



South African data prices static for two years but consumers not flocking to cheapest product offering

- ❖ The price of 1GB of data in South Africa from dominant operators has remained consistent at between R149 and R160 for 8 quarters.
- ❖ Despite offering 1GB for R99, Telkom appears unable to exert pricing pressure on the other operators.
- ❖ Innovative mobile bundles that offer more value for money, usually with large volume discounts, tend to have complex cost structures and conversion strategies.
- ❖ Vodacom has the largest data revenue at R21 billion in 2017, while Cell C has managed to bring in R15 billion in the same period thanks to handsome data growth.

Introduction

Almost half of the South African population is still not using the Internet. A major contributing factor to this low Internet penetration could be the high cost of data products and smartphone devices. At the same time, consumers are not subscribing to the cheapest products on the market, such as the 1GB data bundle offered by Telkom at the substantially cheaper price of R99.

This is a clear indication that in a data environment, subscribers are not only concerned about the cost of going online; other factors such as quality - coverage and speed - appear to be something for which users are willing to pay a premium. This is evidenced by subscribers sticking with the operators who offer the most expensive data products have invested significantly in their 3G and LTE networks.

Subscriber competition is only observed between Vodacom and Cell C, who both offer 1GB of prepaid mobile data for R149 and who both have good value, big volume products geared for the top end of the market.

Operators continue to squeeze the remaining revenues out of voice services by slowly reducing their mobile prepaid voice prices. The cost of an OECD basket¹ in South Africa, however, is still three times that of the best-performing country, Egypt, and twice the cost of an OECD basket in Uganda and Tunisia.

While the supply-side data informs analysis of price trends, it does not provide any information on why a large portion of South African citizens are not online. As a way of providing answers to this important policy question, Research ICT Africa (RIA) is currently conducting a nationally representative household and individual survey on ICT access and use. These RIA Beyond Access Surveys are informative as they capture income levels, usage, education, age, gender and location, which can be used to inform policymakers about affordability of both mobile broadband services and the technical devices suitable for accessing the Internet.

Mobile operators are investing in data networks

Demand in the South African mobile telecommunications sector is witnessing a seismic shift from the traditional voice and SMS services to data products and this is being driven by strong preferences for over-the-top services (OTTs). Initial resistance to OTTs by the dominant mobile operators (Vodacom and MTN) was demonstrated by their appeals to the Regulator and Parliament for the regulation of OTTs and enforced revenue sharing. After these appeals failed to gain traction, operators have embraced them in response to consumer demand and the realisation that they are intrinsic to growing their data revenue streams. OTTs were initially salvaged in the South African market by Cell C which seized the opportunity to distinguish themselves by not only offering these voice and text substitution services, such as WhatsApp and Facebook's FreeBasics, but by zero-rating them to attract and retain customers. This strategy, together with investment in LTE network capacity, allowed them to wrestle market share from the two dominant operators. Cell C's market share reached its peak at 23% in 2015, growing from 15% in 2010.

Operators are using data and bundled products as innovative competition strategies

The realisation by the two dominant operators that OTT services are inexorable and critical to their emerging data businesses completely changed the telecommunications industry in South Africa as they began using data in bundled products (a combination of data, SMS and voice services) as an innovative competition strategy. Vodacom was quickest off the mark investing in high-speed network extension and positioning itself as a data-first business. Though voice revenues remained significant for some time, Vodacom's data revenues

¹ To understand the methodological construction of an OECD basket, see: http://www.researchictafrica.net/polbrf/Research_ICT_Africa_Policy_Briefs/2016_Policy_Brief_4_South_Africa_Cost_to_Communicate.pdf

continue to accelerate, contributing about 40% to service revenues in 2017.

Initially, MTN clung to its voice revenues and has continued to focus on them at the expense of growing their data business, which grew slower than Vodacom's. Although Vodacom gave itself a significant head-start by making massive capital investments during 2014, and was able to reap the rewards of this well in advance of MTN and Cell C, MTN also started making significant network investments in 2015.

The two dominant operators increased their capital expenditure (CAPEX) by investing in the expansion of their 3G and LTE networks. MTN's CAPEX increased by about 10% in 2016 to R11 085 million. Similarly, Vodacom's CAPEX grew by 1.2% reaching R8.75 billion in 2016 and subsequently reduced its CAPEX by 3.2% in 2017. In the same period (2016), Cell C invested about R3 400 millions.

Cell C also benefited from its strategy of investing in 3G and LTE networks. Its total revenue grew by 11% to R14.6 billion in the period 2015-2016. This growth in revenue was driven largely by the data market as Cell C's data volumes increased by 67% in the period 2015-16 leading to a data revenue increase of about 35%. Cell C's data revenue reached R4 400 million in 2016.

Vodacom dominant in the data market

Between 2010 and 2015, Cell C had taken a significant share of the market from Vodacom, reducing Vodacom's share from a high of 47% in 2010 to 40% in 2015. However, in 2016 Vodacom took back about 4%, reaching 44% and dropping Cell C's market share from 23% to 17%.

	2010	2011	2012	2013	2014	2015	2016
MTN	36.65	36.63	37.32	35	34.32	33.82	34.71
Vodacom	46.88	46.56	44.91	44.13	40.45	40.12	44.16
Cell C	15.9	14.63	15.55	18.46	22.65	23.22	17.24
Telkom	0.55	2.18	2.22	2.29	2.58	2.84	3.89

Source: Operator's annual reports

Cell C struggled to sustain its foothold due to intense competition from the dominant operators. Without such deep pockets, Cell C's significant investment was dwarfed by those of MTN and Vodacom. MTN and Vodacom also began introducing some zero-rated products: MTN zero-rated the FrontRow video-on-demand offering (it was discontinued earlier in 2017), MTN music+ and Twitter, while

Vodacom's data revenue has overtaken its that of its voice services

Vodacom zero-rated educational and career sites and offered a simplified version of Facebook without data charges.

Users and losers

The observed competition and the fluctuations in market share suggest that customers are responding to changes in network quality and OTT strategies. An analysis of the health of the sector shows that the South African telecommunications market is following global telecommunications industry trends: demand for data is growing faster than the that of voice.

Vodacom remains the data revenue giant in South Africa with data revenue increasing by 19.7% to reach a total of R20 696 million in 2017, up from R17 287 million in the previous year. As of 2017, data's share of revenue stood at about 40%.

While still clinging to voice revenue, MTN's data revenue increased by only 11.4%, contributing 34% to their total revenue.

Customer preferences for OTTs brought changes to the average revenue per user (ARPU). ARPUs are one of the key performance indicators reported by mobile networks to show the health of their business operations in the country. As is the case in other countries, ARPUs for all mobile operators in South Africa have been falling as low-end users come online

In 2016, Vodacom subscribers spent on average about R111 per month. Despite its strong position in the market, Vodacom has seen a steady decline in ARPU since 2011 (when it was sitting at R157) as lower-income users who are less able to pay for data come online. MTN experienced the same phenomenon. While it used to be the leader, MTN's ARPU has significantly dropped from R208 in 2002 to a low of R96 in 2016. MTN's blended ARPU also fell from R91.54 in 2015 to R90.47 in 2016.

The mobile wing of Telkom increased its active subscribers from 2 186 774 in March 2015 to 2 706 686 a year later, over half a million new subscribers. This is of course a fraction of the 37 million and 30.8 million subscribers Vodacom and MTN respectively have. Telkom's blended ARPU also increased from R75.05 in 2015 to R89.44 in 2016.

This growth is mainly attributed to increased coverage and new bundled data products which offer customers more data, minutes and SMSs at lower prices. Telkom increased its mobile sites from 2 510 in 2015 to 2 663 in 2016 with a total CAPEX investment of R660 million, considerably below MTN and Vodacom and more in line with Cell C.

Telkom increased its active subscribers by over 25% between 2015 and 2016

Table 2: Blended ARPU for South African operators				
Year	Vodacom	MTN	Cell C*	Telkom
2015	R113	R91.54	-	R75.05
2016	R112	R90.47	-	R89.44
2017	R111	-	-	-

*Note: Cell C has not released sufficient data for calculation.

Source: Operators' annual reports

In terms of revenue, Cell C made the greatest gains (off a much lower base) increasing its revenue by 11% to reach R14 billion in the period 2015 and 2016. Cell C was followed by Vodacom with revenue growth of 5.2%, and MTN which registered a revenue increase of 4.7%. In terms of earnings before interest, tax, depreciation and amortisations (EBITDA), Cell C grew by 59% in the period 2015-2016, followed by Vodacom at 9% and MTN at 3.2%. Much of Cell C's growth can be attributed to a 45% acquisition by Blue Label Telecoms and its new strategy, which includes setting up new customer targets, developments of innovative products and services as well as investment in innovative marketing strategies.

Most of the performance growth for mobile operators is attributed to coverage and investment in 3G and LTE networks to improve quality.

Data pricing trends in South Africa

Mobile broadband services remain very expensive for low-income users in South Africa. These users represent a large portion of the population and innovations in the market have complicated products to the extent that many consumers may not be able to identify which packages are the most practical and cost effective for them.

The information asymmetry in the market remains a significant cost to consumers. Some of these costs include the differential between out-of-bundle rates and in-bundle rates. This makes the global trend towards flat rate pricing (based on return on investment) an attractive option from a consumer protections perspective.

Mobile broadband services are more expensive for prepaid subscribers than postpaid

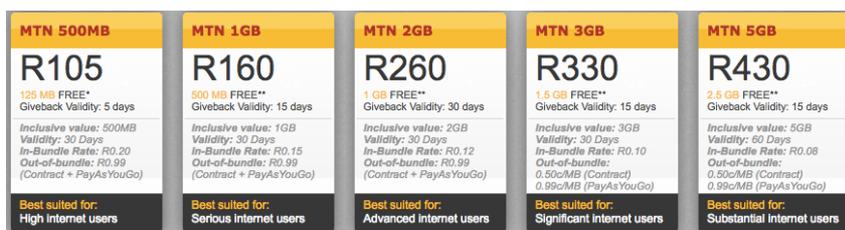


Figure 1: Select MTN postpaid data products

Source: MTN Website

Paradoxically, prepaid services remain far more expensive than contract or postpaid customers, despite prepaid customers being less costly and risky. A prepaid subscriber pays more than twice the amount paid by a postpaid subscriber for a similar amount of data: 500MB of mobile data costs a postpaid subscriber R51, and the same amount of data costs a prepaid subscriber R105. The cost of 1GB of mobile data for a postpaid subscriber is R83 while a prepaid subscriber will pay R160 for the same amount of data.

500MB	1GB	2GB	5GB	9GB	18GB
R51 pm x24	R83 pm x24	R125 pm x24	R314 pm x24	R524 pm x24	R944 pm x24
Out-of-bundle charge = 99c/MB incl. VAT	Out-of-bundle charge = 99c/MB incl. VAT	Out-of-bundle charge = 99c/MB incl. VAT	Out-of-bundle charge = 50c/MB incl. VAT	Out-of-bundle charge = 50c/MB incl. VAT	Out-of-bundle charge = 44c/MB incl. VAT
Best suited for: Regular Internet usage	Best suited for: Regular Internet usage	Best suited for: High Internet usage	Best suited for: Heavy Internet usage	Best suited for: Heavy Internet Usage	Best suited for: Heavy Internet Usage
View >					

Figure 2: Select MTN prepaid data products

Source: MTN website

While prepaid mobile voice prices have been falling in South Africa,² the prepaid prices of 1GB monthly data bundles have remained fairly constant between R149 and R160 - over the last eight quarters, except for Telkom. Telkom has the lowest-priced 1GB of prepaid data at R99, whereas Cell C continues to charge R149.

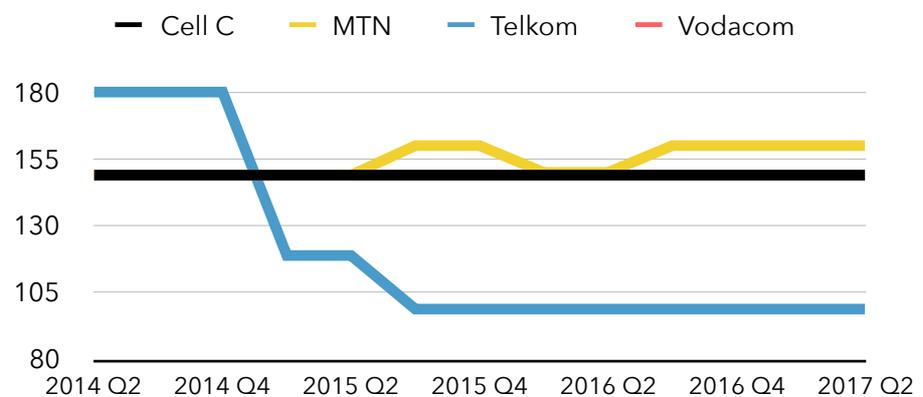


Figure 3: Operators' prices of 1GB prepaid data

Source: RAMP Index Q2 2017

According to RIA's 1GB data pricing information, it is clear that there has been minimal competition in the prepaid mobile broadband market, and that there has been no significant decline in data prices in the last two years, except for Telkom. Surprisingly, Telkom has reaped little benefit from its lower data prices.

² See Policy Brief number 1 2015, available at http://www.researchictafrica.net/polbrf/Research ICT Africa Policy Briefs/2015_Policy_Brief_1_Consumers_benefit_from_lower_MTRs.pdf

Factors inhibiting the migration of subscribers from dominant operators to smaller operators might be network quality, coverage, loyalty and transactional costs, which are the main switching costs in mobile telecommunications. RIA's demand-side survey in South Africa will hopefully provide some useful insights on this.

Despite continued calls for data prices to fall little change in this areas has been observed. Innovative pricing and bundling strategies are provided by operators to lower the price of data, but they have complex cost structures and conversion strategies (based on airtime availability and USSD codes) which inhibit their consumption by users (see table 5 below). This should be given attention by ICASA and policymakers.

Table 3: Monthly bundles available in South Africa					
Operator	Product	Price	Data	Minutes	SMS
MTN	MTN Sky unlimited uncapped	R1 799	10 000 MB	4 500/on-net 4 500/off-net	12,000
	MTN Sky absolute 2G	R2 396	8 000 MB	4 500/on-net 4 500/off-net	12,000
	MTN Sky super 1GB	R999	1 000 MB	3 000/on-net 4 500/off-net	12,000
Cell C	Infinity	R999	1 000 MB	Unlimited anytime minutes	1000 anytime SMS
	Supercharge 500	R500	1 000 MB	Unlimited anytime minutes	1000 anytime SMS
Telkom	FreeMe Boost 20GB	R599	20 000 MB	1 500/anytime 300/on-net	Unlimited
	FreeMe Boost 1GB	R99	1 000 MB	300/on-net	100
	FreeMe	R299	5 000 MB	1 500/anytime 300/on-net	-

Source: RAMP Index, Q2 2017

Africa's cheapest prepaid mobile data prices

RIA's Africa Mobile Price (RAMP) Index shows that the lowest price for 1GB of mobile data ranks South Africa 25th out of 49 African countries for Q2 2017 – a 2-place drop from 23rd at the end of last year. South Africa was overtaken by Senegal, Gambia, Algeria, and Togo. In Egypt, the cheapest 1GB of prepaid data is sold at USD1.2; in South Africa the same product is offered by Telkom for USD7.64.

Table 4: Cheapest 1GB prepaid data prices in six large African markets (USD)

	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017
Egypt	3.1	2.8	2.8	1.7	1.4	1.2
Tanzania	6.0	0.9	2.4	3.0	2.3	2.3
Ghana	3.9	3.9	2.5	2.5	2.3	2.3
Nigeria	5.1	4.9	3.2	3.2	3.2	3.1
Kenya	5.0	5.0	5.0	5.0	4.9	4.9
South Africa	6.3	6.6	7.0	7.1	7.5	7.6

Source: RAMP Index, Q2 2017

The prepaid cost of 1GB of mobile data in South Africa is three times that of Ghana and Tanzania, and more than twice the cost of 1GB in Nigeria

According to Table 4 above, South Africa came last out of six of some of the most dynamic telecommunications markets in Africa last quarter (Q2 2017). The cost of 1GB of data in South Africa is three times the cost of the same data amount in Ghana and Tanzania, and more than twice the cost of 1GB in Nigeria. The operators in these countries who are offering these low prices are Glo Mobile, Airtel and Smart. Among SADC countries, South Africa is ranked sixth behind Mozambique, Madagascar, Mauritius, Malawi and Namibia. The cheapest 1GB data in South Africa is three times the cost of the cheapest 1GB available in Mozambique (See Figure 2).

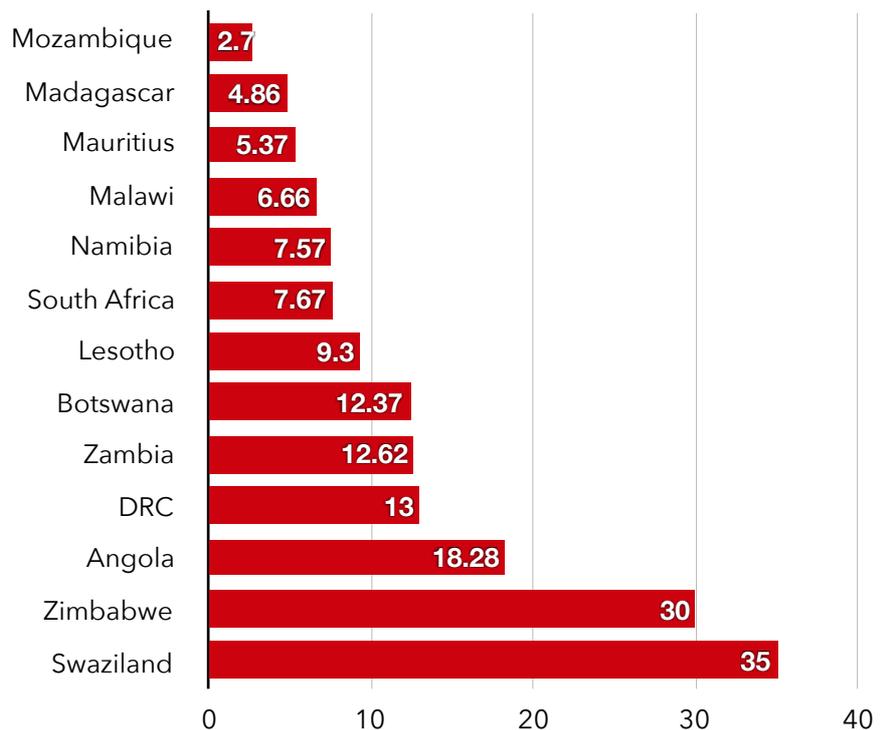


Figure 4: Comparison of prepaid 1GB mobile data across SADC countries.

Source: RAMP Index, Q2 2017

Value for Money Index

Pricing innovations that include multiple services bundled together and discounted provide another channel in which operators compete with each other. By offering cheaper, innovative communication services in bulk, they offer unit prices way below the usual 1GB cost. RIA created the Value Money Index (VMI) as a means of capturing the value of combined data, SMS and voice package offers. Given the complexity and high number of products in the market, only bundles offering data, or application-specific data, combined with voice and/or SMSs are captured.

Vodacom offers a personalised service called JustforYou, which RIA does not capture due to its unpublished algorithm tailoring price packages for each person. MTN and Cell C offer bundled products, often in a family such as Sky, Signature PAYG and Boosta for MTN; and Infinity and Supercharge for Cell C; while Telkom offers FreeMe, FreeMe Boost, FreeMe Family and FreeMe Family Unlimited.

Telkom FreeMe 20GB dominates the VMI with a score of 6.05. It offers a combination of 20GB of mobile data, free calls to all other South African networks (1 500 mins), 300 free minutes to both other cellular Telkom and fixed lines. This product has also improved South Africa's ranking amongst other African countries. Telkom FreeMe Boost 1GB offers 300 on-net minutes, 100 any-time SMSs, 1 000MB of mobile

South Africa performs well in the value for money index. The country is in par with Nigeria and performs better than Ghana.

data and 500 social media MB at the same price as the cheapest 1GB of data in South Africa.

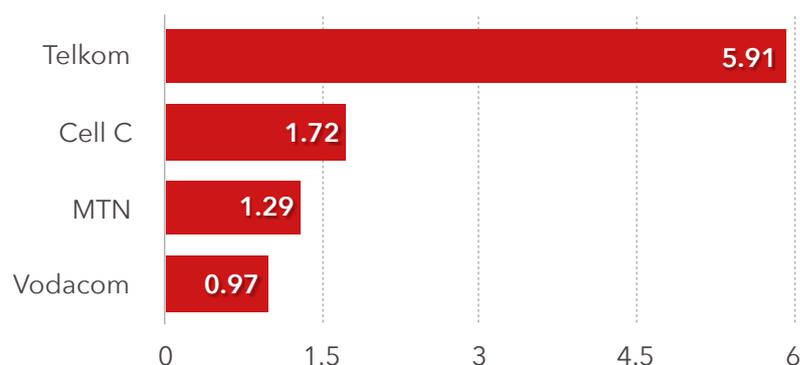


Figure 5: Comparison of VMI scores for South African operators

Source: RAMP Index, Q2 2017

The second VMI product, with a score of 1.74 is offered by Cell C. The product sells at R500 and gives consumers 1GB of data, 1 000 SMSs, unlimited on-net voice minutes and 500 anytime minutes. MTN Sky Super 1GB, with a VMI score of 1.28 offers consumers 1GB of data, 3000 anytime minutes, 4 500 on-net minutes, unlimited SMSs at a price of R999. With a VMI score of 6.05, South Africa is on a par with Nigeria (6.04) and performs better than Ghana (4.06) and Kenya (2.15) which have amongst the lowest prices on the 1GB standard index.

Conclusions

As they transition from voice to data, mobile operators in South Africa have shifted their competition strategies to focus more on innovative bundled products, which offer subscribers a combination of data, voice minutes and SMSs. However, bundle pricing is becoming more complex and prices for mobile data in South Africa continue to be high. Furthermore, 1GB monthly data bundle prices have remained fairly constant over the last eight quarters – higher than 23 of the best-performing countries in Africa – except for Telkom.

Despite the availability of cheaper services and mobile number portability, large numbers of subscribers are choosing to remain with the more expensive networks. To understand some of these demand-side dynamics, including why subscribers are not migrating to the low cost services, RIA is currently conducting a nationally representative ICT access and use survey. The survey, which gathers all the traditional ICT indicators, goes far beyond investigating those related purely to access in order to examine communications spending; access strategies; the extent of public Wi-Fi use; alternative access points at school and work; social networking trends; what platforms and website are utilised the most; surveillance and cybersecurity awareness levels; as well as what the affordability, language and

content barriers to greater use are. It is only through such demand-side analysis that the real points of policy and regulatory intervention can be identified.

Analysis of the performance of the South Africa telecommunications sector shows that the health of the operators is largely determined by the success of their data strategies. Capital expenditure for all operators is increasing due to the exponential demand for data. Vodacom remains the data revenue leader after large investments in their network while Cell C revenue is largely driven by data after also making some substantial investments. It appears that whoever spends the most on their 3G and LTE network grows more.

While the telecommunication operators in South Africa seems to be performing well, a large proportion of South Africans are still not online. An issue which could be attributed to high prices of data products due less competition among operators.

Recommendations

ICASA's release of its market review discussion paper this week is long overdue and welcomed. It will potentially facilitate the assessment of dominance in the market and thus enable regulation of wholesale mobile prices as well as wholesale access to mobile networks (if these are found to be bottlenecks). ICASA intended for this to have been accompanied by the assignment of high-demand spectrum to operators to enable more cost-effective delivery of 4G / LTE services. This has been delayed for more than six years and the auction of spectrum is now a matter of legal dispute between ICASA and the Ministry (DTPS), which has proposed that the spectrum should be reserved for a national wireless wholesale open access network.

As both these processes are protracted, there will be no immediate relief for consumers. Policymakers and regulators should be exploring ways of immediately reducing some of the cost drivers associated with the broadband services in the country. These include:

- a) making available unused spectrum to communities and entities wishing to offer low-cost services;
- b) enabling the deployment of dynamic spectrum technologies on the vastly underutilised spectrum available in rural areas and which can be deployed at a fraction of the cost of GSM services; and
- c) fast tracking the roll out of public Wi-Fi, as mandated by SA Connect, particularly to schools where the social and economic multipliers are greater for communities and particularly beyond the major metropolitan areas so all citizens can harness the benefits of the Internet.

Author

Onkokame Mthobi
omothobi@researchictafrica.net

Media enquires

Dr. Alison Gillwald
agillwald@researchictafrica.net (+27) 21 447 6332
409 The Studios, Castle Brewery
6 Beach Road, Woodstock
Cape Town, 7925
South Africa