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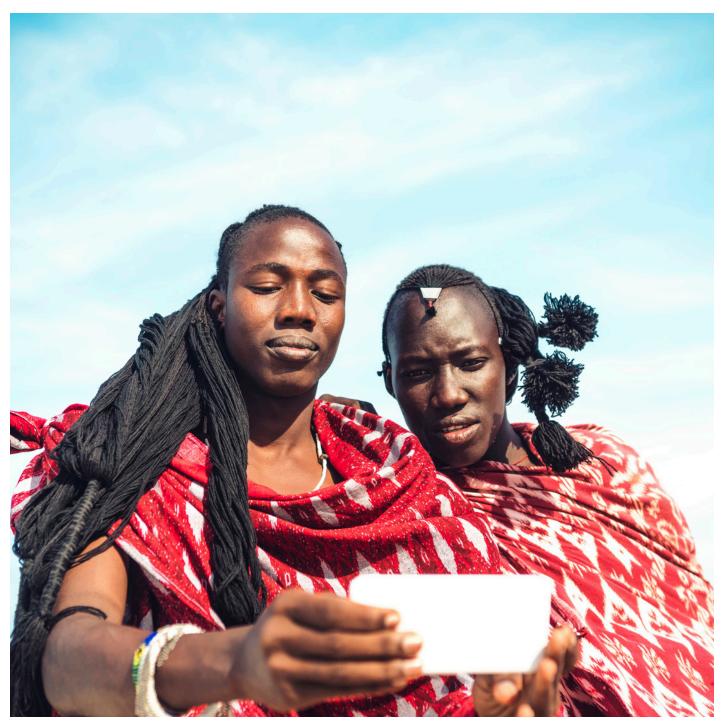


Game of Phones:

Deloitte's Mobile Consumer Survey. The Africa Cut 2015/2016

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Executive summary

Africa's remote control for life

With over half of the phone shipments in 2016 being smartphones, Africa is fast-becoming another distracted society!

Nearly half of smartphone owners regularly use their devices on public transport, at work and while shopping. The younger a consumer is and the faster their network, the more likely they are to use their phones as they go about their day.

All these "quick glances" add up – collectively, Africa consumers check their smartphones over several billion times a day, with over one third checking their phones every five minutes!

As smartphones become ever more embedded in our lives, we see new opportunities and challenges for the mobile sector, retailers, advertisers and beyond. The economic stimulus is key for Africa's future as she learns to diversify her economic prosperity from the past world of commodities into a new digital world of opportunity in all industries.

Themes and Trends in 2015/6

The general trends point towards increased demand for smart devices and data in the short to medium term. Consumers are increasingly choosing smarter devices as they provide them with the functions of multiple devices in one and access to an increasing range of services from almost any location at any time.

Future industry demand in the respective regions will be driven by increasingly lower costs of smart phones and mobile subscription packages as technology improves.

We have synthesised the survey results into 4 themes - each with its own set of business implications:

- Mobile Internet is dominant, WiFi is growing, but fibre is the dark horse;
- · Reliability and Speed in a brand-neutral continent;
- Device ownership habits in Africa what we buy, sell, cherish or donate;
- · Smartphones are not just a part of our lives, they are our lives.

The Deloitte messages for the Mobile Industry

The survey provides the following key takeaways for industry players:

- African MNOs should create business models around smartphone users and brace for the rise of the data exclusives and data centric phone users;
- As network quality and coverage becomes "table-stake" in urban areas, customer service is fast emerging as a
 key differentiator in choosing or changing network operators;
- As African consumers live more and more in the app, there is room for MNOs to take centre stage with a
 localised app-ecosystem-for-life, that handles information, entertainment, communication, education,
 purchases and financial services, all in one place, and evolving its value through sophisticated customer and
 data analytics;
- In the MNO world where competitive pressure is intense and where an app economy is taking over with
 customers having access to a plethora of "free" assets; there is an opportunity to embrace more disruptive
 demonetized MNO business models that create value in alternate ways and give away what MNOs used to sell.

We hope you enjoy this report and its insights.



Mark Casey
Managing Director
Media and Entertainment Sector
Global



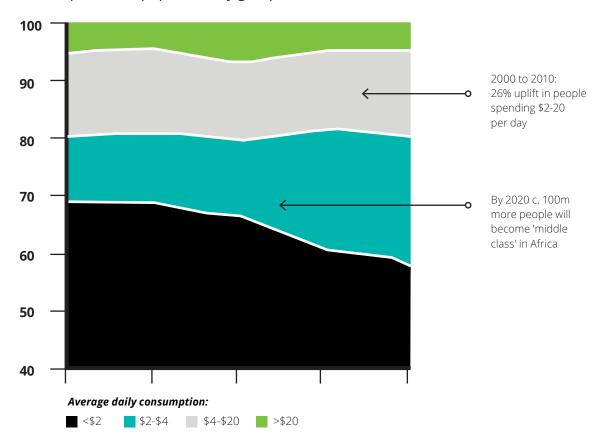
Arun BabuManaging Director
Telecommunications Sector
Africa

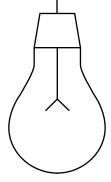
1 Mobile Internet is Dominant, WiFi is Growing but fibre is the dark horse

Explosive growth in data consumption is the next and possibly the last of the organic growth waves in the telecommunications sector. Africa's population by 2025 will be nearly 1.5 billion and within that a meaningful portion will be shifting into the emerging middle class. Mobile data usage will be at the centre of this growth opportunity.

A growing African middle class:

Proportion of population by group





Mobile data

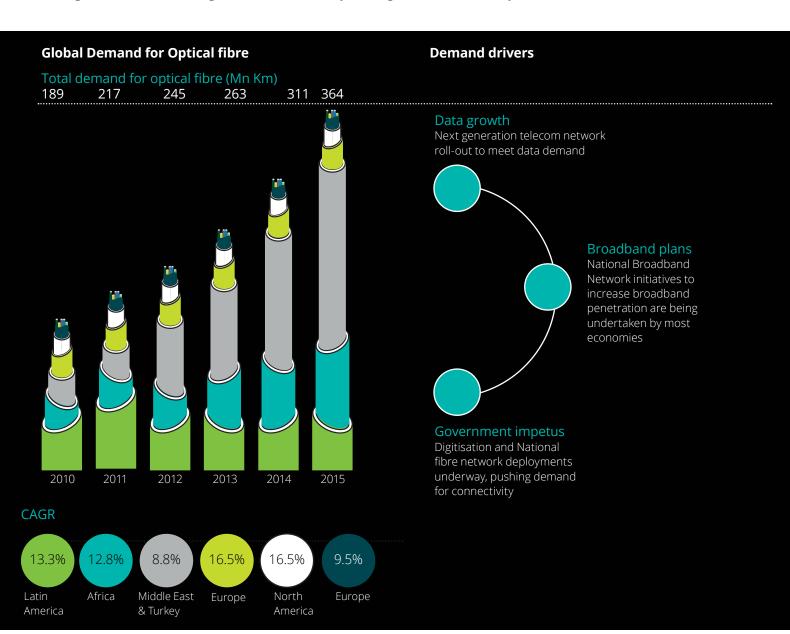
is the only practical way through which Africans can have an opportunity to experience the freedom of the internet.

The Rapid-fibre rollout (FTTx) across the continent will not only enhance this experience but yield new applications and user cases that can only emerge in a high-speed connected world.

Fibre's importance will soon be more apparent as the proliferation of connected devices, their insatiable demand for high-speed broadband and fibre's technical scalability makes for a technological platform with longevity – one day soon the first 1Gb/sec connected home will be a reality in Africa. By then, MNOs will enjoy healthy data revenues, more of our lives will be "ubered" and crowd-sourced, and app developers will have "cracked the code" for the online-platform-for-life taking our sensation of real convenience to unprecedented levels.

Global demand for fibre

Although Africa's contribution to global fibre demand is only ~ 2.5%, growth has been healthy at over 12.8% CAGR since 2010.



It was evident that 3G/HSDPA was the dominant mobile data connectivity method. An increasing number of users are also getting connected to Wi-Fi at home or work, showing similar trends to the developed world. This trend will continue as urbanisation levels increase and as metros, provinces, shopping malls and other retailers offer free Wi-Fi hotspots to the general public.

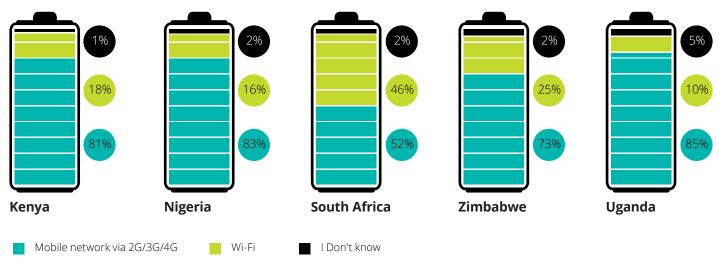


Figure 1. Type of internet connectivity most often used by consumers

Wi-Fi is becoming increasingly pervasive in Africa and offers an alternative to mobile broadband. The offloading of mobile data traffic onto Wi-Fi networks is a growing trend to accommodate growing demand and operators are actively investing in Wi-Fi deployments. The deployment of Wi-Fi networks is also seen as a cost-effective alternative to mobile broadband networks for international visitors roaming on domestic networks. 3G/HSDPA technologies still dominate the majority of markets; however, 4G/LTE usage is expected to grow substantially in the coming 12-24 months as consumers begin to access more data hungry content over the internet and the cost of access devices reduce.



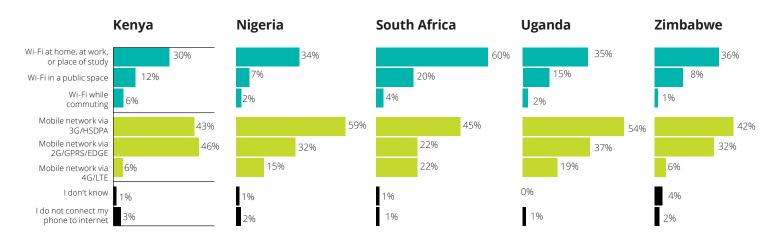


Figure 2. Technology bearer for connecting to the internet

Customer satisfaction is always a key differentiator in a market where multiple operators provide similar or identical services. The price of data drives a significant component of customer satisfaction with customers looking for cheaper capped and uncapped data packages at lower prices. With data usage on the increase and mobile being the biggest enabling technology, mobile operators can further stimulate usage of their assets with pricing and bundled features that better meet the needs of their customers.

Our research shows that the ability to provide relevant tools and applications to consumers that can monitor and control data usage can increase usage. Depending on the country, between 18% and 20% of consumers surveyed indicate that the lack of information and controls to meter data usage is a deterrent to increased data consumption.

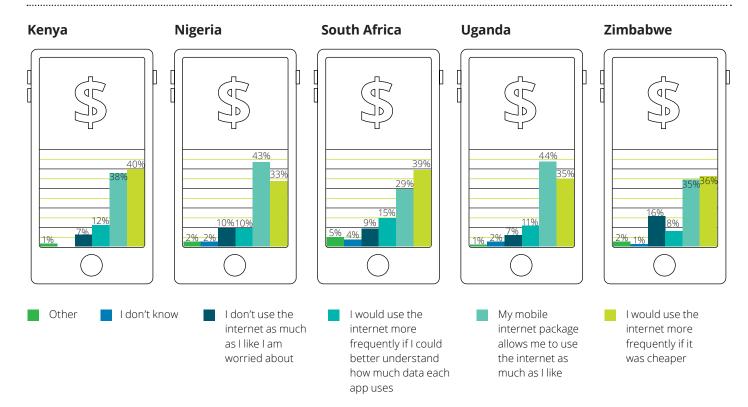


Figure 3. Satisfaction of phone owners with mobile internet service provision

Between 47% and 56% of consumers in the markets are satisfied with the internet speeds they currently receive. This still leaves the rest of the market dissatisfied; which represents a significant opportunity for operators to continue to drive internet growth and customer uptake in the region. The demand for faster internet is expected to grow significantly as the usage of data hungry applications and real-time applications increase in the market. For mobile operators, the upgrade of 2G/3G technologies to faster technologies (e.g. 4G/LTE) can therefore be a strong competitive differentiator. On average, approximately 20% of the consumer base would be prepared to pay more for access to faster internet speeds, which indicates strong revenue growth and margin increase potential for operators through tiered-pricing models that are linked to the speeds offered.

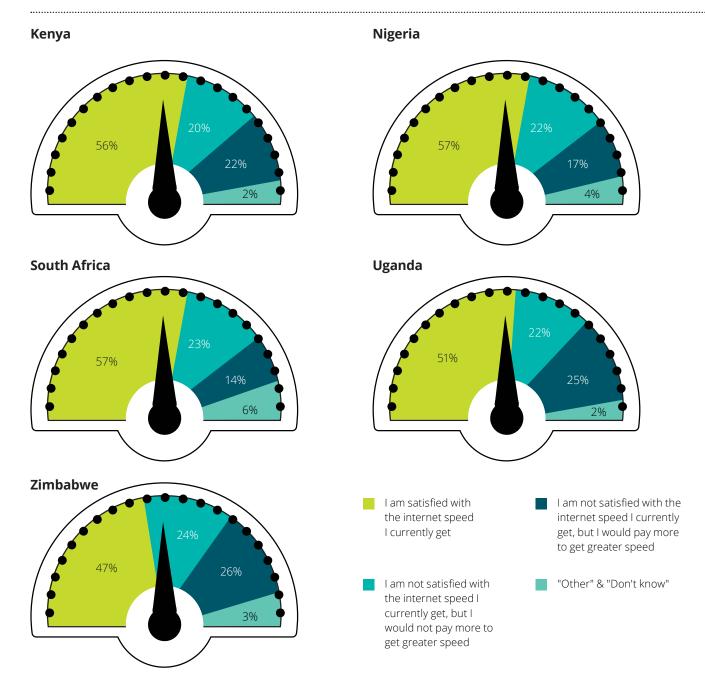
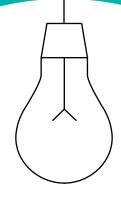


Figure 4. Satisfaction of mobile phone owners with internet speeds



In Africa,

it looks like music streaming has some seriously good growth potential and consumers seem just as happy watching short-form videos as they are reading the news. This creates some challenges for new media – what format will serve the consumers of 2020, is it editorially driven or are consumers just as happy with user-generated content as their means to find out what is going on in the world.

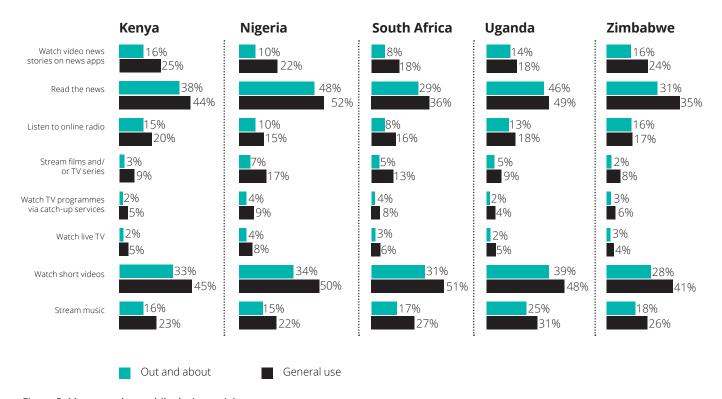


Figure 5. Most popular mobile device activity

Consumption of internet media via mobile devices is fast becoming pervasive throughout the region. In terms of content usage, news (reading and videos) and other short form video dominate the mobile phone activity consistently across the countries surveyed.

Video is increasingly becoming part of the media consumption profile and will drive a significant portion of the data usage. User behaviour is gravitating towards the consumption of large quantities of short-form video, including when people are out and about. The streaming of long-form video content (i.e. movies or TV series) is less a pervasive use case - likely related to current high data costs and the discomfort of watching long-form video on small screens. The evolution of devices to larger screens and higher quality resolutions can somewhat improve the take-up of streaming video. However, the lack of uncapped mobile data package pricing options is likely to be a significant stumbling block for the uptake of long-form video streaming in the short-to-medium term. Other popular mobile internet activities include streaming music, uploading photos and social-networking.

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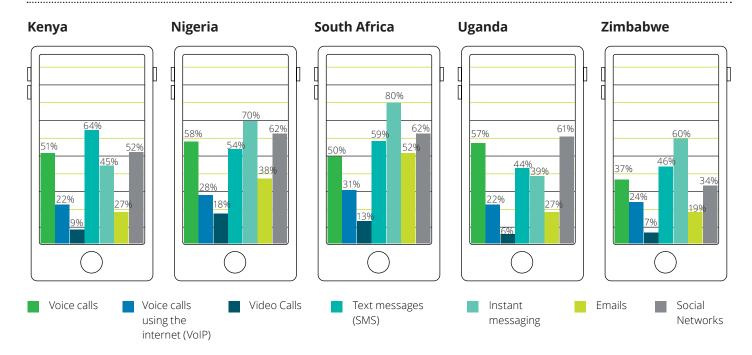


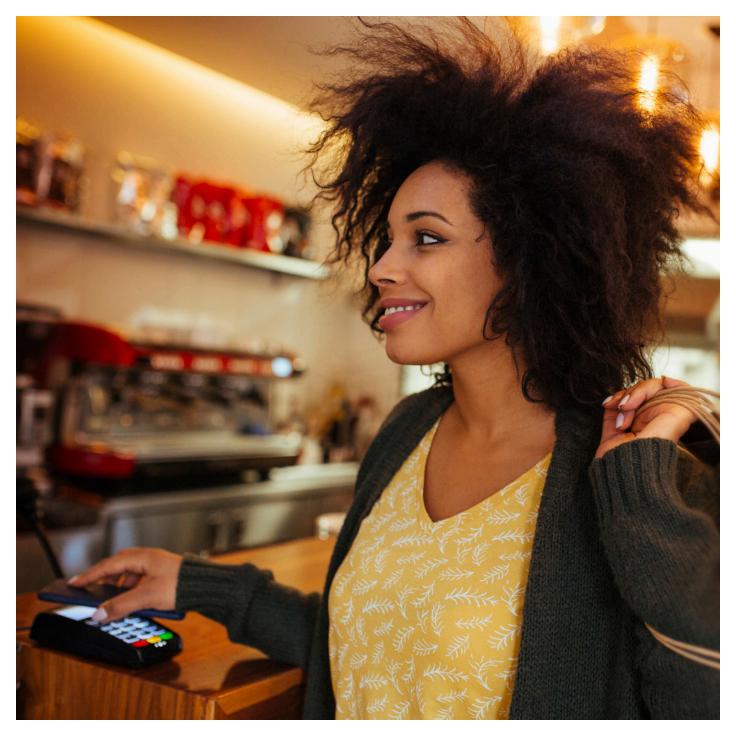
Figure 6. Forms of communication over the phone

Globally, revenues generated from voice and SMS services are plateauing or declining and OTT applications are providing cheaper alternatives to communicate.

With the exception of Kenya and Uganda, instant messaging has eclipsed traditional text as the preferred method of communication and continues to grow in all the surveyed markets.

- Operators are offering bundled voice and data packages with unlimited voice and messaging as mechanisms to incentivise consumers and boost voice and SMS usage.
- These bundled products together with the low penetration of IM capable mobile devices in the surveyed markets offer some
 protection for the operators' traditional revenue streams.
- VoIP technologies are also gaining strong traction in African markets as regulators are increasingly legalising and promoting the fair-treatment of voice traffic carried over the operators' data networks.
- The popularity of free VoIP applications such as Skype and Viber is likely to increase as smartphones become more pervasive in the surveyed markets and the offered speeds and reliability of mobile data networks improve.

Video calling consistently represents the form of communication that is least used in each of the markets surveyed. The bandwidth multiples required to carry video calling traffic reliably would likely require the widespread roll-out of higher-speed mobile technologies such as 4G/LTE. Though video calling is currently not an extensively used form of communication, traffic is likely to increase as operators upgrade data network technologies to offer higher speeds and data prices drop further in future.



Reliability and Speed in a brand-neutral continent

For consumers in the region, there is nothing more frustrating than an unreliable network. Mobile network subscribers across all surveyed markets view the actual or perceived reliability, coverage and speed of the voice and data network as the most important criteria for choosing an operator. With about 25% of subscribers in each market expecting first-class treatment from their service providers, the quality of customer service was the second most important expectation for most consumers. Not far behind; the prices of voice, SMS and internet services are also significant influencing factors indicating that subscribers in the markets surveyed predominantly opt for "value for money". In competitive markets where network quality, customer service and price factors are fairly comparable across competing operators, the introduction of value added services, device price and investment into 4G/LTE network technologies can be strong differentiators for operators.

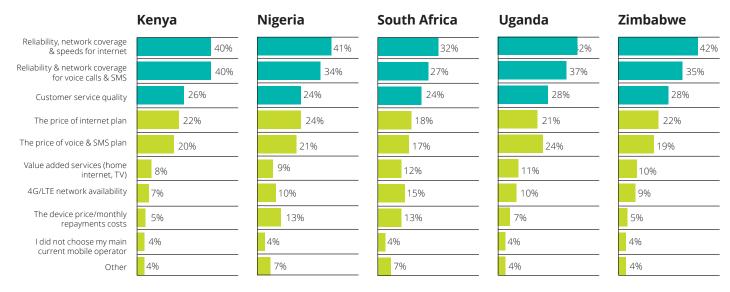


Figure 7. Factors influencing choice of operators

As consumers in the surveyed markets are increasingly relying on internet and data services for communication, the price and quality (i.e. reliability, coverage and sped) of internet connectivity offered over mobile data networks is featuring as the most important factors that could drive churn. In addition, between 14% and 15% of consumers indicated a propensity to churn based on level of access offered to 4G/LTE services. Providing access to affordable and a quality internet services at higher speeds than competitors can be a strong differentiator for operators to increase their market share.

Though voice and SMS services are becoming increasingly commoditised and substituted by data applications; it is clear that consumers still expect operators to offer these services cost effectively and with high quality. A lower quality voice and SMS network or comparatively poor customer service can contribute significantly to customer churn regardless of the level of investment that operators make into offering superior internet services. In comparison to the other African markets, the cost of devices and the monthly device repayment costs have a much higher potential to contribute to churn in South Africa, owing to the higher prevalence of post-paid/contract traffic schemes.

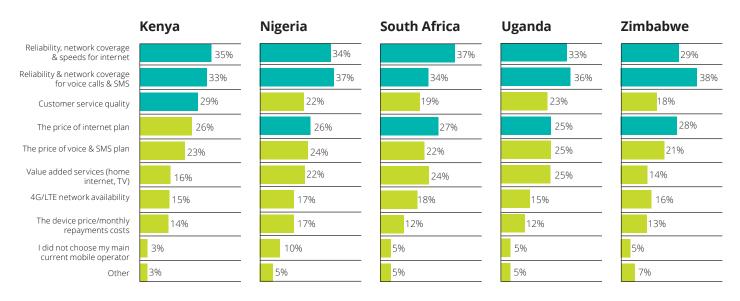


Figure 8. Factors influencing consumer's possible change in operators

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Consumers are relatively brand neutral in their choice of devices in all the markets except South Africa. More than half of the consumers own non-premium brands in each market while in South Africa most consumers prefer Samsung devices with less than a quarter owning non-premium smart- or feature phones. This is likely as a result of the relatively higher levels of preference in South Africa for contract based post-paid packages enabling customers to pay off premium-brand phones over 12 or 24 months. In addition, South Africa has a historic practice of subsidising mobile phones bundled with contract packages, which has significantly negated the price barrier for the relatively expensive premium-brand phones.

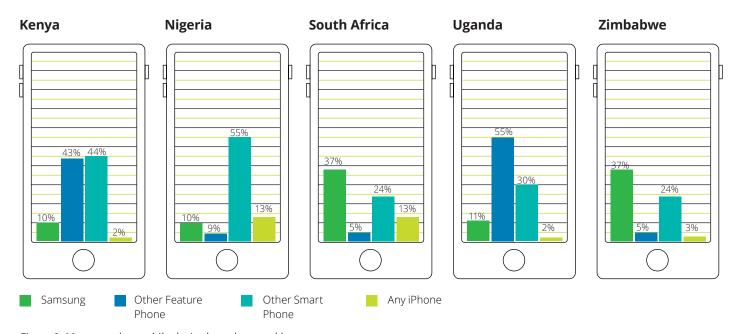


Figure 9. Most popular mobile device brands owned by consumers



O3 Device ownership habits in Africa – what we buy, sell, cherish or donate.

In most of the markets surveyed, the new phone market is significantly stronger than the used phone market. The preference for new phone purchases could be attributed to the shorter lifespan of smartphones compared to feature phones and the faster rates of device evolution (i.e. newer models with advanced features and attractive applications are being released with ever decreasing development-cycle time frames). These factors would positively influence the consumer's desire to upgrade to new phones in order to have access to the new applications and innovations released in the smartphone market. In Zimbabwe, the second-hand phone market and the new phone market are equally placed. This could be attributed to the poorer economic state of the country and comparatively lower levels of disposable income available for the purchase of electronic goods and services.

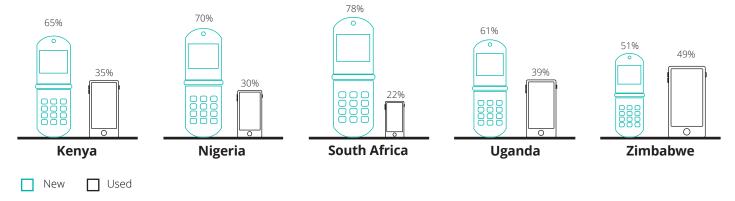
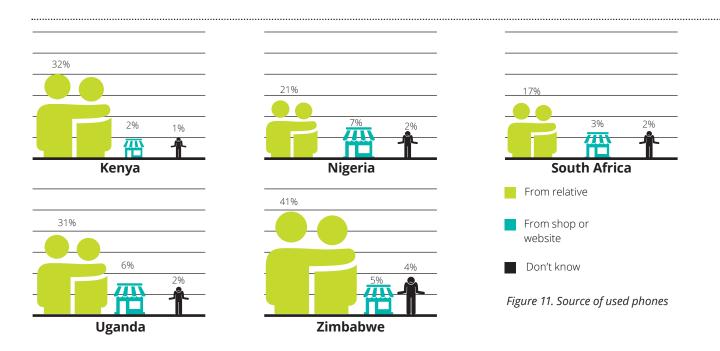
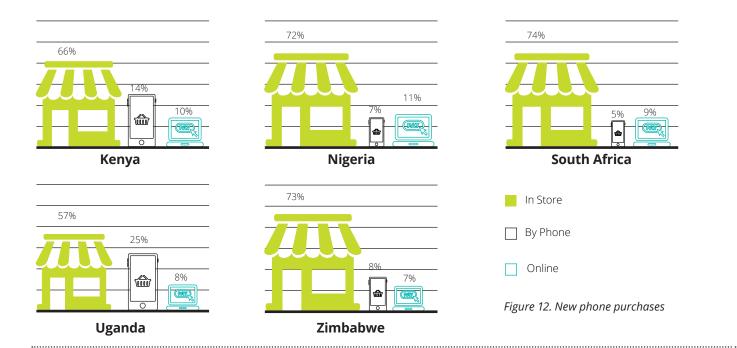


Figure 10. New vs Used devices

Compared to other shopping channels, over 68% of new devices are purchased in stores while most used phones are acquired from friends or family. Users still prefer to "touch and feel" the new phones before committing to a purchase. The use of alternative channels for new phone purchases (e.g. by phone or online) has not gained traction, except in Uganda where 25% of new purchases were made by phone. Consumers have opted to either sell or freely give their used mobile devices to family rather than sell through the formal or informal, open market.





The transfer of used phones to relatives is also the most prevalent scenario during phone upgrades, with the exception of South Africa, where most phone owners kept their old device as a spare. Interestingly, there is a considerable proportion of phone owners in each country that upgraded their device on account of losing their previous device. Most operators are also offering mobile insurance and data backup and retrieval value-added services to consumers in recognition of this trend.

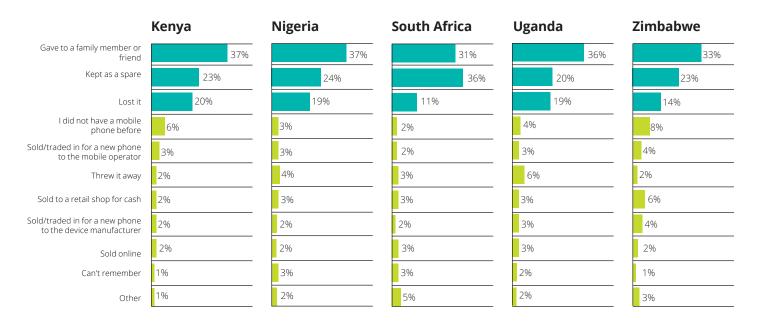


Figure 13. Phone upgrades

Device type ownership trends vary significantly across the countries. South Africa and Nigeria lead the pack in terms of proportional ownership of smartphones with over 90% of the sample respondents owning a smartphone. These two countries also display the highest proportional ownership of laptops. The trend of multi-device ownership is prevalent across all markets surveyed; however, it is strongest in South Africa where approximately half or more users own a smartphone, laptop and tablet.

Feature phones still dominate the market in Kenya and Uganda. However, smartphones are expected to experience substantial growth driven by strong economic growth; increase in internet penetration; increase in mobile data network investments by operators; a more competitive mobile landscape; and, the introduction of cheaper smartphones into the market. The expectation is that similar to the trends experienced in the other markets, smartphones will replace feature phones and dominate the Ugandan and Kenyan markets in the near future. The penetration of other smart devices, most notably portable game players, is growing, however it represents a relatively smaller market.

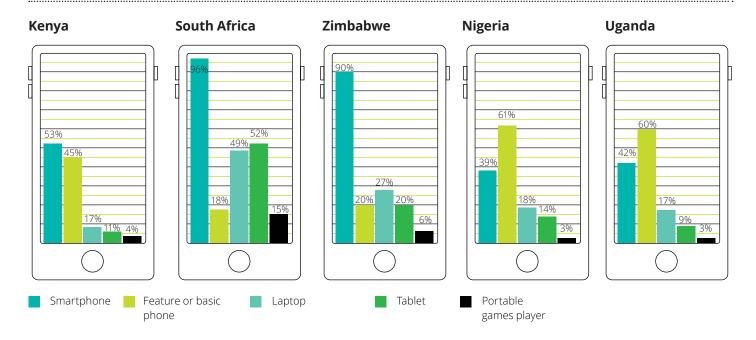


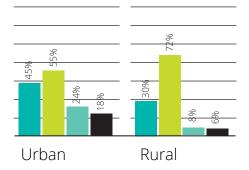
Figure 14. Proportion of Respondents who own Feature Phones vs Other Devices

As expected, the proportion of consumers using smartphones versus feature phones is higher in urban areas than rural areas in all markets surveyed. Interestingly, smartphone, tablet and laptop ownership in rural areas is high in South Africa and Nigeria. Nigerian and South African markets are characterised by significant levels of urbanisation and competition in the mobile sector is relatively more mature in these markets. The sophistication and scale of the branch/sales-channel footprint and supplychain capabilities to cater for rural markets is likely to be stronger in these markets. In addition, as the largest economies in Africa, with significant rural to urban migration trends and a strong emerging middle-class; these markets are likely to be influenced by aspirational consumption factors that will contribute to higher demand for premium devices.

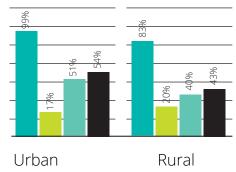
The device ownership profile of Zimbabwe is markedly different between rural and urban areas. While smartphone ownership dominates the urban markets, feature phones still contribute to the largest proportion of ownership in the rural markets. This is likely to be driven by the large income disparity between the Zimbabwean urban and rural markets and the lower levels of access in the rural areas to smart devices.



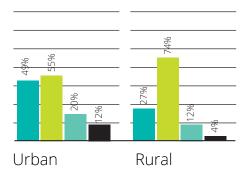
Device penetration area Kenya



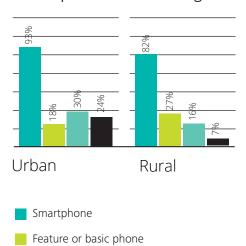
Device penetration area South Africa



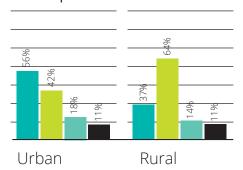
Device penetration area Uganda



Device penetration area Nigeria



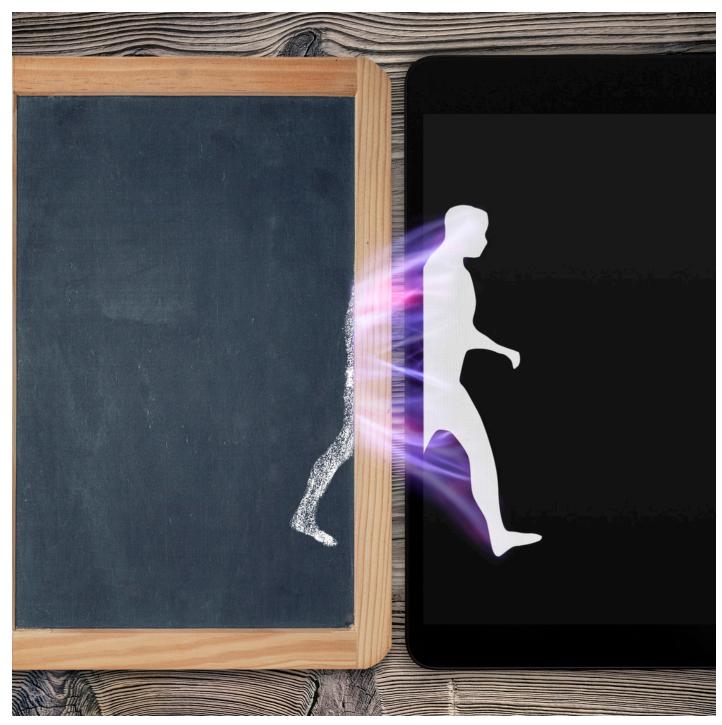
Device penetration area Zimbabwe



Laptop

Tablet

Figure 15. Device Ownership, Rural vs Urban



O4 Smartphones are not just a part of our lives, they are our lives.

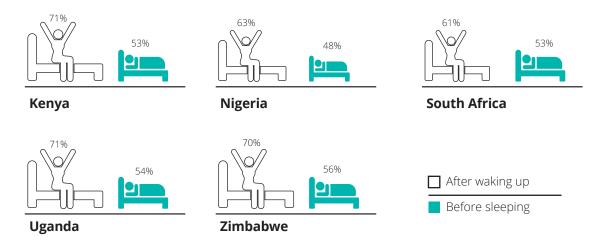


Figure 16. Proportion of phone owners who look at their phones within 5 minutes of waking up or sleeping

The use of mobile phones has become an integral part of our daily lives. Specifically, mobile data provides a constant connection into our work, social and personal contacts as well as a wealth of real-time information. The African market has seen significant growth in social media as well as local information and news services. Similar to global trends, consumer attachment to mobile devices is high across all markets surveyed. The ritual of checking the phone as one of the first and last things of the day appears to be collective across the markets. More than half of consumers across the region check their phones within 5 minutes after waking up and before going to bed.

The mobile phone is becoming integrated with our lives and daily activities. Most consumers tend to use their mobile devices while engaged in other activities. These usually include while commuting, watching TV, at work or while spending time with family and friends. These trends are prevalent in all markets, but are strongest in South Africa. Using a phone while watching television is most predominant in South Africa with 62% of respondents reporting this activity. Interestingly, South African consumers are also significantly more likely to use their devices during shopping which could indicate the strong potential that the market has for m-commerce applications and the usage of mobile devices for online discovery (i.e. browsing for specials, discounts and price comparison of products). On average, only less than 10% of the respondents indicated that they do not use the mobile device during any of the activities.

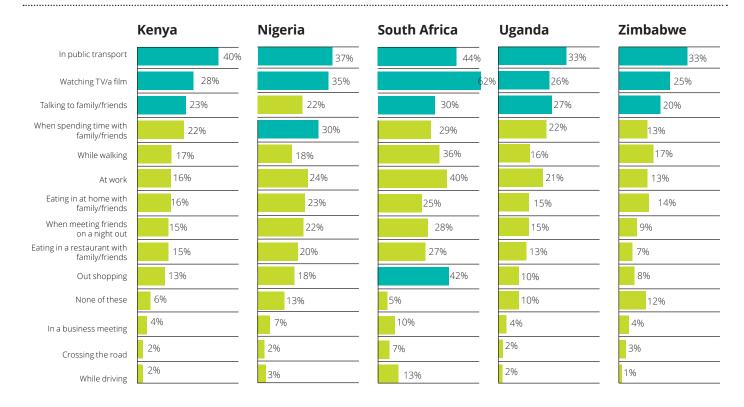


Figure 17. Typical situations in which consumers use their mobile devices

As initiatives to increase access to financial services take off, operators are becoming increasingly positioned to challenge the traditional retail banking model through mobile financial services. In all markets except Zimbabwe, more than half the consumers are banked. Nonetheless, the proportion of unbanked phone owners remains quite significant across the region. This gap presents an extensive opportunity (highest potential in Kenya, Uganda and Zimbabwean markets) to provide mobile financial services to the unbanked.

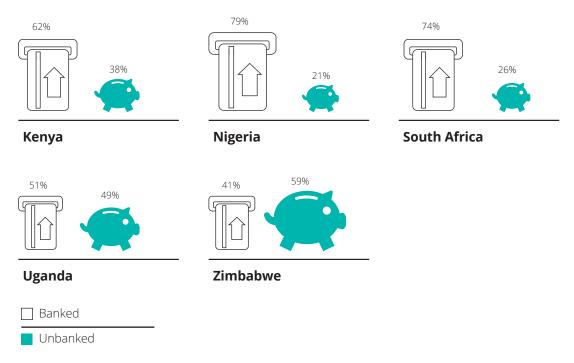


Figure 18. Banked vs unbanked phone owners

There is significant interest across the markets in mobile payment and mobile transfer solutions with 50% or more of the mobile users demonstrating a willingness to use these services. The level of adoption of these services is currently low and the gap represents a significant monetisation opportunity for operators. Though market interest in these services exist, operators have to carefully evaluate multiple factors to establish the potential for adoption including the prevalence of market conditions that drive true market need; the favourability of current regulatory regime; the level of infrastructure investments required; and, the agent and merchant network required to ensure adequate access of these services to consumers. The combination of these factors will provide an indication of the likelihood of success in these markets for such services.

Security of the solutions and trust by consumers in the mobile driven financial solutions offered are also crucial factors in determining the success of the offerings in the markets. In South Africa for example, the sophisticated banking network will pose strong competition for mobile financial solutions launched by operators. In addition, the recent cases of security breaches in prominent mobile financial solutions launched in South Africa has dented consumer confidence in using mobile financial solutions as an alternative to the bank-led solutions. In line with the above, the responses indicate that South African mobile consumers have the lowest interest in using mobile payment or mobile transfer solutions.

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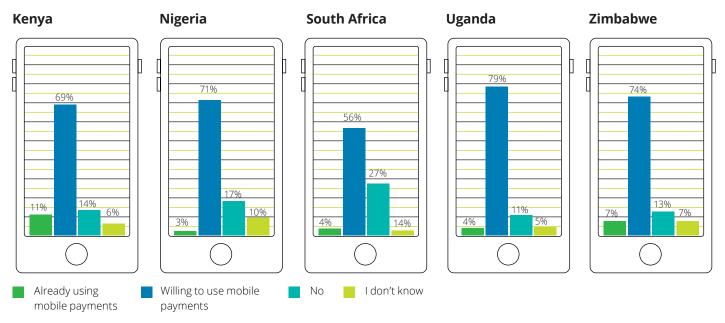


Figure 19. Proportion of phone owners willing to use mobile payment

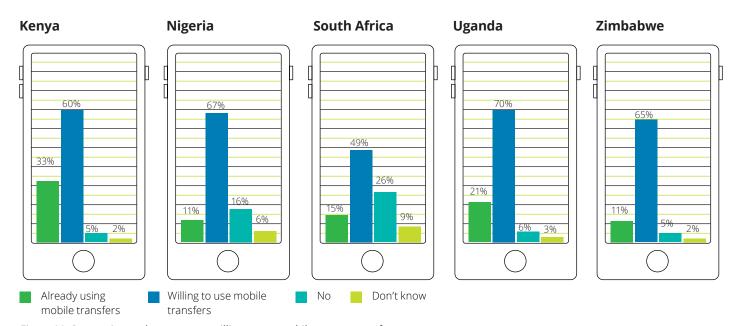


Figure 20. Proportion a phone owners willing to use mobile money transfers

A high percentage of mobile users have dabbled with mobile commerce as shown by percentage of once-off mobile commerce transactions across the region. However, there is no clear indication that mobile commerce is attracting users on a continual basis and driving usage on a daily basis. Consumers in South Africa and Nigeria prefer to browse and search for products and discounts on their mobile devices and tend to make more purchases online than in store. At least 29% of Zimbabwean shoppers have made a one time in-store payment using their mobile devices making it the most popular shopping related activity followed by browsing shopping websites/apps. Kenyan shoppers prefer making in-store payments compared to Ugandan shoppers who prefer browsing shopping websites/apps on their devices. Given these mobile money trends, consumers across the region are set to become increasingly cash-light as network operators and other mobile financial services providers enable them to transact more easily through digital payment channels. A major factor impacting ecommerce as a whole in Africa in the complex logistics and distribution requirements across semi-urban and rural areas outside of the main cities. The mobile browsing experience is a significant differentiator of the purchasing journey and a superior experience would influence the retailers to consider mobile as a significant part of their channel strategies.

Phone usage for shopping related activities Kenya





Make an online purchase

Make a payment in-store

Browse shopping websites/apps

Phone usage for shopping related activities Nigeria







Make an online purchase

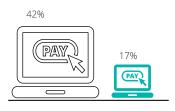
Make a payment in-store

Browse shopping websites/apps

Phone usage for shopping related activities South Africa







Make an online purchase

Make a payment in-store

Browse shopping websites/apps

Phone usage for shopping related activities Uganda





Figure 21. Mobile commerce penetration



Mark Casey Global Leader Global Media & Entertainment Leader

Tel: +27 (0) 11 806 5000 **Email:** mcasey@deloitte.co.za



Arun BabuAfrica Telecommunications Leader

Tel: +27 (0) 11 806 5400 **Email:** arbabu@deloitte.co.za



Tumai Mafunga Central Africa TMT Leader

Tel: +263 (0) 867 7000 261 **Email:** tmafunga@deloitte.co.zw



Erik van der Dussen East Africa TMT Leader

Tel: +254 (0) 20 423 000

Email: evanderdussen@deloitte.co.ke



Abraham Udenani West Africa TMT Leader

Tel: +234 (0) 904 1725

Email: audenani@deloitte.com.ng

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