



Vivid Economics has worked with Lighting Global to develop both the original PAYGo MAI index in 2018 and this 2019 update



Ed Day - Vivid Economics

Ed has a decade's experience in economic advisory services, including long and short term assignments across Sub-Saharan Africa and South Asia. His focus at Vivid has been on the development of innovative energy access business models, how these can be financed, and the benefits of improved energy access to recipients. He led the development of the 2018 PAYGo Market Attractiveness as well as this update. Other clients Ed has worked with on energy access issues have included UN agencies, the African Development Bank, the World Bank's ESMAP programme, GOGLA and private solar energy providers.



Caroline Stuyt – Vivid Economics

Caroline has over seven years of experience working on sustainable energy and infrastructure projects. Her energy access work includes a study for the Gold Standard Foundation on valuing the co-benefits from improved cooking solution (ICS) projects in developing countries, a report on new metrics to capture the full range of impacts of energy services in the distributed economy in Africa, international case studies for Vivid's engagement in Bangladesh mobilising private investment for distributed energy business models and an estimate of the employment and income effects of the off-grid solar value chain, including solar irrigation. Caroline led a focus on Asian markets in the 2019 PAYGo Market Attractiveness Index.

2019 PAYGo Market Attractiveness Index launched by Lighting Global: new resources include Excel tool and insight reports

- The PAYGo Market Attractiveness Index covers 24 countries across Africa and Asia
- Sets out attributes which may make country markets particularly attractive for PAYGo sales
- Helps identify priority areas for policy to improve market conditions and remove barriers
- Dynamic Excel interface to provide overview of default results while giving flexibility to investigate areas of interest in more detail



Learn more and download the 2019 PAYGo MAI tool and reports at <https://www.lightingglobal.org/resources/>

PAYGo Market Attractiveness Index SUMMARY RESULTS

PILLAR DISPLAY

OVERALL SCORE

COUNTRY HIGHLIGHT

Uganda

User-defined inputs are highlighted with a yellow background. Please define selection of overall scores or the three main pillar scores to display under 'PILLAR DISPLAY' dropdown. Select a country to highlight under 'COUNTRY HIGHLIGHT' dropdown and press the key 'Delete' in the drop-down to turn off country highlight. Please define weights for each pillar, and each sub-pillar, in 'USER DEFINED WEIGHTS', or click "Reset Weights" on the right to go back to default weights.

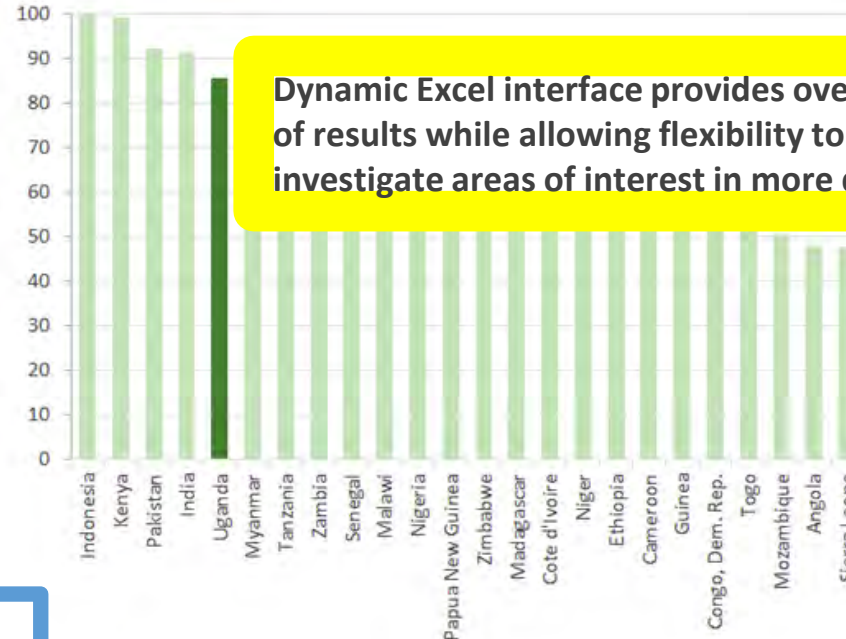
Reset Weights

HIGHER SCORE INDICATES BETTER PERFORMANCE

Uganda scores 86/100 and ranks 5 out of 24 countries in OVERALL SCORE, based on the user-defined weights.

OVERALL SCORE

Rank	Country	Score
1	Indonesia	100
2	Kenya	99
3	Pakistan	92
4	India	92
5	Uganda	86
6	Myanmar	85
7	Tanzania	81
8	Zambia	80
9	Senegal	79
10	Malawi	76
11	Nigeria	74
12	Papua New Guinea	73
13	Zimbabwe	71
14	Madagascar	68
15	Cote d'Ivoire	65
16	Niger	65
17	Ethiopia	64
18	Cameroon	62
19	Guinea	60
20	Congo, Dem. Rep.	54
21	Togo	53
22	Mo	
23	An	
24	Sie	



Dynamic Excel interface provides overview of results while allowing flexibility to investigate areas of interest in more detail

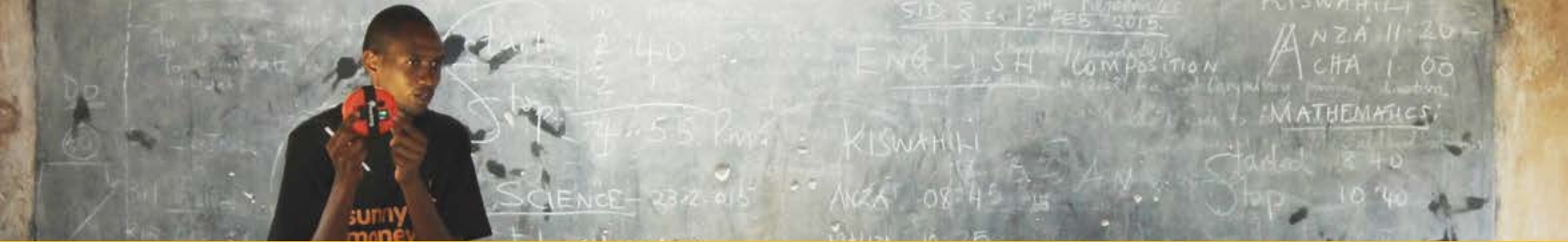
USER-DEFINED WEIGHTS

DEMAND SCORE	20%
Market size	40%
Ability to pay	30%
Willingness to pay	30%
SUPPLY SCORE	50%
Access to finance	30%
Operational Considerations	30%
Market penetration	20%
Human Capital	20%
ENABLING ENVIRONMENT SCORE	30%
Legal & Regulatory	50%
Trade & Commerce	30%
	20%

The PAYGo Market Attractiveness Index covers 24 countries across Africa and Asia

Sets out attributes which may make country markets particularly attractive for PAYGo sales

Helps identify priority areas for policy to improve market conditions and remove barriers



**2019 PAYGo MAI:
71 indicators, 24 countries**

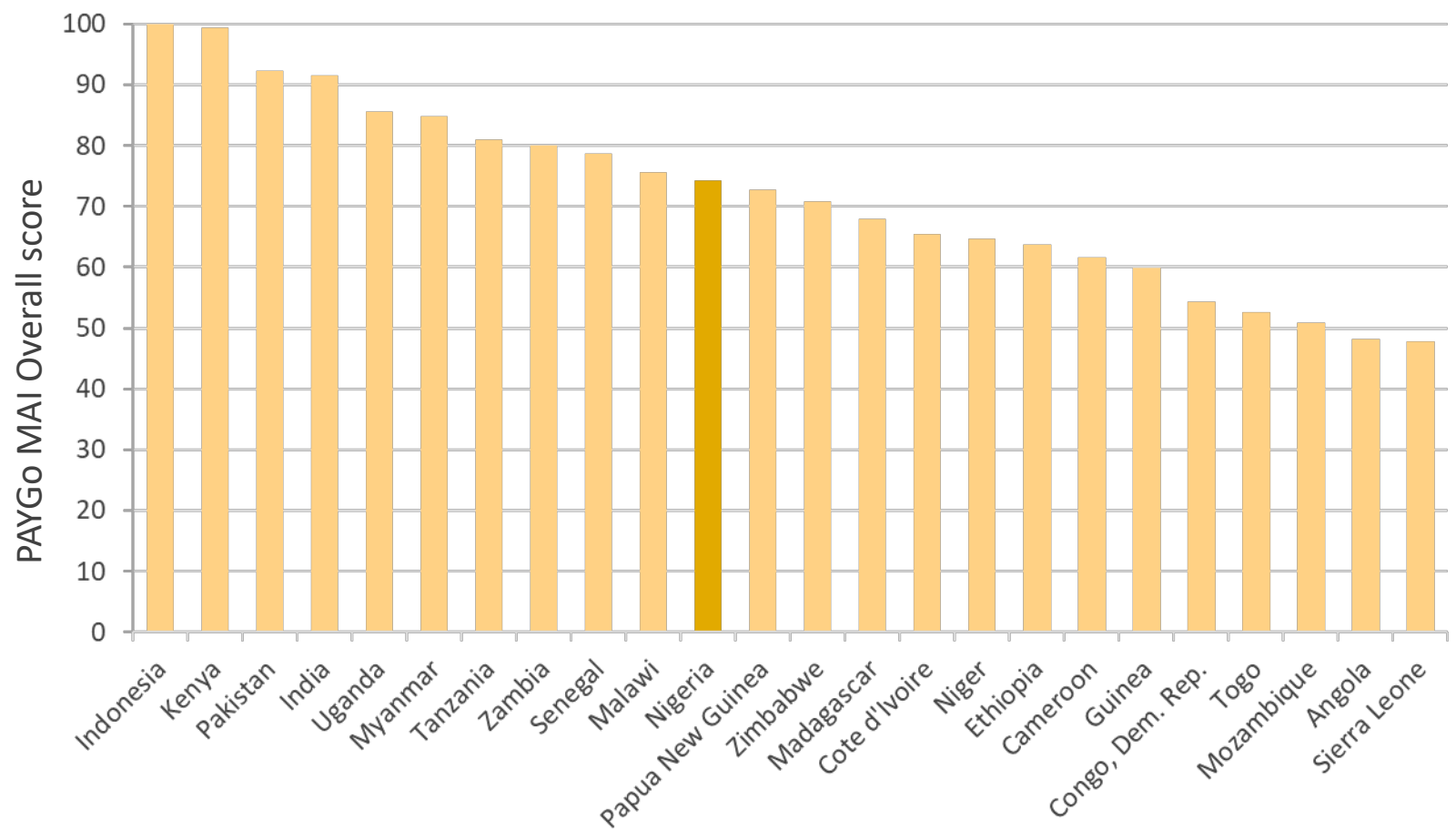


The PAYGo MAI compares 24 national markets in sub-Saharan Africa and Asia across ten sub-pillars covering drivers of Demand, Supply, and the Enabling Environment in the PAYGo market

Download the 2019 PAYGo MAI tool and reports at <https://www.lightingglobal.org/resources/>



2019 PAYGo MAI:
Nigeria country focus



The 2019 PAYGo MAI includes a country focus on Nigeria which explores market trends and business models in the PAYGo market, such as:

- use of PAYGo technologies to serve urban markets with unreliable grid connections
- partnerships with mobile and financial services companies to deliver PAYGo services under existing regulations

Download the 2019 PAYGo MAI tool and reports at <https://www.lightingglobal.org/resources/>

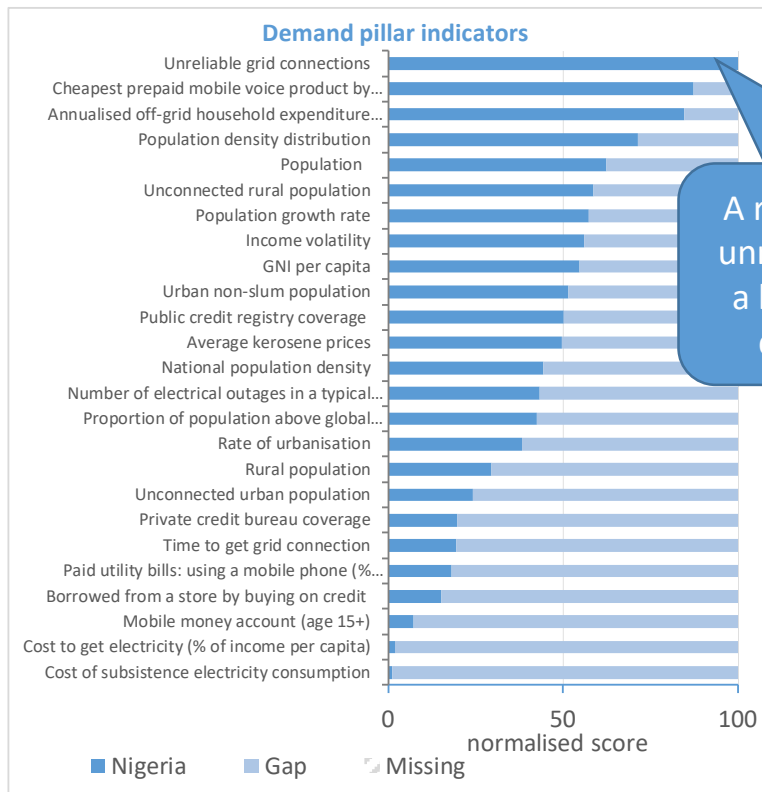


2019 PAYGo MAI:
Excel tool outputs

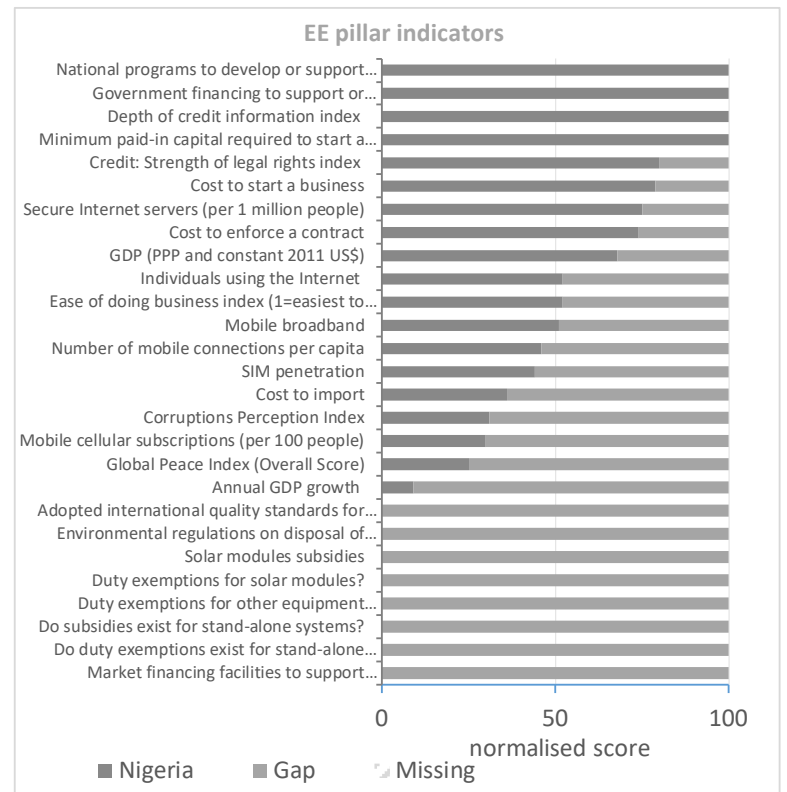
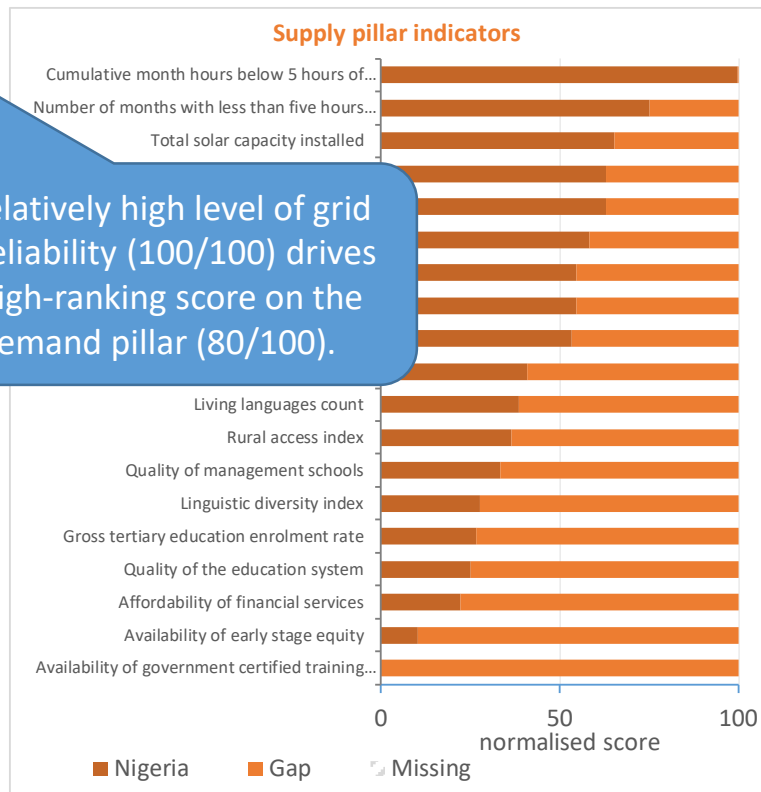
	Demand	Supply	Enabling Environment
Angola	Light Green	Orange	Light Green
Cameroon	Light Green	Orange	Light Green
Congo, Dem. Rep.	Light Green	Orange	Light Green
Cote d'Ivoire	Light Green	Orange	Green
Ethiopia	Light Green	Light Green	Light Green
Guinea	Orange	Light Green	Light Green
India	Light Green	Green	Green
Indonesia	Light Green	Green	Green
Kenya	Green	Green	Green
Madagascar	Light Green	Green	Light Green
Malawi	Green	Light Green	Light Green
Mozambique	Orange	Orange	Light Green
Myanmar	Light Green	Green	Green
Niger	Light Green	Light Green	Light Green
Nigeria	Green	Light Green	Light Green
Pakistan	Green	Light Green	Light Green
Papua New Guinea	Light Green	Green	Light Green
Senegal	Light Green	Light Green	Light Green
Sierra Leone	Light Green	Orange	Light Green
Tanzania	Light Green	Green	Light Green
Togo	Light Green	Orange	Light Green
Uganda	Green	Green	Light Green
Zambia	Light Green	Green	Light Green
Zimbabwe	Orange	Light Green	Light Green

- Indonesia is ranked at the top of the overall index and Kenya scores high across all three pillars
- Of new countries added to the PAYGo Index from the 2018 version, Asian markets score relatively highly
- Scores across enabling environment pillar can be used to identify policy gaps and examples of high scoring countries

PAYGo MAI – Nigeria country example



A relatively high level of grid unreliability (100/100) drives a high-ranking score on the demand pillar (80/100).



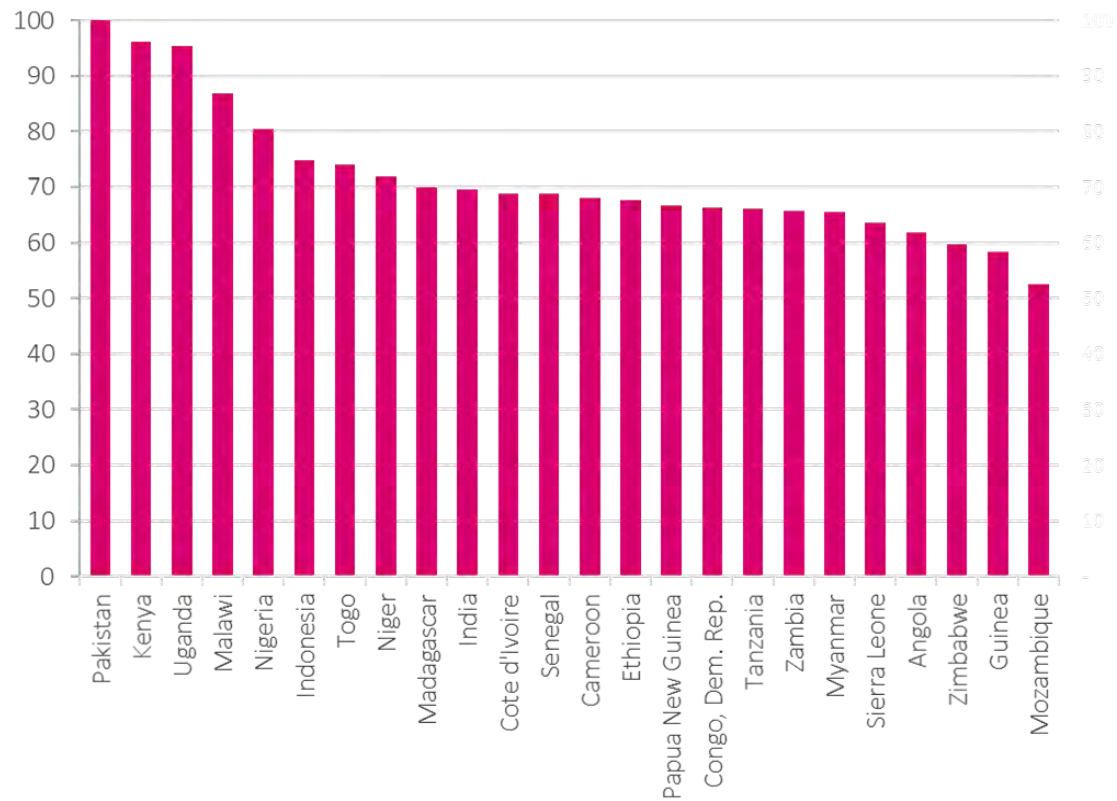


Findings across the index countries

- PAYGo sales and use of mobile money technologies are growing across the index countries
- Early adopters like Kenya are deepening their markets
- In Asia, micro-credit and credit bureaus are providing a rapidly increasing route to market for potential PAYGo customers
 - In Myanmar, modest PAYGo sales have grown from 4,000 units in H2 2017 to 27,000 in H2 2018
 - Pakistan's relatively high score for access to finance for businesses, significant amounts of installed solar capacity and operational considerations for PAYGo solar power generation outweigh relatively low PAYGo market penetration to date to produce a highly ranked supply pillar score for Pakistan (97/100)



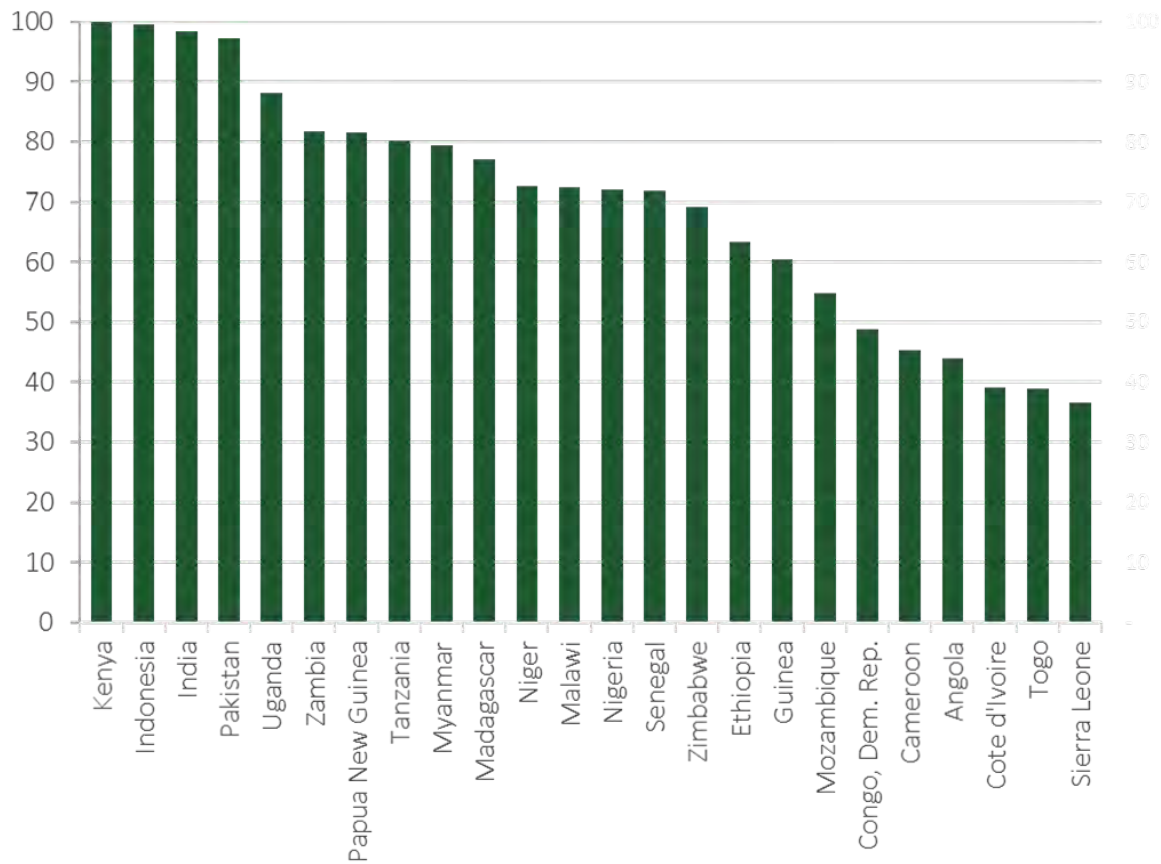
Demand pillar results



- Under the default weights, Pakistan receives the highest score in the demand pillar, followed by Kenya and Uganda
- Kenya received the highest score on willingness to pay indicators among the 24 countries
- Zimbabwe, Guinea and Mozambique have the lowest score on the demand side pillar, due to a relatively small addressable market, low GNI and low ability to pay
- Relatively even spread of demand pillar score across the countries



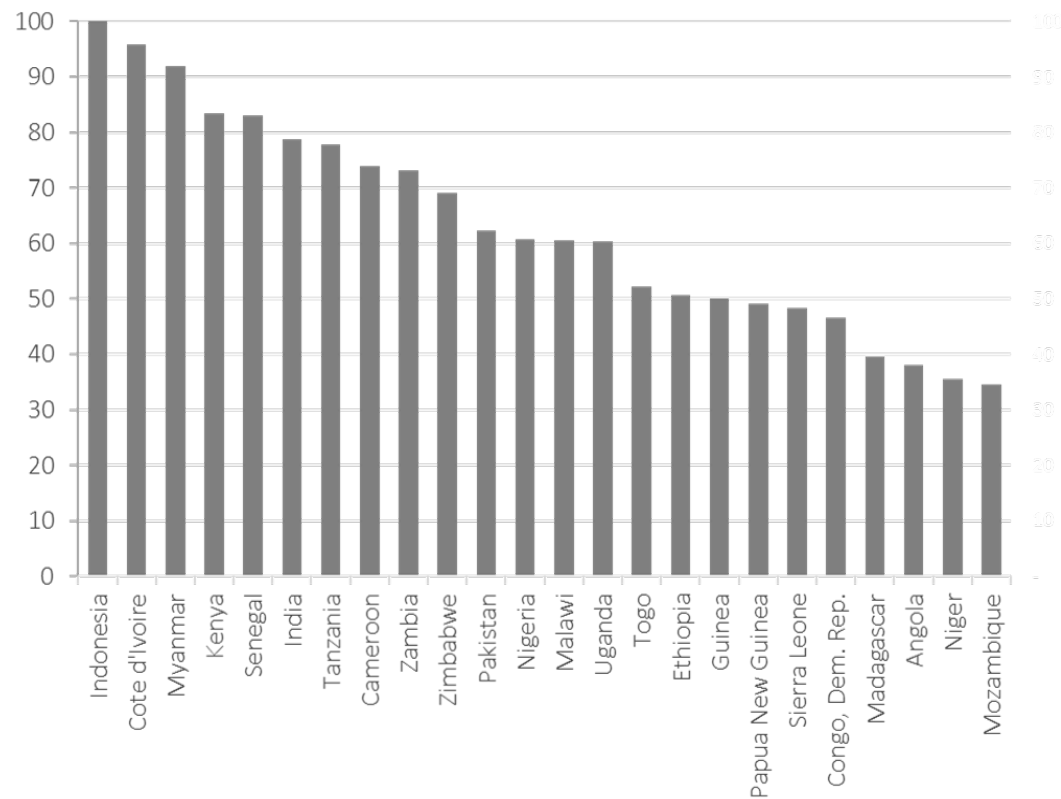
Supply pillar results



- Under the default weights, Kenya scores highest on the supply-side pillar, with large differences between the highest and lowest country scores
- Indonesia scores well on indicators around access to finance, as financial services are affordable and there is a good availability of early stage equity
- Cote d'Ivoire, Togo and Sierra Leone have the lowest supply side scores due to access to finance barriers, barriers to market penetration and operational issues, respectively



Enabling Environment pillar results

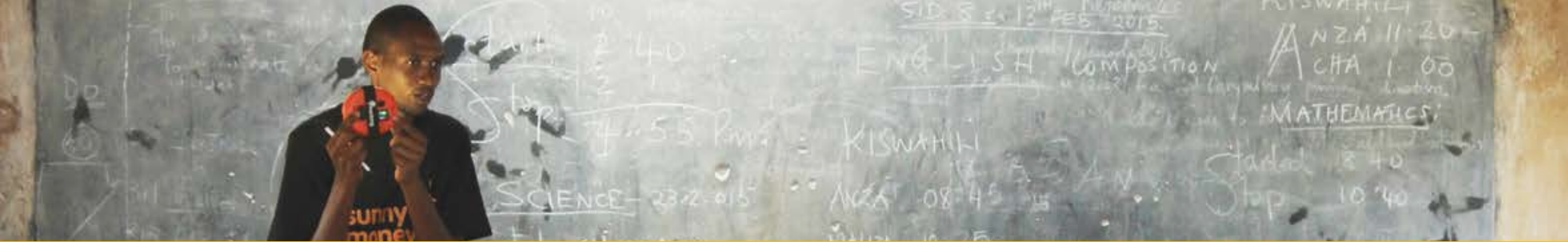


- Indonesia has the top score on the enabling environment pillar, mostly due to high share of mobile broadband coverage, SIM penetration and secure internet
- Niger and Mozambique have the lowest score, with low SIM penetration and mobile cellular subscriptions and high perception of corruption and low strength of legal rights
- There is a large spread of country scores for the enabling environment pillar



Emerging trends between
2019 and 2018 editions

- While the share of population in rural areas is falling, in absolute terms rural populations are increasing and will remain a key market for off-grid solar PAYGo products
- As urban populations continue to grow faster than rural populations, grid reliability continues to represent a challenge across a number of countries, especially Nigeria, Pakistan and Papua New Guinea
- Access to and use of mobile money is increasing across all countries, but not at the same rate and is only widespread in a few locations
- Alternative payment mechanisms and business models are emerging to the ‘classic’ mobile money approach that enabled development of markets in East Africa
- Across countries included in the 2019 PAYGo MAI, sales of PAYGo products increased 10% between the first and second halves of 2018



Tool and reports available for download

Download the 2019 PAYGo MAI tool and reports at <https://www.lightingglobal.org/resources/>



Pay-As-You-Go Market Attractiveness Index 2019



Home > Resources > Market Analysis Reports > PAYGo Market Attractiveness Index 2019

PAYGo Market Attractiveness Index 2019

June 14, 2019



PAYGo MARKET ATTRACTIVENESS INDEX (2019)
Lighting Global has released the 2019 version of the Pay-As-You-Go Market Attractiveness Index (PAYGo MAI) for 24 countries across Sub-Saharan Africa.





Lighting Global