Hutchison 3	18.2	9.4	61.8	80.8	83.5
	average	20.3	8.1	<i>58.7</i>	79.8	81.0
					-	
	Indosat Ooredoo	20.6	11.2	64.2	80.7	83.1
Aug 01 -	XL Axiata	25.6	10.5	61.8	80.4	82.4
Oct 29	Siliartifeli	15.0	2.0	52.3	79.5	79.6
2024	Telkomsel	26.9	11.5	66.2	80.9	84.6
2024	Hutchison 3	20.6	12.0	64.6	81.2	84.5
	average	21.7	9.4	61.8	80.5	82.8
0 - 1 - 1	· . Cl / A	0-1-2	024	E-L A	20241	
Perioa	ic Change (Aug					1.0
!!!	Indosat Ooredoo	2.4	2.1	4.6	0.9	1.8
•	XL Axiata	1.6	1.7	3.9	1.0	0.7
	Smartfren Telkomsel	0.8 0.2	-0.1 0.3	2.9	1.2	4.8
testing	Hutchison 3	0.2 2.4	2.6	1.5 2.8	0.4 0.4	1.0 1.0
period						
	average	1.5	1.3	3.1	0.8	1.9
	1	42.2	22.4		1 4 4	2.2
	Indosat Ooredoo	13.2	23.1	7.7	1.1	2.2
. <i></i>	XL Axiata	6.7	19.3	6.7	1.3	0.9
periodic	Smartfren Telkomsel	5.6 0.7	-4.8	5.9	1.5	6.4
Δ, %	Hutchison 3	13.2	2.7 27.7	2.3 4.5	0.5 0.5	1.2 1.2
	average	7.3	16.3	5.4	1.0	2.3

Java – West Java: TSEL flattish DL speed, with IOH making 2-digit % changes improvement together with XL at less magnitude

Telkomsel maintains sector lead in download speed with 26-27mbps, while XL follows closely in second. Significant increases are seen in IOH's download, upload speeds and video experience to shorten the distance with the leader. XL made significant improvement in Video experience.



Exhibit 8. Central Java Province KPIs performance (Aug-Oct 2024 vs Feb-Apr 2024)

	Central Java Central Java										
		Download		Video	Voice	Gaming					
Period	Operator	speed:	Upload .	Experie	App.	experie					
	·	Overall	speed	nce	Experie	nce					
Nationw	ide KPIs	(mb	ps)		cale 0-10						
	Indosat Ooredoo	17.6	9.2	58.4	80.3	79.1					
Aug 01 -	XL Axiata	19.1	9.0	55.0	79.1	79.2					
Oct 29	Smartfren	12.2	1.8	45.3	77.8	69.1					
1	Telkomsel	24.3	10.8	61.1	80.0	79.7					
2023	Hutchison 3	18.0	9.3	60.4	80.2	78.4					
	average	18.2	8.0	56.0	79.5	77.1					
	Indosat Ooredoo	17.5	8.4	58.0	79.6	78.4					
	XL Axiata	18.8	7.5	56.1	79.1	79.4					
Feb 01 -	Smartfren	12.1	1.5	45.0	76.4	66.8					
Apr 30	Telkomsel	21.3	8.7	61.0	79.8	81.4					
2024	Hutchison 3	16.7	8.4	59.5	80.4	79.9					
	average	17.3	6.9	<i>55.9</i>	79.1	77.2					
	<u> </u>	_			_						
	Indosat Ooredoo	20.9	10.6	64.6	80.6	81.7					
Aug 01 -	XL Axiata	22.8	9.4	61.2	80.4	80.6					
Oct 29	Smartfren	13.6	1.7	48.9	78.5	74.5					
2024	Telkomsel	24.3	10.5	64.2	80.4	82.9					
2024	Hutchison 3	21.6	11.4	65.0	81.2	83.2					
	average	20.6	8.7	60.8	80.2	80.6					
Periodic	Change (Aug - Oct,	2024 vs. Fe	h - Anr 20	24)							
remoune	Indosat Ooredoo	3.4	2.2	6.6	1.0	3.3					
periodic	XL Axiata	4.0	1.9	5.1	1.3	1.2					
Δ - last	Smartfren	1.5	0.2	3.9	2.1	7.7					
testing	Telkomsel	3.0	1.8	3.2	0.6	1.5					
period	Hutchison 3	4.9	3.0	5.5	0.8	3.3					
periou	average	3.4	1.8	4.9	1.2	3.4					
	•										
	Indosat Ooredoo	19.4	26.2	11.4	1.3	4.2					
	XL Axiata	21.3	25.3	9.1	1.6	1.5					
periodic	Smartfren	12.4	13.3	8.7	2.7	11.5					
Δ, %	Telkomsel	14.1	20.7	5.2	0.8	1.8					
	Hutchison 3	29.3	35.7	9.2	1.0	4.1					
	average	19.4	26.4	8.7	1.5	4.4					

Java – Central Java: All telcos improved download speeds, but IOH edged over TSEL in other KPIs.

Telkomsel maintains the sector lead in download speed with XL a very close second and IOH now posting download speeds above 20 Mbps with significant increases in 2H24. IOH now has marginally more capacity with better improvements vs. TSEL and XL in terms of upload speed and video experience.



Exhibit 9. East Java Province KPIs performance (Aug-Oct 2024 vs Feb-Apr 2024)

East Java										
		Download		Video	Voice	Gaming				
Period	Operator	speed:	Upload	Experie	App.	experie				
		Overall	speed	nce	Experie	nce				
Nationw	ide KPIs	(mb	ps)		cale 0-10					
	Indosat Ooredoo	20.8	9.5	62.2	80.8	79.8				
Aug 01 -	XL Axiata	23.4	9.8	56.5	80.4	79.5				
•	Smartfren	15.6	2.5	52.7	79.6	74.5				
Oct 29	Telkomsel	26.4	11.1	63.4	79.1	79.3				
2023	Hutchison 3	20.1	9.6	62.8	80.9	79.9				
	average	21.3	8.5	59.5	80.2	78.6				
	I	22.4								
	Indosat Ooredoo	23.1	9.5	63.2	80.8	79.9				
Feb 01 -	XL Axiata	24.1	8.4	56.6	80.1	79.0				
Apr 30	Smartfren	15.5	2.2	51.8	79.2	74.2				
2024	Telkomsel	25.3	10.1	64.2	78.6	79.5				
	Hutchison 3	23.3	9.7	64.3	81.0	81.5				
	average	22.3	8.0	60.0	79.9	78.8				
	Indosat Ooredoo	24.9	11.2	67.0	81.3	81.4				
	XL Axiata	25.9	9.2	60.2	80.8	79.9				
Aug 01 -	Smartfren	17.5	2.4	56.1	80.6	79.7				
Oct 29	Telkomsel	26.3	10.9	66.2	79.4	80.7				
2024	Hutchison 3	23.9	11.6	66.8	81.6	82.7				
	average	23.7	9.1	63.3	80.7	80.9				
Periodic	Change (Aug - Oct, 2									
!!!	Indosat Ooredoo	1.8	1.7	3.8	0.5	1.5				
	XL Axiata	1.8	0.8	3.6	0.7	0.9				
	Smartfren	2.0	0.2	4.3	1.4	5.5				
testing	Telkomsel Hutchison 3	1.0 0.6	0.8 1.9	2.0 2.5	0.8 0.6	1.2 1.2				
period		1.4	1.1	3.2	0.8 0.8	2.1				
	average	1.4	1.1	3.2	0.0	2.1				
	Indosat Ooredoo	7.8	17.9	6.0	0.6	1.9				
	XL Axiata	7.5	9.5	6.4	0.9	1.1				
periodic	Smartfren	12.9	9.1	8.3	1.8	7.4				
Δ, %	Telkomsel	4.0	7.9	3.1	1.0	1.5				
,	Hutchison 3	2.6	19.6	3.9	0.7	1.5				
	average	6.5	13.5	5.4	1.0	2.6				

Java – East Java: TSEL leader in DL speed. Potentially tighter market competition

The competition appears tight in East Java with no significant capacity advantage for the leader. Telkomsel maintains sector lead in download speed versus XL very close second and close third IOH. IOH now surpassed TSEL in terms of upload speed and video experience. Smartfren led on average in network KPI improvements.



Exhibit 10. Kalimantan Province KPIs performance (Aug-Oct 2024 vs Feb-Apr 2024)

		Kalima	ntan			
Period	Operator	Downloa d speed: Overall	Upload speed	Video Experie nce	Voice App. Experie	Gaming experie nce
Nationw	vide KPIs	(mb	ps)	9	cale 0-10	
	Indosat Ooredoo	19.5	7.6	56.8	77.2	70.4
Aug 01 -	XL Axiata	21.8	8.6	52.9	78.3	72.7
-	Smartfren	13.9	2.4	46.9	78.0	71.0
Oct 29	Telkomsel	26.3	8.7	57.2	76.5	68.7
2023	Hutchison 3	22.6	8.0	62.3	79.8	75.5
	average	20.8	7.1	55.2	78.0	71.7
		•				
	Indosat Ooredoo	20.3	8.0	58.1	78.0	71.6
Feb 01 -	XL Axiata	23.1	7.6	54.2	78.5	73.3
Apr 30	Smartfren	15.9	2.4	49.4	78.5	72.6
•	Telkomsel	27.1	8.2	58.0	77.7	75.0
2024	Hutchison 3	23.5	9.6	63.4	80.5	77.7
	average	22.0	7.2	56.6	78.6	74.0
	•				•	
	Indosat Ooredoo	20.9	8.6	61.0	78.0	71.9
Aug 01 -	XL Axiata	25.4	7.6	57.4	78.7	72.7
Oct 29	Smartfren	15.2	2.2	50.5	79.0	75.7
2024	Telkomsel	27.0	8.2	59.2	77.3	74.0
2024	Hutchison 3	23.8	10.0	65.1	80.2	77.5
	average	22.5	7.3	58.6	78.6	74.4
Periodic	Change (Aug - Oct,					
	Indosat Ooredoo	0.6	0.6	2.9	0.0	0.3
	XL Axiata	2.3	0.0	3.2	0.2	-0.6
∆ - last	Smartfren	-0.7	-0.2	1.1	0.5	3.1
testing	Telkomsel	-0.1	0.0	1.2	-0.4	-1.0
period	Hutchison 3	0.3	0.4	1.7	-0.3	-0.2
	average	0.5	0.2	2.0	0.0	0.3
	1, , , , , ,	2.0		5.0		
	Indosat Ooredoo	3.0	7.5	5.0	0.0	0.4
	XL Axiata	10.0	0.0	5.9	0.3	-0.8
	Smartfren	-4.4	-8.3	2.2	0.6	4.3
Δ, %	Telkomsel Hutchison 3	-0.4 1.3	0.0 4.2	2.1 2.7	-0.5 -0.4	-1.3 -0.3
	average	2.2	2.2	3.6	0.0	0.4

Kalimantan: IOH leader in DL speed. Potentially tight market competition

The network capacities remain relatively unchanged vs. previous semester with only XL making some tangible capacity gains in core categories. Telkomsel maintains sector lead in download speed versus XL very close second now, while IOH DL speeds remained flattish. Hutch maintains a good lead in other core KPIs.



Exhibit 11. Nusa Tenggara islands KPIs performance (Aug-Oct 2024 vs Feb-Apr 2024)

LXIIIDIC 11	Nusa Tenggara Islands KPIs performance (Aug-Oct 2024 vs Feb-Apr 2024) Nusa Tenggara Islands									
	IV.	Download	ara isiaiit	Video	Voice	Gaming				
Daviad	Omerates		Upload			_				
Period	Operator	speed:	speed	Experie	App.	experie				
		Overall		nce	Experie	nce				
Nationw		(mb			cale 0-10					
	Indosat Ooredoo	23.4	10.1	63.5	80.4	78.4				
Aug 01 -	XL Axiata	23.1	8.9	53.0	79.1	78.5				
Oct 29	Smartfren	13.5	2.5	50.2	79.0	73.5				
2023	Telkomsel	24.5	11.9	60.5	79.4	76.8				
2023	Hutchison 3	25.1	8.7	65.7	80.9	79.5				
	average	21.9	8.4	58.6	79.8	77.3				
	T	1		T -						
	Indosat Ooredoo	28.0	10.4	64.8	80.8	79.2				
Feb 01 -	XL Axiata	23.3	8.1	55.3	80.1	79.5				
Apr 30	Smartfren	13.9	2.1	50.9	78.0	71.6				
2024	Telkomsel	25.5	11.1	60.4	79.6	78.4				
2024	Hutchison 3	31.1	9.8	67.0	80.8	79.2				
	average	24.4	<i>8.3</i>	59.7	79.9	77.6				
	Indosat Ooredoo	26.3	10.3	67.2	80.9	79.0				
Aug 01 -	XL Axiata	25.5	8.1	58.7	80.3	78.4				
Oct 29	Smartfren	15.3	2.1	54.3	79.9	76.9				
2024	Telkomsel	27.4	11.3	63.1	79.8	78.8				
2024	Hutchison 3	28.3	10.8	68.2	81.5	80.4				
	average	24.6	8.5	62.3	80.5	78.7				
Periodic	Change (Aug - Oct,									
	Indosat Ooredoo	-1.7	-0.1	2.4	0.1	-0.2				
	XL Axiata	2.2	0.0	3.4	0.2	-1.1				
Δ - last	Smartfren	1.4	0.0	3.4	1.9	5.3				
testing	Telkomsel	1.9	0.2	2.7	0.2	0.4				
period	Hutchison 3	-2.8	1.0	1.2	0.7	1.2				
<u> </u>	average	0.2	0.2	2.6	0.6	1.1				
	1									
	Indosat Ooredoo	-6.1	-1.0	3.7	0.1	-0.3				
	XL Axiata	9.4	0.0	6.1	0.2	-1.4				
periodic		10.1	0.0	6.7	2.4	7.4				
Δ, %	Telkomsel	7.5	1.8	4.5	0.3	0.5				
	Hutchison 3	-9.0	10.2	1.8	0.9	1.5				
	average	0.8	2.7	4.4	0.8	1.4				

Nusa Tenggara islands: IOH leader in DL speed. IOH with lower mbps download speeds in 2H24, but maintains DL speed lead while TSEL and XL reduced the gap IOH with Hutch3 maintains sector lead in download speed versus TSEL close second and XL close 3rd. Both Indosat and Hutch3 download speeds declined by -6.1% and -2.8% while XL and TSEL made capacity gains. The landscape in upload speed remained unchanged with TSEL having the lead, important for tourist destination areas. IOH maintains the lead in Video experience with TSEL as second and XL as third.



Exhibit 12. Sulawesi island KPIs performance (Aug-Oct 2024 vs Feb-Apr 2024)

Sulawesi								
Period	Operator	Download	Unload	Video	Voice	Gaming		
		speed: `	Upload .	Experie	App.	experie		
			speed	nce	Experie	nce		
Nationw	ide KPIs	(mb	ps)	5	scale 0-100			
Aug 01 - Oct 29	Indosat Ooredoo	18.9	8.2	56.2	78.1	70.4		
	XL Axiata	17.2	7.6	47.2	78.2	72.4		
	Smartfren	11.8	1.8	42.7	77.0	67.7		
	Telkomsel	28.0	9.2	58.6	77.5	67.1		
2023	Hutchison 3	21.2	8.9	59.3	79.6	73.8		
	average	19.4	7.1	52.8	78.1	70.3		
	Indosat Ooredoo	19.8	7.8	56.6	78.0	69.3		
Feb 01 -	XL Axiata	19.6	6.6	51.1	78.7	72.7		
Apr 30	Smartfren	11.6	1.5	43.6	76.9	66.4		
2024	Telkomsel	27.2	8.6	58.4	78.9	74.2		
2024	Hutchison 3	23.2	9.4	61.3	79.8	74.0		
	average	20.3	6.8	54.2	78.5	71.3		
	Indosat Ooredoo	21.2	8.3	61.5	79.2	73.1		
Aug 01 -	XL Axiata	21.3	7.0	54.8	78.1	68.2		
Oct 29	Smartfren Telkomsel	13.4 28.6	1.6 8.2	46.7 60.9	78.0 78.7	72.3 75.1		
2024	Hutchison 3	24.4	9.7	65.4	80.4	75.1 76.5		
	average	21.8	7.0	57.9	78.9	73.0		
	uverage	21.0	7.0	37.3	70.5	73.0		
Periodic	Change (Aug - Oct,	2024 vs. Fe	b - Apr 20	24)				
	Indosat Ooredoo	1.4	0.5	4.9	1.2	3.8		
periodic	XL Axiata	1.7	0.4	3.7	-0.6	-4.5		
Δ - last	Smartfren	1.8	0.1	3.1	1.1	5.9		
testing	Telkomsel	1.4	-0.4	2.5	-0.2	0.9		
period	Hutchison 3	1.2	0.3	4.1	0.6	2.5		
periou	average	1.5	0.2	3.7	0.4	1.7		
		•		•	•	•		
periodic Δ, %	Indosat Ooredoo	7.1	6.4	8.7	1.5	5.5		
	XL Axiata	8.7	6.1	7.2	-0.8	-6.2		
	Smartfren	15.5	6.7	7.1	1.4	8.9		
	Telkomsel	5.1	-4.7	4.3	-0.3	1.2		
	Hutchison 3	5.2	3.2	6.7	0.8	3.4		
	average	7.4	2.7	6.8	0.5	2.4		

Sulawesi island: Good DL speed lead by TSEL. Rather unchanged competition intensity in DL speed, TSEL upload speed reduced mbps

The market intensity in Sulawesi remains relatively unchanged. Telkomsel retains the sector lead in download speed with big gap vs. contenders while we see improvements in DL absolute speeds from all operators. Hutch3 maintains sector lead in upload speed, video and voice experience and gained also the lead in gaming experience in 2H24. Additionally Indosat improved its capacity the most among networks for upload, video and voice experience and coming 2nd place behind Hutch3.



Exhibit 13. Sumatra island KPIs performance (Aug-Oct 2024 vs Feb-Apr 2024)

Sumatera								
Period	Operator	Download	Upload speed	Video	Voice	Gaming		
		speed:		Experie	App.	experie		
		Overall		nce	Experie	nce		
Nationw	ide KPIs	(mb	ps)	scale 0-100				
Aug 01 - Oct 29	Indosat Ooredoo	17.1	7.4	57.1	78.8	75.2		
	XL Axiata	20.1	7.3	53.6	78.5	72.6		
	Smartfren	12.1	2.0	42.3	78.8	74.8		
	Telkomsel	24.5	10.3	60.0	79.5	76.3		
2023	Hutchison 3	19.7	8.1	61.3	80.0	76.7		
	average	18.7	7.0	54.9	79.1	75.1		
	Indosat Ooredoo	18.1	7.6	58.3	78.6	74.7		
Feb 01 -	XL Axiata	21.4	6.8	53.6	78.2	73.3		
Apr 30	Smartfren	12.1	2.1	44.2	78.1	73.9		
2024	Telkomsel	23.9	9.7	60.4	79.4	78.2		
2024	Hutchison 3	21.1	8.7	62.5	80.1	78.0		
	average	19.3	7.0	55.8	<i>78.9</i>	<i>75.6</i>		
		1 1		T	I			
	Indosat Ooredoo	21.0	8.7	63.0	79.4	76.4		
Aug 01 -	XL Axiata	23.2	8.4	56.8	79.1	74.7		
Oct 29	Smartfren	12.1	2.1	56.8	78.8	75.9		
2024	Telkomsel	24.3	9.8	62.0	79.5	78.3		
	Hutchison 3	22.9 20.7	9.4 7.7	65.2	80.2 79.4	78.8		
	average	20.7	7.7	60.8	73.4	76.8		
Periodic	Change (Aug - Oct,	2024 vs. Fe	h - Anr 20	24)				
remodic	Indosat Ooredoo	2.9	1.1	4.7	0.8	1.7		
periodic	XL Axiata	1.8	1.6	3.2	0.9	1.4		
	Smartfren	0.0	0.0	12.6	0.7	2.0		
testing	Telkomsel	0.4	0.1	1.6	0.1	0.1		
-	Hutchison 3	1.8	0.7	2.7	0.1	0.8		
period	average	1.4	0.7	5.0	0.5	1.2		
	<u> </u>							
periodic Δ, %	Indosat Ooredoo	16.0	14.5	8.1	1.0	2.3		
	XL Axiata	8.4	23.5	6.0	1.2	1.9		
	Smartfren	0.0	0.0	28.5	0.9	2.7		
	Telkomsel	1.7	1.0	2.6	0.1	0.1		
	Hutchison 3	8.5	8.0	4.3	0.1	1.0		
	average	7.1	10.0	8.9	0.7	1.6		

Sumatra island: DL speed leader TSEL. Flattish DL speed by TSEL, while IOH and XL reduced the gap

We gather there is high market intensity in Sumatra. Telkomsel lead in download and upload speeds becomes marginal with 24Mbps, with close 2nd XL, while seeing improvements in DL absolute speeds from contenders. Hutch3 maintains sector lead in video and voice experience and gained also the lead in gaming experience in 2H24 with TSEL close 2nd.



Exhibit 14. Yogyakarta KPIs performance (Aug-Oct 2024 vs Feb-Apr 2024)

Yogyakarta							
Period	Operator	Download	Unload	Video	Voice	Gaming	
		speed:	Upload	Experie	App.	experie	
		Overall	speed	nce	Experie	nce	
Nationwide KPIs		(mb	ps)	scale 0-100			
Aug 01 - Oct 29	Indosat Ooredoo	18.4	8.3	60.7	81.0	80.0	
	XL Axiata	23.7	9.9	59.5	79.8	78.8	
	Smartfren	14.3	2.2	50.2	78.9	71.5	
	Telkomsel	26.1	12.3	62.3	80.7	81.0	
2023	Hutchison 3	19.7	8.7	63.0	80.9	80.0	
	average	20.4	8.3	59.1	80.3	78.3	
				•			
Feb 01 -	Indosat Ooredoo	19.1	8.5	60.6	80.3	79.4	
	XL Axiata	21.4	8.5	60.4	79.9	80.6	
Apr 30	Smartfren	14.0	1.8	48.9	77.7	69.4	
1 -	Telkomsel	24.6	10.0	64.1	80.2	81.7	
2024	Hutchison 3	18.1	8.3	62.4	80.9	80.4	
	average	19.4	7.4	59.3	79.8	78.3	
	•			•			
	Indosat Ooredoo	21.4	10.0	65.6	80.9	81.4	
Aug 01 -	XL Axiata	24.5	10.4	64.1	81.0	81.2	
Oct 29	Smartfren	15.4	2.0	52.3	79.6	77.0	
2024	Telkomsel	26.3	11.2	66.0	80.7	83.5	
2024	Hutchison 3	21.8	10.6	64.1	81.5	83.3	
	average	21.9	8.8	62.4	80.7	81.3	
	<i>a</i>			0.41			
Periodic	Change (Aug - Oct,		•		0.6	2.0	
noriodic	Indosat Ooredoo	2.3	1.5	5.0	0.6	2.0	
	XL Axiata	3.1	1.9	3.7	1.1	0.6	
Δ - last	Smartfren Telkomsel	1.4 1.7	0.2 1.2	3.4	1.9	7.6	
testing	Hutchison 3	3.7	2.3	1.9 1.7	0.5 0.6	1.8 2.9	
period							
	average	2.4	1.4	3.1	0.9	3.0	
periodic Δ, %	Indosat Ooredoo	12.0	17.6	8.3	0.7	2.5	
	XL Axiata	14.5	22.4	6.1	1.4	0.7	
		10.0	11.1	7.0	2.4	11.0	
	Telkomsel	6.9	12.0	3.0	0.6	2.2	
	Hutchison 3	20.4	27.7	2.7	0.7	3.6	
	average	12.6	19.1	5.3	1.2	3.8	
	average	12.0	10.1	3.3	1.2	3.0	

Java – Yogyakarta: DL speed leader TSEL. Managed competition with all operators making capacity gains

Telkomsel maintains the lead in download speed with 26.3mbps but XL and IOH shortening the distance. Moreover, TSEL maintains the lead in the upload speed, video and gaming experience, and is close 2nd to Hutch in voice experience.







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BUYExpected total return of 10% or more within a 12-month periodHOLDExpected total return between -10% and 10% within a 12-month periodSELLExpected total return of -10% or worse within a 12-month period

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