

Telecommunications Sector
Performance Review
Market Report

2014



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1. Introduction

The Telecommunications Sector Performance Review (TSPR) evaluates developments for the year 2013. An updated version will be published annually as new data become available. The review takes into account the following:

- The financial health and performance of Namibian operators;
- Consumer price developments;
- Changes in the competitive landscape; and
- The general trend of the year under review.

The main event that shaped the competitive telecommunications landscape in Namibia has been the takeover of Leo by Telecom Namibia Limited. Namibia is now back to the in pre-liberalisation era of 2005 with only two telecommunications operators offering national voice services, both of which are majority state owned or entirely state owned. A major concern is thus whether the takeover has led to reduced competition and higher consumer prices. While it may be too early to evaluate the impact of the consumer price and quality of service on the sector, what can be noticed is that Telecom Namibia and MTC do not act as though they are owned by the same holding company; but seem to compete as independent entities. This is likely the result of MTC being managed by Portugal Telecom.

2. Sector Overview

Namibia's telecommunications sector is highly concentrated with two operators - MTC and Telecom Namibia - accounting for more than 99% of the assets and 96% of revenues. The focus of this report is, thus, largely on these two companies.

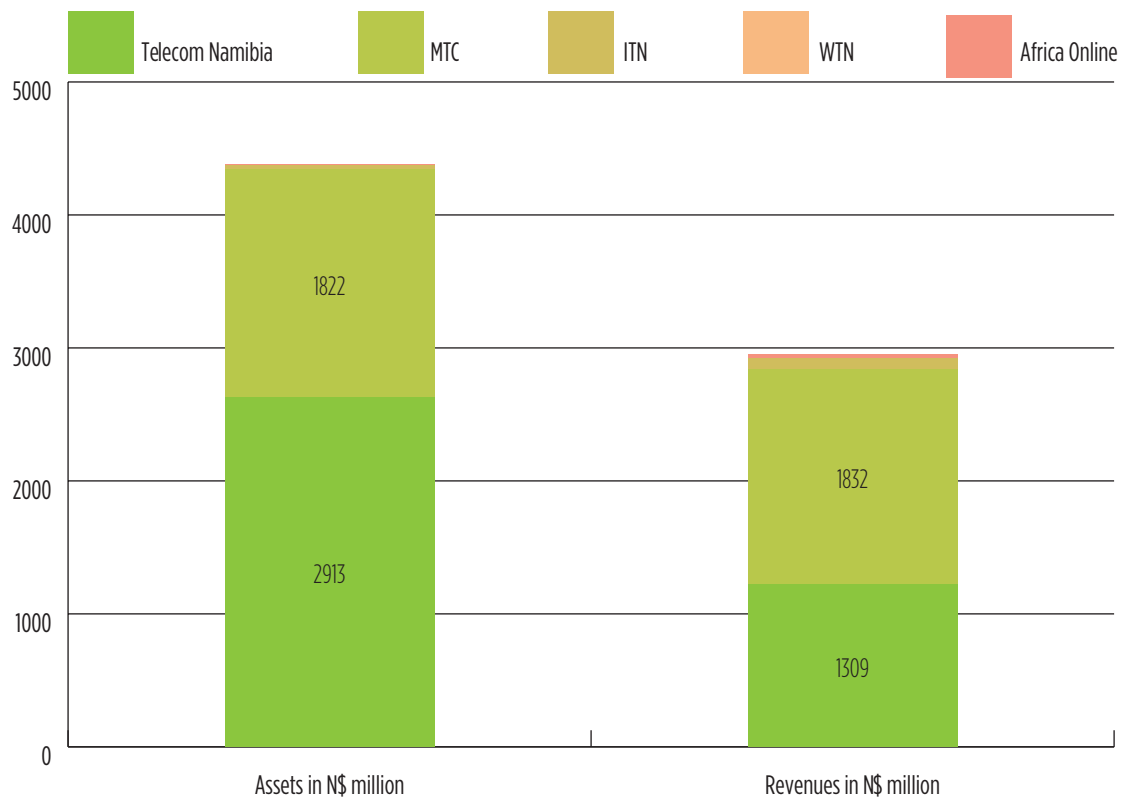


Figure 1: Assets and revenues in N\$ million for financial year ending in 2013

** WTN & ITN are now known as Paratus Telecom (Pty) Ltd.*

3. Financial Performance of MTC

MTC's revenues increased consistently during the past eight years. The year 2010 saw the slowest revenue growth with only 1.2%, which can be attributed to a decrease in termination rate revenues. In 2010, MTC also yielded a phenomenal earnings before interest, tax, depreciation and amortisation (EBITDA) margin of 55.8% and MTC's shareholders benefitted from a return on equity of N\$0.34 per N\$1 invested.

Table 1: MTC's KPIs		2005	2006	2007	2008	2009	2010	2011	2012	2013
Revenue	N\$ million	769	937	1,113	1,232	1,390	1,407	1,453	1,617	1,832
	YoY growth		21.8%	18.8%	10.7%	12.8%	1.2%	3.3%	11.3%	13.3%
Shareholders' equity N\$ million		646	903	999	1,136	1,153	1,166	1,121	1,132	1,173
Taxation N\$ million		147	171	177	181	199	187	160	167	248
Net profit after tax	N\$ million	293	337	340	358	388	397	319	353	425
	YoY growth		15.0%	0.9%	5.3%	8.4%	2.3%	-19.6%	10.7%	20.3%
Capital expenditure	N\$ million	160	188	340	286	260	410	237	331	427
	% of revenues	20.8%	20.1%	30.5%	23.2%	18.7%	29.1%	16.3%	20.5%	23.3%
	% of after tax profit	54.6%	55.8%	100.0%	79.9%	67.0%	103.3%	74.3%	93.8%	100.5%
Depreciation (N\$ million)		58.4	68.3	73.4	108.8	149.2	154.8	174.9	207.7	205.5
Total assets (N\$ million)		915	1,169	1,329	1,608	1,632	1,791	1,696	1,711	1,822
Total liabilities (N\$ million)		269	266	330	472	479	625	575	579	649
Financial leverage		1.42	1.29	1.33	1.42	1.42	1.54	1.51	1.51	1.55
Dividends	N\$ million	110	80	245	221	370	384	364	341	384
	% of after tax profit	37.5%	23.7%	72.1%	61.7%	95.4%	96.7%	114.1%	96.6%	90.4%
Return on equity		45.4%	37.3%	34.0%	31.5%	33.7%	34.0%	28.5%	31.2%	36.2%
Profit margin		38.1%	36.0%	30.5%	29.1%	27.9%	28.2%	22.0%	21.8%	23.2%
EBITDA margin		61%	60.2%	52.2%	50.9%	53.8%	55.8%	53.2%	53.2%	55.0%
Active SIM cards in 1000		403.7	555.5	743.5	1,008.7	1,283.5	1,535.0	1,854.7	2,042.6	2,380
Full-time staff		276	272	296	397	416	395	407	421	461
Monthly ARPU in N\$ (calculated not reported)		159	141	125	102	90	76	65	66	64

Source: MTC annual reports, 2005-13

The shareholder's equity nearly doubled in the past eight years, an increase from N\$ 646 million to N\$ 1.173 million. Dividends paid by MTC increased from N\$ 110 million to N\$ 384 million during the past eight years, a payout of more than triple. Most of the after-tax profits were disbursed as dividends in the past five years, and exceeded company profits (even in 2011). This is not of concern since the profit for 2011 was only lower due to depreciations, which are non-cash expenditures. The 2011 net profit after tax was slightly lower than the previous year due to increased CAPEX in 2010 (N\$ 410 million) and the subsequent higher depreciations in 2011.

MTC continues to be profitable and continues to invest, which indicates that the financial performance is of no regulatory concern. However, the increasing profit and EBITDA margin for the financial year ending in September 2013 should be of concern since it could be an indication of a lack of effective competition in the market.

4. Financial Performance of Telecom Namibia (Company)

Telecom Namibia shows marginal growth in revenues over the past eight years with noticeably higher increases in 2009, 2012 and 2013. The 2012 and 2013 increases were due to increases in data revenue of about 20% in both years.

Table 2: Telecom Namibia's KPIs		2006	2007	2008	2009	2010	2011	2012	2013
Revenue	N\$ million	1,058	1,061	1,081	1,130	1,134	1,143	1,223	1,310
	YoY growth		0.3%	1.9%	4.5%	0.4%	0.8%	7.0%	7.1%
Taxation	N\$ million	61.8	27.9	33.1	9.2	18	40	27	-18
Net profit / loss after tax	N\$ million	112.3	23.2	80.1	25.6	69.7	50.6	56.6	-87.5
Capex (Group additions to Plant and equipment)	N\$ million	170.0	346.1	245.9	245.9	160.9	173.2	235.1	445.4
Total assets	N\$ million	1,781	2,040	2,231	2,325	2,534	2,566	2,629	2913
	YoY growth		14.5%	9.4%	4.2%	9.0%	1.3%	2.4%	10.8%
Total liabilities	N\$ million	801	1,025	1,168	1,237	1,393	1,374	1,376	1,746
	YoY growth		28.0%	14.0%	5.9%	12.6%	-1.4%	0.2%	26.9%
Shareholders' Equity in nominal terms	N\$ million	980	1,015	1,063	1,088	1,141	1,192	1,252	1,167
	YoY growth		3.6%	4.7%	2.4%	4.9%	4.5%	5.1%	-6.9%
Annual inflation rate %		5.1%	6.5%	10.3%	8.8%	4.5%	5.1%	6.5%	
Dividend	N\$ million	17	0	0	0	0	0	0	0
Return on Equity		11.5%	2.3%	7.5%	2.4%	6.1%	4.2%	4.5%	-7.5%
Financial Leverage		1.8	2.0	2.1	2.1	2.2	2.2	2.1	2.5
Profit Margin		10.6%	2.2%	7.4%	2.3%	6.1%	4.4%	4.6%	-6.7%
DELs in 1000 incl. public phones		136.2	138.2	145.4	148.7	157.1	159.1	168.5	180.1
No of Public Phones		6086	4,200	3,860	3,726	2,949	2,824	2,500	1000
Full-time Staff		1,306	1,069	1,025	1093	1073	1055	1076	1090
Mobile	N\$ million							44.627	65.846
Fixed voice revenues incl. interconnection revenues	N\$ million				765.2	639.4	536	516.4	456.7
	YoY growth					-16.4%	-16.2%	-3.7%	-11.6%
Data and IP services revenues	N\$ million				297	417	452	541.7	637.9
	YoY growth					40.4%	8.4%	19.8%	17.8%

Source: Annual reports, 2006-13

The shareholder’s equity increased at a rate of about 5% during the period 2007 to 2012. These increases are in nominal terms and only in 2010 was the year-on-year growth higher than inflation, implying that the shareholder lost value in real terms in all other years. In 2013 the shareholder’s equity declined in nominal terms by 6.9%, due to losses in this financial year. The company’s shareholder’s equity declined by N\$ 86 million, i.e. state assets are worth N\$ 86 million less after the take over of Leo by Telecom Namibia.

Telecom Namibia’s net loss for the financial year ending in 2013 was N\$ 87.5 million on company level and N\$ 166 million on group level. Telecom Namibia attributes this to operational losses from Leo.

Also of concern is the increase in current liabilities on group level by N\$ 459 million, while current assets only increased by N\$44 million.

Revenues, profits, shareholder equity and return on equity at company level all suggest that Telecom Namibia is stagnating. After the takeover of Leo, net losses additionally threaten the investment and innovation capacity of Telecom Namibia. Investments in particular are needed for fixed broadband Internet access since the future growth potential is based in data growth.



Figure 2: Telecom Namibia group profit/loss after taxation in N\$ million

* Source: TN annual reports, 2006-12

Telecom Namibia started de-investing from its foreign ventures. The sale of Telecom Namibia's 44% share in Mundo Startel, announced in September 2012, is not yet complete. Telecom Namibia may also sell its share in Neotel, pending an offer by Vodacom. Telecom Namibia Limited owns 100% of CommuniTel, a South African registered company, which in turn owns 11.7% of Neotel (N\$ 527 million in ordinary and preference shares).

The sale of its foreign investments will allow Telecom Namibia to use domestically generated funds for urgently needed domestic investments.

5. Key Performance Indicators (KPIs) - Mobile Operators

5.1 MTC

Implied prices are calculated by taking the monthly average revenue per user (ARPU) and dividing it by the monthly average minutes of use per user (MOU). Analysing implied prices provides a picture on price developments independent of advertised prices and product choices of users. MTC's implied price for postpaid products is going up since the takeover of Leo by Telecom Namibia, while the overall implied prices dropped to N\$ 0.43 in the last two quarters of 2013, due to the drop in implied prepaid prices.

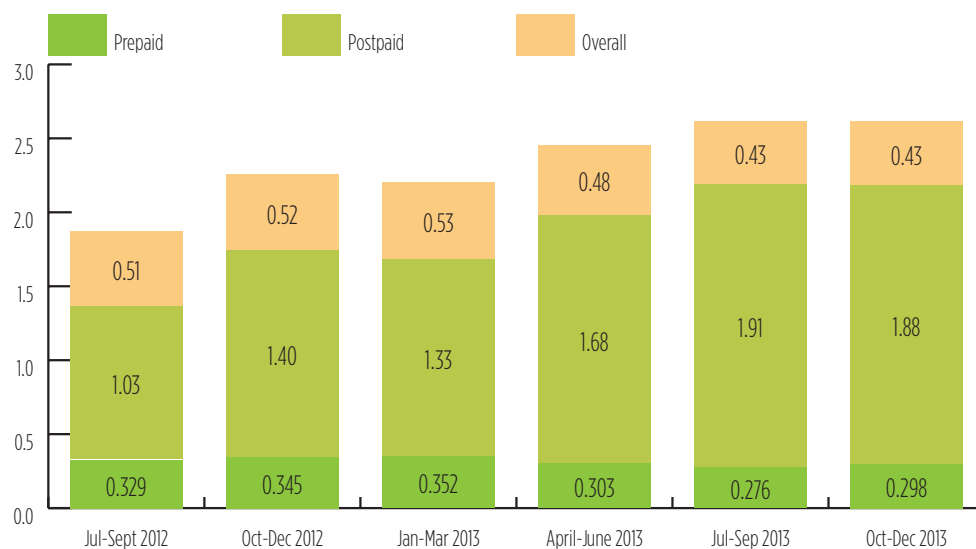


Figure 3: MTC's implied prices (voice APRU divided by MOU)

- It is not that MTC increased prices - post and prepaid prices remained constant. Looking into the average quarterly minutes of use (MoU) reveals that postpaid MoU decreased while prepaid MoU increased. The implied price for prepaid decreased while postpaid increased. This has to do with various factors:
- Postpaid customers may be shifting out of bundle traffic to prepaid, which would not be surprising since the prepaid implied price is only a fraction of the postpaid implied price.
- Out of bundle voice calls may have shifted to VoIP services such as Skype and Facetime.
- Another reason for the increase in implied prices for postpaid packages could be a switch to high-end packages without increases in voice use in order to get a bundled smartphone such as an iPhone or Samsung Galaxy phone. However, postpaid ARPU declined in recent quarters (see Figure 4).
- Lower postpaid voice ARPU may be the effect of more data-only devices. The number of active SIM cards would increase without a corresponding increase in voice revenue, and would thus lead to a lower postpaid voice ARPU.

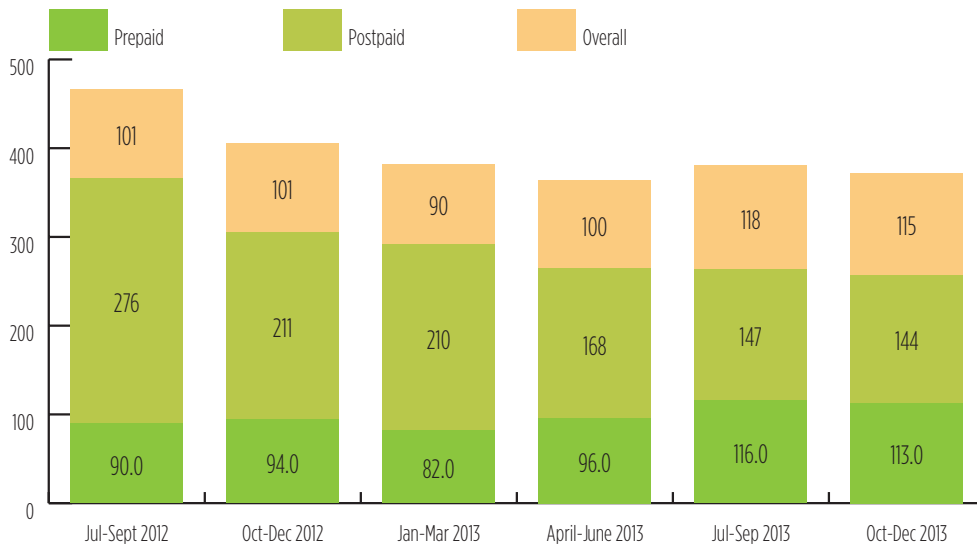


Figure 4: MTC MOU

Given that the handset value has indisputably gone up with an increasing smartphone penetration, the effect of postpaid-prepaid substitution may be more significant than apparent from the data. The postpaid ARPU includes a handset for most contracts. One would thus expect an increasing postpaid voice ARPU.

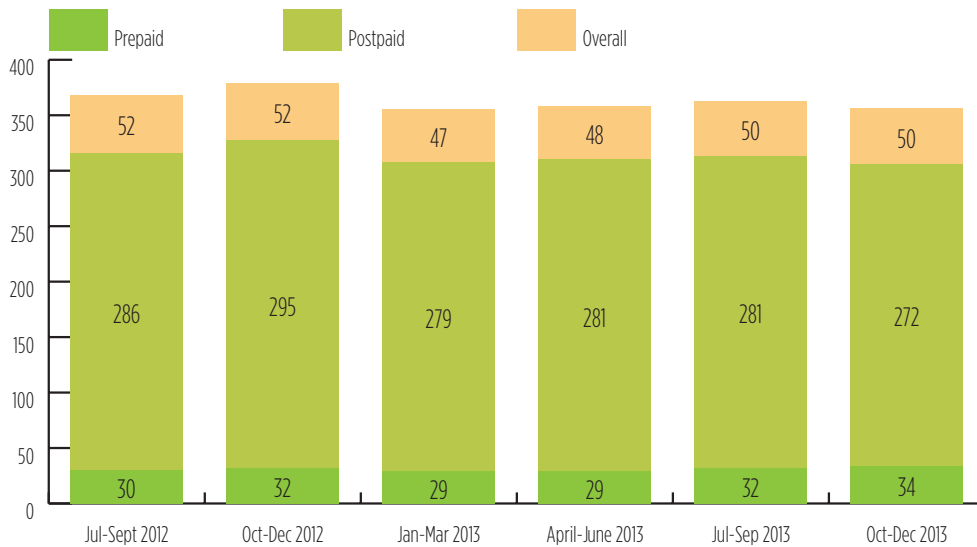


Figure 5: MTC Voice ARPU

At the moment, there does not seem to be any competitive pressure that would require MTC to cut its postpaid prices dramatically in order to align them with prepaid prices. MTC is currently competing with itself: postpaid versus prepaid. With postpaid customers typically being locked in for 24 months, one would expect a drop in postpaid subscribers in the next few quarters. This has not happened, however, in the previous quarters despite the price difference already being effective for the entire period under consideration.

Table 3: MTC subscribers		Jul-Sept 2012	Oct-Dec 2012	Jan-Mar 2013	April-June 2013	Jul-Sep 2013	Oct-Dec 2013
Prepaid	Subscribers (active SIM cards)	1,922,147	2,024,498	2,065,259	2,074,708	2,141,481	2,248,022
	YoY		5.3%	2%	0.5%	3.2%	5%
Postpaid	Subscribers (active SIM cards)	120,448	122,335	123,210	125,581	128,020	132,260
	YoY		1.6%	0.7%	1.9%	1.9%	3.3%

One of the reasons for a user to keep their postpaid number is to get the handset financed. Companies also increasingly rely on mobile phones for in-house communication instead of using a fixed-line private automatic branch exchange (PABX), creating a solid block of customers that would not change to prepaid if they had the choice. MTC managed to grow both data and voice revenues continuously in the past six quarters with the exception of a dent in voice revenues in the first quarter of 2013, which may be seasonal.

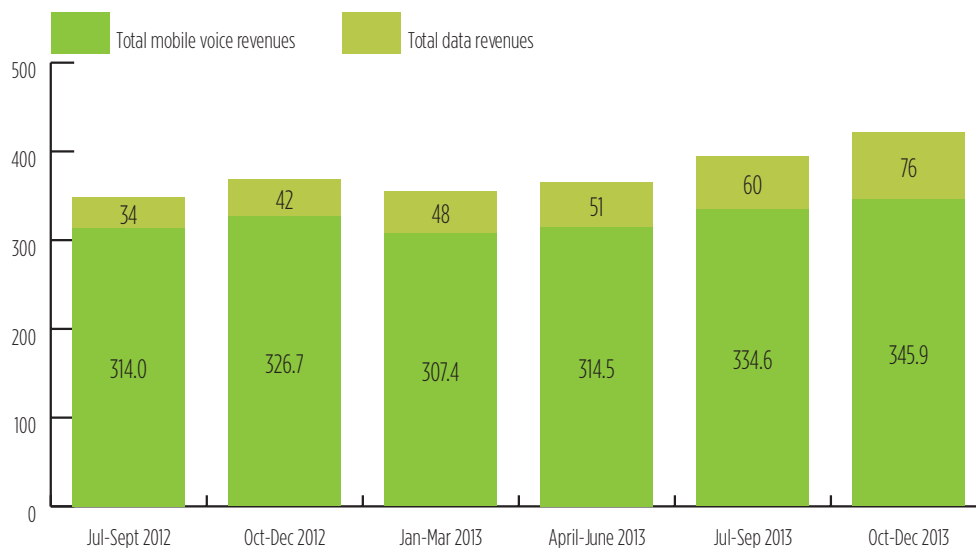


Figure 6: MTC Data vs voice revenues in N\$ million

MTC also grew its postpaid an prepaid voice and data subscriber base in the second half of 2013.

Table 4: MTC Subscribers		Jul 2012 -Dec 2012	Jan 2013 - Jun 2013	Jul 2013 -Dec 2013
Mobile Subscribers	Prepaid	2,024,498	2,074,708	2,248,022
	Postpaid	122,335	125,581	132,260
	Total	2,146,833	2,200,289	2,380,282
Data Subscribers	Active mobile-broadband subscriptions	640,512	719,728	788,015
	Standard mobile-broadband subscriptions	570,788	656,549	721,381
	Dedicated mobile-broadband subscriptions	69,724	63,179	66,634

5.2 TN Mobile

The most notable difference between the implied prices of TN Mobile and MTC is that TN Mobile charges are triple the prepaid price of MTC and a quarter of the postpaid price.

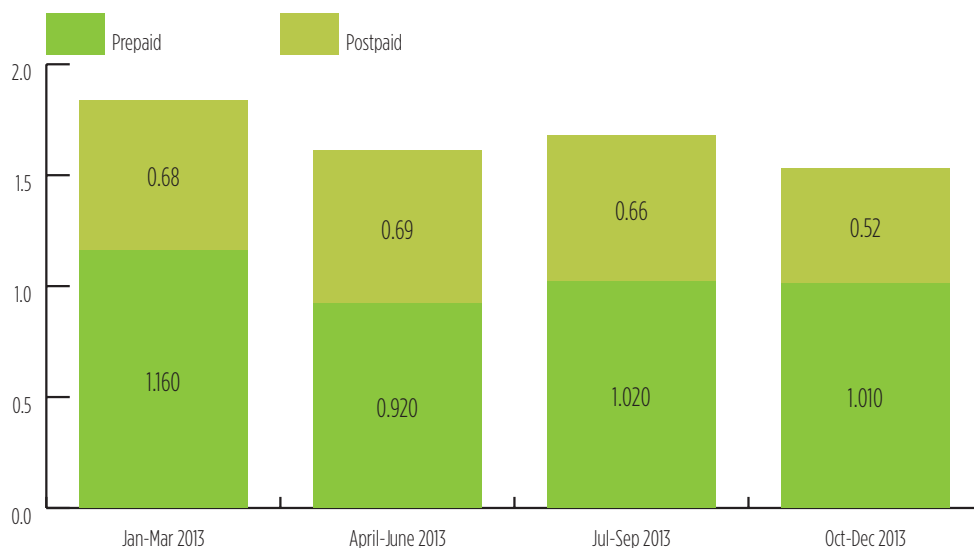


Figure 7: TN Mobile's implied prices (voice APRU divided by MOU)

TN Mobile lost 27% of its subscribers in the last quarter of 2013. Of its postpaid subscribers, it lost 32.6% and of its prepaid subscribers, 25%. However, while subscriber numbers dwindled, total traffic peaked among postpaid subscribers by 2 million minutes in the last quarter of 2013. Also, ARPU and MOU are higher in the last two quarters of 2013, indicating subscribers that left TN Mobile or lower end user. Such a dramatic loss in subscribers is a worrying sign and could reflect a serious problem in the operations of the mobile operator. This could be due to unsuccessful customer attraction and retention strategies, billing problems or a decline in quality of service. CRAN will monitor the situation closely over the course of 2014.

Table 5: TN Mobile KPI's		Jan-Mar 2013	April-June 2013	Jul-Sep 2013	Oct-Dec 2013
ARPU - Monthly	Prepaid voice	43	41	43	58
	Postpaid voice	175	178	164	248
MOU- Monthly	Prepaid	37	45	42	57
	Postpaid	259	260	249	478
	Total	89	98	95	156
Prepaid	Subscribers (active SIM cards)	74,899	74,089	77,549	57,966
	YoY		-1.1%	4.7%	-25.3%
Postpaid	Subscribers (active SIM cards)	22,918	24,148	26,376	17,786
	YoY		5.4%	9.2%	-32.6%
Total	Subscribers (active SIM cards)	97,817	98,237	103,925	75,752
	YoY		0.4%	5.8%	-27.1%
Prepaid Minutes		2,798,215	3,318,566	3,274,359	3,326,091
Postpaid Minutes		5,926,493	6,272,379	6,570,697	8,500,330
Total minutes		8,724,708	9,590,945	9,845,056	11,826,421

5.3 Outgoing Mobile Traffic

In the second half of 2013, TN Mobile only had an on-net traffic share of 0.1%. Eighty-one per cent (81%) of its traffic was off-net (See Table 8). Only 5.1% of calls initiated were on-net calls. MTC's outgoing traffic is mostly on-net and only 0.3% of minutes dialled by MTC customers were for TN Mobile callers. This is despite off-net price caps implying that Namibia currently only has one competitive mobile operator.

Table 6: Distribution of outgoing traffic by operator		Jul 2012 -Dec 2012	Jan 2013 - Jun 2013	Jul 2013 -Dec 2013
MTC	On net	97.3%	97.3%	97.2%
	Off-net mobile	0.3%	0.3%	0.3%
	Off-net fixed-line	1.5%	1.5%	1.7%
	International	0.9%	0.9%	0.8%
TN Mobile	On net	5.9%	5.0%	5.1%
	Off-net mobile	83.7%	83.8%	81.3%
	Off-net fixed-line	4.4%	5.5%	6.5%
	International	6.1%	5.7%	7.1%

This is further enforced by the total number of outgoing minutes of Namibia’s mobile operators, where MTC’s market share was 98.1% in the second half of 2013.

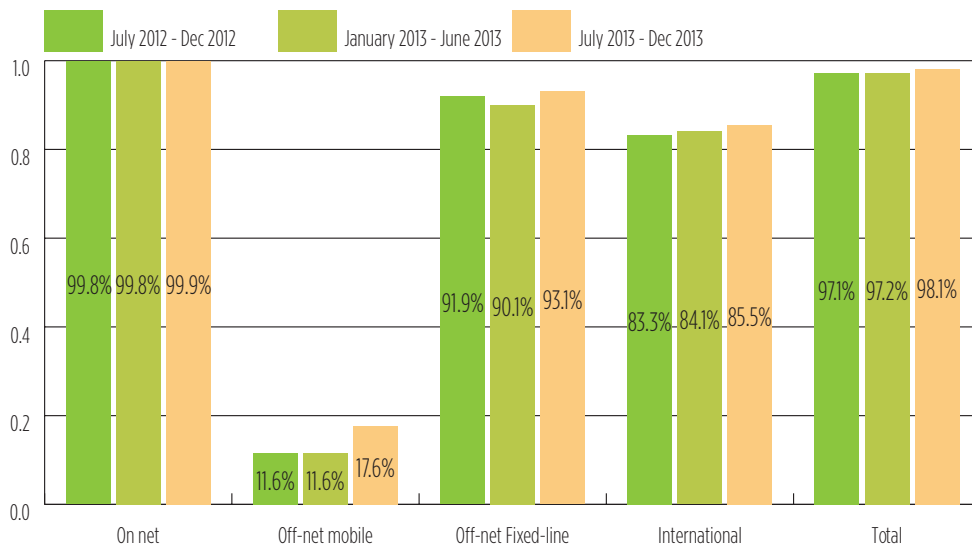


Figure 8: MTC’s market share of total mobile traffic

MTC currently has a factual mobile monopoly with 98% of total mobile traffic and 99.9% of total on-net traffic

5.4 Mobile network infrastructure

Through their takeover of Leo, Telecom Namibia increased its number of mobile base stations in operation from 269 to 409. There will be some duplication in coverage between the two networks (Switch and Leo) and consolidation can be expected for 2014 since Switch will be completely phased out and TN Mobile is switching to a NGN network. Telecom Namibia still needs to improve its network footprint by more than double if it wants to compete with MTC's 1,088 base stations.

Table 7: Mobile's Infrastructure	End Dec2012		End June 2013		End Dec 2013	
	MTC	TN Mobile	MTC	TN Mobile	MTC	TN Mobile
Total international uplink bandwidth in Gbit/s	0.922	4.052	0.922	4.708	1.922	10.288
Total international downlink bandwidth in Gbit/s	0.922	4.052	0.922	4.708	1.922	10.288
International Internet bandwidth (bit/s) per internet user	1509		1343		2558	
Number of base stations (Mobile)	1,042	266	1,073	269	1,088	409
Number of points of presence (POP)s	85	395	93	5	96	5

6. Key Performance Indicators (KPIs) - Fixed Operator

Telecom Namibia, Namibia’s only fixed-line operator, is faced with declining voice revenues. While revenues from monthly rental and international voice only declined slightly, the main drop in voice revenues stems from declining domestic voice revenue. The reasons for declining fixed voice revenues around the world are the wider use of mobile phones and the use of VoIP applications such as Skype. Fixed-mobile and voice-data substitutions happen on both residential and business levels. While fixed-lines are not necessarily cut by businesses, more of its traffic has been shifted to mobile. This is an international trend and not only specific to Namibia.

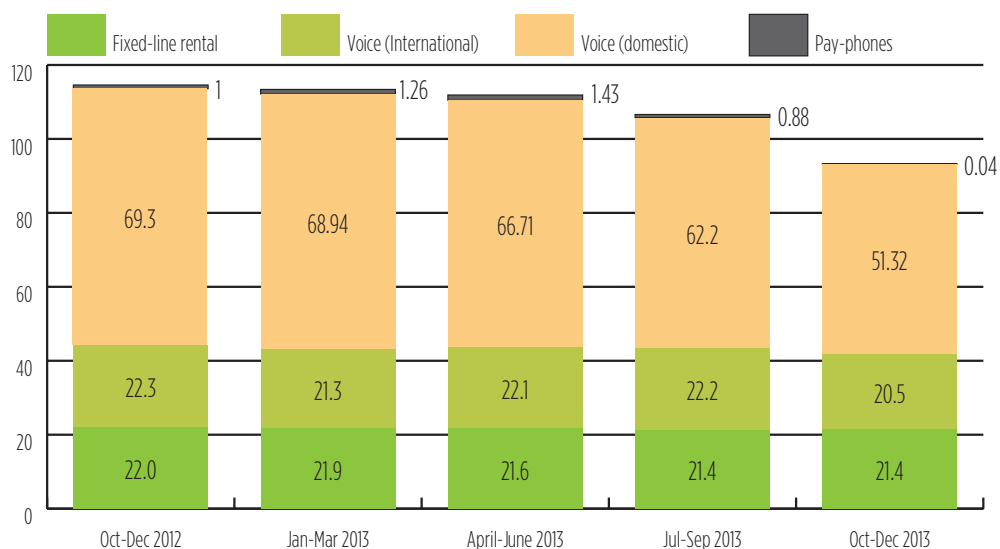


Figure 9: Telecom Namibia’s fixed voice revenues in N\$ million

On a positive note, the revenue from ADSL subscriptions has nearly doubled in 2013 and leased-line revenues remained constant. ADSL is now as important as leased lines in terms of revenues for Telecom Namibia. Internationally the trend is the same, in particular for leased-line end-user connectivity based on speeds of 2 mbps or below (sub-rate services). ADSL is a much cheaper alternative to the more advanced very-high-bit-rate digital subscriber line (VDSL) and VDSL2, which offer much faster connections (up to 100 mbps).

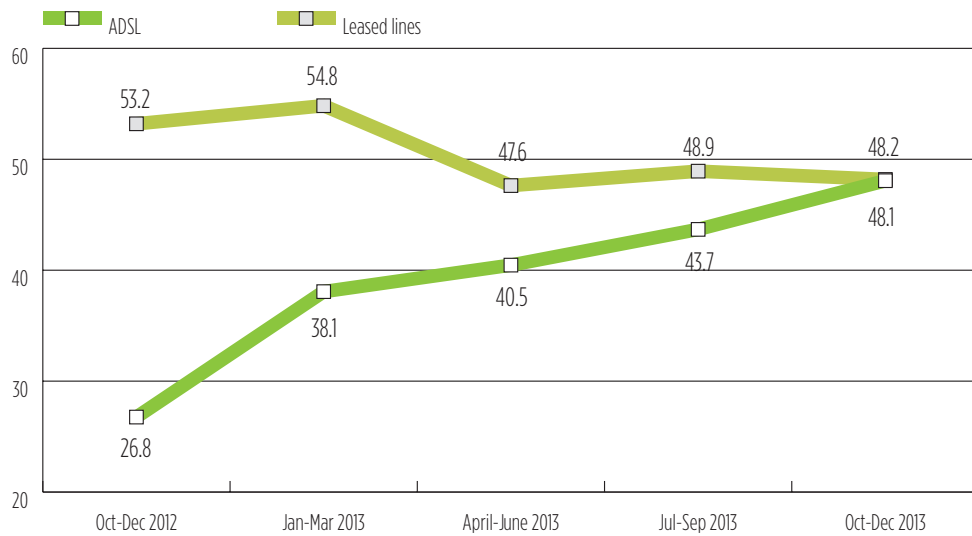


Figure 10: Telecom Namibia's ADSL and leased line revenues in N\$ million

In December 2013, Telecom Namibia had only 57 ADSL subscriptions of 10 mbps or higher. In total there are only 34,000 ADSL subscribers in Namibia and the majority of those at speeds that are no longer considered as broadband (below 2 mbps). MTC has doubled the number of dedicated data subscribers (66,700).



Figure 11: Telecom Namibia's voice vs data revenues in N\$ million (source annual reports)

Table 8: Fixed data subscribers	End of December 2012	End of June 2013	End of December 2013
Fixed broadband below 2 mbps	29,795	24,345	29,776
Fixed broadband 2 mbps to less than 10 mbps	2,005	1,955	4,014
Fixed broadband 10 mbps and above	56	38	57
Modem dial up	5,462	5,589	5,379
ISDN dial up	19,686	19,943	11,940
Satellite broadband subscriptions VSAT	266	260	265
Broadband subscriptions (mobile)	19,789	18,395	16,673
Leased lines	9,606	9,259	

After the voice battle was lost in the last decade, faster data is becoming the new competitive and marketing tool nationally and internationally. Therefore in order to compete with 4G (LTE) mobile packages and offer data at competitive prices fixed line operators will have to change their ADSL services to VDSL2. It is of concern to the Authority that Telecom Namibia's mobile data subscriber base is declining rather than increasing.

Telecom Namibia's voice revenues have been in continuous decline since 2009 and during the same period its data revenues have continuously increased. Telecom Namibia should identify their strengths i.e on data and then improve on issues such as speed, quality of service (QoS) and pricing to compete with mobile services and stay competitive in future.

7. Broadband Quality of Service (QoS)

The Netindex collects download and upload speeds for ISPs around the world on a daily basis and the data is publicly available.¹ For MTC, the average number of daily tests in 2013 was 1,121, for Telecom Namibia 1,887 and for Leo/TN Mobile 1,388.

Table 9: Netindex - Average number of daily tests	MTC	Telecom Namibia (incl Iway)	Leo /TN Mobile
2009	299.94	711.6	
2010	736.58	1108.95	
2011	518.31	1704.47	
2012	854.95	2085.17	
2013	1121.31	1886.89	1387.96
2014	874.91	2018.33	947.61

Source: Ookla Netindex, 2014 (accessed 18 March)

While MTC and Telecom Namibia had similar average download speeds in the period 2009 to 2011, the picture changed in 2012. With MTC having access to its own international connectivity through the WACS cable its average download speeds doubled in 2012 and in 2013 again. On average, MTC is 4 to 5 times faster than Telecom Namibia. The Netindex data does not allow one to distinguish by technology. This means that the data for Telecom Namibia includes ADSL and CDMA subscribers.

	Table 10: Netindex for Namibia - Average speeds in kbps					
	Download speed			Upload speed		
	MTC	Telecom Namibia	Leo /TN Mobile	MTC	Telecom Namibia	Leo /TN Mobile
2009	1,278	1,516		280	806	
2010	1,603	1,387		629	519	
2011	1,920	1,928		647	733	
2012	4,471	1,598		1,989	743	
2013	10,227	2,304	28,340	5,815	1,084	11,199
2014	11,658	3,120	22,926	7,256	1,753	8,874

Source: Ookla Netindex, 2014 (accessed 18 March)

¹ For more detail, see the speed test at: www.speedtest.net/isp-performance

Notably, the average value for TN Mobile’s Internet speed was 28,340 kbps in 2013. This speed has come down on average, most likely due to higher uptake by the average customer. The situation for upload speeds is the same as for download speeds. TN Mobile is the fastest and MTC is close on its heels while Telecom Namibia has the slowest speeds.

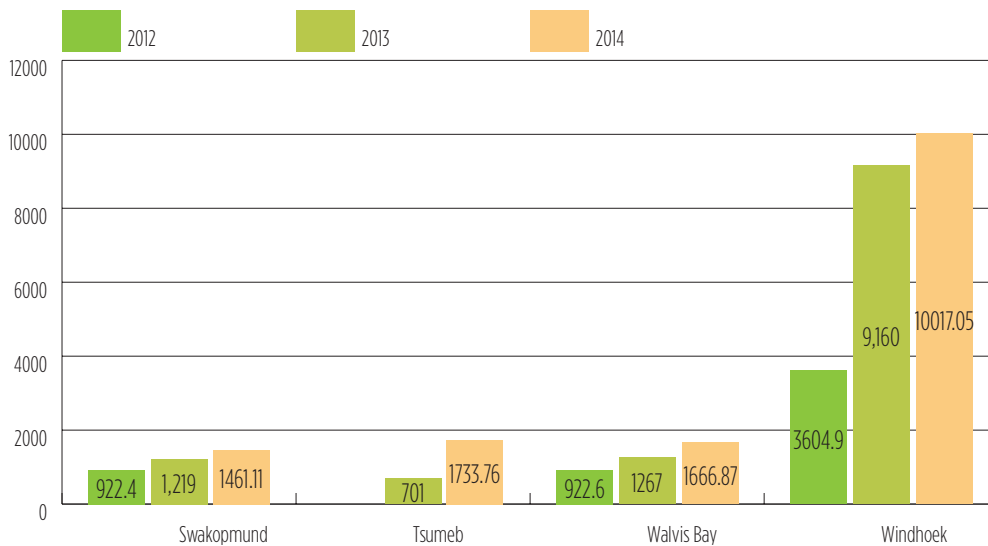


Figure 12: Average download speed by city (in kbps)

What is clear from Figure 12 is that progress in terms of broadband speed is uneven across Namibia, with Windhoek having more than five times faster access compared to Swakopmund, Walvisbay and Tsumeb, in the first quarter of 2014.

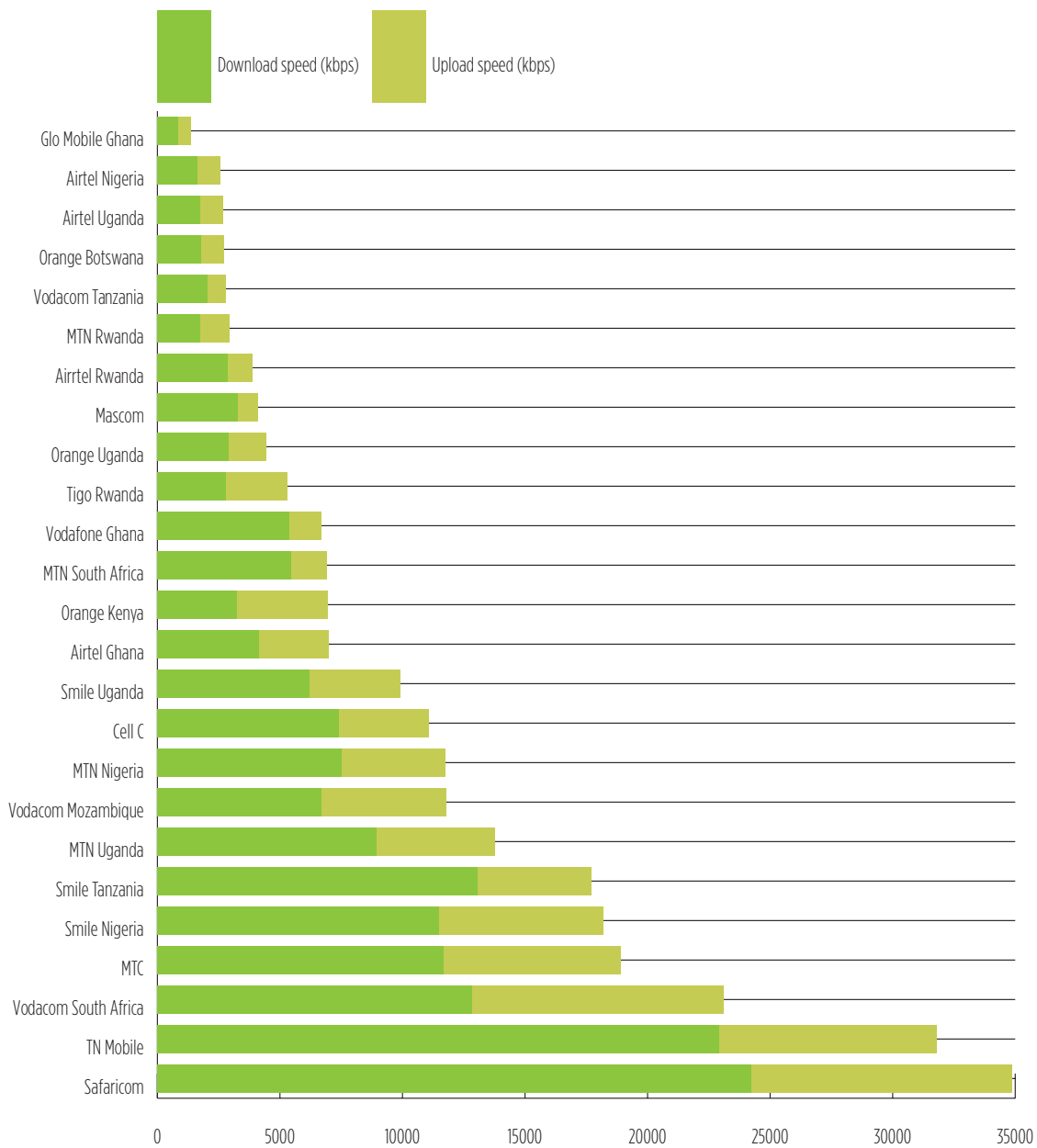


Figure 13: Internet speeds in kbps for Q1 2014

Comparing MTC and TN Mobile to other mobile operators from 12 African countries covered by Research ICT Africa shows that both are among the top 5 operators in terms of average download and upload speeds.

8. Price Benchmarking

This chapter compares the prices of Namibian operators to prices from operators of others jurisdictions. First, three data services will be benchmarked for mobile broadband, national data transmission and high quality data access via leased lines. Then a comparison of prepaid mobile voice will be discussed.

8.1 Mobile Broadband

Comparing prices for 1GB prepaid user basket valid for at least 30 days data across 12 African countries shows that Namibia’s prices are very high. The prices in Figure 14 are based on the cheapest operator in a country.

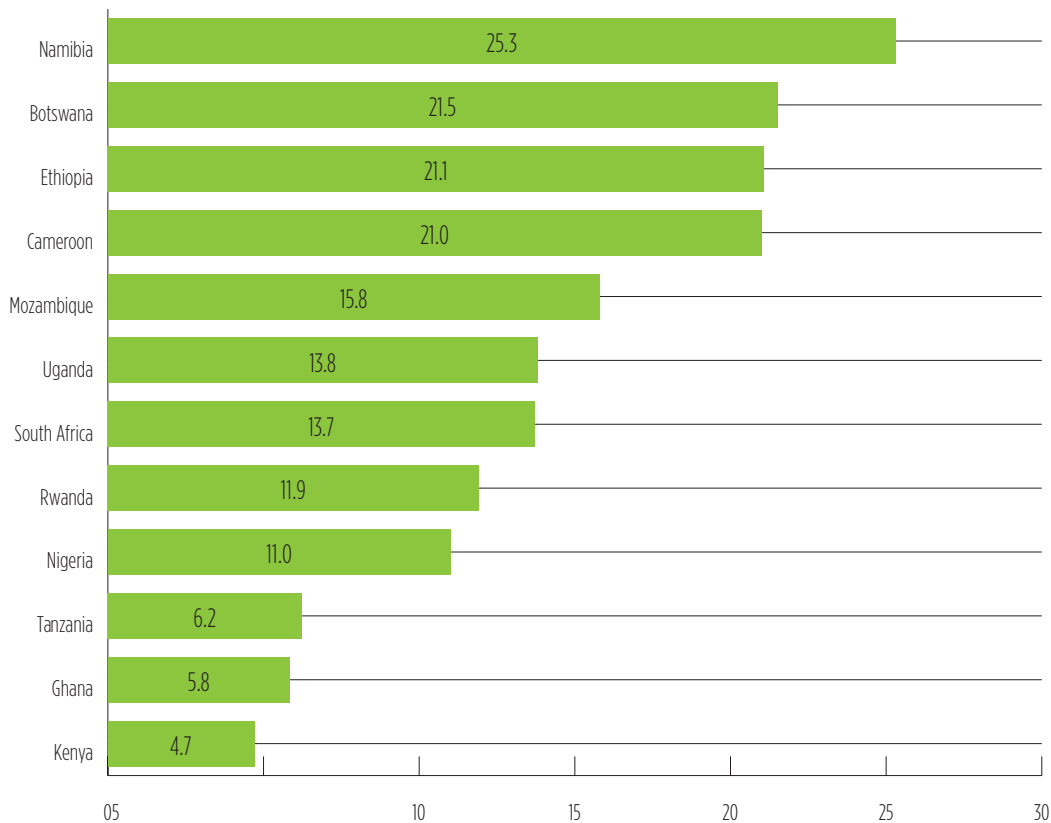


Figure 14: Cost of 1 GB prepaid in USD Q1 2014 (lower is better)

Taking quality of service into account changes the picture. A value for money index was computed based on the combined average of upload and download speed in kbps, which was divided by price for 1 GB basket and then divided by 1000. The upload and download speeds were obtained from the Netindex

(ookla.com) for the first quarter of 2014 by operator. The value for money index thus combines prices and average quality of service.

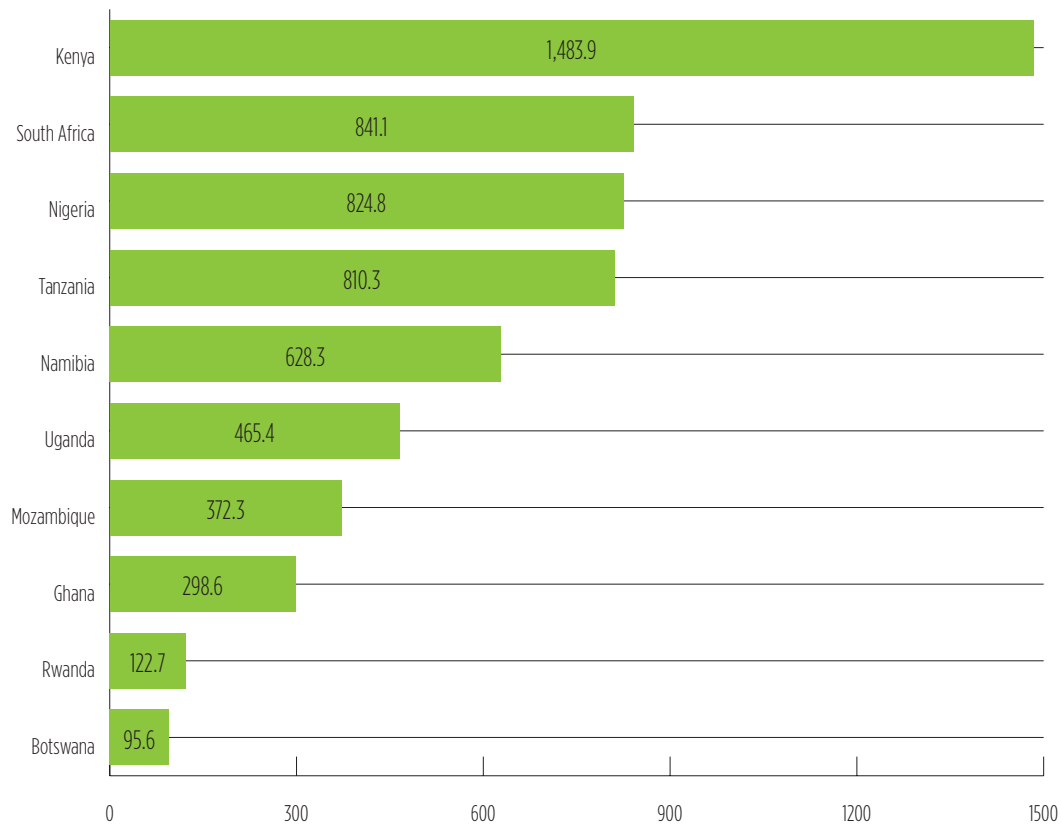


Figure 15: Value for Money based on Quality of Service and price of 1GB(higher is better)

Namibia offers the fifth highest value for money on this comparison, significantly out performed by Kenya, South Africa, Nigeria and Tanzania. These figures are again based on the best value of any operator within a country. The value for money figure does not include all operators for each country since average upload and download speeds are not available in the Netindex for all operators, in particular for smaller operators.

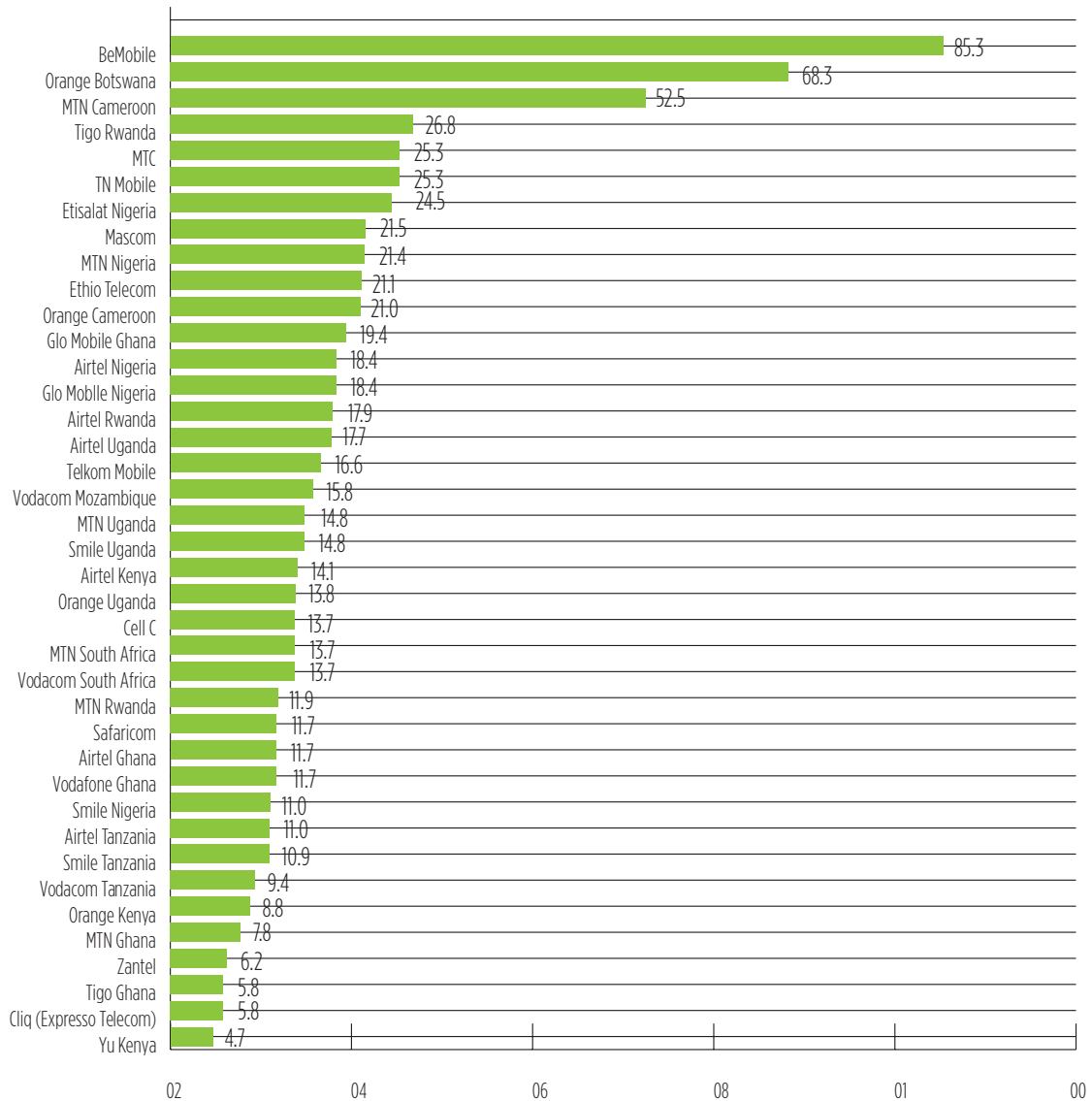


Figure 16: Cost of 1GB (USD)

When comparing operators for the selected 12 African countries it transpires that MTC and TN Mobile are among the most expensive operators. One GB of prepaid data costs of N\$ 239.00 excluding VAT and N\$ 274.85 including VAT for TN Mobile and MTC respectively (US\$ 25.3 based on average foreign exchange rate (FX) for 2014 Quarter 1).

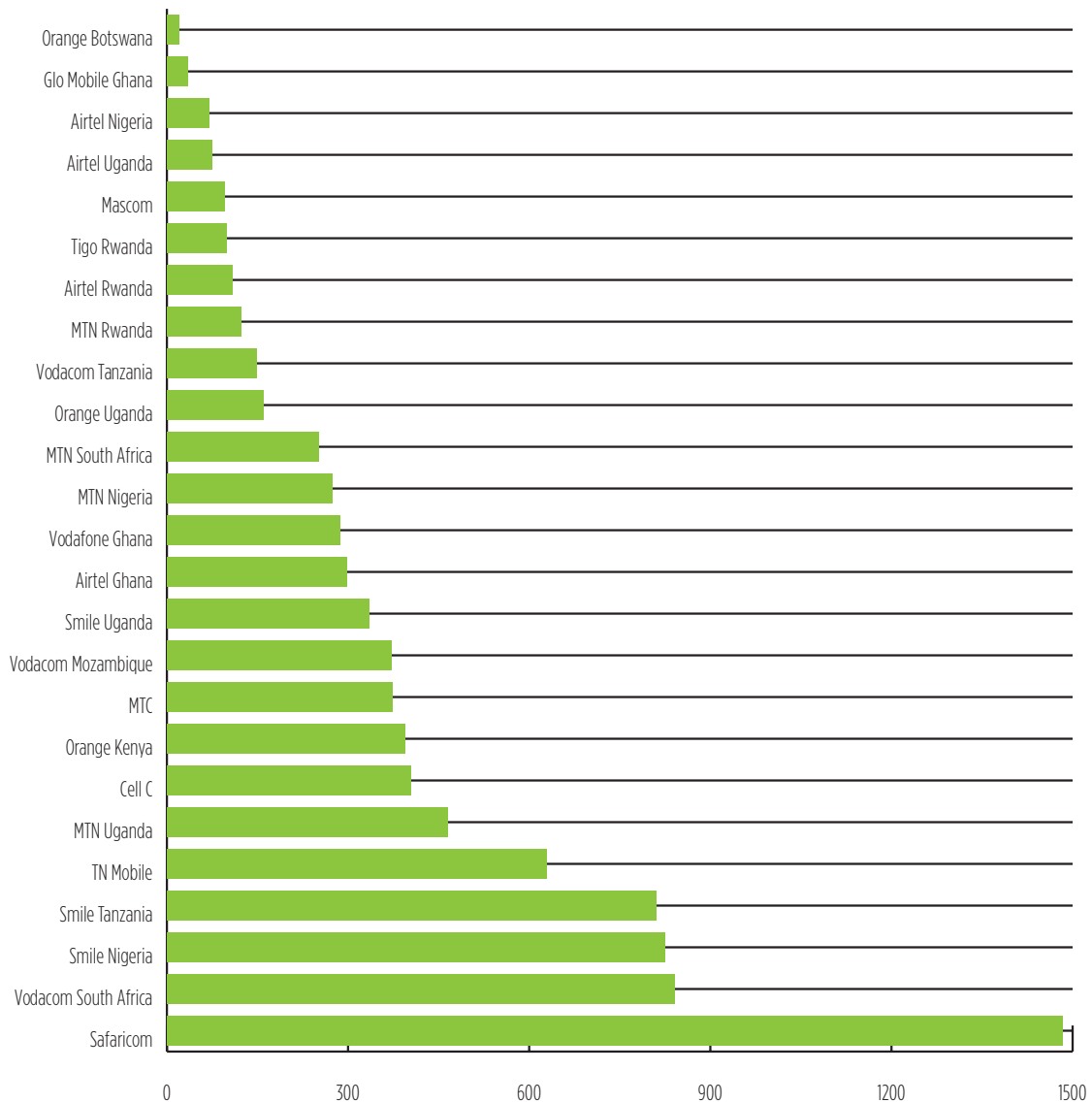


Figure 17: Value for Money Index (average speed/cost)

Given the fast average download and upload speeds of TN Mobile and MTC compared to other operators the ranking improves when considering value for money. TN Mobile ranks fifth and MTC 9th best value for money out of the 25 operators' comparison. The value for money index could not be computed for all operators in the selected 12 African countries due to QoS data availability

8.2 National Data Transmission - 34 Mbps

Traditional leased lines prices based on SDH are used for the price benchmarking for national data transmission. The main reason for that is the international availability of this type of leased line prices. It is noted, however, that the international trend is to move away from unmanaged and uncontested connectivity toward managed and shared connectivity in form of Ethernet. Only retail prices were available from public sources such as the Organisation for Economic Cooperation and Development (OECD). Wholesale prices were calculated for Botswana, Namibia and South Africa as these were available.

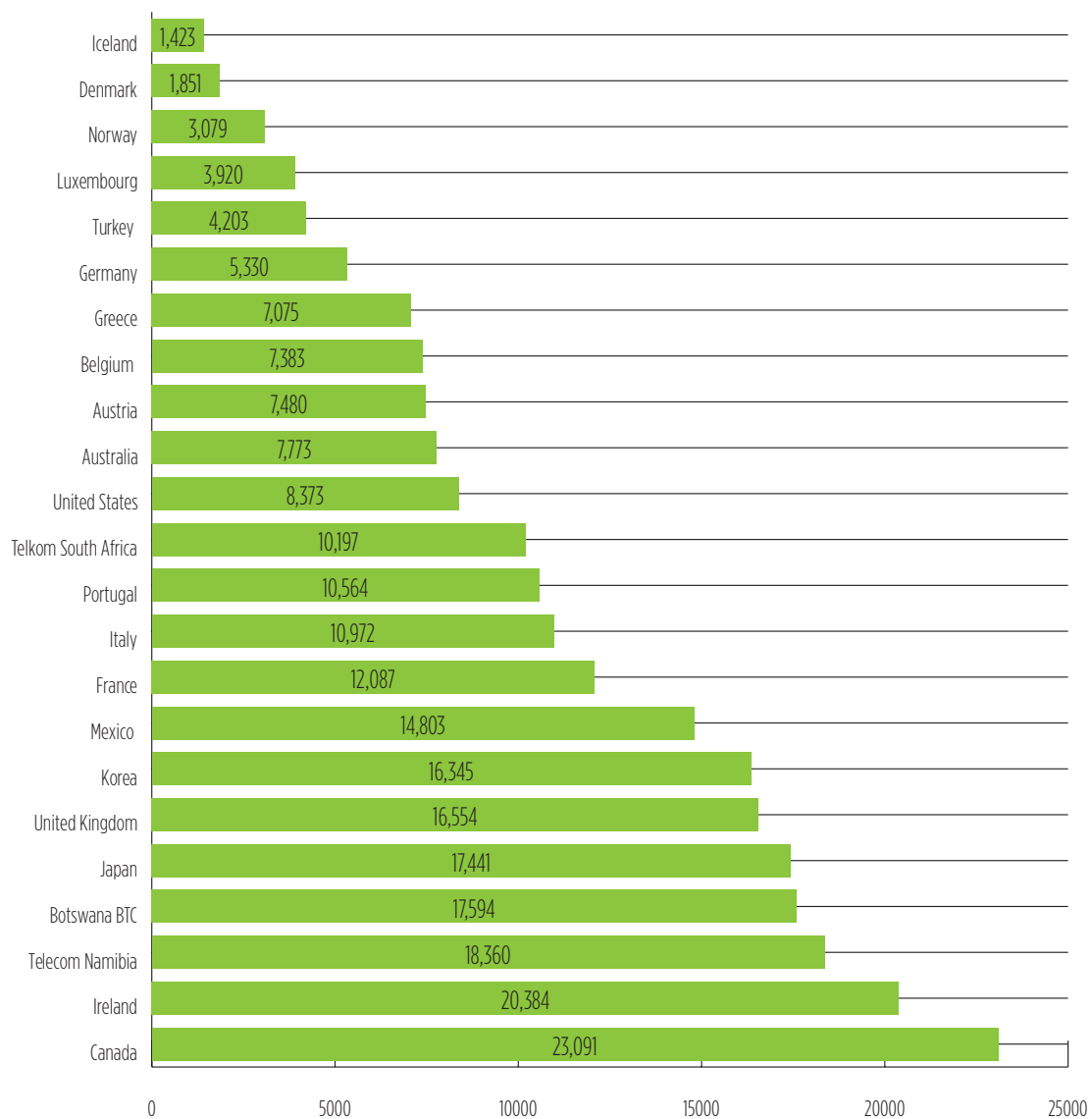


Figure 18: 34 Mbps OECD retail basket in USD

Figure 18 compares the retail leased lines prices of Botswana, South Africa and Botswana with OECD countries. The 34Mbps basket is more expensive for Telecom Namibia than for Telkom South Africa and BTC from Botswana. Namibia is the 3rd most expensive country in the comparison. Telkom South Africa costs nearly half compared to Telecom Namibia.

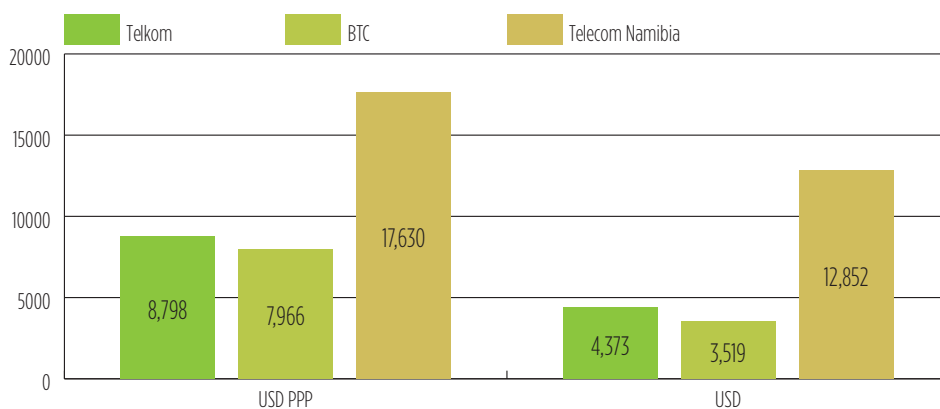


Figure 19: Wholesale cost of 34 Mbps OECD basket in USD and implied PPP conversion rate

Namibia’s wholesale prices are even higher when compared to Botswana and South Africa and the margin between retail and wholesale prices are the lowest, giving resellers only a mark up of 30% compared to 50% in South African and 80% in Botswana.

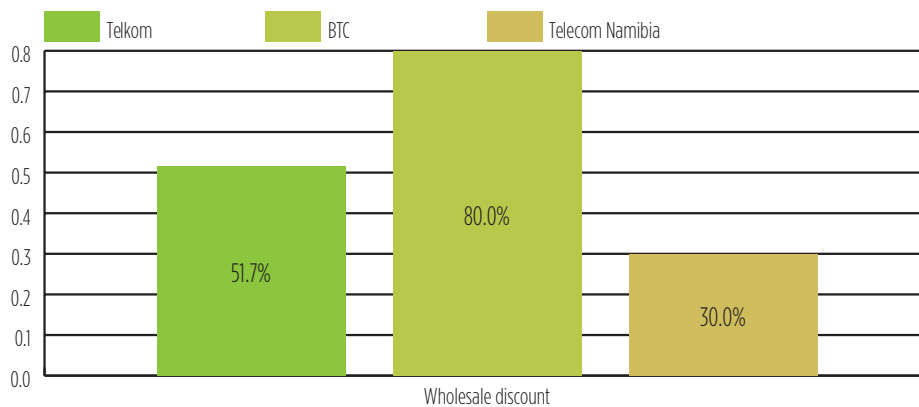


Figure 20: Wholesale discounts for 34 Mbps OECD basket

8.3 Fixed High Quality End User access - 2 Mbps leased lines

Metro-Ethernet prices were not publicly available for any of the countries considered for benchmarking. Leased lines prices for sub-rate services are being used as a proxy. Sub-rate services and Metro-Ethernet are substitutes and similarly priced by Telkom South Africa, for example. The benchmarks are based on the highest capacity available for sub-rate services, i.e. 2Mbps to approximate Metro-Ethernet prices. Only retail prices are available from sources such as the OECD. Wholesale prices were additionally calculated for Botswana, Namibia and South Africa.

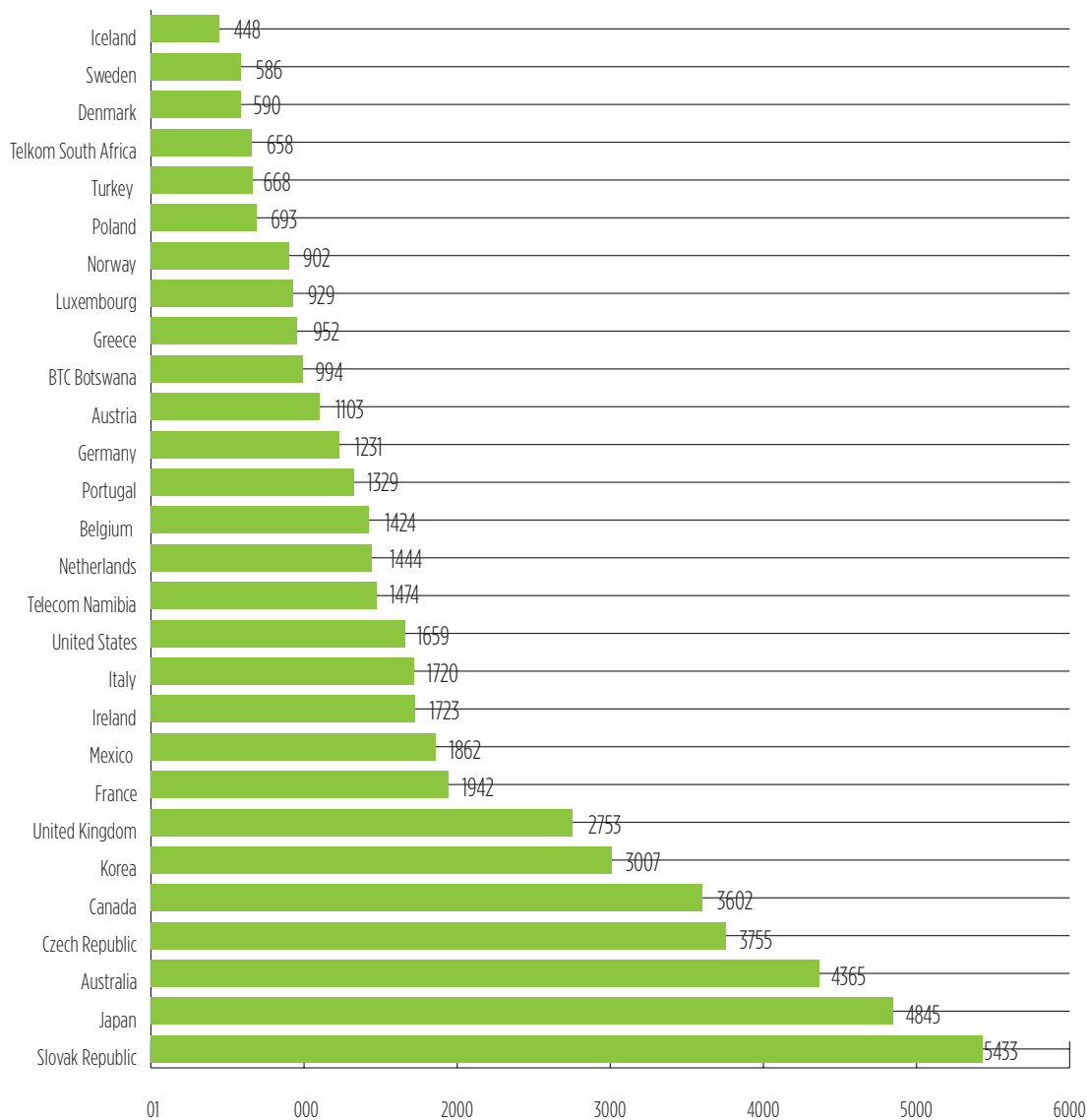


Figure 21. OECD retail basket 2 Mbps USD

South Africa compares favourably internationally. Only Iceland, Sweden and Denmark have lower prices for a 2Mbps leased line access. Telecom Namibia is considerable more expensive than South Africa and Botswana, at about double the price.

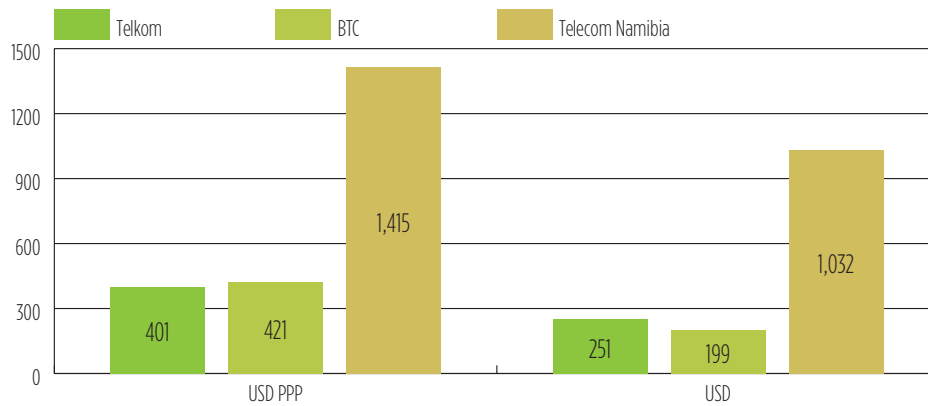


Figure 22: Wholesale cost of 2 Mbps OECD basket in USD and implied PPP conversion rate

The price differences to Botswana and South Africa are even more pronounced when comparing wholesale prices. South Africa and Botswana wholesale prices are only about 20%, a fifth, of those of Namibia.

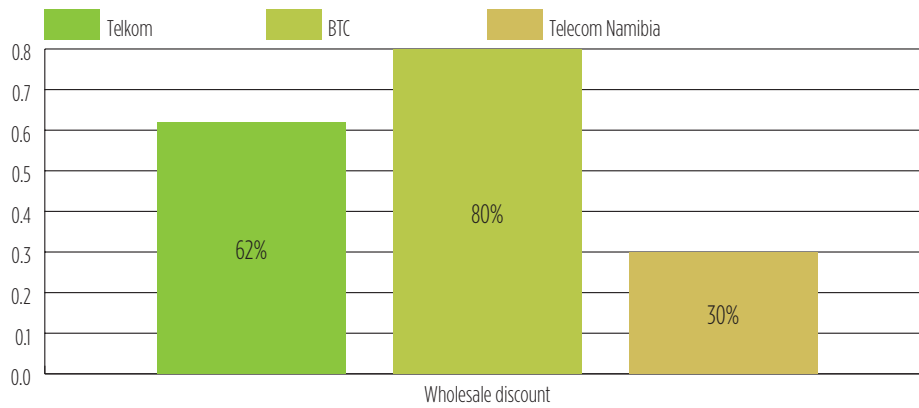


Figure 23: Wholesale discounts for 2 Mbps OECD basket

Telkom SA grants a 62% discount and BTC a 80% discount compared to the meagre 30% of Telecom Namibia.

8.4 Mobile Prepaid Voice

Namibia ranks 13th among African dominant operators and 17th in terms of cheapest product in a country. Prices have not increased in Namibia but have fallen quicker in other countries with effective competition. Figure 24 below compares the cost in United States Dollar (USD) of the cheapest prepaid mobile product available in Namibia, and in all of Africa, for the OECD¹ 40 calls/60 SMSs basket between Quarter 4 for 2010 and Quarter 1 for 2014.

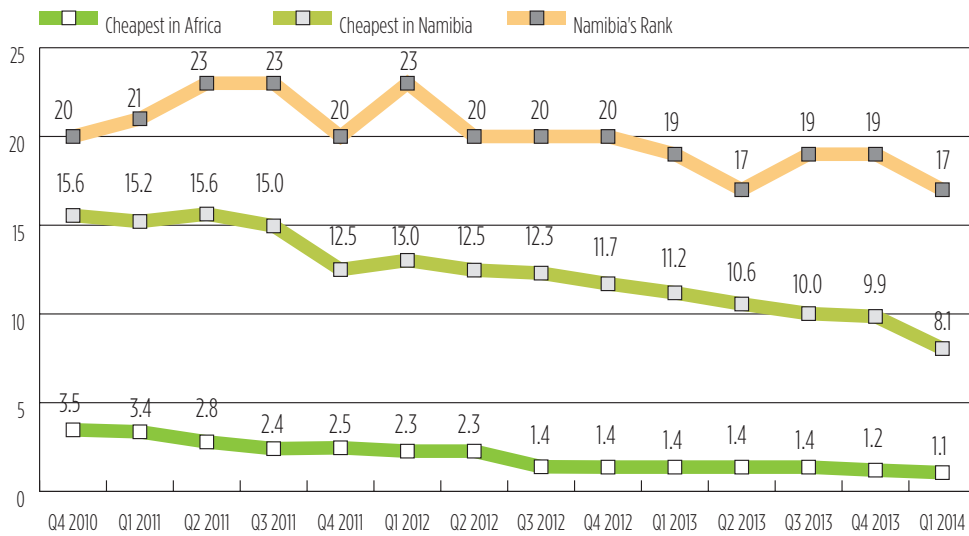


Figure 24: Ranking and cost of cheapest prepaid mobile product available in South Africa and Africa for OECD 40 calls/60 SMSs basket

Namibia’s cheapest product rank improved from 20th in Q4 2010 to 17th in Q1 2014. While the ranking has not much improved, prices nevertheless have steadily been coming down in USD. The price benchmarking uses quarterly average exchange rates and some fluctuation in price is caused not by price but by exchange rate fluctuations. The detailed ranking for all countries for the first quarter of 2014 is displayed in Table 11 below.

² OECD (2010), *Revision of the Methodology for Constructing Telecommunication Price Baskets*, OECD Working Party on Communication Infrastructures and Services Policy.

Table 11: OECD mobile baskets, 2010 definition, 40 calls. Monthly call distribution, minutes and SMS

Country name	Cheapest product				% cheaper than dominant
	dominant operator		cheapest in country		
	USD	Rank	USD	Rank	
Egypt	2.77	1	2.77	4	Dominant is the cheaper
Sudan	2.83	2	1.06	1	62.5%
Ghana	3.38	3	2.64	3	21.9%
Mauritius	3.69	4	3.69	5	Dominant is the cheaper
Ethiopia	3.98	5	3.98	6	Dominant is the cheaper
Kenya	4.27	6	1.47	2	66%
Rwanda	5.06	7	5.06	9	Dominant is the cheaper
Tunisia	6.30	8	6.10	11	3.2%
Algeria	6.43	9	6.43	14	Dominant is the cheaper
Libya	6.91	10	6.91	15	Dominant is the cheaper
Nigeria	7.11	11	4.49	7	37%
Uganda	8.53	12	7.10	16	17%
Namibia	9.21	13	8.05	17	13%
Sierra Leone	9.33	14	9.33	20	Dominant is the cheaper
Tanzania	9.60	15	6.40	13	33.3%
Mozambique	10.01	16	10.01	22	Dominant is the cheaper
Botswana	10.99	17	10.01	21	8.9%
South Africa	11.26	18	4.85	8	56.9%
Benin	11.59	19	11.59	23	Dominant is the cheaper
Cameroon	11.94	20	8.40	18	29.7%
Liberia	13.19	21	13.19	26	Dominant is the cheaper
Mauritania	13.20	22	13.20	27	Dominant is the cheaper
Central African Republic	13.91	23	13.91	28	Dominant is the cheaper
Malawi	14.15	24	14.01	30	Dominant is the cheaper
Sao Tome and Principe	14.56	25	14.56	31	Dominant is the cheaper
Congo Brazzaville	15.49	26	14.68	32	5%
Niger	15.70	27	15.70	35	Dominant is the cheaper
Burkina Faso	15.80	28	15.56	34	2%
Cote d'Ivoire	15.90	29	15.90	36	Dominant is the cheaper

Table 11: OECD mobile baskets, 2010 definition, 40 calls. Monthly call distribution, minutes and SMS

Country name	Cheapest product				% cheaper than dominant
	dominant operator		cheapest in country		
	USD	Rank	USD	Rank	
Senegal	16.27	31	16.27	38	Dominant is the cheaper
Togo	16.37	32	16.37	39	Dominant is the cheaper
Lesotho	16.93	33	16.93	40	Dominant is the cheaper
Zambia	16.98	34	15.11	33	11%
D.R. Congo	17.10	35	12.18	24	29%
Chad	17.76	36	17.76	42	Dominant is the cheaper
Swaziland	18.54	37	18.54	43	Dominant is the cheaper
Seychelles	20.61	38	20.61	45	Dominant is the cheaper
Madagascar	21.28	39	8.64	19	59%
Angola	22.04	40	19.84	44	10%
Zimbabwe	22.70	41	21.78	46	4%
Cape Verde	31.57	42	31.57	47	Dominant is the cheaper
Morocco	47.20	43	12.40	25	74%

Figure 25 compares the cost of the cheapest prepaid mobile products for each mobile operator in Namibia according to the OECD 40 calls/60 SMSs basket. MTC was the cheapest operator until Q1 2014 where TN mobile finally launched competitive products.

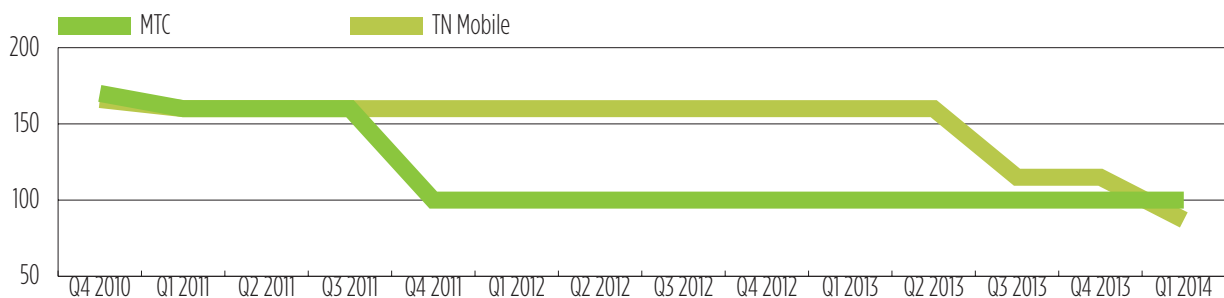


Figure 25: Cost of cheapest prepaid mobile product for OECD 40 calls/60 SMSs basket by operators in N\$

The basket methodology does not take into account the vast amounts of free minutes and SMS that are bundled with some of MTC’s prepaid products. It is based on advertised prices for a fairly low use per month of 30 calls and 60 SMS. These results need thus to be read together with the implied prices from earlier sections.

9. Conclusion

The Namibian telecommunications sector declined from three national mobile operators to just two. One of these has insignificant revenues and traffic, leaving Namibia with a quasi-mobile and an actual fixed-line monopoly, both majority state owned. The takeover of the only fully privately owned mobile operator, Leo, by a 100% state-owned Telecom Namibia crowded out private investment in favour of public investment. Due to the declining business model of Telecom Namibia and inadequate fixed broadband offerings, Telecom Namibia is losing voice and data revenue to MTC and, as a consequence, lacks the capital to build a mobile network that could compete with MTC.

Fixed broadband cannot compete with mobile broadband neither on speed, quality nor on price, and only has a slim niche of uncapped Internet. This niche becomes increasingly smaller with MTC's broadband partially replicating (subject to fair use policy) Telecom Namibia's uncapped products but at much higher upload and download speeds.

Telecom Namibia needs substantial funds to invest into mobile and fixed broadband in order to compete in the short to medium term.

Comparing Namibia internationally for mobile broadband, mobile prepaid voice and leased line prices shows that Namibia falls behind in terms of affordability. The lack of competitive pressure in Namibia will let the country fall further behind. This after Namibia was leading in Africa in 2009 and 2010.

It was competition from a privately owned operator (Leo) that brought 3G services to Namibia in 2006 and lower voice and data prices subsequently. CRAN will monitor developments in 2014 and look into pro-competitive regulatory strategies as it develops its 2015 and beyond Strategic and Operational Plans, given this TSPR, as part of its evidence based regulatory approach. This will be undertaken to ensure the regulatory objectives of competition, affordability and universal access and usage, innovation and quality of service.

In the next report the Authority aims to incorporate the impact other operators may have had on the market, i.e. Paratus Telecom (Pty) Ltd, Mwireless (Pty) Ltd t/a Africa Online, Schoemans (Pty) Ltd, MTN and others.

Appendix

1. CALCULATIONS FOR NATIONAL DATA TRANSMISSION - 34 MBPS

The 2010 OECD leased line basket definition for 34Mbps is used to compare Namibia to other jurisdictions. The OECD basket is a monthly basket that excludes any once off and installation charges. The basket definition includes two local ends per main line of two kilometre length.

Table 12: Exchange rates used in this chapter	Botswana	Namibia	South Africa	Source
Implied PPP conversion rates (USD PPP)	3.91	7.02	6.02	IMF
Average Exchange rate for 2013	8.28	9.63	9.63	Oanda.com

The Exchange rates used for leased line price benchmarking are based on average exchange rates for 2013 as displayed in Table 12.

1.1 Telkom South Africa

Table 13 calculates the wholesale price of the 34Mbps OECD basket for Telkom's Megaline Silver leased line product and Table 14 the same for retail prices.

Table 13: Telkom Wholesale Megaline Silver OECD Basket 34 Mbps (excl. VAT)									
Distance km main link	Tail ends	Main links	Local ends	Fixed charges	Charge per km	Price (month)	OECD Weights	OECD 34Mbps per month	
2		1		5,449.41	530.55	6,511	0.42	2,734	
16	2	1	14,403.01	5,449.41	530.55	42,744	0.18	7,694	
46	2	1	14,403.01	5,449.41	530.55	58,661	0.15	8,799	
96	2	1	14,403.01	20,108.59	241.37	72,086	0.09	6,488	
196	2	1	14,403.01	20,108.59	241.37	96,223	0.08	7,698	
496	2	1	14,403.01	70,482.66	19.22	108,822	0.08	8,706	
Total ZAR									42,119
Total USD PPP									6,996
Total USD									4,373

Source: Telecom

Wholesale prices are discounted by 52% compared to retail prices, providing a healthy margin for any reseller.

Table 14: Telkom Retail Megaline Silver OECD Basket 34 Mbps (exlc. VAT)									
Distance km main link	Tail ends	Main links	Port Charges	Local ends	Fixed charges	Charge per km	Price (month)	OECD Weights	OECD 34Mbps per month
2		1			15,032.82	1,555.09	18,143	0.42	7,620
16	2	1	3,586.00	14,403.01	15,032.82	1,555.09	75,892	0.18	13,661
46	2	1	3,586.00	14,403.01	15,032.82	1,555.09	122,545	0.15	18,382
96	2	1	3,586.00	14,403.01	65,017.36	653.14	163,697	0.09	14,733
196	2	1	3,586.00	14,403.01	65,017.36	653.14	229,011	0.08	18,321
496	2	1	3,586.00	14,403.01	229,517.97	107.12	318,628	0.08	25,490
Total ZAR									98,206
Total USD PPP									16,313
Total USD									10,197

Source: http://www.telkom.co.za/general/pricelist/downloads/tarifflist_Aug.pdf

1.2 Botswana 2013 prices

BTC's prices include local ends but require a minimum distance of 15 km for the main line. The OECD basket was thus changed from 2 to 16 km in Table 15. The retail prices are taken from the BTC website.¹ The regulator of Botswana, BTA, prescribed volume-based discounts for E1s on the same route for distance as well as a fixed monthly charge (BTA, 2011, p 7). The highest discount (80%) applies to 16 E1s on the same route. The 80% discount is being applied for the 34Mbps basket since 17 E1s would be required to establish a 34Mbps connection.

³ <http://www.btc.bw/index.php?page=tariffs/leased>

Table 15: OECD Basket 34 Mbps for Botswana -retail and wholesale (excl. VAT)

km Main link	Fixed charges	Charge per km	Distance charge	Access charge	Modem rental	Total Monthly	OECD Weights	Retail	Wholesale 80%	
2	798	144	288	1,330	710	3,126	0.42	1,313		
16	798	144	2,307	1,330	710	5,145	0.18	926		
46	798	144	6,633	1,330	710	9,471	0.15	1,421		
96	4,868	64	6,182	1,330	710	13,090	0.09	1,178		
196	4,868	64	12,622	1,330	710	19,530	0.08	1,562		
496	17,396	15	7,638	1,330	710	27,075	0.08	2,166		
Total Pula									145,629	29,126
Total USD PPP									37,245	7,449
Total USD									17,594	3,519

Note: BTC minimum distance is 15 km but 2 km was still used.

The 80% discount is being applied for the 34 Mbps basket since 17 EIs would be required to establish a 34Mbps connection.

1.3 Namibia

Tables 16 and 17 display the prices of the 34Mbps basket for 2011. No new prices have come into effect since then. However, the practice has changed and prices are set on a project, case-to-case basis, which means that the retail prices in the tables below are the upper boundaries of available prices. Wholesale prices only exist in the form of discounts given to resellers and large telecommunications companies such as MTC. As a guide a 30% discount was used for the wholesale benchmarking.

Table 16: Monthly cost of 2km local ends (excl. installation cost and excl. VAT)	Monthly cost in N\$ for 34 Mbps
Port Monthly	5,550
NTU monthly	714
Network access via local leads (2km) monthly rental (for copper 2 pairs)	18,700
Distance Node to Node in km	2
Node to Node Distance Charge monthly per km	2,580
Node to Node Distance Charge fixed	17,825
Total Monthly	47,948

Table 16 calculates the price of a fibre-based 2 km local lead and Table 17 the price for the 34Mbps OECD basket.

Table 17: Telecom Namibia (2011 prices) for OECD Basket 34 Mbps with local ends (excl. VAT) based on 17 EIs								
Distance km main link	1 local end	Fixed charges	Charge per km	Price (month)	OECD Weights	Retail per month	Wholesale per month (30% discount)	
2		17,825	2,580	22,985	0.42	9,654		
16	47,948.26	17,825	2,580	155,004	0.18	27,901		
46	47,948.26	17,825	2,580	232,410	0.15	34,862		
96	47,948.26	82,808	1,273	300,960	0.09	27,086		
196	47,948.26	82,808	1,273	428,309	0.08	34,265		
496	47,948.26	324,459	237	538,012	0.08	43,041		
Total N\$							176,808	123,766
Total USD PPP							25,186	17,630
Total USD							18,360	12,852

Source: Prices submitted to CRAN

1.4 International Comparison

Table 18 reflect the national retail prices for selected OECD countries for the 34Mbps OECD basket for August 2012.

Table 18: OECD basket for 34Mbps leased lines, August 2012, VAT excluded	USD	USD PPP
Australia	7,773	4,951
Austria	7,480	6,738
Belgium	7,384	6,311
Canada	23,091	18,182
Denmark	1,851	1,242
France	12,087	10,510

Table 18: OECD basket for 34Mbps leased lines, August 2012, VAT excluded	USD	USD PPP
Greece	7,075	7,075
Iceland	1,423	1,206
Ireland	20,384	16,307
Italy	10,972	11,082
Japan	17,441	11,705
Korea	16,345	20,432
Luxembourg	3,920	3,161
Mexico	14,803	23,130
Norway	3,079	1,924
Portugal	10,564	10,671
Turkey	4,203	7,505
United Kingdom	16,554	12,541
United States	8,373	8,373

Source: OECD (2012)

2. CALCULATIONS FOR FIXED HIGH QUALITY END USER ACCESS - 2 MBPS LEASED LINES

2.1 Wholesale Prices -Telkom

The prices for Telkom South Africa are based on Megaline Silver and are wholesale prices, not including any discounts.

Table 19: Telkom Wholesale Megaline Silver OECD Basket 2 Mbps (exlc. VAT)									
Distance km main link	Tail ends	Main links	Local ends	Fixed charges	Charge per km	Price (month)	OECD Weights	OECD 2Mbps per month	
2		1		373.96	36.24	446	0.50	223	
16	2	1	764.12	373.96	36.24	2,482	0.18	447	
46	2	1	764.12	373.96	36.24	3,569	0.06	214	
96	2	1	764.12	1,355.49	16.61	4,478	0.08	358	
196	2	1	764.12	1,355.49	16.61	6,139	0.10	614	
496	2	1	764.12	4,865.29	1.21	6,994	0.08	559	
Total ZAR									2,416
Total USD PPP									401
Total USD									251

Sources: Prices submitted to ICASA by Telkom

The prices for Telkom South Africa are based on Megaline Silver and are wholesale prices not including any discounts.

Table 20: Telkom Retail Megaline Silver OECD Basket 2 Mbps (exlc. VAT)									
Distance km main link	Tail ends	Main links	Port Charges	Local ends	Fixed charges	Charge per km	Price (month)	OECD Weights	OECD 34Mbps per month
2		1			829.14	102.95	1,035	0.50	518
16	2	1	825.00	764.12	829.14	102.95	5,655	0.18	1,018
46	2	1	825.00	764.12	829.14	102.95	8,743	0.06	525
96	2	1	825.00	764.12	4,304.09	43.24	11,633	0.08	931
196	2	1	825.00	764.12	4,304.09	43.24	15,957	0.10	1,596
496	2	1	825.00	764.12	15,193.00	7.09	21,888	0.08	1,751
Total ZAR									6,337
Total USD PPP									1,053
Total USD									658

Source: http://www.telkom.co.za/general/pricelist/downloads/tarifflist_Aug.pdf

2.2 Namibia

Table 21 displays the price for local ends and Table 22 the prices for the 2Mbps OECD basket based on approved prices of 2011.

Table 21: Monthly cost of 2km local ends at 2 Mbps excl. installation cost and excl. VAT)	Monthly cost in N\$ for 2 Mbps
Port Monthly	1,577
NTU monthly	844
Network access via local leads (2km) monthly rental (for copper 2 pairs)	146
Distance Node to Node in km	2
Node to Node Distance Charge monthly per km	222
Node to Node Distance Charge fixed	1,535
Total Monthly	4,547

New prices have not yet been approved by CRAN.

Table 22: Telecom Namibia (2011 prices) for OECD Basket 2 Mbps with local ends (excl. VAT)								
Distance km main link	1 local end	Fixed charges	Charge per km	Price (month)	OECD Weights	Retail per month	Wholesale per month (30% discount)	
2		1,535	222	1,980	0.50	990		
16	4,546.81	1,535	222	14,184	0.18	2,553		
46	4,546.81	1,535	222	20,851	0.06	1,251		
96	4,546.81	7,163	110	26,786	0.08	2,143		
196	4,546.81	7,163	110	37,754	0.10	3,775		
496	4,546.81	24,299	20	43,526	0.08	3,482		
Total N\$							14,194	9,936
Total USD PPP							2,022.0	1,415.4
Total USD							1,474	1,032

Source: Price data submitted to CRAN

2.3 Botswana 2013 prices

For the international comparison the 2Mbps basket with 2 km local ends is being used, which in the case of Namibia is the one without distance charges.

Table 23: OECD Basket 2 Mbps for Botswana -retail and wholesale (excl. VAT)										
km Main link	Fixed charges	Charge per km	Distance charge	Access charge	Modem rental	Total Monthly	OECD Weights	Retail	Wholesale	
									30%	80%
2	798	144	288	1,330	710	3,126	0.50	1,563		
16	798	144	2,307	1,330	710	5,145	0.18	926		
46	798	144	6,633	1,330	710	9,471	0.06	568		
96	4,868	64	6,182	1,330	710	13,090	0.08	1,047		
196	4,868	64	12,622	1,330	710	19,530	0.10	1,953		
496	17,396	15	7,638	1,330	710	27,075	0.08	2,166		
Total Pula								8,224	5,428	1,645
Total USD PPP								2,103	1,388	421
Total USD								994	656	199

Note: the basket was modified for the 2km length since BTC minimum distance is 15 km

2.3 International Comparison

For the international comparison the 2Mbps basket with 2 km local ends is being used.

Table 24. OECD monthly 2 Mbps basket, August 2012, VAT excluded	2 Mbps	
	USD	USD PPP
Australia	4365	2780
Austria	1103	994
Belgium	1424	1217
Canada	3602	2836
Czech Republic	3755	4694
Denmark	590	396
France	1942	1688
Germany	1231	1150
Greece	952	952
Iceland	448	380
Ireland	1723	1378
Italy	1720	1737
Japan	4845	3251
Korea	3007	3759
Luxembourg	929	749
Mexico	1862	2909
Netherlands	1444	1301
Norway	902	564
Poland	693	1174
Portugal	1329	1342
Slovak Republic	5433	7149
Sweden	586	458
Turkey	668	1192
United Kingdom	2753	2086
United States	1659	1659

Source: OECD (2012)



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