



Low Internet penetration despite 90% 3G Coverage in Lesotho

- ❖ **Lesotho is ranked 35th out of 49 African countries in both of RIA's 1GB data and voice/SMS baskets in Q2 2017.**
- ❖ **Despite 90% 3G coverage, 70% of Lesotho residents do not use the Internet.**
- ❖ **In the Internet using population, 86% use smartphones for access, but the cost of devices prevents others coming online.**
- ❖ **The telecommunications market is highly concentrated, with Vodacom Lesotho dominating around 80% of the mobile market and Econet Liquid dominating various segments of the fixed market.**

Introduction

The telecommunications market in Lesotho is structured around two vertically-integrated operators with Vodacom Lesotho dominating the mobile market and Econet Liquid (ETL) dominating the fixed market. Both companies have made significant investments in network extension, which have been complemented by a dedicated Universal Service Fund (USF) — established in 2009 in an effort to expand coverage to less economic areas of the mountainous country. In the process, the USF benefited more than 100 000 people in 320 villages — out of a total population of little over 2 million. This has extended 2G and 3G coverage to more than 90% of the population with at least one LTE base station in each district in 2016.

The Fund has extended its support from network extension to demand stimulation through the provisioning of mobile labs at schools installed with laptops, a projector and projection screen, and a storage cabinet for the laptops.

Despite these sectoral initiatives, the results of a nationally representative ICT demand-side study commissioned by the Lesotho Communication Authority (LCA) and the International Telecommunication Union (ITU) show that mobile phone penetration in Lesotho is at 78.65%, while Internet penetration stands at only 30%.¹ Despite the extent of 3G coverage, 83% of rural dwellers do not use the Internet and only 38% of those in peri-urban areas do. Even in urban areas, half of the population does not access the Internet.

The reasons for the continued digital divide between those able to access the Internet and those unable to can be explained by unaffordability of services and Internet-enabled devices. RIA's Beyond Access Surveys assessed demand-side trends in Lesotho's ICT sector this year and the results show that of people with a

¹ The survey assesses ICT access and use among individuals and households. Other than providing accurate and reliable ICT statistics, the survey is structured in such a way that it is able to elicit why some people are not connected to ICT.

mobile phone, 46% have a smartphone, and a much smaller number of people in rural areas own a smartphone. Digital inequality is increasing as an urban elite benefit from being online while most of the population are left offline, or only able to be online intermittently and for short periods of time due to the relatively high cost of communications for them.

Without a full cost-study, it is difficult to establish if prices in Lesotho reflect the real costs (with a fair rate of return) of delivering services under the difficult conditions that prevail in Lesotho, or whether regulation is required to ensure that prices are cost based. What is clear from assessing the individual users is that current prices, even relatively well-benchmarked data prices, are unaffordable for many Basotho. About 41% indicated that the reason they do not use the Internet is that they cannot afford to. Finding ways of supplementing personal use through demand aggregation at public access points, such as free public Wi-Fi spots at all public buildings, would be a good use of universal service funds. Clearly, reducing the price of all current services would be beneficial.

In the absence of a costing study, benchmarking is a useful way of assessing the affordability of mobile services (voice and data) compared to other countries. To do this analysis, RIA uses the only comprehensive mobile pricing database of 49 African countries, which it updates quarterly. RIA measures the cost of communication by tracking prepaid mobile pricing trends in Africa with a voice/SMS basket (using OECD standards), the RIA 1GB data basket and a Value for Money Index. Both the voice/SMS basket and the 1GB basket methodologies calculate the minimum price for consumers in African markets.

Mobile pricing and market competition

Competition in the Lesotho telecommunications market is a cause for concern. It is structured around two vertically-integrated operators, the former incumbent ETL as well as Vodacom. The market is highly concentrated with a Herfindahl-Hirschman Index of 0.63 – a value that shows the telecommunications market in Lesotho is closer to a duopoly. Vodacom's market share as the biggest operator in Lesotho is around 76%.

Prepaid voice/SMS pricing

The lack of competition clearly has a negative impact on prices. When a market is highly concentrated, firms with market power have the potential to charge high prices, making it difficult for consumers to access services or cheaper alternatives, as is the situation in Lesotho.

Methodology:

Voice/SMS basket (OECD basket): 30 voice calls for a total of 50 minutes and 100 SMSs per basket per month.

1 GB basket: monthly cost of 1GB data based on prepaid data top-ups or bundled top-ups. Both baskets are converted to USD for comparison across African markets.

The voice/SMS basket pricing information from RIA’s Africa Mobile Pricing (RAMP) Index shows that price competition among mobile operators is minimal. Prices have tracked each other, with Vodacom steadily raising its prices between Q1 2013 and Q4 2015. Faced with pressure from ETL in Q1 2016, a period when Vodacom’s subscriptions dipped, Vodacom significantly reduced its voice/SMS prices from M159 to M111 to become the cheapest service provider in the market again, pushing up its subscriber base by 2% and giving it about 80% of the market share.

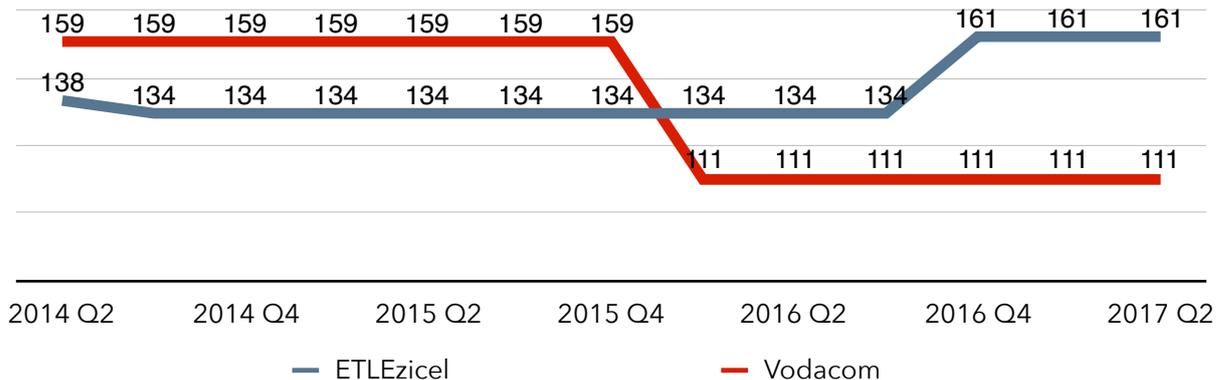


Figure 1: Comparison of prepaid OECD basket (LSL)
Source: RAMP Index (2017)

Using the same Index, Lesotho is ranked 35th among 49 African countries for prices collected in Q2 2017. While the cheapest prepaid voice/SMS basket (OECD standards)² in Egypt is USD1.16, the same costs USD8.57 in Lesotho. Lesotho also performs poorly when compared to 14 other SADC countries.

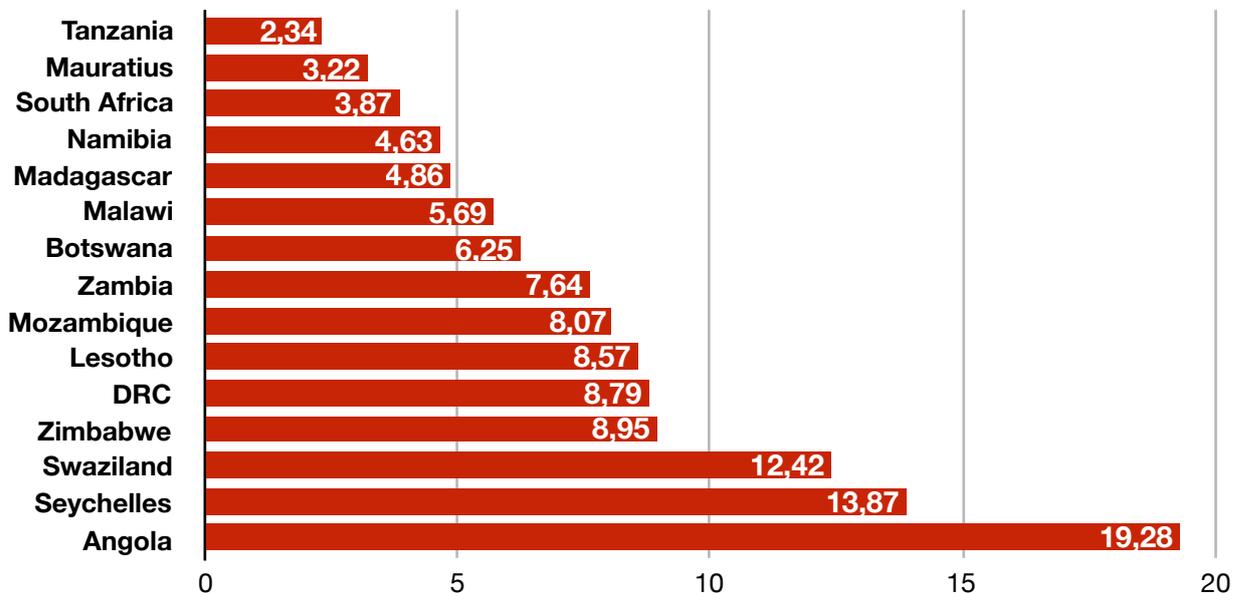


Figure 2: Cheapest prepaid OECD pricing comparison in SADC countries (USD)
Source: RAMP Index (2017)

² The cost of voice/SMS basket (OECD) basket is constructed based on the assumption that a subscriber makes 30 voice calls for a total of 50 minutes, both on- and off-net, and sends 100 SMSs per month.

Lesotho is ranked 10th in that grouping, ahead of Angola, the Democratic Republic of Congo, Seychelles, Swaziland and Zimbabwe. The cost of an OECD basket in Lesotho is four times the cost of the same basket in Tanzania (USD2.34). Botswana has similar characteristics such as being landlocked, but comes in USD2.32 cheaper than Lesotho's prices (see Figure 2).

Prepaid mobile data pricing

Until Q1 2016, Vodacom was the only provider of mobile data services. Over this period, Vodacom offered the cheapest 1GB data³ at a price of M220. However, in the same quarter, ETL entered the data market and undercut Vodacom to become the cheapest monthly 1GB data provider.

The effect of competition was observed when Vodacom reduced its price from M220 to M100 in Q3 2016 in response to the new product offered by ETL. With ETL adopting the flat rate pricing strategy since it introduced data products, Vodacom remained the cheapest operator ever since. In Q2 2017, it increased its 1GB data price from M100 to M125, making it the most expensive 1GB provider.

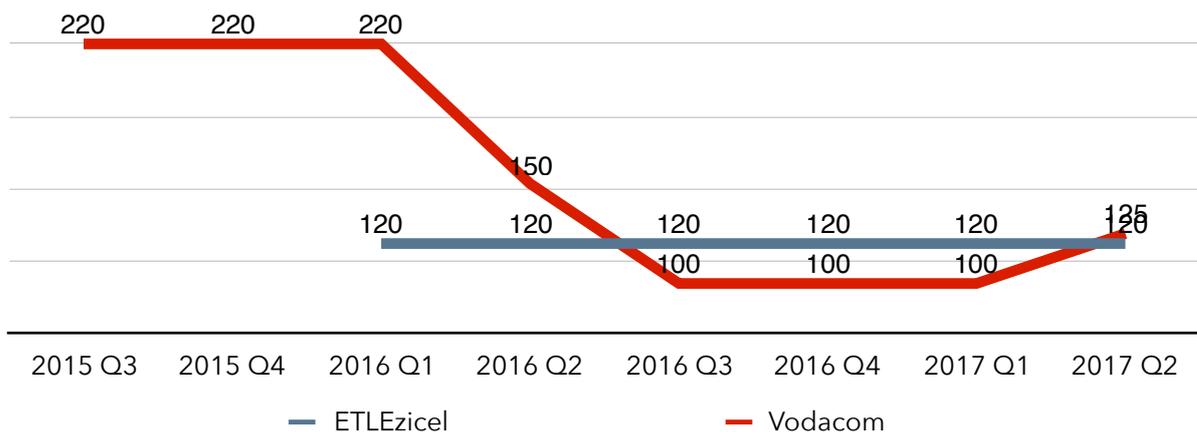


Figure 3: Cheapest 1GB prepaid mobile data prices of mobile operators (LSL)
Source: RAMP Index (2017)

While small operators in other markets such as Tanzania undercut large operators to attract subscribers to their networks, this appears not to be the case in Lesotho. ETL, the smaller operator, does not appear to engage in any competitive pricing strategies. This may well reflect incumbency and their dependence on revenue from the fixed market, even though their dominance of the mobile market as the original monopoly provider has been severely eroded.

Using the 1GB data price information from the RAMP Index, Lesotho ranks 35th among 49 Africa countries in Q2 2017, five places down from the previous quarter. The cost of 1GB of prepaid mobile data in Lesotho (USD9.30) is eight times the cost of the same amount of data in the best-performing country in Africa, Egypt (USD1.24). Among the 15 SADC countries, Lesotho is ranked ninth, but is still cheaper than Botswana and Swaziland.

³ 1GB basket captures monthly cost of 1GB of mobile data based on the prepaid data top-ups or bundled top-ups

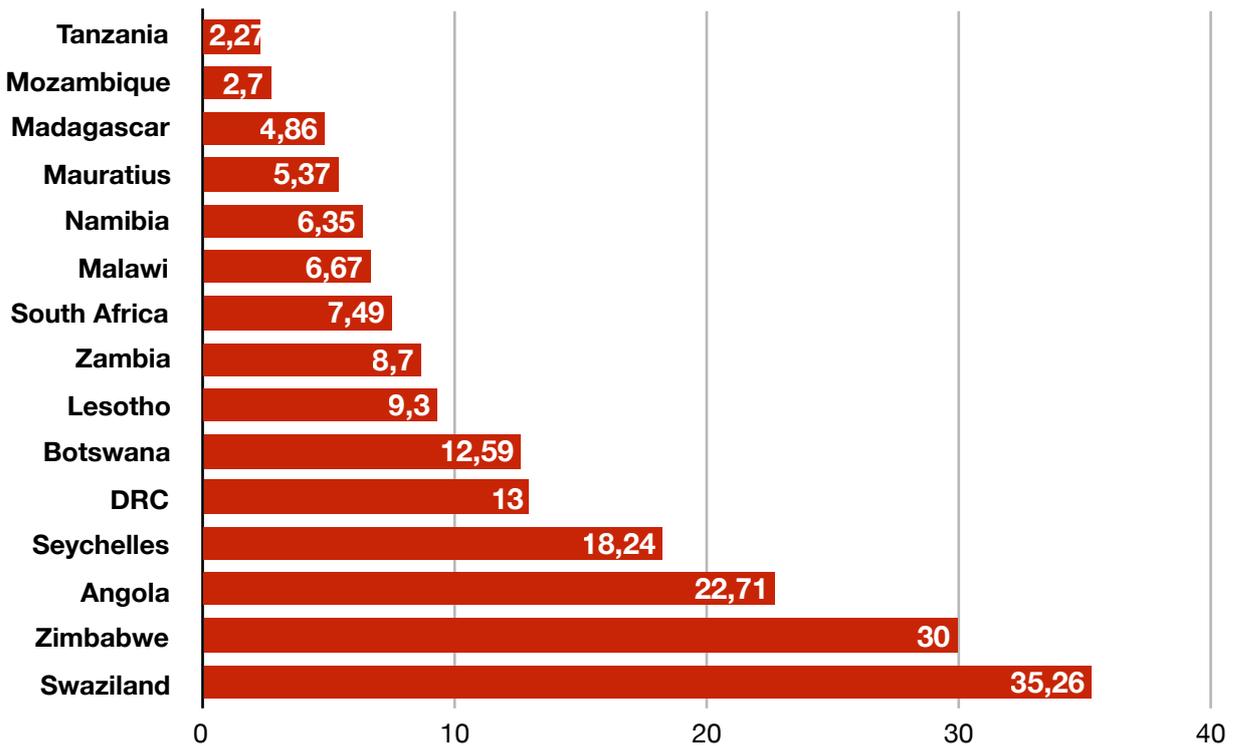


Figure 4: Cheapest 1GB prepaid mobile data prices in SADC countries (USD)
Source: RAMP Index (2017)

With the cost of 1GB of prepaid mobile data being eight times the costs of the same amount of data in the best-performing country, the cost of mobile telecommunication products in Lesotho must be a cause for concern. High prices inhibit consumers from taking up services and benefitting from the efficiencies and opportunities associated with Internet adoption in the home and workplace that can contribute to economic growth. This will impact on low-income consumers significantly.

Demand-side survey analysis

The Beyond Access Survey conducted by RIA in Lesotho this year revealed that mobile phones are the most-used devices to access the Internet at the national level and across both sexes. About 87% of individuals use their mobile phones to access the Internet compared to 12.5% who use their laptops, 10.1% who use a desktop and 6.0% who use another mobile device (either an iPad or a tablet).

The results show that individuals who own mobile phones are more likely to use the Internet than those who do not own mobile phones. Mobile phones have the potential to improve the livelihoods of poor communities by providing them with access to services that they could not access before, potentially at much low transactional costs. Access such as this is the type of input that has enormous multipliers in a number of different spheres that together enhance the welfare of citizens. Moreover, the complexity of the outcomes also make it difficult to assess the value of the isolated input and demands holistic, multi-variable studies to gain as clear an understanding as possible.

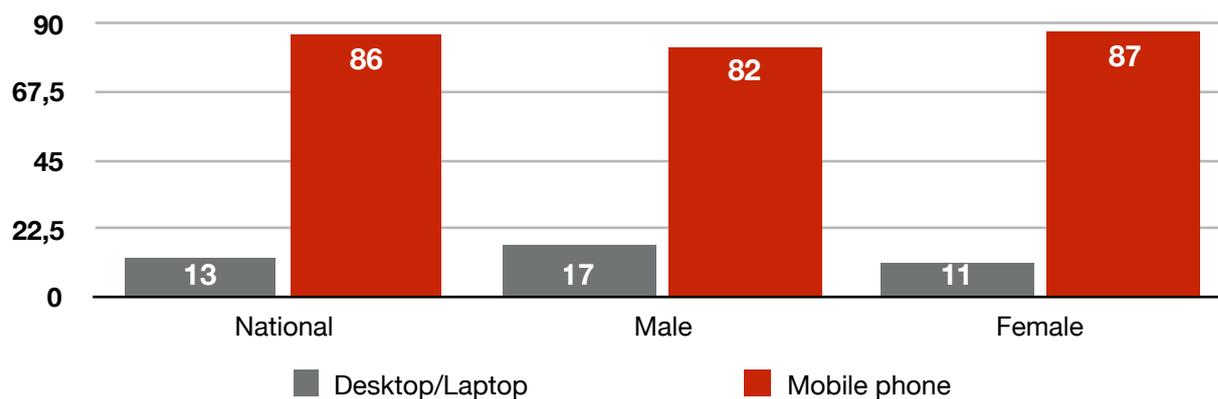


Figure 5: Device through which Internet was first accessed

Source: RIA Beyond Access Survey in Lesotho (2017)⁴

A disaggregation of mobile phone ownership by education shows that there is a strong correlation between education and mobile phone adoption in Lesotho. Results from the Survey indicate that 96% of individuals who completed tertiary education own mobile phones, and 93% of individuals with a secondary certificate own a mobile phone. The results show that in comparison to other groups, people with no primary education certificate are less likely to own a mobile phone. About 35% of people who do not have a primary certificate do not have a mobile phone. On the other hand, the results show that the number of people who do not have a mobile phone declines significantly as the highest level of education attained increases i.e. there is an inverse relationship between mobile phone ownership and education.

Table 2: Mobile phone ownership by education		
Education	Own a mobile phone	No mobile phone
Less than primary	64.97%	35.03%
Primary	82.62%	17.38%
Secondary	93.54%	6.46%
Tertiary	96.50%	3.50%

Source: RIA Beyond Access Survey in Lesotho (2017)

The Internet adoption gap is more pronounced than the mobile phone adoption gap. Internet demand rises with the education level of any society. While the correlations are very clear, causality is less so. There is no single-factor explanation and directionality suggests that improved education and income result in increased demand for the Internet; in developing countries this may be bi-directional. Generally, while mobile phone use does not require any form of education, the use of some applications does require certain minimum skills. Even more than the with

⁴ About 1% of respondents stated that they used other devices, such as iPad, to access the Internet for the first time. The figure does not present the statistics for other devices due to their low levels of use.

mobile phone adoption, the Survey shows that education is a significant driver of Internet use. Respondents with some form of schooling are more likely to use the Internet than those who have no primary certificate.

Closely correlated with education is income and it is not surprising, therefore, that the Survey shows individuals with high incomes are more likely to use the Internet: a confirmation that affordability is a major challenge to Internet adoption. Since Internet access is mainly driven by mobile phone access, operators in Lesotho attribute the low take-up to high smartphone costs relative to low levels of income. However, countries with lower incomes per capita, such as Uganda and Tanzania, both have multiple competitors in the market and greater penetration, which no doubt lead to lower prices.

The price of devices is nevertheless a factor since over 40% of those not accessing the Internet indicate in the Survey that the price of the device is a deterrent to them accessing the Internet. Compounding this problem is the price of data services with nearly 40% of all users indicating that it limited their use, and 23% of non-users simultaneously indicating that it was the primary reason for them not accessing the Internet. Making data more affordable is the primary demand stimulant.

Conclusion

Lesotho has the lowest broadband penetration despite extensive 3G and some 4G coverage. About 70% of Lesotho residents have never used the Internet. The low level of Internet use is attributed to high mobile telecommunication services and products. Using the pricing information collected by RIA, Lesotho is ranked position 35th out of 49 countries in both the 1GB data and voice/SMS (OECD basket) prices.

The cost of 1GB data in Lesotho is eight times the cost of 1GB data in the performing country, Egypt. Among 15 SADC countries, prices in Lesotho are average. The country performs better than Botswana and Swaziland in terms of the cheapest 1GB data index. However, when compared with the best-performing countries, the cost of the cheapest 1GB data in Lesotho is enough to buy 4 GB of data in Tanzania and Madagascar, it is also enough to buy 2GB of data in Madagascar and 1.5 GB of data in Namibia. Even if prices are cost-based they will not be affordable for many Basotho. Using the universal access fund to deploy free public wi-fi at all public buildings and other strategies that demand aggregation and utilise the availability of mobile devices in the market will ameliorate digital inequality in Lesotho.

The high prices in Lesotho are an outcome of lack of competition in the market. The market is structured around two vertically-integrated network operators, Vodacom and ETL. The market over the last few years has become increasingly concentrated, with Vodacom owning around 76% of the market with an HHI value of 0.63. Although the market is liberalised the legacy structure of the market and the dominance of certain Vodacom in the mobile and ETL in the fixed market is not conducive to market entry. Creating an enabling environment for fair competition will require regulating wholesale transmission and facilities so that Internet service and

access providers can compete effectively in the market and innovate to meet local domestic and business needs.

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