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2016: Rise of the living dead - SA's mobile operators wake up as 2020 draws closer.

The latest financials of the publicly listed operators highlights their competitive responses to the dynamism of this increasingly complex market as it shifts from voice to data.

- ***The 2015 financial year has seen MTN increase its investment to catch up with Vodacom.***
- ***Telkom Mobile has had a largely successful year and has found a niche in the contract market with higher postpaid growth than any other operator.***
- ***Making up less than 0.8% of the market, MVNO's pose no real threat to operators even though they target high-revenue customers.***

Introduction

The mobile telecommunications landscape in South Africa is possibly one of the most dynamic in Africa. The financial year 2015/16 has seen a multitude of strategic responses from operators to factors changing demand. In response to the latest financial statements released by SA's listed mobile operators, this policy brief looks at the mobile environment and analyses the competitive tactics of each operator according to a set of performance criteria to determine their direction. It also examines how consumer-focussed their strategies are according to a set of core competitive criteria.

Competitor Performance Analysis

Globally the explosion in demand underpinned by the data revolution has left operators with no choice but to restructure their price plans to meet this demand and increase capital expenditure to improve network capabilities[1].

External and internal market factors that could give any one operator an advantage over another include: responses by operators to the introduction of over-the-top (OTT) services, voice and data pricing, zero-rated services, customer experience management and personalised service offerings, and importantly network quality of service. This section analyses the competitiveness of SA's four main MNO's according to their strategies in these key areas.

Market shares

As of FY 2015, Vodacom held 37.7% of the market closely followed by MTN at 36%[2] with CellC trailing at 23%. Telkom Mobile is the smallest MNO with 2.6% of the market and is in a position as the latest entrant to undercut the larger operators and win subscribers. The year 2015 also saw the growth of MVNO's as niche markets in the larger mobile market. All MVNO's combined

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[1] *http://www.ey.com/Publication/vwLUAssets/ey-global-telecommunications-study-navigating-the-road-to-2020/$FILE/ey-global-telecommunications-study-navigating-the-road-to-2020.pdf.*

[2] MTN's Financial year end is 31 December, therefore its market share is overestimated.

make up less than 1% of the entire market, posing no threat to the larger operators.

Table 1: Mobile Operator Market Share FY 2015

Operator	Number of Subscribers	Market Share
Vodacom SA	32.12million	37.7%
MTN SA	30.55million*	35.9%
CellC	19.6million	23.0%
Telkom Mobile	2.19million	2.6%
MVNO's**	650,000	0.8%

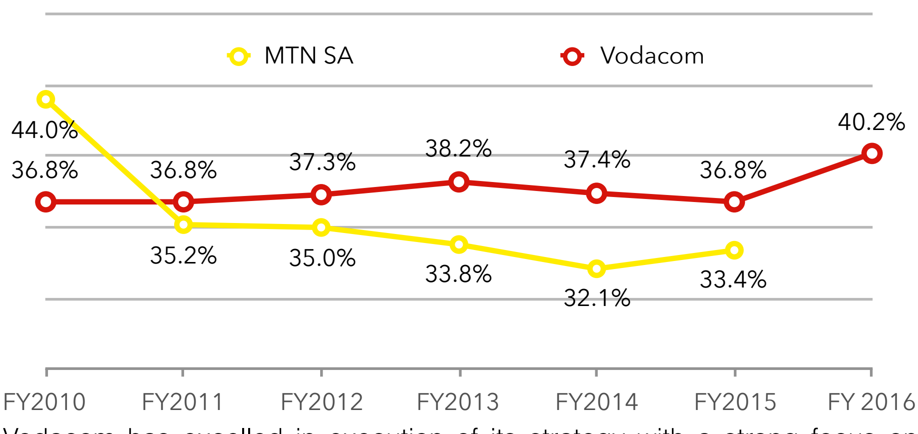
Source: Operator AFS (see http://businesstech.co.za/news/general/104249/sa-mobile-market-share-vodacom-vs-mtn-vs-cell-c-vs-telkom/)
**MVNO's include Virgin Mobile and all other MVNO's.*
***MTN's Financial year end is 31 December, therefore its market share is overestimated.*

Vodacom

Vodacom has had a successful year reporting a 2.7% increase in earnings and a 4.9% increase in service revenue mainly driven by increases in its prepaid subscribers and data demand. The acceleration in network investment over the last two years has paid off with the operator yielding a 27% increase in data revenues and a rise in its average monthly use per user to 350MB. In a successful bid to personalise offerings it has devised smartly priced, dynamic prepaid products targeted at individual users, such as its Just4U bundle, offering customised discounts to users based on their patterns of use.

Under strong leadership, Vodacom has been able to secure its place as the largest telco group in Africa, by market cap, exceeding MTN[3]. Vodacom has also decreased its voice revenue loss by 0.05% in the last quarter (Q1 2016), increasing its EBITDA margin to the highest level seen in four years, and increasing its subscribers to 34.2million.

Figure 1: EBITDA Margins for MTN SA and Vodacom



Vodacom has the largest 3G and LTE network coverage in South Africa.

Vodacom has excelled in execution of its strategy with a strong focus on network reliability and quality of service. It has the largest number of LTE sites in the country (over 6 000) with 3G coverage increased to 99% of the population, and LTE/4G coverage covering 58% of the population.

Despite the failure of the merger with wholesale network provider, Neotel, Vodacom has succeeded in cementing strategic alliances, such as the one entered into with IBM in late 2015. The operator continues to meet

[3] http://businesstech.co.za/news/general/104249/sa-mobile-market-share-vodacom-vs-mtn-vs-cell-c-vs-telkom/

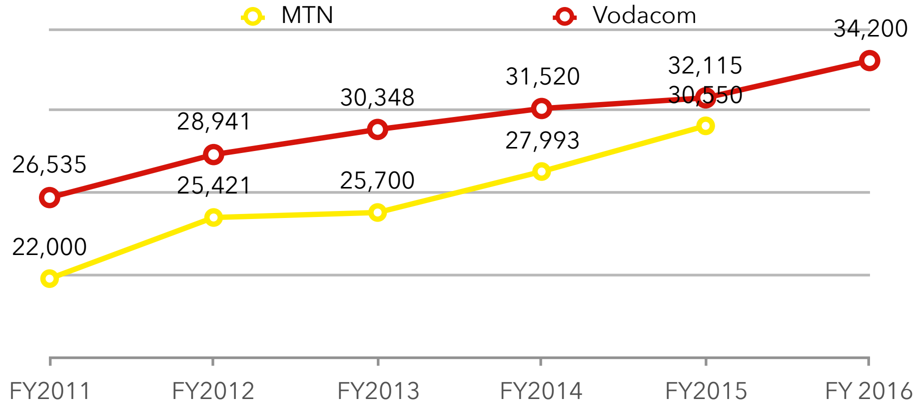
increasing demand for cloud and hosting services. The partnership with IBM will give rise to the first global cloud-based system in Africa. Vodacom's Internet of Things (machine-to-machine) connections have also increased.

MTN

Group leadership instability has not stopped MTN South Africa under the new leadership of Mteto Nyati from improving its performance. The once leader of the African market has found itself in a riveting market position as it continues to lag behind Vodacom both in terms of subscribers and revenue but continues grow its prepaid subscribers at a rate faster than Vodacom.

The increased growth rate in MTNs subscribers (Figure 3) coupled with the increase in its EBITDA margin to 33.4% (Figure 1) shows promising performance by the operator. MTN has seen the largest YoY growth (12%) in its prepaid segment over the last year, but still lags behind Vodacom by 4million prepaid users. In its postpaid segment, MTN lost 4% (around 200 000) of its subscribers where Vodacom saw flat annual growth of 0% - a year in which operators pushed up their contract customers tariffs mid-contract.

Figure 2: Subscriber Numbers (000's)



Competitor Analysis Methodology

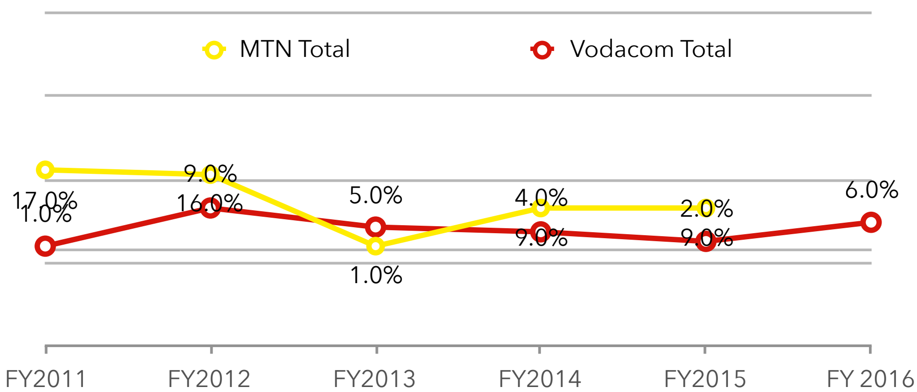
The EY global telecommunications study conducted in 2015 highlighted a multitude of key challenges facing the global telecommunications industry on the road to 2020. Of these factors disruptive competition is noted as the key industry challenge, closely followed by regulatory issues, spectrum release and data privacy. Executives are increasingly focussed on customer experience management and personalisation whilst providing improved quality of service. Operational efficiencies and agility across the value-chain via in-market consolidation and adaptation to the centralisation of digital services are among the top areas of concern.

Customer experience improvement and service-level personalisation cannot be looked at independently of pricing. Pricing is dependent on investment, capital expenditure and other financial outlays. The decision to invest is at the same time tightly linked to consumer demand. Strategic positioning is a complex function of demand-side, supply-side and external challenges. To assess the competitive strategies of South Africa's operators, their performance and approaches to the following key areas are assessed:

1. *response to OTT;*
2. *zero-rated service offerings;*
3. *customer experience management as a priority;*
4. *pricing;*
5. *service levels and personalisation; and*
6. *network quality of service (including investment).*

http://www.ey.com/Publication/vwLUAssets/ey-global-telecommunications-study-navigating-the-road-to-2020/$FILE/ey-global-telecommunications-study-navigating-the-road-to-2020.pdf.

Figure 3: Subscriber Growth Rates



MTN's turnaround appears to result from them finally responding to pricing pressure in the market from the smaller players and quality distinction from Vodacom, who invested R20.8 billion between 2012 and 2014 compared to MTN's R17.9 billion. The realisation that they would need to increase capital investment to compete for the expanding data market saw an increase in MTN's investment of 93.9% to R10.7billion with further approval of R7.97billion (Figure 4) in capital expenditure for FY 2016.

Figure 4: Capital Expenditure of Vodacom, MTN and Telkom Mobile

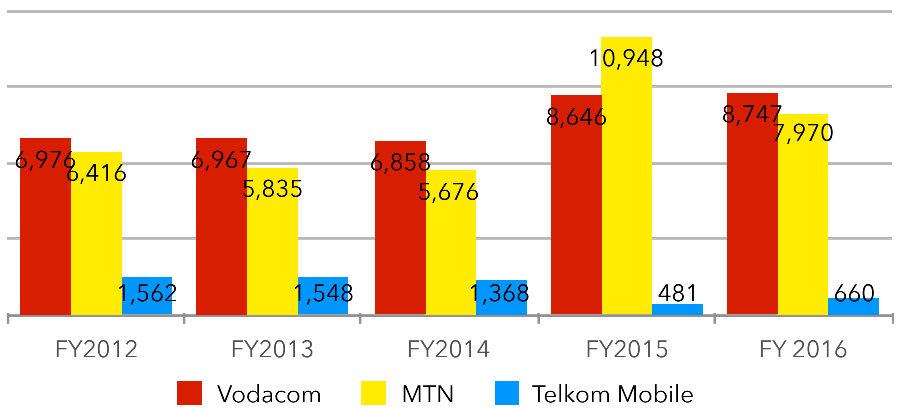
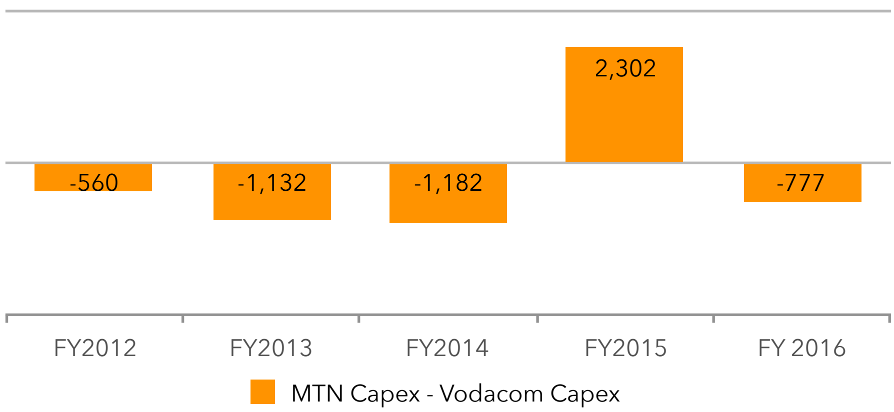


Figure 5: Difference between MTN and Vodacom's Capex

MTN's increase in investment in FY 2015 has finally brought its CapEx to a level that is now on par with Vodacom.



**2016 investment figure used for MTN is authorised figure of R7 970 million*

The large increase in capital expenditure (by 93.9% FY 2015) has simply brought MTNs capex on par with Vodacom's expenditure over the FY's 2012, 2013 and 2014 (Figure 5). In FY 2015 MTN has woken up to the fact that it cannot neglect these decisions any longer and it has been playing catch-up. It also lists improved voice quality, enhanced data throughput and guaranteed network availability as key areas of focus to improve its customer experience[4].

Investment timing decisions aside, MTN's complacency in the market has also come across in some of its retail pricing decisions. According to the RIA Africa Mobile Pricing (RAMP) Index, MTN SA ranked last, with Virgin Mobile, in 1GB data pricing for Q3 and Q4 of 2015 - but dropped its price in Q2 2016 to match Vodacom, CellC and Telkom Mobile. However, it had already shed 467 000 prepaid subscribers by then[5].

MTN has been most successful with its lower-value, low-validity period bundles that appeal to cost-sensitive users.

For instance its R7 Pay As You Go product offers users R7 airtime, 20 mins total talk time and 5MB that all last 48 hours.

In Q4 2015, MTN ranked last in terms of the value for money of its prepaid bundles , and second-last in terms of value offered in the postpaid market in Q1 2016. In addition to mid-term contract hikes that might have affected contract renewals, this illustrates that the basic products offered by MTN do not provide consumers with much bang for their buck and while the absolute price may be low, the value in the package is often lower. The low value offered has been taken note of by postpaid subscribers who have voted with their feet, resulting in MTN losing 200 000 contract users in FY 2015.

The type of pricing that MTN has succeeded in, however, is on its lower revenue base of consumers. It deploys a volume versus value model which offers short-term validity bundles[6] that cannot be captured in the RAMP Index but appeals to subscribers who are cost-sensitive, resulting in an increase in the number of active prepaid SIM cards for the operator.

This successful pricing strategy is illustrated by the fact that subscribers flocked to MTN in the last financial year as the operator gained 2.7million new prepaid subscribers (Vodacom gained just 2.1million) - an impressive turnaround from FY2012 - FY2013 where the operator lost 1.1% (228 000) of its prepaid subscriber base. As would be anticipated, MTN's large gain in its prepaid subscriber base has meant that it has seen a decrease in its ARPU in the financial year ending December 2015, with only a slight increase in its revenue.

MTN offers the largest number of zero-rated services on its network. Resulting in increased data use, as was observed with Zero-rated Twitter.

MTN does not lack innovative capacity as it was the first operator to introduce bundled pricing into the South African market and offers the largest number of zero-rated services on its network (see Table 2). Its use of zero rating has been exceptionally successful. For instance, during the zero-rated Twitter period in 2014, the average Twitter user on MTN exchanged as much as 40 MB per day on Twitter, whereas use outside of the promotional period was typically closer to about 10 MB per day[7].

MTN falls short because while it is innovative in some product areas it drops the ball in other areas - for instance, its large loss in postpaid may be as a result of its low value product offerings.

However, MTN's slow response to the changing needs of the market leaves the large operator positioned second to Vodacom. It is amidst a much-needed turnaround — exhibiting MTN as having a clear strategy in some areas of its operations and less so in others. It has innovated quite extensively but selectively with respect to pricing, often charging higher than average market prices and has also played the role of market follower with its investment strategy; where it was once the leader. Other ways in which MTN has demonstrated a willingness to explore successful strategies of the

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[4] *http://it-online.co.za/2016/05/23/mtn-aims-for-better-customer-experience/*

[5] This subscriber loss may not be directly due to MTN's data pricing strategy, but may be influenced by it.

[6] An example of such a product is its R7 Pay As You Go bundle, which includes 5MB of data and is valid for up to two days. (See: *https://shop.mtn.co.za/crs/siteInformation/staticPage.jsp?breadcrumb=PayAsYouGo%20Bundles&siteInformation=PayAsYouGoBundle*)

[7] Chen, A., Calandro, E., and Feamster, N. (2016). "Exploring the Walled Garden Theory: An Empirical Framework to Assess Pricing Effects on Mobile Data Usage". Paper submitted to CPRsouth2016. Under review.

Table 2: Zero-rated services by South African operators		
Operator	Product	Features
CellC	Freebasics	internet.org application.
	WhatsApp	Free WhatsApp on Trace Mobile.
Vodacom	Vodacom e-school	Educational learning application. Also zero-rated on NXT LVL plans.
	Deezer	Music streaming and downloading site. Free two-month subscription.
	Career sites	Zero-rated on NXT LVL.
MTN	**Twitter**	
	Wikipedia	**Only when accessed on Opera Mini.**
	D6 communicator service	**Allows schools to communicate with parents. (100MB data cap)**
	MTN play	**Selected sites zero-rated**
	MTN Vu	**Video streaming service (Max Vu subscribers only).**

more marginal and niche players in the market is their adoption of upfront month-to-month contracts[8] as done by the MVNO's on the market, and the concurrent decision to allow MVNO's to roam on its network infrastructure.

Telkom Mobile

This year marked the end of the turnaround phase of Telkom's business operations, which included its deep functional separation, the launch of Openserve - the wholesale arm of its business - in October 2015, and a further strengthening of its mobile division Telkom Mobile.

Telkom Mobile has the highest share of postpaid subscribers relative to Vodacom and MTN.

While Telkom has succeeded in creating a business model that runs across the entire value chain, Telkom Mobile has been especially successful with a strong contract segment: its postpaid share is higher than Vodacom and MTN's (Figure 6). Launched in 2011, within five years it has seen an average total subscriber growth rate of 54.6% per year to 2.7million and has succeeded in reducing its EBITDA loss by 94% between FY2015 and FY2016 to just R43million, bringing the operator close to breaking even in Q4 2015[9].

Telkom Mobile's product offering has been especially dynamic. It has offered its postpaid consumers SIM-only contracts and month-to-month payments starting in early 2015 when Vodacom, MTN and CellC did not offer such flexibility. It also offers some of the lowest call rates and the lowest data rates in the country (measured by a 1GB basket and cost per MB).

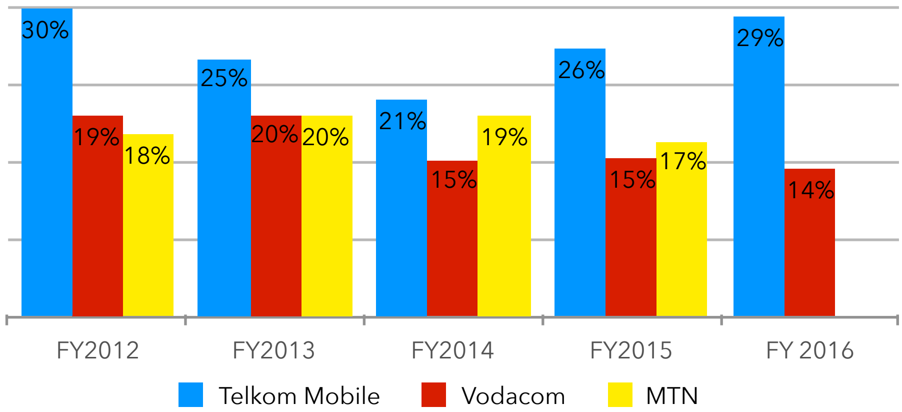
In FY 2016, Telkom Mobile contributed 12% to Telkom Group's revenue solidifying the group's place as an integrated telecommunications service provider. At the same time, though, Telkom Mobile is still the mobile operator with the smallest share of the market (excluding MVNOs). This position as

[8] *http://www.telecompaper.com/news/mtn-south-africa-to-offer-month-to-month-contracts--1144682*

[9] http://www.bloomberg.com/news/articles/2016-06-06/telkom-profit-falls-as-south-african-phone-company-sheds-jobs

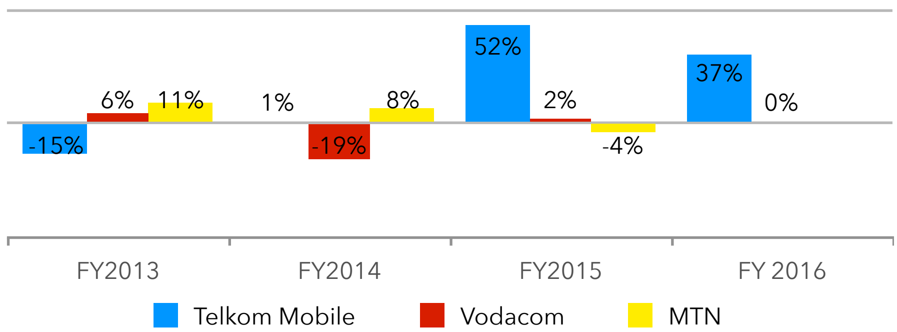
the latest market entrant has had some small effects on the competitive nature of the industry.

Figure 6: Postpaid Percentage of Total Subscribers



Subscriber behaviour suggests that it has had the largest impact in the contract segment where Telkom Mobile is gaining most of its subscribers: it has grown from 579 125 contract subscribers in FY 2015 to 794 272 contract subscribers in FY 2016. This is still only a fraction of the 4.9million contract subscribers belonging to Vodacom and the 5.2million belonging to MTN. Its growth is therefore increasing as a result of its small market share.

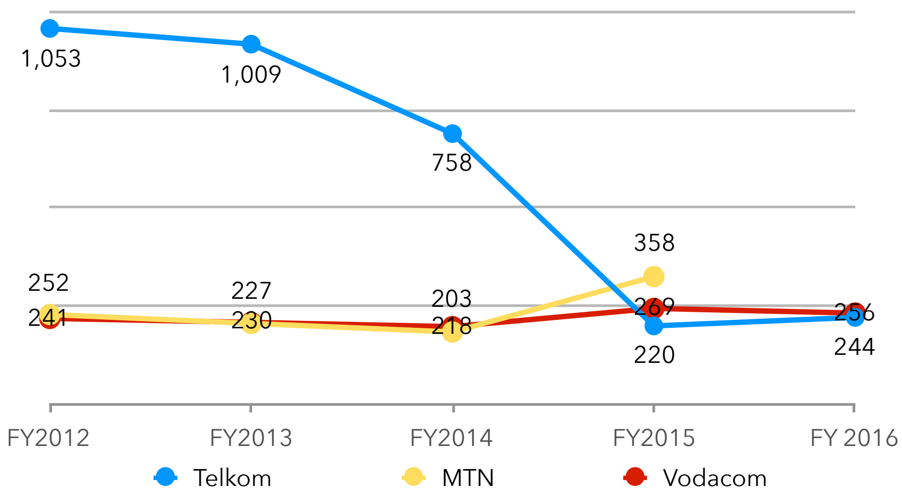
Figure 7: Postpaid Subscriber Growth Rates (year-on-year)



While Telkom Mobile will is not likely to reach the size and scope of Vodacom or MTN its investment per subscriber is very close to Vodacom's.

While there is no direct data on Telkom Mobile's quality of service (QoS), its investment has been on par with the market, considering the size of its operation, as it includes an increasing number of 3G and LTE base stations — often co-located. Its investment per subscriber (Figure 8), unlike that of Vodacom and MTN, has declined since 2012 following a large network investment during its launch period which has now tapered off alongside a high subscriber growth rate. Per subscriber, Telkom Mobile's investment is roughly on par with Vodacom's as of FY 2015 and FY 2016. However, in absolute terms, its investment is only R660 million (FY 2016) whereas Vodacom and MTN are investing in the billions (Figure 4). This shows that its scale remains minuscule in the mobile market.

Figure 8: Investment per subscriber (Rand)



Why is Telkom Mobile's competitive pricing not resulting in stronger subscriber gains? Is it a marketing or brand perception issue?

Telkom mobile does not offer any zero-rated services nor does it subsidise any OTT services. Its data-strong pricing strategy implies that the operator is embracing the move towards data but says nothing about the operator's approach to OTT's. Many questions remain regarding the operators competitive pricing strategy and its take up. Why is it not gaining more prepaid users given its low data and prepaid voice prices? Is it going to remain a small last-entrant or will it rise to its potential to compete vigorously with legacy players Vodacom and MTN? Could brand perception and marketing be a challenge to the mobile operator? Telkom Mobile has the potential to compete on a much larger playing field, and it remains to be seen if it will rise to the challenge.

CellC

Audited financial information is not publicly available for CellC making such an analysis cursory. Nonetheless, as at March 2015, CellC had 17.7 million prepaid subscribers and 2.2 million contract subscribers bringing its total subscriber count to 19.9 million[10].

Like others in the market the operator has seen a large growth in data revenue: 59%[11] between Q1 2014 and Q1 2015 - higher than Vodacom and MTN (Figure 9). Supported by shareholder investment, the company has also been involved in continued network expansion and had a total of 4 524 sites on air by the end of 2014. R2.2 billion was budgeted and spent on continued investment in the 2015 financial year.

In April 2016, CellC announced the commercial availability of its next generation broadband technology, LTE-Advanced (LTE-A) in Johannesburg, Pretoria and Cape Town. This would provide faster services to customers, including better coverage and greater stability — limited however to the nation's major cities.

In 2015, CellC also concluded the renegotiation of its roaming agreement with Vodacom, which includes access to 3G services on the Vodacom network. This illustrates that while the operator has spent over R4billion in investments over the 2014 and 2015 financial years for increased coverage

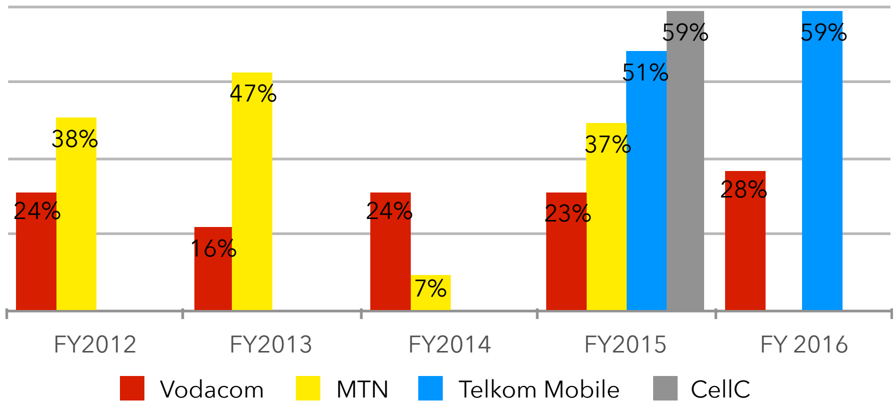
[10] http://mybroadband.co.za/news/cellular/126250-massive-increase-in-cell-c-data-traffic-revenue.html

[11] http://mybroadband.co.za/news/cellular/126250-massive-increase-in-cell-c-data-traffic-revenue.html

CellC lags behind other operators with respect to investment – only introducing LTE-A

CellC's uses customers' preferences for OTT services as a basis for its demand stimulation strategy seen in its subsidisation of WhatsApp.

Figure 9: Operator Data Revenue Growth Rates



and capacity, its 3G infrastructure still lags behind the massive investments of Vodacom and MTN, resulting in a requisite extension on its roaming agreement.

Competitively CellC has been aggressive, achieving the top spot for prepaid pricing value on the RAMP Index in Q2 2016. It also prices exceptionally competitively in the postpaid market, coming in first on RIA's Postpaid Value Index in Q1 2016.

In August 2015, CellC introduced the Contract Buy-Out proposition which offered customers up to R10 000 to help buy them out of their contract should they want to move to CellC but still have an outstanding value to settle before they can cancel. This is a first for the South African market, however the contract that users were expected to migrate to did not offer high value to users[12]. In March 2016, CellC had increased the potential buy-out value to R20 000 for certain contracts.

Market tactics like introducing the contract buy-out and increasing its zero-rated offerings bode well for the operator. CellC offers its customers subsidised access to WhatsApp (with a fair use limit of 1GB) on a monthly basis. This zero-rating has lead to an increase in use of WhatsApp on CellC's network by more than a factor of three on *both* cellular and Wi-Fi[13] data connections. Users still used WhatsApp more on the cellular data network than on Wi-Fi.

Competitor Strategic Positioning

South Africa's main operators all have their strengths and weaknesses. In general there has been a trend towards increased investment and improvement of network technologies. Operators have responded differently to market growth and increased data demand.

Vodacom performs as industry leader in three out of six core competitive categories (Table 3): its strategy is clear and streamlined leading it to excel in quality of service (QoS), service personalisation and customer experience management. While its network quality measured by investment and LTE coverage is good its pricing performs fairly in the market— no longer competing with the late entrants for the tail end of the voice market.

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[12] http://www.researchictafrica.net/polbrf/Research_ICT_Africa_Policy_Briefs/2015_Policy_Brief_2_Postpaid.pdf

[13] Chen, A., Calandro, E., and Feamster, N. (2016). "Exploring the Walled Garden Theory: An Empirical Framework to Assess Pricing Effects on Mobile Data Usage". Paper submitted to CPRsouth2016. Under review.

Table 3: Competitor Strategy Analysis					
Criteria		Operator			
		Vodacom	MTN	CellC	Telkom Mobile
1	Response to OTT	Weak	Weak	Industry Leader	Moderate
2	Zero-rated service offerings	Fair	Innovative	Innovative	Moderate
3	Pricing	Fair	Fair	Industry Leader	Innovative
4	Prioritising Customer Experience Management	Industry Leader	Moderate	Moderate	Moderate
5	Service personalisation	Industry Leader	Fair	Moderate	Fair
6	Network Quality of Service	Industry Leader	Moderate	Weak	Moderate

Ranking Scale	Weak	Fair	Moderate	Innovative	Industry Leader

MTN has begun repositioning – as a result its innovation seems selective and inconsistent. It may take a long time before its strategy crystallises.

Vodacom's prices are among the highest in the country[14]; it can afford to charge at a premium because of its higher QoS. As a highly profitable dominant operator in the market there is no imperative for Vodacom to deploy any subsidised zero-rated offerings to its consumers.

CellC and MTN have more actively used zero-rated service offerings as leverage in a competitive market. With little data available it is difficult to quantify the extent to which this is working but CellC has confirmed that this market strategy may be winning them subscribers, and there would be little point in them continuing to subside the data use for some of the OTT services if this were not the case.

Although MTN has offered several zero-rated services, CellC has taken the position of market leader in embracing OTT service. Its public subsidisation of WhatsApp being a case in point. This is cutting edge as the operator appeals to price-conscious consumers as a demand stimulation tactic. CellC is the operator with the lowest network quality measured by its investment and lags behind with respect to the adoption of next-generation infrastructure. It performs weakly on network quality of service and moderately in terms of service personalisation. Its pricing however is innovative and highly competitive, which appears to growing its market share.

While Telkom Mobile holds the smallest share of the market it has performed exceptionally over the last two years - gaining subscribers, reducing its loss and offering high value products. The operator has carved out a niche in the postpaid market, growing its contract base faster than any other operator. It has the lowest and cheapest prices on the prepaid and data market and exhibits the lowest out-of-bundle rates. Its market agility is high as measured by the performance of its group.

MTN is the operator with the weakest position. While it has a good quality of service, its pricing performs fairly poorly according to the RAMP indices because of its inability to innovate consistently (see operator performance). The operators strategy is unrefined as it is constantly playing catch-up with respect to pricing and investment. Furthermore, as its presentation to

[14] RAMP Index - Q2 2016.

Parliament earlier this year shows, it opposes OTTs yet offers the highest number of zero-rated offerings on the market. A slew of decisions by its CEO last year indicates an attempt at repositioning and a change in direction both of which are sending the right signals to investors.

Conclusion - South Africa's Operators Wake Up

In conclusion, all of South Africa's mobile network operators have carved out segments of the market and strategies that seem to be working for them, but some strategies are clearer than others. Vodacom offers users a high-quality premium-cost business model, charging users higher than average prices for high connectivity, and is the market leader in terms of quality of service.

CellC has embraced OTTs and has creatively chosen to use it to create products that stimulate demand. It has also priced itself competitively and aggressively appeals to cost-sensitive consumers, leading the market by offering the highest value to consumers.

Telkom Mobile, while only in possession of 2.6% of the market, has taken charge of its postpaid segment, offering month-to-month contracts, high contract value and boasts postpaid growth at a rate faster than any other operator. The operator also offers the lowest data prices in the country. However its low prices are not winning it subscribers in the prepaid market, which may mean that it could be facing brand and market positioning challenges.

MTN, which for the last few years has been complacent, is turning the corner but not without difficulty. It is able to innovate in some parts of its prepaid segment yet not in others. It is on point in the prepaid segment which combines its zero-rating and prepaid bundling strategies, keeping its prepaid subscriber numbers growing at a rate faster than Vodacom's. Yet it has lost 200 000 postpaid customers and its data pricing on the 1GB RAMP Index for 2015 increased while all other players kept their prices constant. Its large investment outlay is a sign of its commitment to improved service and improved technology, but a closer inspection shows that it has simply played catch-up with Vodacom. This is still a step in the right direction, as its cost reductions and investment increases show promise for the operator's future performance.

Vodacom, CellC, Telkom Mobile and even MTN understand well that they are placed in an evolving market with increasing data demand and a declining voice market that continues to bring in revenues they cannot ignore. In such a market the inability to extract optimal value from network assets poses a risk to them, through potential revenue loss. MTN and CellC have followed the lead of Vodacom and increased network investment to maximise on this, leaving CellC at most risk of forgone revenue — since its QoS is arguably the poorest out of all four key network operators.

Products that foster customer confusion limit the appeal of new services. Keeping products relevant and dynamic so that they are both simple and flexible is essential. We are increasingly seeing the elimination of legacy offerings and a refining of the product offering suite from operators like CellC and Telkom Mobile. However, high levels of customer awareness and understanding are still required to benefit from multiple offerings on the market.

Finally, a continued reluctance by operators to embrace OTT services to evolve their pricing models could lead to losses not only in voice revenue, but foregone data revenue. Operators should acknowledge that OTT competition is on the rise as tech firms keep innovating. Operators will succumb to this trend and their pricing and broader strategies will follow.

A single flat rate based on the rate of return required per customer to meet profit targets are evidenced in several other successful (and even less competitive) African markets. Such a flat rate pricing approach tends to be more efficient for the supplier and user as the complementarities between OTTs, data and revenues are realised. While this sort of pricing is still a way off in South Africa, operators are slowly awakening.

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