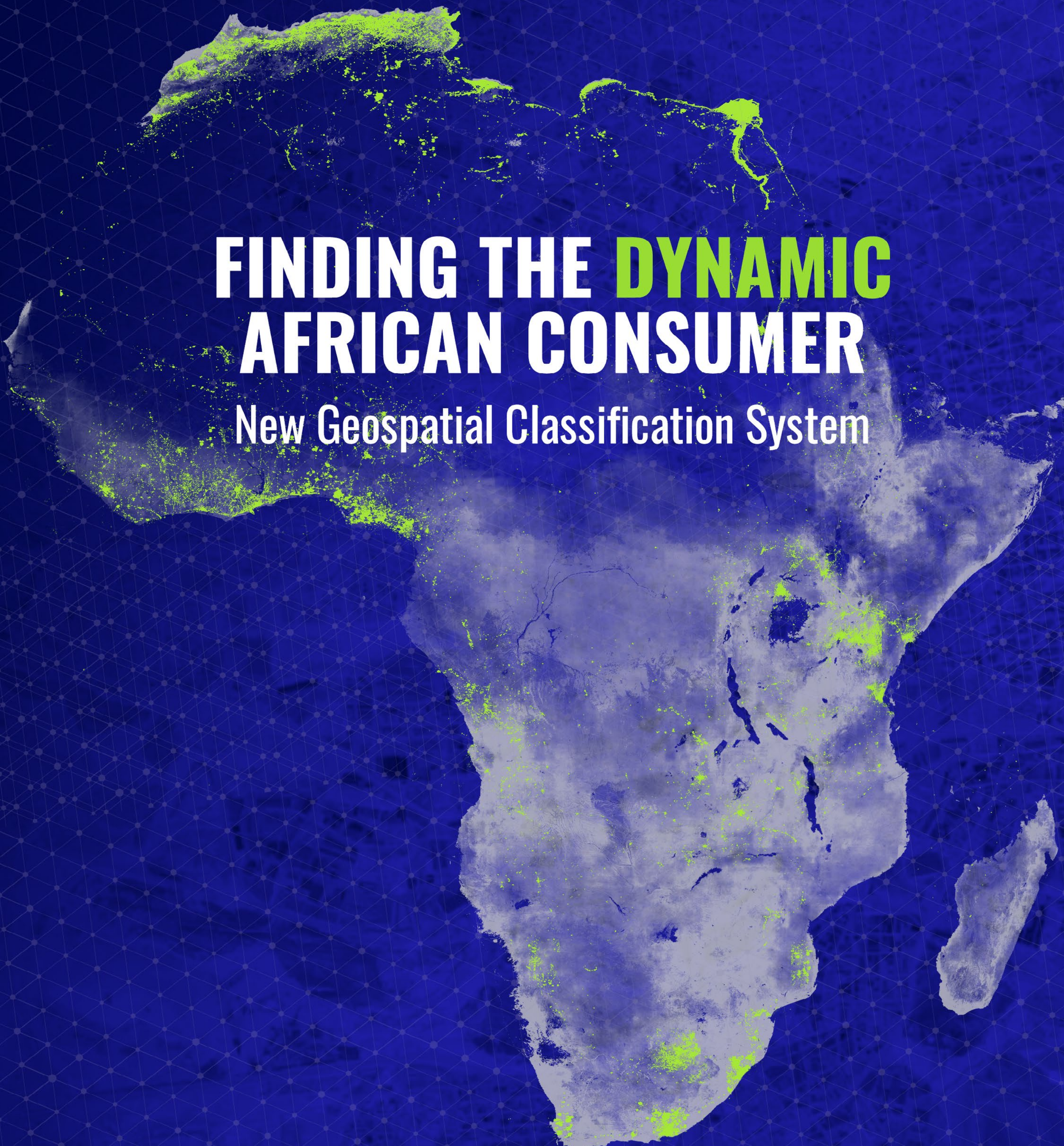
FINDING THE DYNAMIC AFRICAN CONSUMER

New Geospatial Classification System



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Foreword

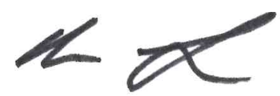
My quest for actionable market data arguably began nearly two decades ago. I had joined Cisco Systems after leaving the White House, where I had advised the U.S. President on African economic and security issues. At the time, the company had aggressive growth targets for the continent, a cadre of capable sales and technical staff, and little idea of where to expand beyond large telecom accounts in South Africa, Egypt, Morocco, and Nigeria. So, the company flew executives all over the continent trying to drum up business, even in small post-conflict countries like Sierra Leone and Liberia. Market assessments were highly simplistic, typically consisting of only a handful of national statistics like mobile subscriber growth and Internet availability. We all knew there was a better way and had dreams of accessible city-level information, but the impediments to data-driven decision making were large and many.

Fraym is today's solution to that problem and many others. Over the last five years, we have built the most powerful database on African consumers that has ever been produced. This has only become possible following the availability of cloud computing, satellite imagery, and geo-tagged household surveys. During these years, we have spoken with numerous consumer-facing companies seeking to grow sales and capture market share, whether in their home market or a new expansion market. Nearly every one of these companies asked a variant of the same question—is it possible to segment and definitively locate African consumers at the city or neighborhood level across the entire continent?

This report is born out of these discussions. It cuts through the buzz, headlines, and anecdotes, and provides concrete, granular information on African consumers. How are they defined? How do they behave? How do countries, cities, and even neighborhoods stack up?

Our objective is to illustrate what is now possible in the world of geospatial data and analytics. And to provide some powerful and entirely new consumer insights along the way. I hope you find this report valuable for your growth strategy, go-to-market plan, or for just deepening your understanding of this complex and fascinating continent.

Sincerely,



Ben Leo
CEO and Co-Founder
Fraym

Executive Summary

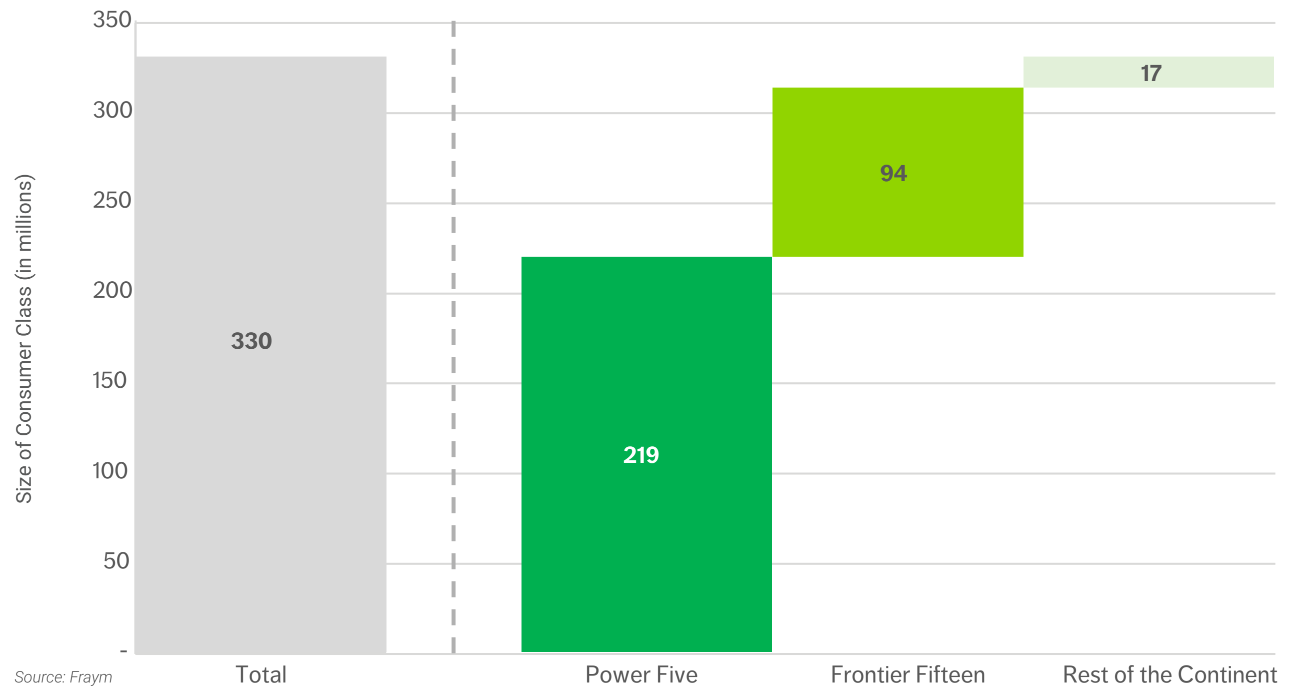
The African continent is home to one of the largest remaining prizes for consumer-facing companies and investors in the world—the African Consumer Class. Regional household consumption reached $1.6 trillion in 2017, fueled by a rapidly growing population and rising incomes. While the changes in the dynamic African consumer markets are exciting, trends are highly uneven across—and especially within—national borders. For companies seeking to invest, operate, and grow in these markets, such rapid shifts in consumer demand require granular geospatial analysis. In Africa, such data has largely been absent or limited to blunt national averages. Until now.

THE *FRAYM ABC CLASSIFICATION SYSTEM*

Improving upon previous studies of African consumers, Fraym fills two critical gaps by offering reliable market estimates and sub-national specificity. Instead of basing the numbers on consumers' income alone, which is susceptible to seasonal fluctuations, Fraym uses a composite measure that classifies households based upon asset ownership and education levels into six distinct segments (A, B, C1, C2, D and E), thus producing less error, greater coverage, and direct comparisons across time and space.

The Consumer Class is defined as comprising the A, B, and C1 segments. Consumer-facing companies typically view these three segments as those who can purchase 'premium' products. A and B can do so regularly and C1 do so less regularly but frequent enough to be a target customer for these categories. Throughout this report, the terms 'Consumer Class' and 'ABC1 consumers' are used interchangeably.

Size of Africa's Consumer Class, by Country Groupings



Source: Fraym

KEY INSIGHTS

Ninety-five percent of the African Consumer Class is located in just 20 countries. Moreover, the 50 largest urban markets alone account for over 110 million ABC1 consumers. These are the countries and cities in which consumer-facing companies need to play and build their expansion and go-to-market strategies around.

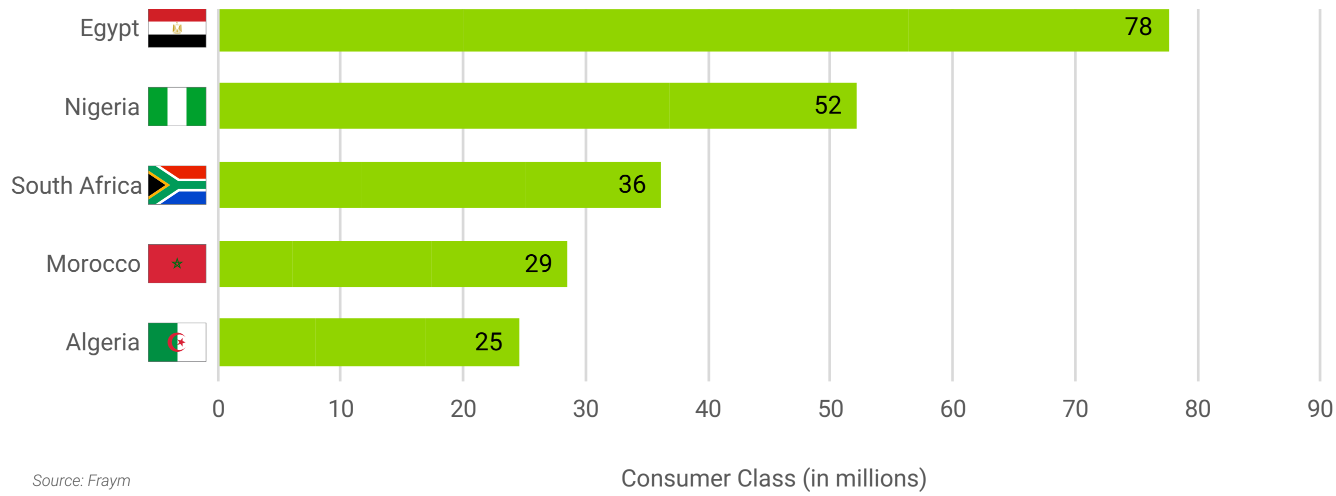
- **Power Five Markets:** The five largest country markets—Egypt, Nigeria, South Africa, Morocco, and Algeria—have a combined Consumer Class of 219 million people. This accounts for two-thirds of the continent's total. Each of these countries has at least 20 million ABC1 consumers, making them the mega-market opportunities. Egypt is the largest African market with a Consumer Class of 78 million people, followed by Nigeria with 52 million ABC1 consumers.
- **Frontier Fifteen Markets:** The next 15 largest markets are home to 30 percent of the continent's Consumer Class. This equates to an additional 94 million ABC1 consumers. Ethiopia is the largest Frontier Fifteen market with more than 10 million ABC1 consumers. Angola, Kenya, Ghana, Tanzania, Sudan, Tunisia, and the Democratic Republic of Congo (DRC) follow with at least 8 million consumers each.
- **Urban 50 Markets:** These cities account for 80 percent of the continent's urban Consumer Class. Unsurprisingly, Cairo, Lagos, and Johannesburg top the list. However, many other rapidly growing, but lesser known, cities like Kinshasa, Luanda, Khartoum, Dar es Salaam and Addis Ababa rank high on the list as well. There also is a distinct Nigerian city story, as this populous West African country is home to 10 of the largest African urban markets.

ADDITIONAL REPORT CONTENTS

Beyond classifying, sizing, and locating the African Consumer Class, this report contains a wealth of analysis that further contextualizes these consumers' attributes and behavior across the continent. The objective is to illustrate how targeted geospatial data and analytics supports data-driven decisions to identify where and how to play in African consumer markets.

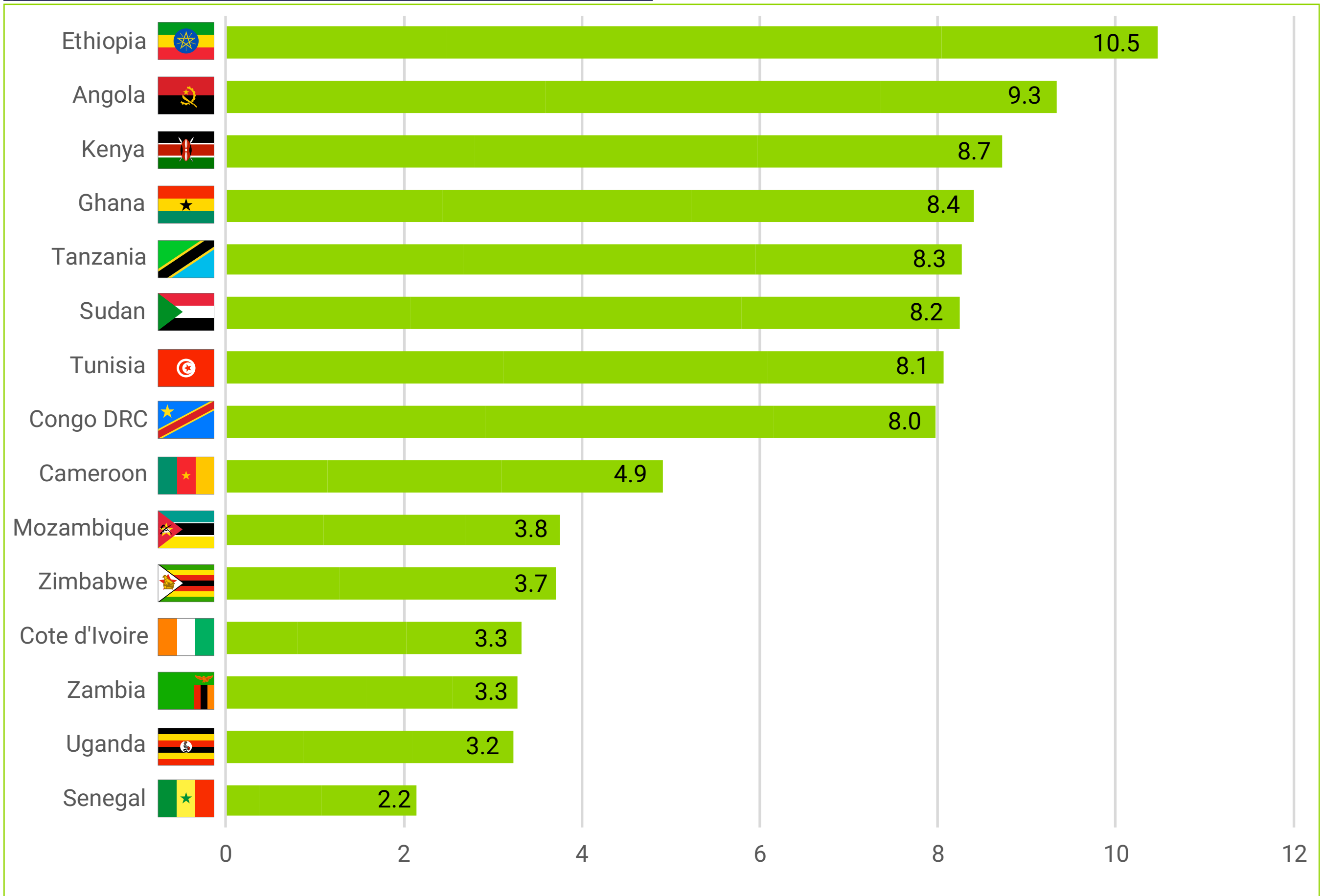
- **Sizing the Consumer Class:** Provides a breakdown of the largest ABC1 consumer populations on both national and city levels. These markets are identified as the Power Five, Frontier Fifteen, and the Urban 50 (pages 16–18).
- **Dar es Salaam Consumer Segmentation:** Analyzes Dar es Salaam's distribution of consumer segments and household spending patterns on beverages (page 23).
- **East and Southern Africa Urban Markets:** Focuses on the largest urban consumer expansion markets in these two regions, and how large regional companies are seeking to expand within them (pages 24–25).
- **Consumer Heats Maps of Port Harcourt, Dakar, Yaoundé, and Douala:** Pinpoints consumer concentrations at a resolution of 1 km^2 and details ABC1 consumer household characteristics across these select Frontier Fifteen cities (pages 27–29).
- **Nigeria Time Series Analysis:** Traces the rapid growth of the ABC1 consumer population in Lagos and Nigeria over the last decade, despite more recent economic headwinds (page 31).
- **Product Ownership and Go-to-Market Strategies in Frontier Fifteen Markets:** Identifies how Consumer Class ownership of key products impacts companies' go-to-market strategies across the Frontier Fifteen countries (page 33).
- **Congolese Media Consumption:** Highlights how media consumption patterns can differ dramatically across types, geographies, and consumer segments (page 37).

Size of Africa's Consumer Class, Power Five Markets



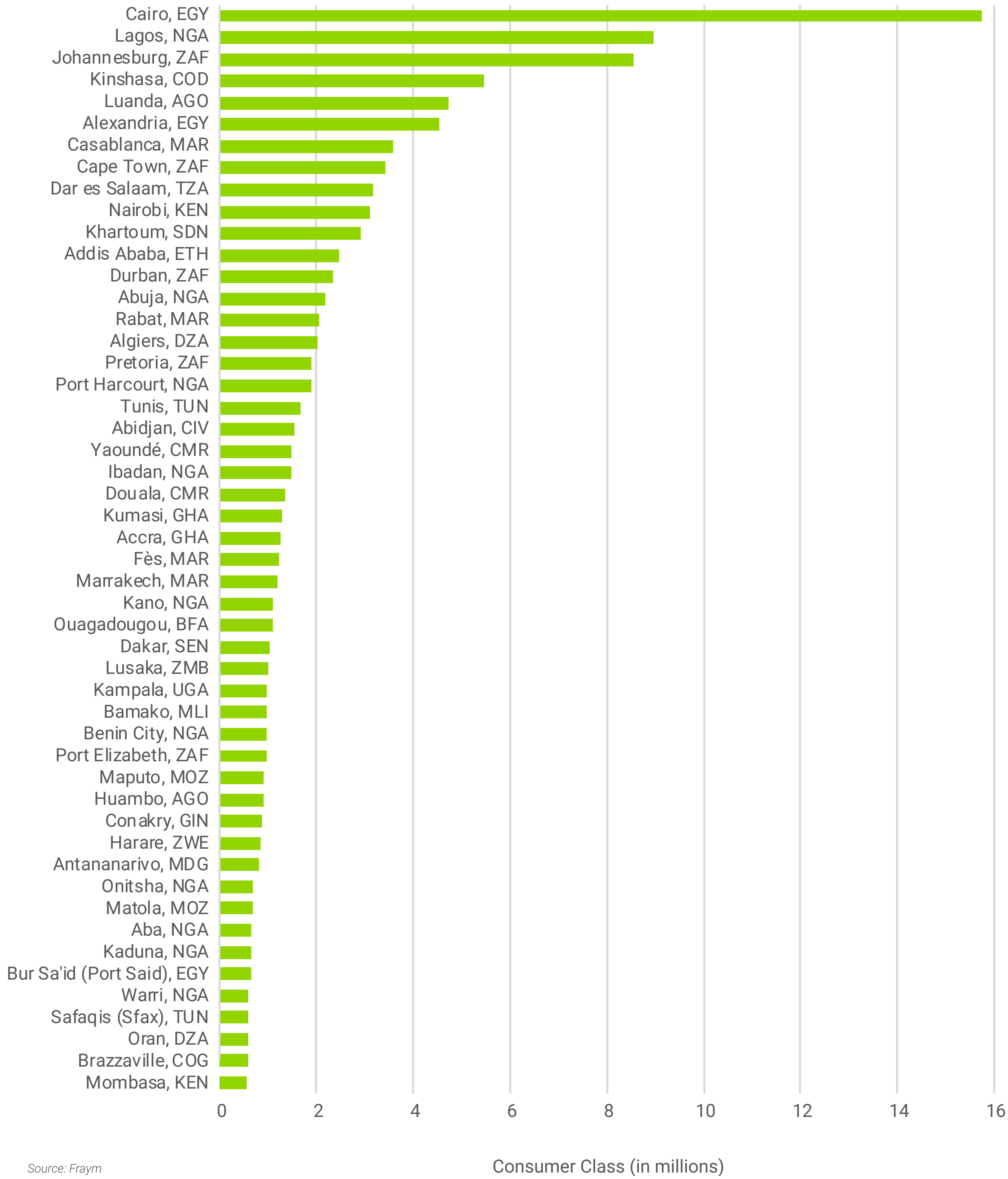
Source: Fraym

Size of Africa's Consumer Class, Frontier Fifteen Markets



Source: Fraym

Size of Africa's Consumer Class, Urban 50 Markets



Source: Fraym

ABOUT FRAYM

Fraym is a geospatial data company that delivers hyper-local insights for 50+ African countries down to 1x1 square kilometer. Our platform helps fast-growing companies, development organizations, and government agencies answer high-priority questions about where to focus and how to reach specific populations. Using cutting-edge technology, Fraym delivers customized analysis with unprecedented accuracy and speed.

Fraym's leadership has focused on the African continent for decades, holding senior positions in the White House, the African Development Bank, Cisco Systems, and the Center for Global Development. From offices in Lagos, Nairobi, and Washington, D.C., Fraym is committed to empowering African businesses and communities through precise, localized data.

United States
7900 Westpark Drive
Suite A160
McLean, VA 22102
(Washington, D.C. Metro Area)

Nigeria
7 Ibiyinka Olorunbe Street
Victoria Island, Lagos

Kenya
Eden Square 7th Floor Block 1
Chiromo Road
P.O. Box 856 00606
Nairobi

Website: fraym.io
For further information, contact us at info@fraym.io

The Dynamic African Consumer

INTRODUCTION

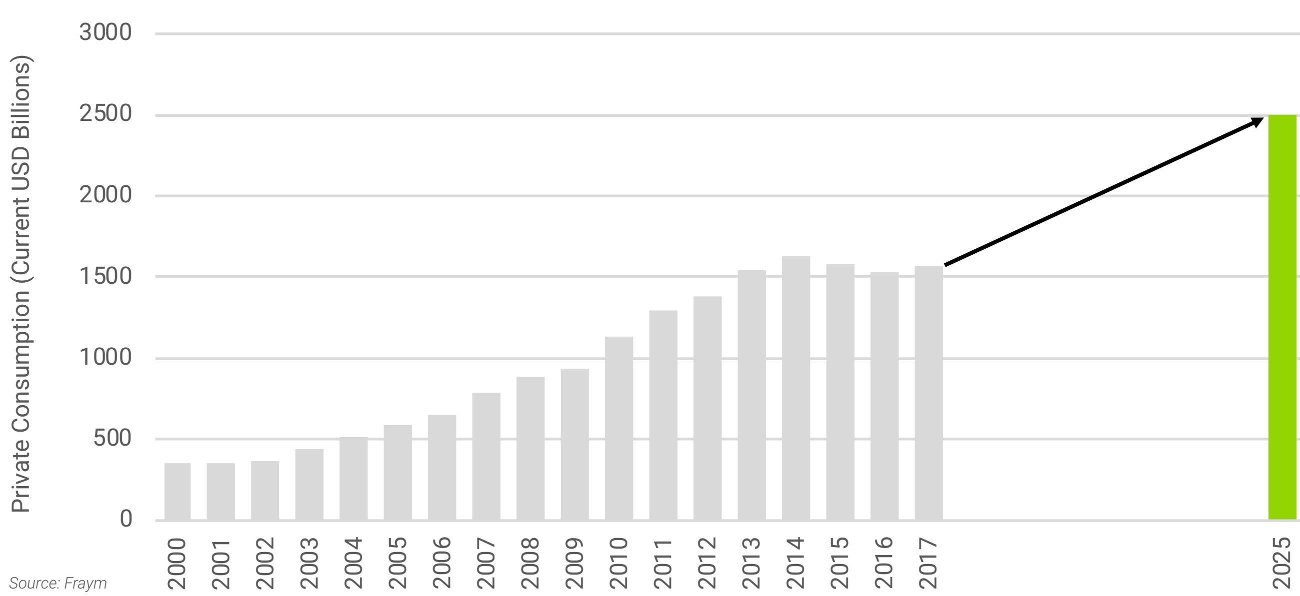
The African continent is home to one of the largest remaining prizes for consumer-facing companies and investors in the world—the African Consumer Class. Regionally, household consumption reached $1.6 trillion in 2017 after growing at an annual compound rate of over 9 percent since the start of the new millennium.[1] This dramatic expansion has been fueled by a rapidly growing population and rising incomes. According to the UN, this demographic explosion is projected to continue for the coming decades, with the continent's population reaching 1.7 billion by 2030, including 770 million people living in urban areas.[2] Along the way, the McKinsey Global Institute expects African household consumption to hit $2.5 trillion by 2025.[3]

These twin trends of demographic and income growth are creating a groundswell of new consumer demand and expectations. Consumption habits are evolving quickly, with higher incomes leading to greater spending on beverages, packaged foods, personal care products, quick-service restaurants, healthcare, and financial services. Moreover, millions of families across the continent are exercising new purchasing power for the first time—buying their first refrigerator, a new computer, or a family car.

While the changes in African consumer markets are exciting, trends are also highly uneven. Certain national markets are clearly pulling ahead of others, while a handful of countries appear largely stagnant. Moreover, beneath these cross-country differences are even more significant sub-national variations. Vast disparities in economic and consumer trends between urban and rural areas, between capital and secondary cities, and the increasing blur between these distinctions all require hyperlocal analysis based on actual geography rather than outdated administrative borders.

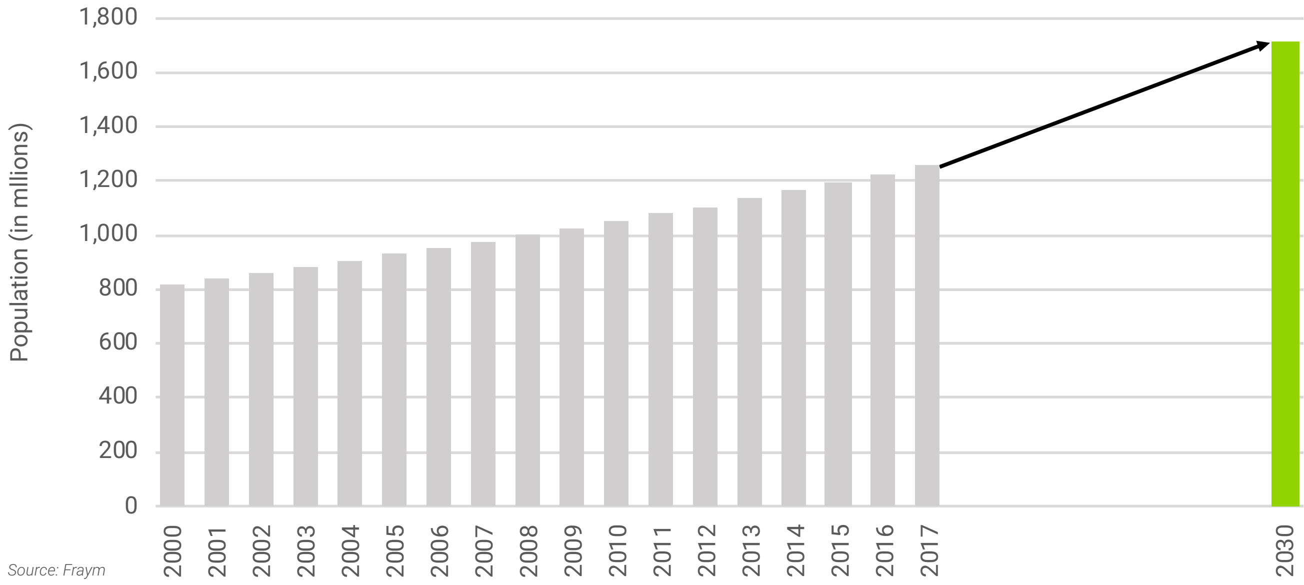
Further, the physical concentration of economic activity that drives higher consumer power requires granular

Figure 1. Private Consumption: Historical and Projected (2000–2025)



Source: Fraym

Figure 2. Total Population, Historical and Projected (2000–2030)



Source: Fraym

geospatial analysis of shifting consumer demand, both in location and composition. Tracking average household incomes nationally, or a country's consumption of a product or service, is relatively easy. But companies and investors seeking to understand exactly where the market is going need more than blunt national averages. They need to identify and precisely locate the largest concentrations of their most promising consumers. Where are they now? And where will the consumers be in five or ten years?

In Europe, North America, and large markets in Asia, companies can access a wide range of consumer and market data to understand their consumers. Such information enables companies and investors to make data-driven decisions about where to manufacture, build, distribute, locate, and advertise. Yet, while excitement is palpable about the potential of the continent's growing buying power, the lack of reliable, hyper-local data has made the African consumer an elusive and largely anecdotal target.

Until now...

Fraym has created the *Fraym ABC Classification System* to identify and locate Africa's Consumer Class. This new and unique approach builds on best practices from decades of consumer segmentation methodologies, including asset and education-based systems used in India and elsewhere, and adapts them to the specific conditions in nearly every market across the African continent.

PAST ATTEMPTS TO SIZE THE AFRICAN CONSUMER CLASS

Traditionally, Africa's consumer class has been defined using income- or consumption-based thresholds. In 2011, the African Development Bank (AfDB) released a seminal study, *The Middle of the Pyramid*, that received a significant amount of global attention and largely defined the debate for years.[4] The AfDB defined the consumer class (or 'middle class') as individuals with annual income exceeding $3,900 or a per capita expenditure between $2 and $20 per day (based on purchasing power parity or PPP exchange rates). Using this definition, the AfDB estimated the African consumer class at approximately 326 million people, or 34 percent of the total regional population.

Although the AfDB's approach allowed for valuable cross-country comparisons, it also had its limitations. Most importantly, monetary-based approaches typically do not capture income seasonality and susceptibility to financial shocks, which can quickly erode households' purchasing power. This was the oft-cited criticism of the AfDB's inclusion of a 'floating class" ($2 to $4 daily income). Many people within this category are just one crisis away from absolute poverty—whether due to a health condition, failed crop, or lost job. Such methodologies also can only provide consumer class estimates at the national level.[5]

Several more recent approaches to measuring the consumer class have continued to rely on income-based indicators. For example, Standard Bank's 2014 report *Understanding Africa's Middle Class* used the South African Living Standards Measure (LSM) to define a four-tiered middle class: low, lower, middle, and upper middle, with daily incomes ranging from under $15 to over $115.[6] This report, which covered just 11 Sub-Saharan countries, found a middle class of approximately 15 million people across those markets.[7]

More recently, the *African Lions: Who are Africa's Rising Middle Class?* report argued that the middle class could not be defined by monetary terms alone.[8] Instead, Ipsos relied upon a composite measure encompassing disposable income, employment or entrepreneurial status, and educational levels. Using this approach, they identified 100 million middle class people in Sub-Saharan Africa (excluding South Africa), with a combined spending power of over $400 million per day.

DATA VERSUS HYPE?

The past five years have seen many examples of large multinational companies making strategic bets on specific African markets, only to reverse course after lofty expectations failed to materialize. An inability to properly define, size, and locate the target consumer markets played a significant role in nearly all of these miscalculations. For instance, Nestlé reorganized its Africa business in May 2018, which included shutting its regional head office in Nairobi, citing unsustainable costs given existing sales volumes in the East and Central African regions. In 2015, Diageo, the global spirits giant, shifted growth investments from its vodka and whiskey business in Nigeria towards beer products with more mass market appeal after overestimating the size of the high-end alcohol market. Kenya Power and Lighting Company also aggressively expanded rural household connections, only to find that electricity consumption in many areas did not justify the initial investment costs. In each of these cases, detailed geospatial consumer data could have allowed these companies to more precisely size consumer markets, inform strategic investments, and accelerate growth.

The *Fraym ABC Classification System*

A NEW STANDARDIZED, SUB-NATIONAL APPROACH FOR THE ENTIRE CONTINENT

The *Fraym ABC Classification System* builds upon existing consumer identification systems and adapts them to the continent's regional contexts. Specifically, Fraym utilizes an adapted version of India's New Consumer Classification System (NCCS), which segments households based upon asset ownership and educational levels. The table below shows the breakdown of the consumer classification segments, which are indexed from A1 to E3. Fraym aggregates these segments into standardized categories that are widely understood and used by consumer-facing companies (A, B, C1, C2, D, and E). Then, "Africa's Consumer Class" is defined as those individuals classified in the A, B, and C1 segments.[9] These terms—Consumer Class and ABC1 consumers—are used interchangeably throughout this report.

The ABC1 category was informed by two factors in particular. First, many consumer-facing companies currently consider A, B, and C1 segments as their target customers for more premium products and services while C2, D, and E consumers are considered more mass market. Our interactions with dozens of companies operating across the continent have corroborated this viewpoint. Second, Fraym has conducted segmentation analyses for a broad range of products and services over the last five years. We have found that there typically is a clustering of consumer spending, particularly in terms of per capita monetary value, for more premium products among these A, B, and C1 segments.

The Classification Matrix below illustrates how asset ownership and educational attainment levels interact to determine the distinct consumer segments. For the ABC1 category, individuals must own at least 4 major assets and be relatively well educated. Alternatively, they may be less educated but own at least 5 or 6 major assets.

The *Fraym ABC Classification System* differs from past African consumer class definitions in several ways. It uses educational attainment and asset ownership to quantify wealth since these measures are less vulnerable

Figure 3. ABC Classification Matrix

Number of assets owned	No education	Some primary education	Completed primary education	Completed secondary education	Some university education	Completed university education
0	E3	E2	E2	E2	E2	E1
1	E2	E1	E1	E1	D2	D2
2	E1	E1	D2	D2	D1	D1
3	D2	D2	D1	C2	C2	C2
4	D1	C2	C2	C1	C1	B2
5	C2	C1	C1	B2	B1	B1
6	C1	B2	B2	B1	A3	A3
7	C1	B1	B1	A3	A3	A2
8	B1	A3	A3	A3	A2	A2
9	B1	A3	A3	A2	A2	A1
10	B1	A3	A3	A2	A2	A1
11	B1	A3	A3	A2	A2	A1

Note: The blue outline identifies Africa's Consumer Class (A, B, and C1 segments).

Source: Fraym

to seasonal income fluctuations. For instance, household spending may spike following a harvest season and fall during a planting season, making a purely monetary-based segmentation susceptible to higher error rates. Fraym's approach also reduces the effects of volatile exchange rate movements and the limitations of exchange rate adjustments, like purchasing power parity, which can often mask large distortions in the marketplace.

Most importantly, Fraym's methodology draws upon professionally-enumerated and geo-tagged household data, which allows for sizing consumer segments across time and space, including regions, cities, and even neighborhoods. Possibilities include identifying ABC1 consumers within Egypt, an Egyptian governorate, or any 1km^2 area of Cairo and directly comparing them to Nigeria overall, a Nigerian state, or any 1km^2 area of Lagos. This report highlights the practical power of this kind of flexible geospatial analysis.

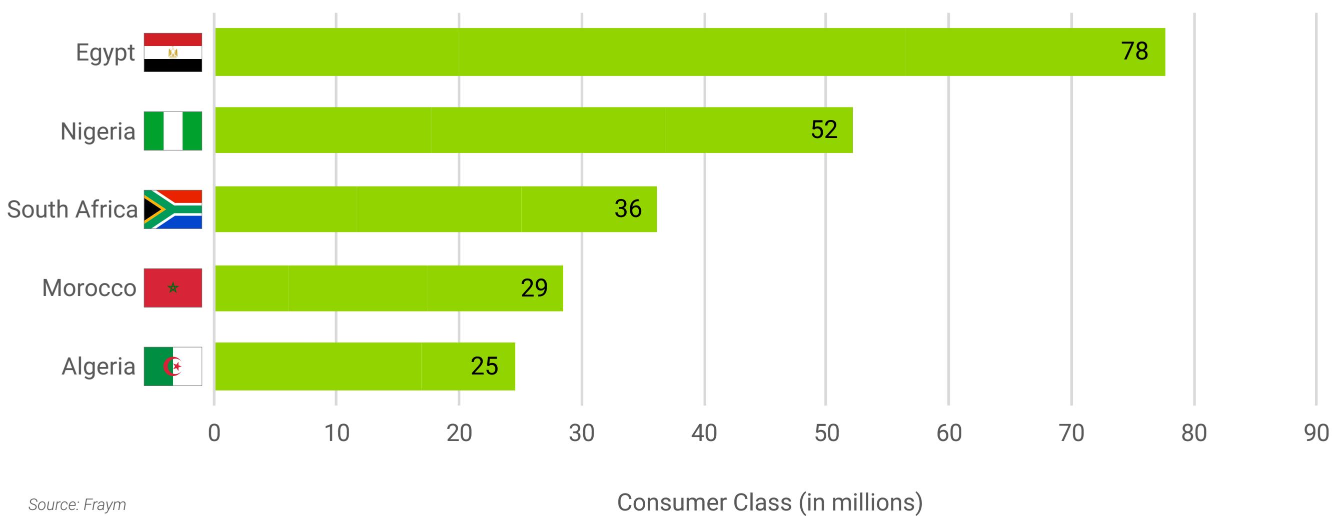
Africa's Consumer Class: The Power Five, The Frontier Fifteen, and The Rest

THE POWER FIVE

Five consumer markets stand out above the others for their sheer scale. Egypt is clearly the largest African market with 78 million people in the Consumer Class. It also accounts for nearly one-quarter of all ABC1 consumers across the continent. Nigeria is home to the second largest Consumer Class, with 52 million people. South Africa, Morocco, and Algeria round out the top five. In total, these Power Five markets have a combined Consumer Class of 219 million people, or roughly two-thirds of the continent's total.

FRAYM INSIGHT:
Egypt, Nigeria, and South Africa each have 10+ million people classified as premium A consumers

Figure 4. Size of Africa's Consumer Class, Power Five Markets



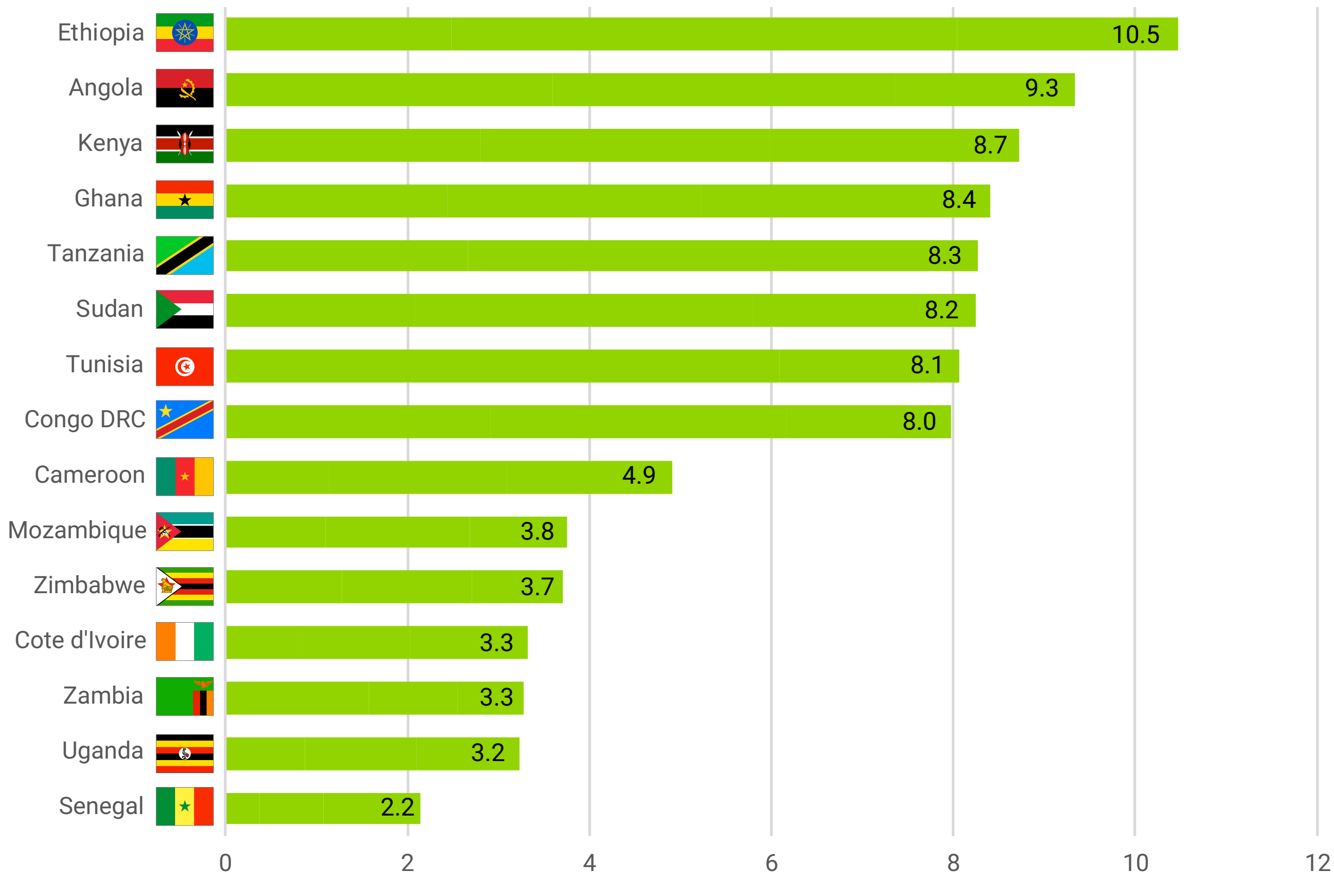
Source: Fraym

THE FRONTIER FIFTEEN

Next, we find a diverse and rapidly growing set of consumer markets—the Frontier Fifteen. Each of these countries are home to at least two million ABC1 consumers. Ethiopia is the largest of this group with a Consumer Class exceeding 10 million people, followed closely by seven markets with at least 8 million: Angola, Kenya, Ghana, Tanzania, Sudan, Tunisia, and the Democratic Republic of Congo. Unlike the Power Five, these markets are far less likely to be on the radar of major companies and investors. But each represents significant growth opportunities for consumer-facing products and services. This group is also rich in regional diversity, with the Frontier Fifteen spread across each major sub-region on the continent.

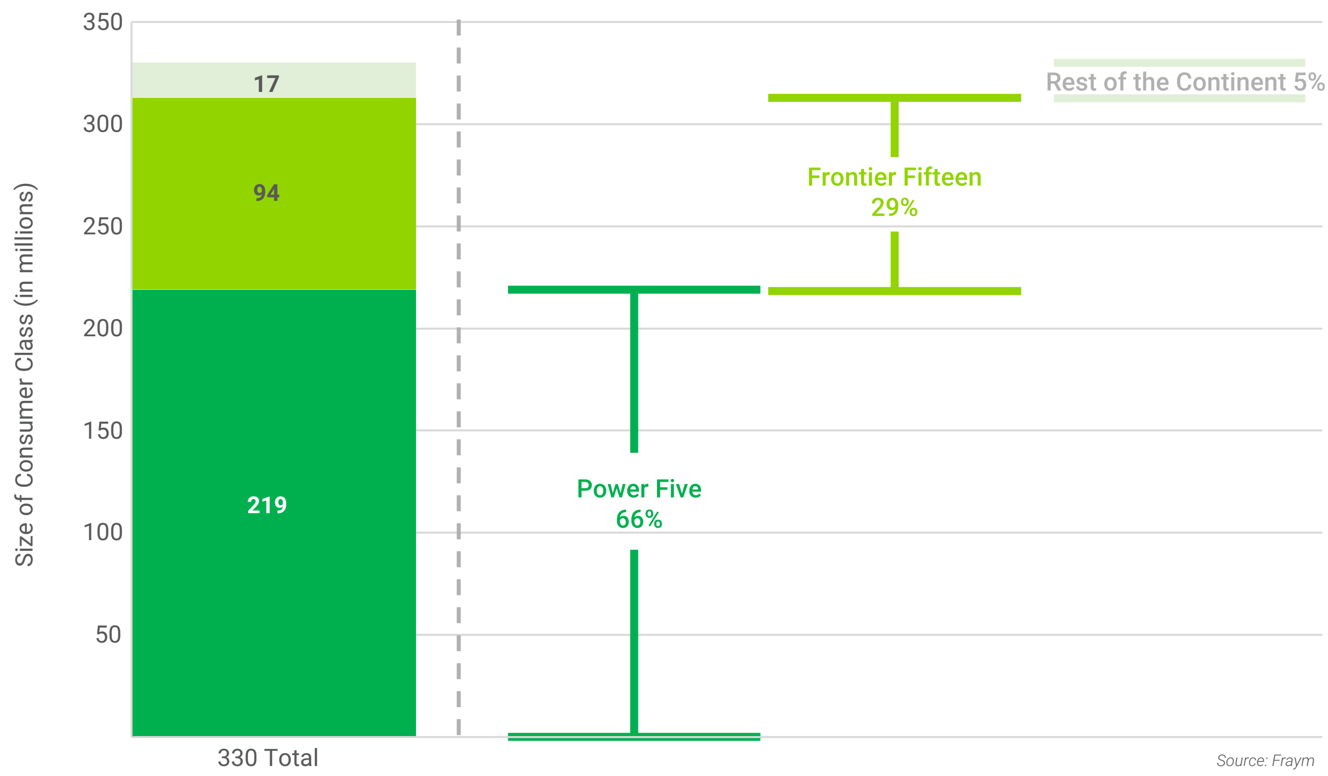
FRAYM INSIGHT:
The Frontier Fifteen comprises nearly 30 percent of the continent's total Consumer Class

Figure 5. Size of Africa's Consumer Class, Frontier Fifteen Markets



Source: Fraym

Figure 6. Size of Africa's Consumer Class, by Country Groupings



REST OF AFRICA

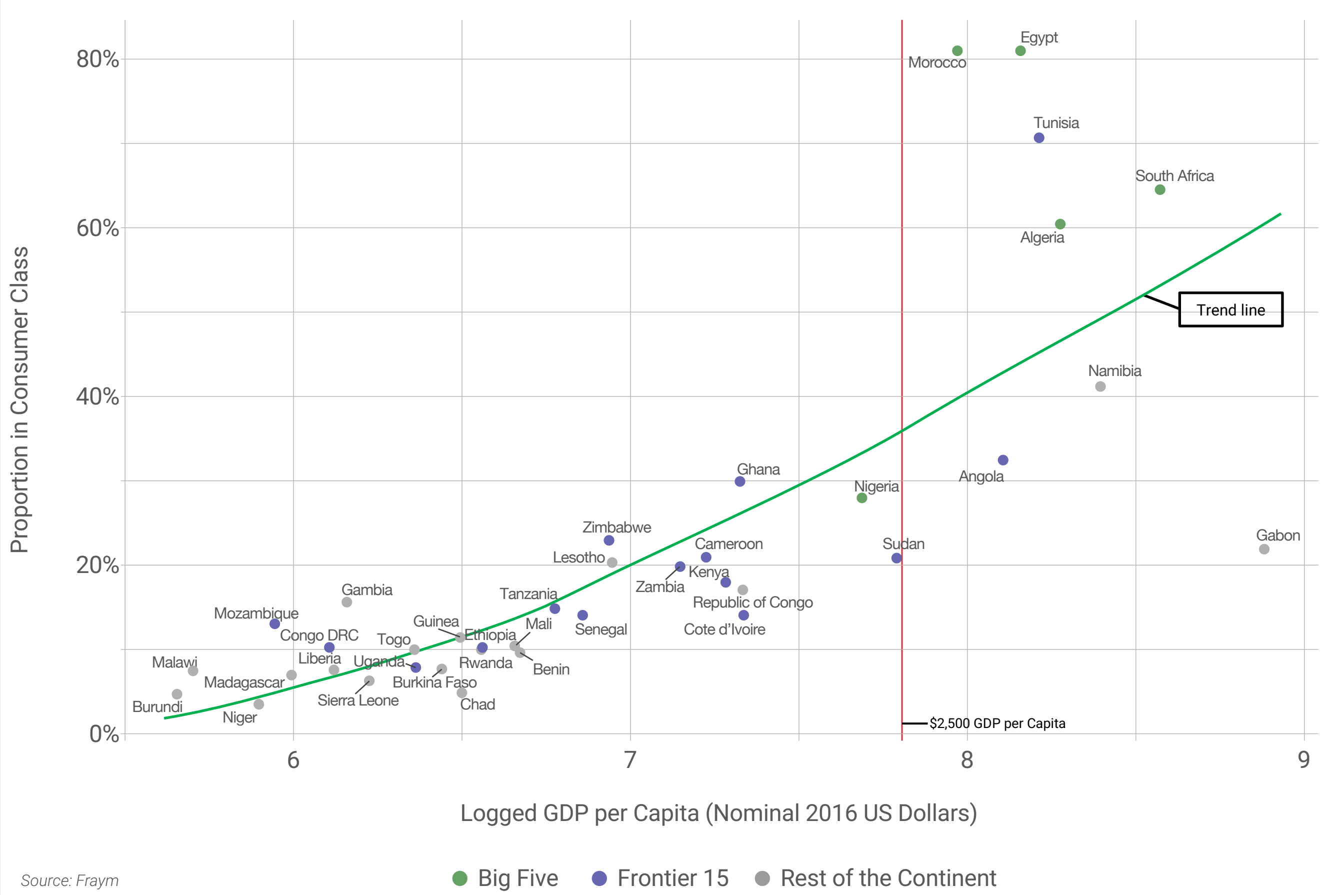
The rest of the continent is home to just 17 million ABC1 consumers. These remaining countries, on average, offer much more limited opportunities for consumer-facing companies and investors given their small and fragmented markets. For instance, 11 countries each have fewer than 1 million ABC1 consumers. However, niche opportunities remain for regional players to capture market share in specific product or service categories. The most promising are those able to benefit from regional supply chains and geographic proximity to larger regional markets.

Benin and Togo provide an example of this potential. These two countries have fewer than 2 million ABC1 consumers, which is unlikely to attract major prioritized investments by themselves. However, they are located between Nigeria (a Power Five market) and Ghana (a Frontier Fifteen market), which are all connected by a road corridor that continues on to Abidjan in Côte d'Ivoire. This trans-national highway passes through the major cities of Cotonou and Lomé—home to roughly half a million ABC1 consumers—which could be served by Accra- or Lagos-based operations.

Box #1: The Consumer Tipping Point

Notable threshold effects become evident when examining the relationship between GDP per capita levels and the relative size of the Consumer Class across the continent. As expected, when GDP per capita levels rise, the proportion of ABC1 consumers also grows. The Consumer Class increases exponentially when average income levels surpass the $2,500 mark.[10] If this pattern holds, countries like Nigeria and Sudan could experience a rapid rise in the proportion of ABC1 consumers as they approach this higher-income tipping point.

GDP Per Capita versus Proportion of ABC1 Consumers



Source: Fraym

Africa's Biggest Consumer Cities

While country-level insights can be useful for prioritizing market entry and expansion, understanding precise geographic concentrations of target consumers is essential for an effective go-to-market strategy. This is where some firms have made costly mistakes. The most accurate approaches require identifying the characteristics of consumers in specific urban clusters. Fraym can locate different consumer segments in almost any urban area across the African continent—looking at the actual city "footprint," including suburbs and informal settlements. We have applied this capability to the *Fraym ABC Classification System*, enabling consumer identification across all of the continent's urban markets.

FRAYM INSIGHT:
Nigeria alone has 10 cities among the top 50 urban consumer markets in Africa

Among the continent's major cities, Cairo is home to the largest Consumer Class by far, comprising 16 million people. Cairo also has the greatest number of premium "A category" consumers at 3.5 million. Nigeria's fast-growing commercial capital of Lagos is next with 9 million ABC1 consumers. Johannesburg, despite its outsized global profile and role in African business, comes in third with 8.5 million ABC1 consumers.

FRAYM INSIGHT:
The megacity of Lagos alone has a larger Consumer Class than all but six African countries

Kinshasa, the capital of the DRC, is a vast city in a country with very little traditional market data. Fraym, however, has found 5.5 million ABC1 consumers, putting the city firmly in fourth place among urban consumer markets on the continent. Moving down the list, there are several other cities that may be surprising as well, such as Luanda, Khartoum, and Yaoundé. The data also reveal a number of sizeable Consumer Class populations in non-capital cities, such as Alexandria (Egypt), Durban (South Africa), Port Harcourt (Nigeria), Ibadan (Nigeria), and Douala (Cameroon).

FRAYM INSIGHT:
In Ghana, Kumasi has a slightly larger consumer base (1.30 million) than the capital of Accra (1.26 million)

CITY DEEP-DIVE: SPOTLIGHT ON DAR ES SALAAM

A deeper look at Dar es Salaam demonstrates the hyper-local targeting capabilities of the *Fraym ABC Classification System*. Tanzania's commercial capital has nearly 6 million people; Figure 8 shows Fraym's consumer segmentation breakdown. Roughly 2.4 million residents of Dar es Salaam fall into the more affluent A/B categories. These are the consumers with sufficient wealth to buy large household durables, frequent quick service restaurants (QSRs), and regularly purchase fast-moving consumer goods like beverages and packaged foods. At the other end, nearly half (45 percent) of Dar es Salaam is categorized as D or E households. These down-market consumers also purchase fast-moving consumer goods—such as beverages and household products—but typically in smaller volumes and at lower price points.

In comparison, roughly 11 percent of all Tanzanian households are categorized as A/B, three times lower than in Dar es Salaam. In addition, D and E segments account for eight out of every ten Tanzanians, nearly twice as high as in Dar es Salaam. These findings further highlight how national-level figures typically obscure local-level consumer opportunities, particularly in markets with vast income inequality between urban and rural consumers.

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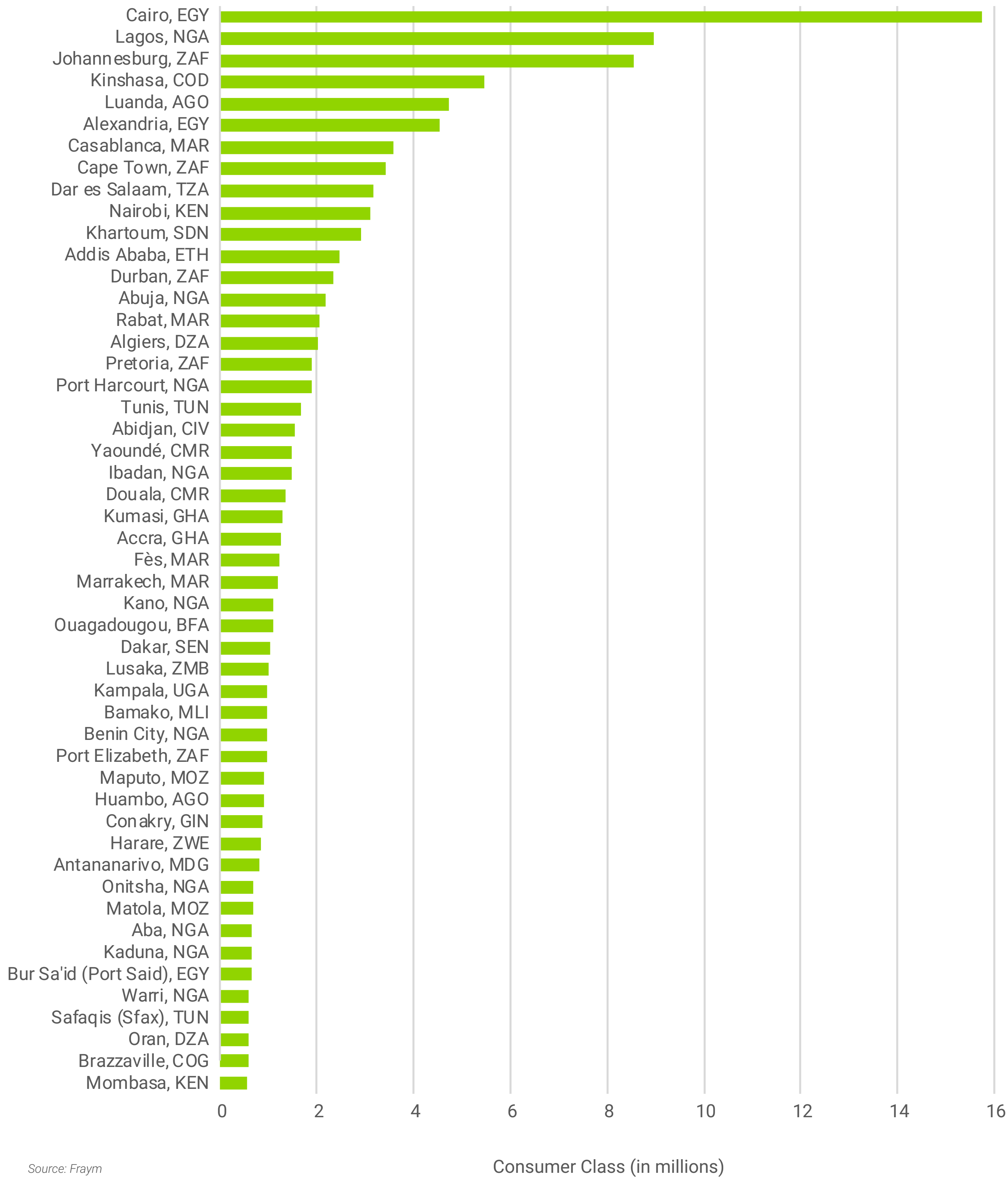
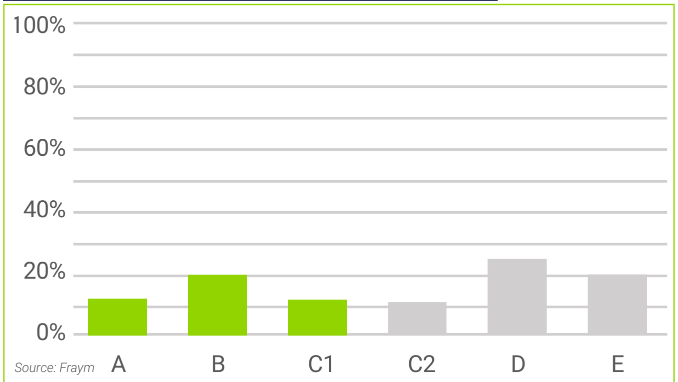
Figure 7. Size of Africa's Consumer Class, Urban 50 Markets



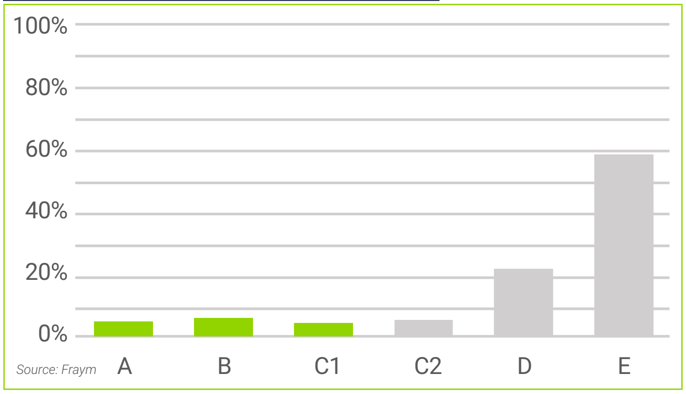
Source: Fraym

Figure 8. ABC Distribution, Dar es Salaam



Source: Fraym

Figure 9. ABC Distribution, Tanzania



Source: Fraym

Figure 8 shows average consumer spending on food, education, clothing, media, and other discretionary categories for each consumer segment in Dar es Salaam. In aggregate terms, Premium A consumers spend roughly twice as much as B segment households and almost six times as much as E households. Notably, A households spend about 14 times more than E households on transportation, primarily due to automobile, maintenance, fuel, and other related expenses. Meanwhile, the relative wallet share for food decreases as consumers move from E to A segments; A households spend less than 15 percent of their total wallet on food while E households spend more than 30 percent.

Even more helpful is a look at spending patterns within specific categories, such as beverages. Nationally, Tanzanian households allocate the greatest portion of their beverage spend on milk products, rather than alcohol, soft drinks, juices, bottled water, coffee, or tea. After milk, alcohol is the second most consumed beverage category.[11] The gap between A and E households' spend on alcoholic beverages is especially large, with A households consuming more than 16 times the amount of E households.

Comparing the national and Dar es Salaam beverage markets, the gap between the Consumer Class and mass market households (C2, D, and E) is far smaller within the commercial capital than across the country. ABC1 consumers spend roughly 2 times more on alcohol than C2DE consumers in Dar es Salaam versus a nationwide ratio of 5 times. In Dar es Salaam, households also spend more on soft drinks than on alcoholic beverages.

Box #2: Consumer Islands and Distributed Markets

While purchasing power is greater in major urban centers than in rural areas, the degree of concentration is striking in some markets. Over 90 percent of ABC1 consumers in Burkina Faso, the DRC, and the Republic of Congo are found in urban centers.[12] In fact, in the Republic of Congo, 98 percent of ABC1 consumers are concentrated in just two cities, Brazzaville and Pointe-Noire. In neighboring DRC, 95 percent of ABC1 consumers are spread across 12 major cities.

In a few countries, the Consumer Class is heavily concentrated in just a single major urban center. Liberia, Chad, Gabon, and Burundi each have only one major city, but these cities hold more than 60 percent of the total ABC1 consumer population in each market. For example, 88 percent of Liberia's Consumer Class live in Monrovia and 72 percent of Chad's Consumer Class live in N'Djamena.[13]

Annual Household Spending: A Consumers

In Tanzania, A consumers spend

17x more on soft drinks

12x more on milk

16x more on alcohol

than **E** consumers

In Dar es Salaam, A consumers spend

7x more on soft drinks

6x more on milk

2x more on alcohol

than **E** consumers

Annual Household Spending: ABC1 Consumers

In Tanzania, ABC1 consumers spend

5x more on soft drinks

6x more on milk

5x more on beer

than **E** consumers

In Dar es Salaam, ABC1 consumers spend

4x more on soft drinks

3x more on milk

2x more on beer

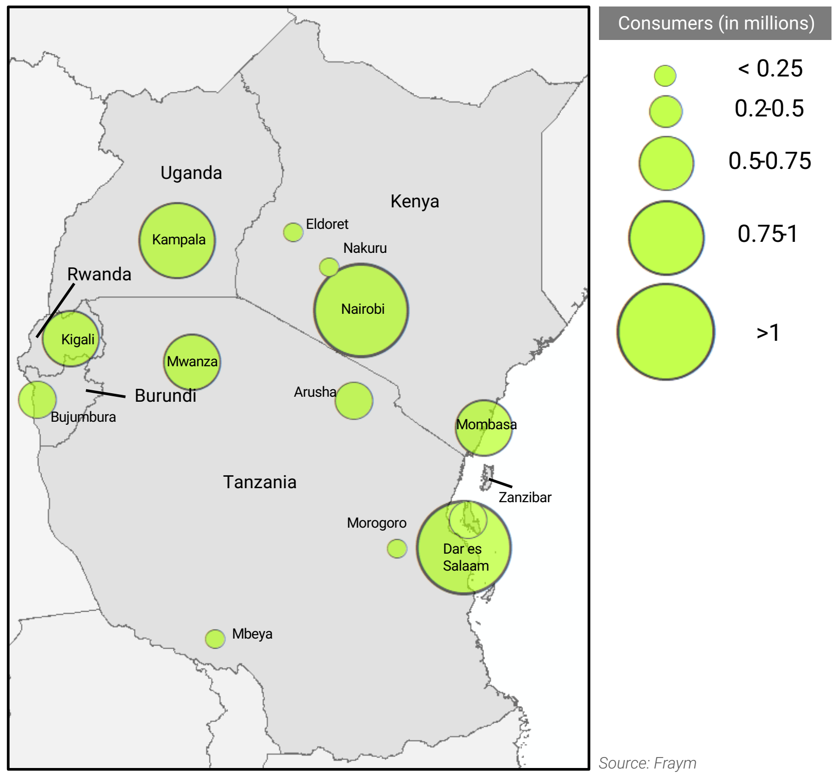
than **E** consumers

Regional Hubs and Spokes: East and Southern Africa

EAST AFRICA

East Africa is a dynamic region built around growing market integration, including Kenya, Tanzania, Uganda, Rwanda, and Burundi. Within the sub-region, Nairobi has become a major consumer and transportation hub, with 29 companies among the Fortune Global 500 represented, including Procter & Gamble, Unilever, Axa, Siemens, Carrefour, General Electric, and SC Johnson.[14] Moreover, many East African companies are aggressively expanding into surrounding countries. Equity Bank, Nation Media Group, Brookside Dairy, Java House, or East African Breweries are all growing their reach outside of Kenya. Ambitious non-Kenyan regional players include companies like the Bakhresa Group (Tanzania) and the Aya Group (Uganda).

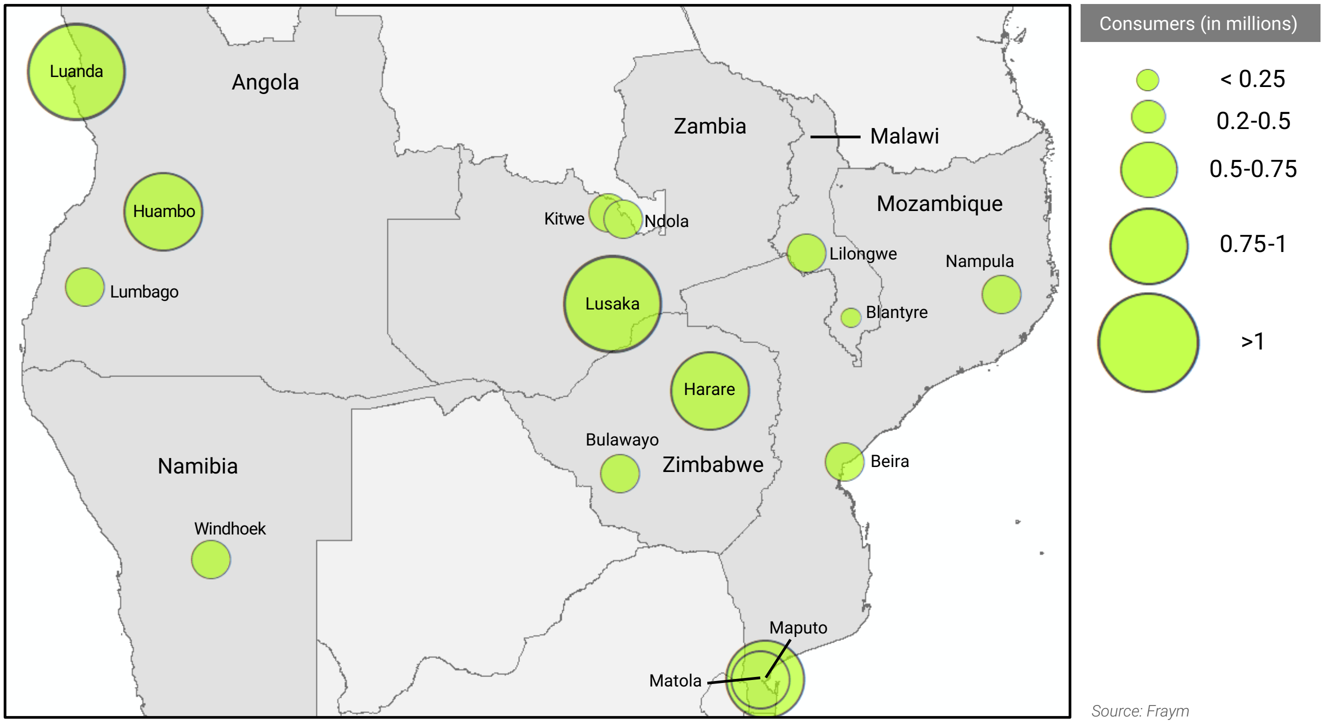
Figure 10. Number of Africa's Consumers, Select East African Cities



Source: Fraym

Figure 10 shows the consumer size of major cities in East Africa. Not surprisingly, the largest consumer classes are anchored in Dar es Salaam, Kampala, and Nairobi. These three urban markets account for one-third of all ABC1 consumers in the region. However, many other cities warrant attention, such as Kigali, Mombasa, Mwanza, Arusha, Mbeya, and Bujumbura. Taken together, these cities include an additional 2.4 million ABC1 consumers.

Figure 11. Number of ABC1 Consumers, Select Southern African Cities



Source: Fraym

SOUTHERN AFRICA

Southern Africa is another important consumer region, with 75 Fortune Global 500 companies set up in greater Johannesburg.[15] South Africa has mature, well-understood urban markets. However, its rural and informal markets remain largely opaque, as do most of the other markets in the sub-region. Many leading South African firms—such as supermarket chain Pick n' Pay, QSR chain Nando's, or packaged goods company Tiger Brands—have opted to first expand to neighboring countries before tackling other regions in Africa.

With this in mind, Figure 11 illustrates the size of the Consumer Class in select cities across the six Southern African markets outside of South Africa. The top 5 comprise of Luanda, Lusaka, Maputo, Huambo, and Harare.[16] Together, these urban markets account for 8.4 million ABC1 consumers, which is roughly equivalent to the consumer potential of Johannesburg.

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Pinpointing Consumer Hot Spots

The most successful consumer-facing companies deliver products that provide clear consumer value and address needs or aspirations. To do this, companies increasingly need sophisticated analysis to understand what their best customers look like, how they behave, and where they are located. This includes segmenting target populations by consumption patterns and preferences, employment status, household size, education, and lifestyle factors. Successful companies then look for geographic "hot spots"—ideally specific neighborhoods—where the best customers are concentrated. With this information, companies can build distribution channels and execute geo-targeted brand campaigns that drive faster sales growth and capture greater market share. But too many companies continue to rely on inaccurate, aggregated data or anecdotal evidence to drive crucial go-to-market decisions.

Fraym aggregates all of the best survey data in Africa, then incorporates satellite imagery and advanced machine-learning analysis to map consumer "hotspots" with precision down to 1km^2. Such maps allow a more powerful approach for finding and reaching hyper-local concentrations of target consumers, as illustrated below.

PORT HARCOURT

Port Harcourt is one of the most prosperous and vibrant consumer hotspots in Nigeria. Nearly three-quarters of Port Harcourt's population is classified as ABC1, or approximately 1.9 million consumers, which is greater than that of Burkina Faso, Malawi, Rwanda, or Benin. In absolute terms, these coveted consumers are most concentrated in several sections of the city, including, Amadi, GRA, Elekahia, Oroworokwo, Umueme, and Orogbum.

FRAYM INSIGHT:
Port Harcourt ranks #18 among all African cities with 1.9 million ABC1 consumers

A large majority of Port Harcourt's relatively affluent consumers are educated, banked, and plugged-in. Roughly 83 percent of ABC1 consumers watch television and 70 percent listen to the radio at least weekly. Yet, only two-thirds of these households own a television at home, suggesting a relatively widespread practice of watching TV with friends and neighbors or at bars and restaurants.

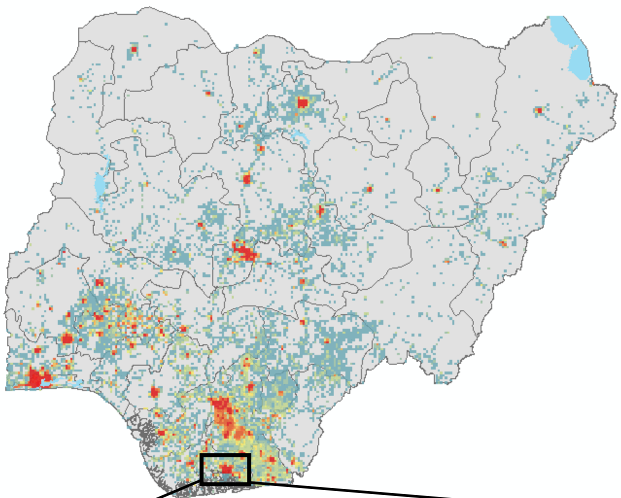
DAKAR

Dakar, Senegal, has consistently gained attention from regional and global companies and investors over the last decade. It is known for its vibrant culture of music, fashion, restaurants, and nightlife, plus a growing population of young educated professionals with rising purchasing power. Not surprisingly, Dakar also has become home to several tech hubs and a growing fintech ecosystem. All of these characteristics make it an increasingly attractive target for lifestyle and aspirational brands, along with other consumer-facing product and service categories. This is particularly the case in neighborhoods like Grand Dakar, Nord-Foire, Grand Yoff, Urbam, and Cornish.

FRAYM INSIGHT:
Dakar has 1 million, or 4,300 ABC1 consumers per square kilometer

Strikingly, nearly half of Senegal's Consumer Class live within the Dakar metropolitan area, a peninsula encompassing 230 square kilometers. Home and bank ownership are relatively high within this consumer segment. Television is the dominant media choice (90 percent), along with mobile-enabled Internet content. We also find extremely high ownership levels of computers, which tracks with Dakar's growing tech ecosystem.

Figure 12. Geospatial Distribution of Africa's ABC1 Consumers, Port Harcourt



Consumer Household Characteristics

- Bank account ownership: 96 percent
- Television ownership: 98 percent
- Mobile phone ownership: 99 percent
- Completed higher/college education: 26 percent
- Reads newspaper at least once a week: 49 percent
- Listens to radio at least once a week: 70 percent
- Watches TV at least once a week: 83 percent

Number of Consumers

250 individuals — 20,000+ individuals

Each grid represents a 5 by 5 square km area. Each grid in the in-set map represents 1 by 1 square km area.

Source: Fraym

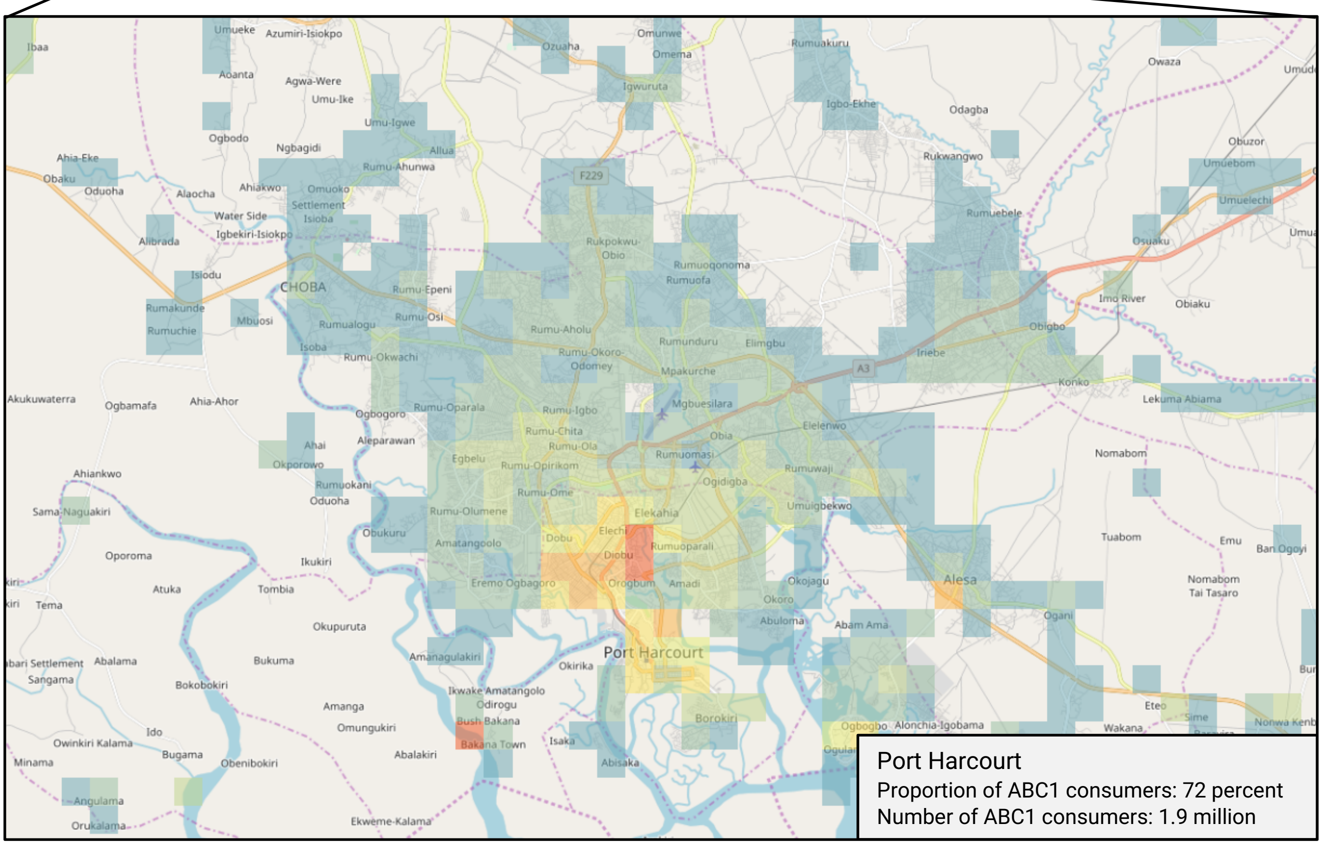
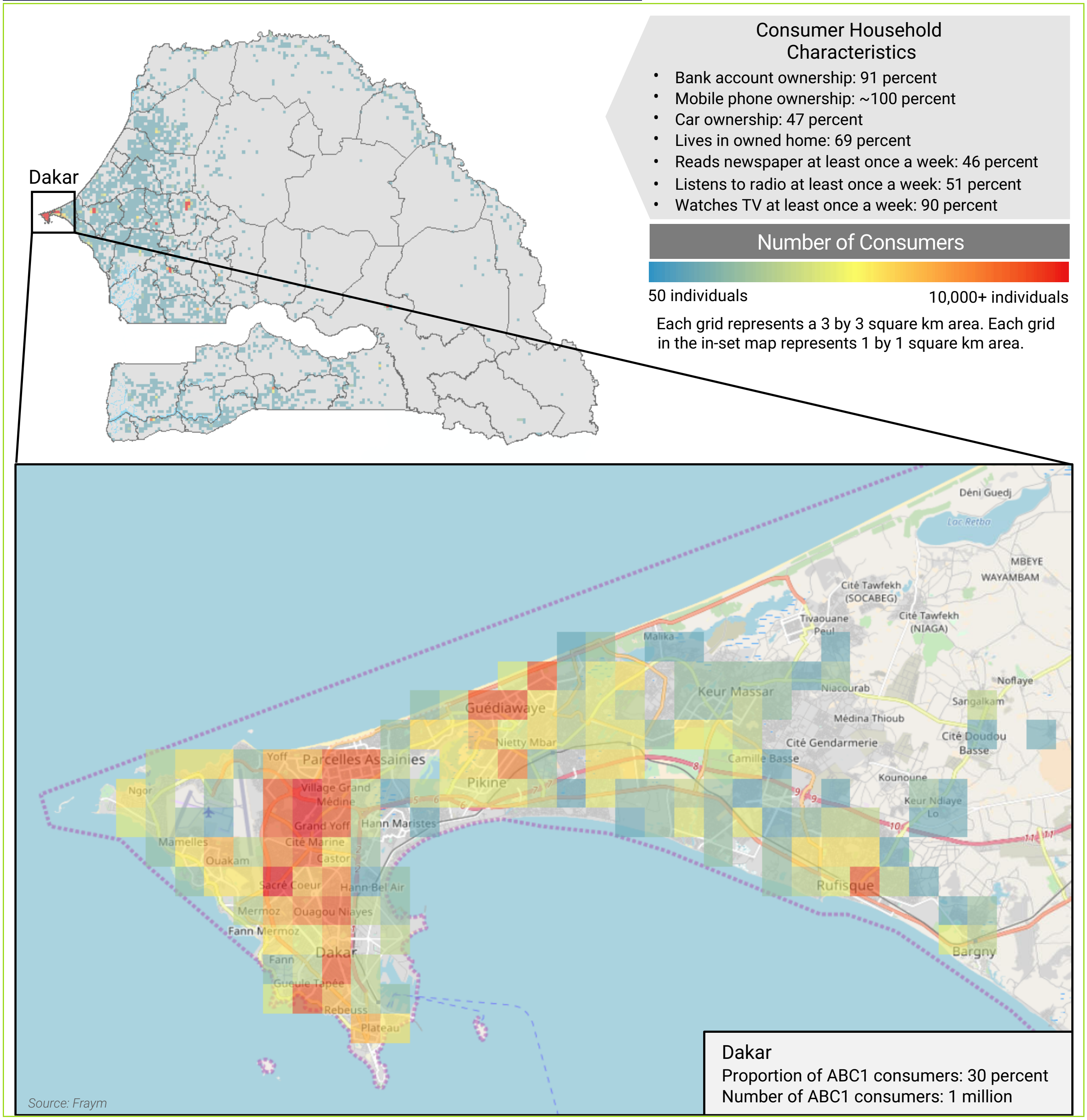


Figure 13. Geospatial Distribution of Africa's ABC1 Consumers, Dakar



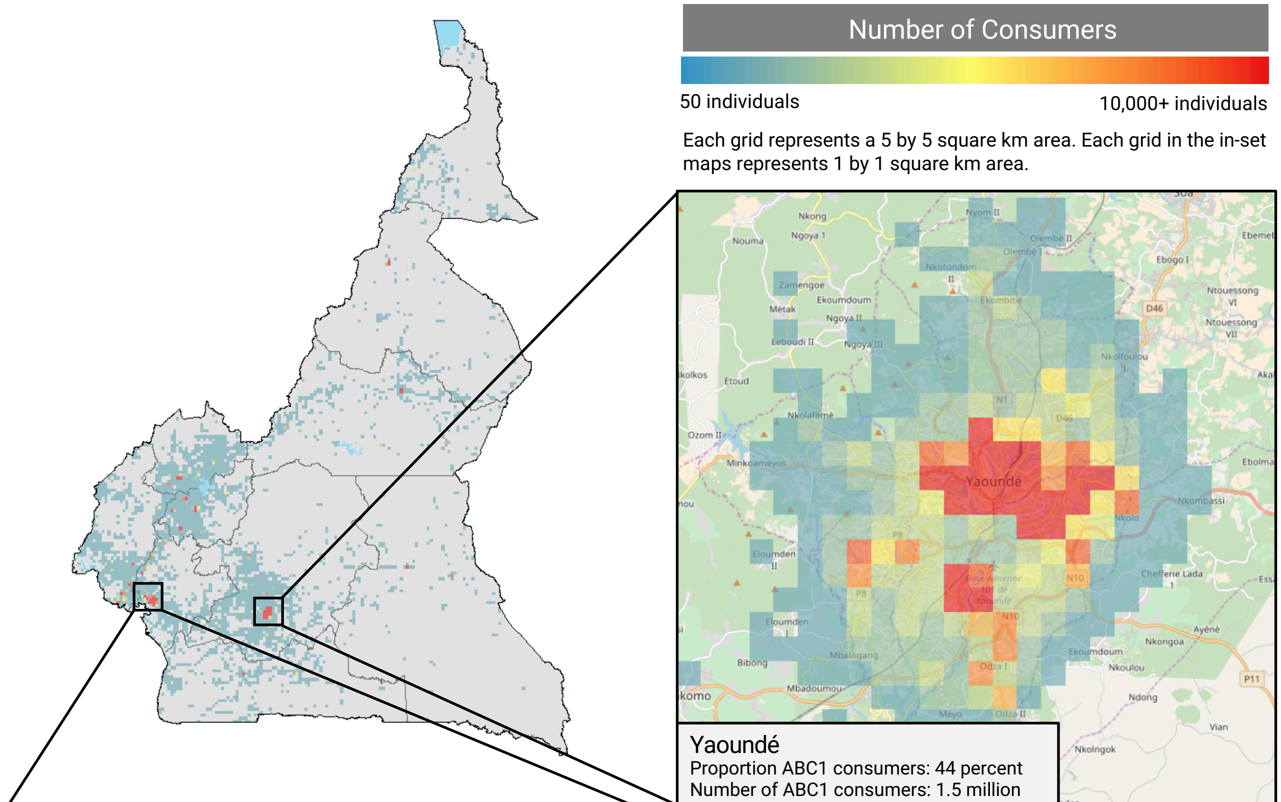
Source: Fraym

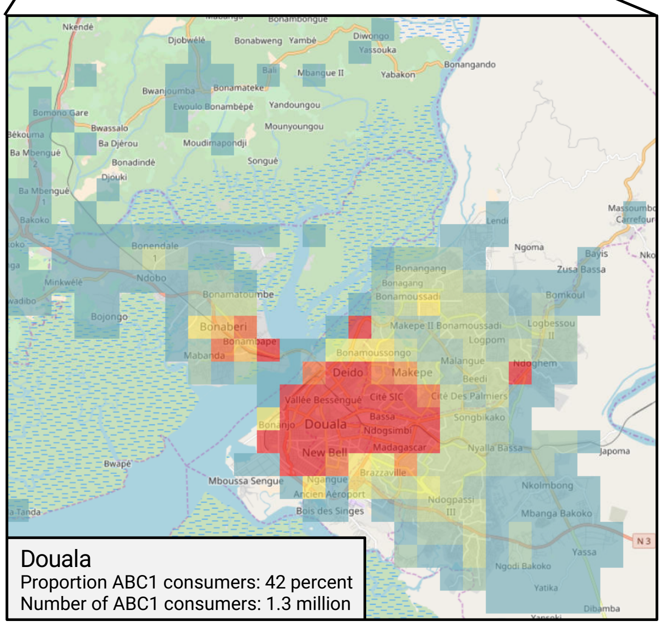
YAOUNDÉ AND DOUALA

Cameroon is one of the continent's often overlooked Frontier Fifteen consumer markets, despite having notable concentrations of ABC1 consumers in Yaoundé and Douala. Roughly four-in-ten people in these cities fall in the Consumer Class, for a total of nearly 3 million people.

While similar, Yaoundé and Douala have some notable differences in ownership of durable assets such as cars, computers, and cooking stoves. Yaoundé exhibits far higher ownership of each of these assets, indicating a relatively more prosperous consumer base than Douala.

Figure 14. Geospatial Distribution of Africa's ABC1 Consumers, Yaoundé and Douala





Source: Fraym

Yaoundé Consumer Household Characteristics

- Bank account ownership: 74 percent
- Car ownership: 42 percent
- Computer ownership: 59 percent
- Mobile phone ownership: 99 percent
- Stove ownership: 70 percent
- Reads newspaper at least once a week: 44 percent
- Listens to radio at least once a week: 67 percent
- Watches TV at least once a week: 98 percent

Douala Consumer Household Characteristics

- Bank account ownership: 76 percent
- Car ownership: 29 percent
- Computer ownership: 40 percent
- Mobile phone ownership: 99 percent
- Stove ownership: 62 percent
- Reads newspaper at least once a week: 27 percent
- Listens to radio at least once a week: 62 percent
- Watches TV at least once a week: 97 percent

Shifting Consumer Trends: Nigeria Over Time

In addition to understanding the geospatial concentration of purchasing power, identifying and understanding dynamic changes across consumer segments over time can be an advantage for consumer-facing companies. Firms are not only making bets on existing consumers, but also on the future market. This is particularly the case when major long-term investments may be required for production facilities (e.g., packaged foods and personal care products), point of sale or service locations (e.g., quick service restaurants and financial service providers), or large and sustained brand building campaigns. This requires understanding consumer patterns over time. To illustrate, we show changes in the Nigerian Consumer Class over time.

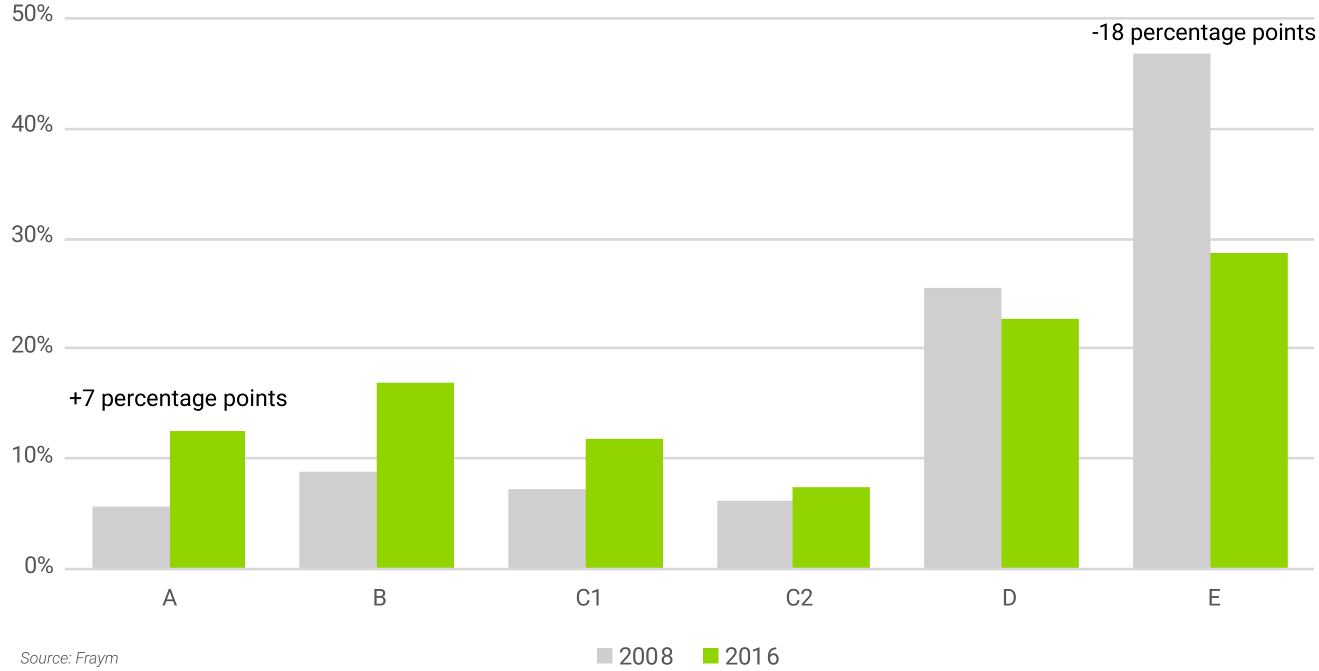
FRAYM INSIGHT:

The Nigerian Consumer Class has grown by nearly 140 percent over the last decade

In Nigeria, household consumption has grown by an annual compound rate of 9.3 percent over the last decade. How has the relative distribution of consumer segments, and the ABC1 group specifically, shifted both nationally and in major urban areas over time? Overall, the Nigerian ABC1 population has increased by roughly 20 percentage points in this period. While some of the higher absolute numbers are due to population growth, the shift from D and E consumers to higher classifications appears to be the more significant driving factor. Nigerians are clearly moving up the consumer ladder in large numbers despite some of the more recent economic headwinds.

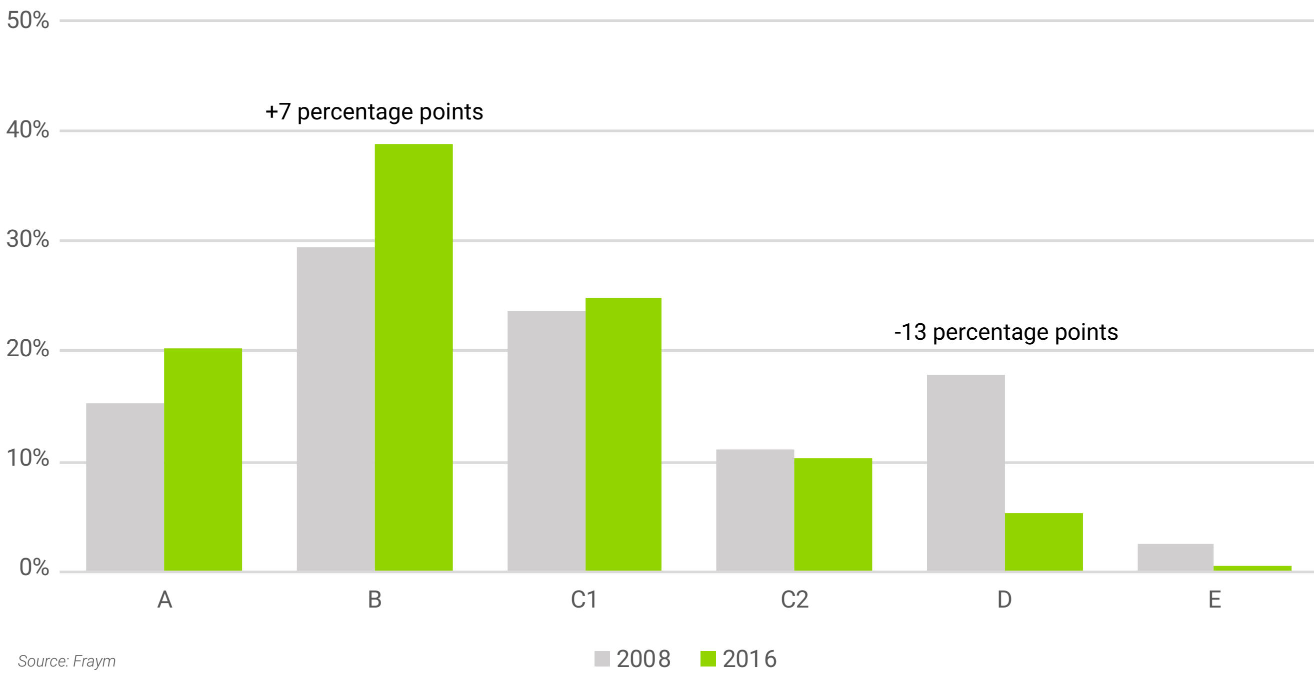
We find similar trends for Lagos, the economic nucleus for much of Nigeria and West Africa. The proportion of ABC1 consumers expanded at a robust rate of approximately 16 percentage points, with an additional 4.7 million people joining this consumer status. In Lagos, the greatest relative and absolute changes occurred in the A, B, and D segments. While the C1 and C2 segments largely remained flat, there has been a shift towards the more prosperous A and B segments over the last decade.

Figure 15. ABC Classification, Nigeria: 2008-2016



Source: Fraym

Figure 16. ABC Classification, Lagos: 2008-2016



Source: Fraym

Asset Ownership for Go-To-Market Strategies In Frontier Fifteen Markets

In this section, we examine household ownership of key durable and technology assets as an input for go-to-market strategies in the Frontier Fifteen markets. We focus on five major products that impact how and where ABC1 customers purchase and consume products and services, and some aspects of how they might be reached through brand and marketing campaigns. These include: refrigerators, automobiles, computers, televisions, and mobile phones.

REFRIGERATORS

In many ways, the refrigerator is the ultimate middle-class appliance. In Egypt, a refrigerator has even become a common part of many marriage arrangements.[17] Cold storage leads to shifts in family consumption patterns and behavior while providing greater convenience and time savings. It also allows for purchasing larger volumes of food and beverages like dairy, beer, and meats. In turn, refrigerator ownership can be an important indicator for supermarket operators targeting more affluent consumers that make large, diversified purchases for their households on a less frequent basis.

Within the Frontier Fifteen, refrigerator ownership is nearly universal among ABC1 consumers in Sudan, Zimbabwe, and Zambia. Kenya and Uganda are two outliers, the only markets with an absolute minority of ABC1 consumers having a refrigerator at home. In absolute numbers, Sudan and Angola are the largest markets, each with about 8 million households that own at least one refrigerator. Flipping those figures, Uganda and Kenya have over 9 million households that are classified ABC1 but do not yet own a refrigerator.

FRAYM INSIGHT:
The largest urban Frontier Fifteen market: Luanda (4.4 million refrigerators)

AUTOMOBILES

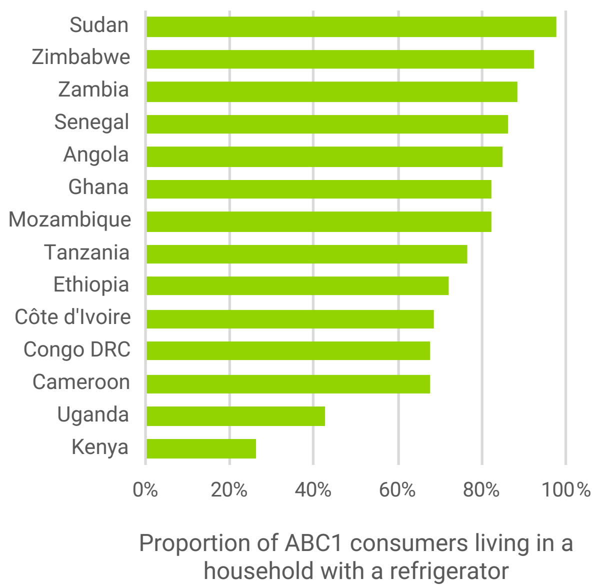
Automobiles and motorcycles typically extend the geographic range for point-of-consumption activities. They make a range of retail-focused behaviors more likely or frequent, such as shopping at supermarkets and commercial malls, dining at quick service restaurants, and accessing lifestyle services like fitness centers and theaters.

Nearly all Frontier Fifteen markets have car ownership rates between 25 percent and 35 percent among the Consumer Class. Zimbabwe and Senegal have the highest rates, both at nearly 50 percent. The sole low-end outlier is Ethiopia, at just 12 percent. In absolute numbers, Ghana's Consumer Class is the leader with 3 million cars, followed closely by Angola, Tanzania, and Tunisia.

FRAYM INSIGHT:
The largest urban Frontier Fifteen market: Luanda (1.7 million automobiles)

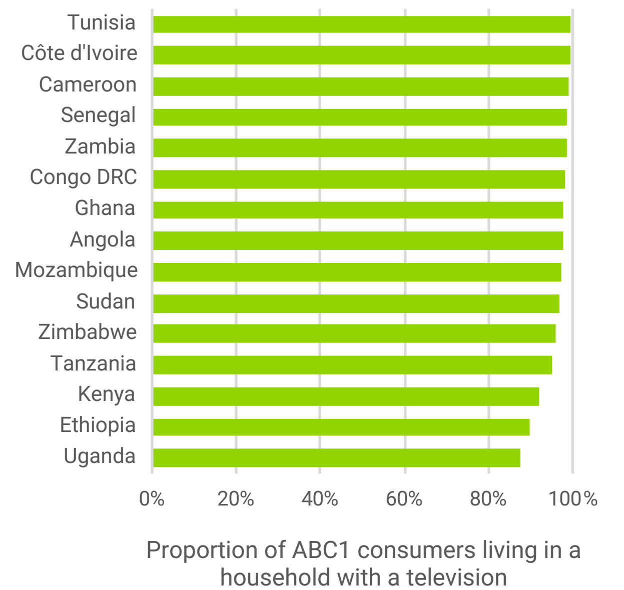
Figure 17. Asset Ownership

Africa's Consumer Class: Refrigerator Ownership

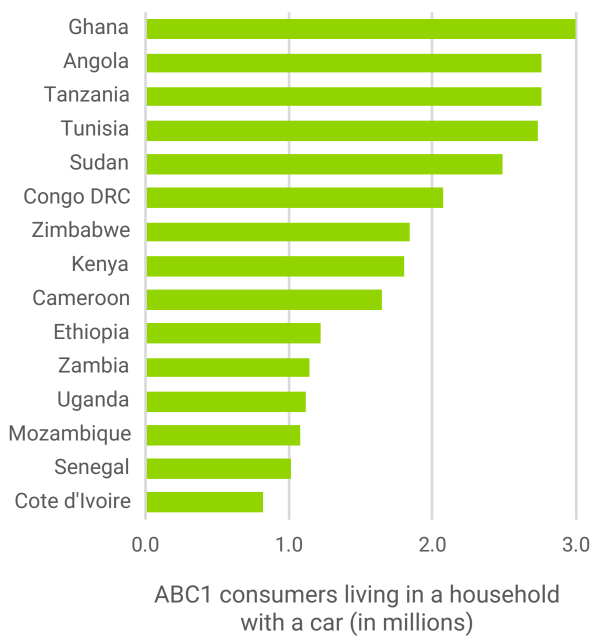


Note: No data on Tunisia

Africa's Consumer Class: Television Ownership

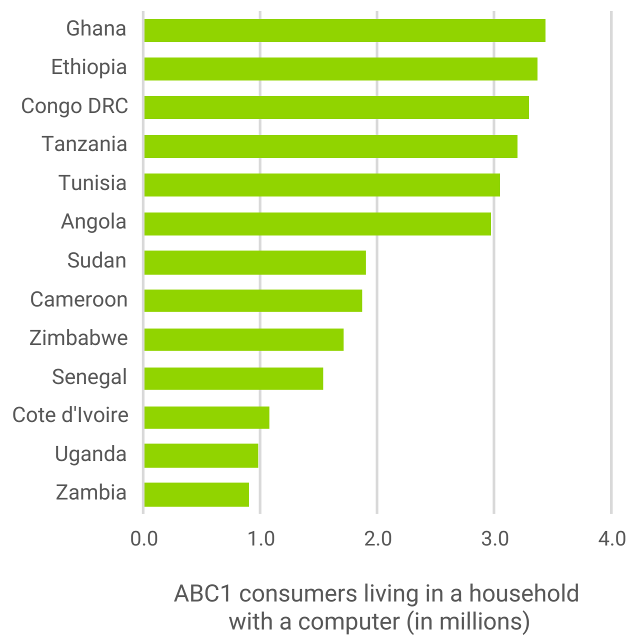


Africa's Consumer Class: Car Ownership (in millions)



Source: Fraym

Africa's Consumer Class: Computer Ownership (in millions)



Note: No data on Kenya and Mozambique

COMPUTERS

Computers are a more elite asset than televisions, even among more affluent ABC1 consumers. Ownership largely remains constrained to younger and more educated professionals living in urban areas. Among the Frontier Fifteen markets, most countries have computer penetration rates between 30 percent and 40 percent. The high side outlier is Senegal at 72 percent, while Sudan is alone on the low side at just 22 percent. Among all Frontier Fifteen markets, approximately 24 million households own at least one computer, with the largest absolute markets in Ghana, Ethiopia, the DRC, Tanzania, Tunisia, and Angola.

FRAYM INSIGHT:
The largest urban Frontier Fifteen market: Kinshasa (2.3 million computers)

MOBILE PHONES

Mobile phones are a ubiquitous asset that cuts across nearly all geographic divides, such as primary and secondary cities, and most rural areas. This asset is a primary vehicle for a wide range of consumer behavior, whether accessing media content, conducting payment transactions, or other financial services. Among the Frontier Fifteen markets, nearly all ABC1 consumers own at least one mobile phone. For instance, ownership rates are the lowest in Sudan, where the rate is still 96 percent.

TELEVISIONS

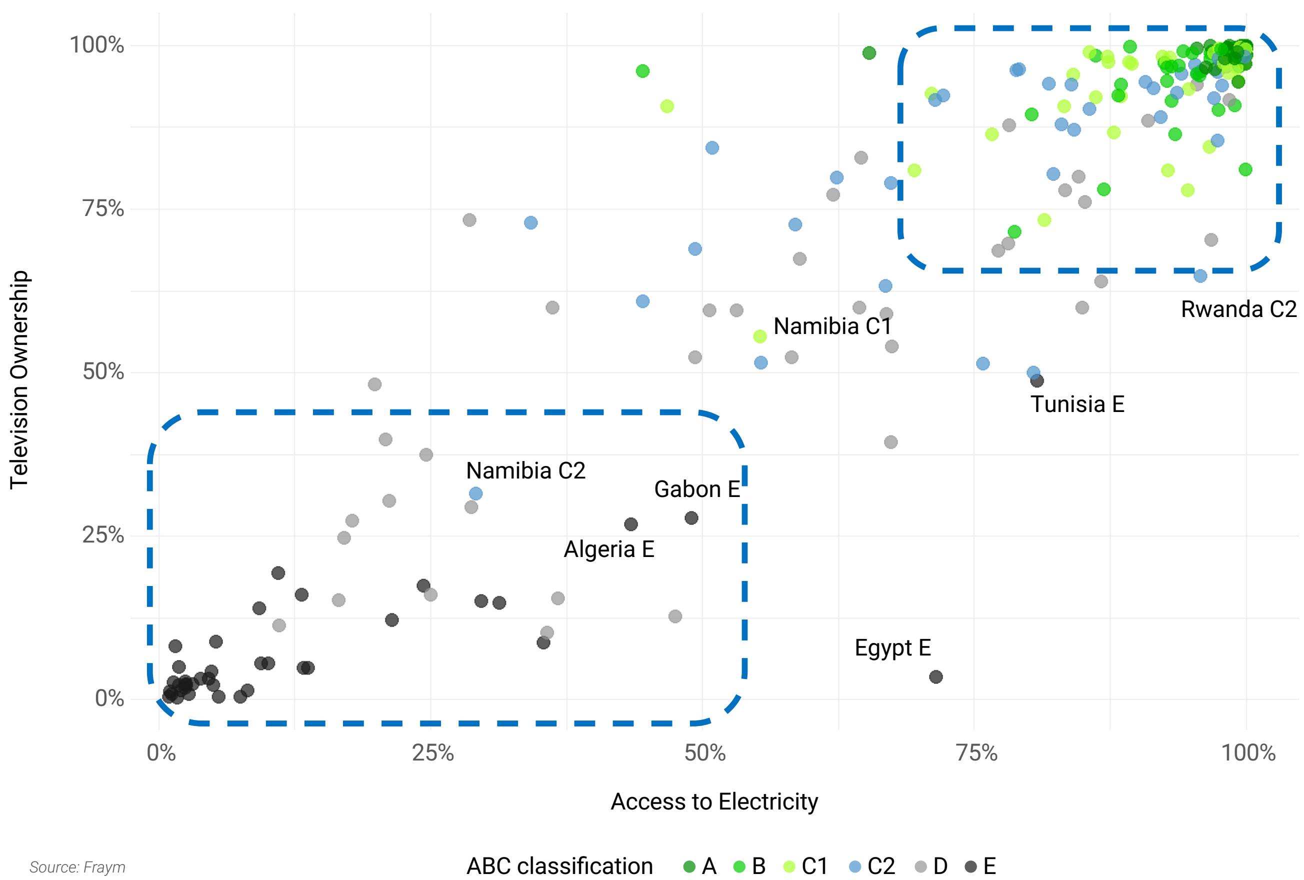
Televisions are a hugely popular appliance across the continent. Even with the rise of mobile-enabled devices, they remain an important channel for brand and marketing campaigns as well as for content providers and pay-tv companies.

Eleven of the Frontier Fifteen have Consumer Class TV ownership rates above 95 percent, making them nearly universal forms of media consumption. Uganda is the lowest among the group at a still relatively high 88 percent. In absolute terms, Ethiopia is the largest market with more than 9 million ABC1 households that own a television, closely followed by Angola. Ghana, Tunisia, Kenya, Sudan, Tanzania, and DRC each have at least 7 million televisions within Consumer Class households.

Box #3: Access to Electricity versus Television Ownership

Television is an asset that cuts across consumer classes (see page 31). The image below shows the rate of household television ownership and access to electricity, segmented into each of the six consumer classes by country. The large cluster of data points in the upper right corner tells an important story: nearly all households with electricity also own a television, with even C2 and D mass market consumers demonstrating relatively high rates of television ownership. At the same time, A, B, and C1 consumer groups all have very high television ownership rates, *including those without access to grid-based electricity*.[18] This all suggests that consumers across all classes appear to prioritize television, even where they do not have regular grid-based electricity. The exception appears to be the E consumer segment. The cluster in the lower-left corner show that E consumers tend to have neither electricity nor own a television in their home.[19]

Africa's Consumer Class: Access to Electricity vs. Television Ownership



Source: Fraym

Contrasting Media Patterns: The Tale of Many Congos

Media consumption patterns often vary dramatically by geography, by type, and across different consumer segments. Understanding these differences is critical for sizing the content market and determining optimal advertising strategies.

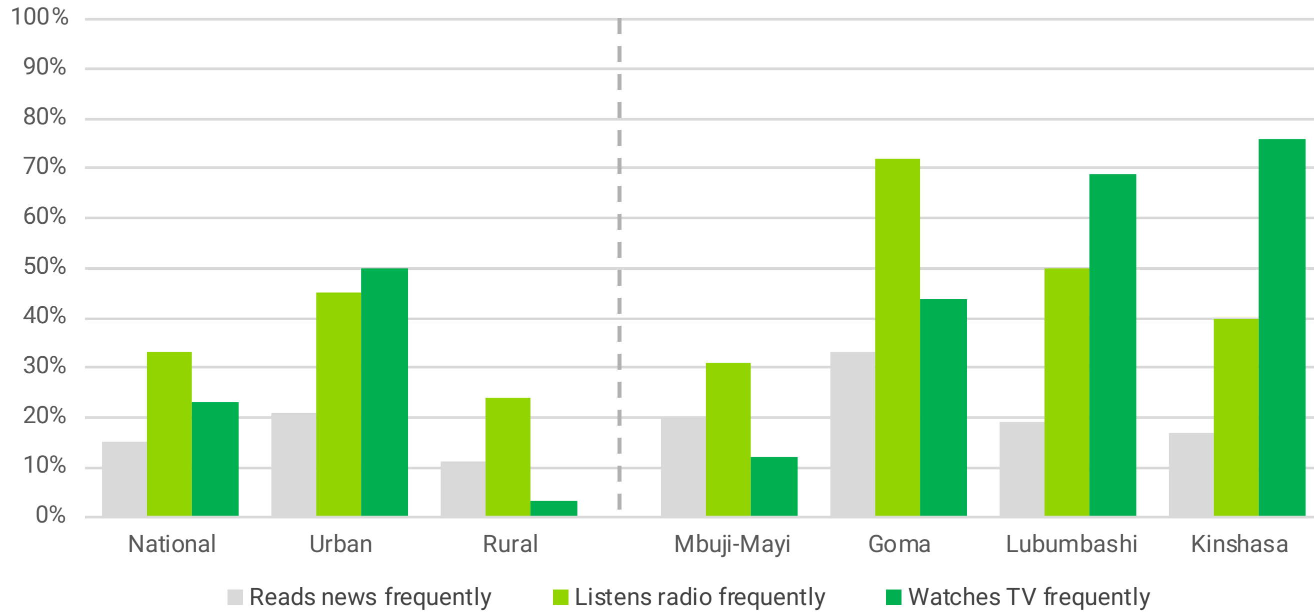
The DRC highlights these stark differences. Nationally, only 23 percent of Congolese watch television regularly. Yet, 50 percent of urban Congolese are regular television viewers. We find wide variations even across these Congolese urban centers, such as: Mbuji-Mayi (12 percent), Goma (44 percent), Lubumbashi (69 percent), and Kinshasa (76 percent). In stark contrast, regular TV viewership falls to only 3 percent in rural areas.

There are similar variations across other media consumption types, such as radio and newspapers. For instance, radio clearly is the most common form of media for rural Congolese, but still only one-in-four households are regular listeners. On the other hand, we find high listenership rates in select cities—such as Goma (72 percent) and Lubumbashi (50 percent)—particularly when compared to the national urban average (45 percent) or even Kinshasa (40 percent). Newspaper readership is almost universally low in the DRC. Although, yet again, there are isolated pockets where regular print media consumption deviates from national or urban trends, such as in Goma (31 percent).[20]

These media consumption patterns are evident when we look across different consumer segments as well. Nearly 90 percent of premium A segment households watch television regularly, while viewership falls below 50 percent for D consumers and is just 7 percent for E consumers. Also, weekly newspaper readership is 10 percentage points higher among ABC1 consumers than for C2DE consumers. Radio consumption is fairly even across the A, B, C1, C2, and D segments, ranging between 43 percent of 50 percent of respective households. However, it is nearly one-half that size for E consumers (27 percent).

These trends demonstrate that there are multiple Congolese media markets. In fact, each city and each media format must be examined in isolation. For consumer-facing companies, this means significantly more complex brand awareness campaigns that simultaneously rely upon different media formats in different geographies.

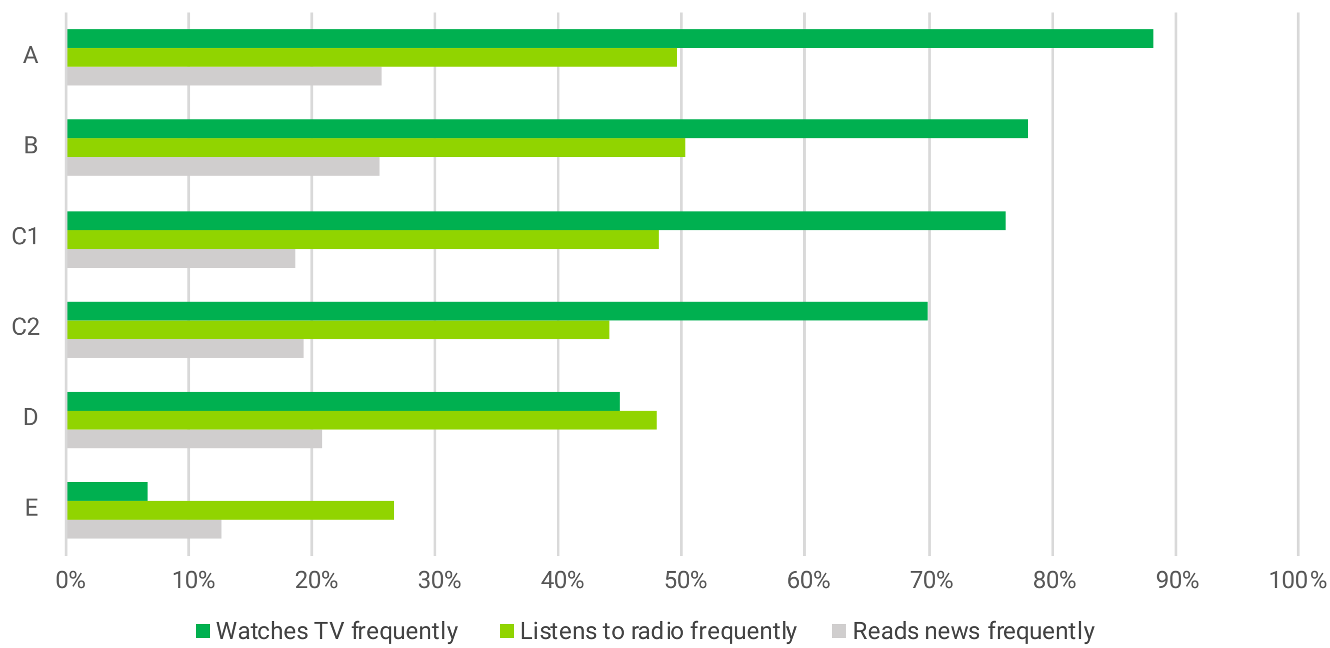
Figure 18. Media Consumption by Type, DRC (National) and Select Congolese Cities



Note: Frequent media consumption refers to consuming media at least once a week or more.

Source: Fraym

Figure 19. Media Consumption by ABC Classification, DRC (National)



Note: Frequent media consumption refers to consuming media at least once a week or more.

Source: Fraym

Conclusion

African consumer power is growing in dynamic and exciting ways. Population growth and rising incomes are swelling the ranks of the Consumer Class, while urbanization and technology are swiftly shifting consumption habits. Companies that want to take advantage of these opportunities need deep insights that capture these trends. The *Fraym ABC Classification System* is a powerful new tool to identify and locate Africa's dynamic Consumer Class.

Using this approach, Fraym has found 330 million ABC1 consumers across the African continent. We can identify them, pinpoint their locations, analyze what they buy, and tell you what is in their homes. As the continent adds half a billion new consumers in the next dozen years, as people move to the cities and become wealthier, and as technology and customer preferences alter the way they spend money, a data-driven approach is no longer optional.

Appendix: Methodology

In this report, Fraym defines and sizes the Consumer Class across the African continent by utilizing the ABC approach for initial consumer segmentation purposes. The *Fraym ABC Classification System* builds upon existing consumer identification systems and adapts them to regional contexts. Specifically, Fraym utilizes an adapted version of India's New Consumer Classification System (NCCS), which segments households based upon asset ownership and educational levels.

- **Asset Ownership:** Households are classified based on their ownership of eleven potential assets. Assets fall into two broad categories: durables (e.g., refrigerators and televisions) and household characteristics (e.g., piped-in water and agricultural land). Fraym conducts detailed assessments of asset ownership patterns both within and across countries to ensure accurate purchasing power distribution patterns.
- **Education Levels:** Fraym classifies households into six education levels based on the head of household's educational attainment, number of years of schooling, and/or any degrees awarded.

The household-level results are categorized according to the detailed consumer segment brackets ranging from A1 to E3. These brackets are then aggregated into six standardized categories, which are as follows: A, B, C1, C2, D, and E.

The classification results draw upon nearly 580,000 household observations across the continent. All household-level data is derived from professionally-enumerated surveys conducted by official agencies and their international partners. Before usage, each survey was subjected to Fraym's rigorous quality assurance and control standards. Benin and Togo provide an example of this potential. These two countries have fewer than 2 million ABC1 consumers, which is unlikely to attract major prioritized investments by themselves. However, they are located between Nigeria (a Front Five market) and Ghana (a Frontier Fifteen market), which are all connected by a road corridor that continues on to Abidjan in Côte d'Ivoire. This trans-national highway passes through their major cities of Cotonou and Lomé—home to roughly half a million ABC1 consumers—which could be served by Accra- or Lagos-based operations. .

Endnotes

1 World Bank (2018). *World Development Indicators*.

2 United Nations (2018). *World Urbanization Prospects: The 2017 Revision*.

3 "The Age of Analytics: Competing in a Data-Driven World," *McKinsey Global Institute,* December 2016.

4 "The Middle of the Pyramid: Dynamics of the Middle Class in Africa," *African Development Bank*, April 20, 2011.

5 For instance, the AfDB methodology applied purchasing power parity (PPP) adjustments. These PPP exchange rates are available only at the national level.

6 "Understanding Africa's Middle Class," *Standard Bank*, June 2014.

7 For another income-based example, see "A Global Middle Class is More Promise than Reality," *Pew Research Center,* August 2015.

8 "African Lions: Who are Africa's Rising Middle Class?" Ipsos, 2018.

9 See the Methodology appendix for further details.

10 The notable outlier is oil-rich Gabon, which has a small elite ABC1 group and very large numbers of D and E consumers.

11 Alcohol includes spirits, wine, foreign and domestic beer, and local brews.

12 Major urban centers are defined as cities with populations more than 300,000 people.

13 Meanwhile, we find very different trends in other African countries with either higher income levels or much lower urbanization rates. For instance, in Algeria, only 15 percent of its total ABC1 consumer population is concentrated in major urban centers. In Morocco, Ethiopia, and Tunisia, the proportion of the Consumer Class in urban clusters is less than 30 percent.

14 "Organizing for Growth: How the Global 500 operate in the Middle East & Africa region," *Infomineo*, May 2018.

15 "Organizing for Growth: How the Global 500 operate in the Middle East & Africa region," Infomineo, May 2018.

16 In this instance, Angola, Malawi, Mozambique, Namibia, and Zambia make up the select Southern Africa region.

17 "In Egypt, The High Cost of Romance Is Crippling Hopes of Marriage," *NPR*, October 15, 2016

18 Namibia is a lone outlier with unusually low television and electricity rates for both C1 and C2 segments.

19 The main exception is Tunisia, where 80 percent of E consumers have electricity and roughly only half own a television as well.

20 Additional Congolese cities with higher newspaper readership levels include: Kananga (35 percent) and Kikwit (27 percent).

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