Representivity Report—
DYNAMIG Work Package 3

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This report aims to evaluate the representativity of the data collected for Work Package 3 of the EU HORIZON project "DYNAMIG" on migration decision making, which uses social media (Meta) to recruit survey participants. We analyze official statistics and existing survey data, such as Gallup World Poll and Afrobarometer, for our target countries Kenya, Morocco, Nigeria, Tunisia, and Senegal. We document selection patterns when relying solely on individuals with internet access in existing and our own preliminary survey data from Kenya and Nigeria and discuss the implications for data-driven analysis.

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About the authors

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Introduction

Ensuring sample representativeness is critical for the validity of any project relying on data-driven insights. This report aims to evaluate the representativity of the data collected for DYNAMIG in Work Package 3 using social media to target individuals. We examine how well our potential sample reflects the target population. Representativity is essential to minimize bias and ensure the validity of conclusions and recommendations derived from the data. Thus, we compare the sample characteristics of people having internet access to those having no access using existing survey data from Gallup World Poll and Afrobarometer.

This report involves four key steps. First, we briefly lay out the methods used to obtain our own survey data, including which part of the population was targeted. Second, we obtain and analyze official statistics of our target countries Kenya, Morocco, Nigeria, Tunisia, and Senegal. Third, we assess whether relying solely on individuals with internet access (and therefore social media users) introduces significant selection bias, based on existing survey data. Fourth, we discuss the implications, such as selection effects, of using Meta as a recruitment platform based on 12,300 observations from our most recent survey in Kenya and Nigeria.

Using official statistics, we document macro-level differences between the five countries focused on in the DYNAMIG project. Our descriptive analysis of existing survey data highlights selection patterns and therefore potential bias when relying on internet-based sampling such as via social media. Compared to the general population, individuals with internet access are younger, more educated, more urban, more likely to be male, and more optimistic about economic prospects. They

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also report higher migration aspirations, which is especially important in the context of the DYNAMIG project, which aims to strengthen the understanding of how people make decisions on whether and how to migrate. We also document selection patterns in the preliminary survey data from Kenya and Nigeria, which we are gathering via the social media platform Meta. Since selection produces samples that overrepresent individuals with high migration aspirations, they provide a valid basis for migration research and data-driven policy advice. However, extrapolation to the general population should be undertaken with caution.

Methodology and target population

Our sampling strategy was designed to ensure sufficient variation to enable studying heterogeneity within our target population, which consists of individuals aged 18-40. The study focuses on individuals in the 18-40 age group, as this demographic represents the peak age for migration in developing countries (McKenzie, 2008). Within this group, we plan to capture both potential migrants and individuals with no intention to migrate, allowing us to investigate the heterogeneity in decision-making and capture a diverse set of migration experiences and decision-making processes. Previous studies, including Migali and Scipioni (2019) and Aslany et al. (2021), have shown that heterogeneity in migration aspirations can be attributed to further micro-level characteristics, such as gender, income, and education. In related work, we document these patterns specifically for the DYNAMIG focus countries using Gallup data from 2020-2023, showing that age, gender, education, and internet access are correlated with migration aspirations (Detlefsen and Marten, 2025).

To address our research questions, conduct experiments, and capture sufficient heterogeneity, we required a large-scale dataset spanning diverse contexts. Hence, we used social media websites to recruit participants. The use of social media platforms for surveys is a recent development, offering researchers the potential to conduct surveys at lower costs than before. Following the approach of Offer-Westort, Rosenzweig and Athey (2024), participants who completed the survey received compensation in the form of mobile phone airtime (equivalent to about

$0.70) sent to their phone, delivered via the service provider Engagespark. Participants were informed of the compensation amount at the start of the survey to ensure transparency. To ensure data quality, we incorporated several diagnostic and exclusion criteria. These included attention and comprehension checks throughout the questionnaire. Respondents who completed the survey in implausibly short durations (e.g., under five minutes) or who gave clearly inconsistent or patterned responses were excluded from the final dataset.

The social media platform we use for reaching out to participants is Metas Facebook Ad Manager. We filter for individuals that are 18–40 years old in the corresponding online tool and obtain lower and upper bound estimations of the size of the target group. Table 1 presents the estimations by country and gender. We calculate mean estimations in columns (1), (5) and (8) as well as the relative size of the mean total target group in column (4). Pooled across the five focus countries the estimations suggest that 10.12 % of the total population belong to our target group. In all five countries the target group is unbalanced by gender and dominated by males.

Table 1: Estimated size of the target group at age 18–40

	Total				Male			Female		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Kenya	6.100.000	6.600.000	5.600.000	10.85	3.350.000	3.600.000	3.100.000	2.700.000	2.900.000	2.500.000
Nigeria	16.350.000	17.700.000	15.000.000	7.13	9.300.000	10.100.000	8.500.000	7.050.000	7.600.000	6.500.000
Senegal	2.150.000	2.300.000	2.000.000	11.80	1.400.000	1.500.000	1.300.000	791.150	855.300	727.000
Morocco	8.850.000	9.600.000	8.100.000	23.16	5.400.000	5.800.000	5.000.000	3.500.000	3.800.000	3.200.000
Tunisia	3.250.000	3.500.000	3.000.000	15.63	1.650.000	1.800.000	1.500.000	1.550.000	1.700.000	1.400.000
$\sum$	36.700.000	39.700.000	33.700.000	10.12	21.100.000	22.800.000	19.400.000	15.591.150	16.855.300	14.327.000
Estimation:	Mean	Lower Bound	Upper Bound	% of Population	Mean	Lower Bound	Upper Bound	Mean	Lower Bound	Upper Bound

Note: Predicted target groups when filtering for all languages and age between 18 and 40 years in the Facebook Ad Manager. Facebook provides only a lower and an upper bound estimation. Column (4) indicates the total target group as a share of 2024 population. Source: Facebook Ad Manager, Accessed 15.01.2025.

Official statistics

In a first step of checking representativity, we provide an overview of official country-level data for the target countries: Kenya (1), Nigeria (2), Tunisia (3), Senegal (4), and Morocco (5). Building on this official data, the next section will then compare survey data from already existing surveys for these countries.

Table 2 summarizes key demographic, economic, and migration statistics compiled from World Population Prospects (UN DESA, 2024), World Development Indicators (World Bank, 2024), and International Migrant Stock 2020 (UN DESA, 2020). Additionally, the analysis incorporates the Corruption Perceptions Index (CPI) from Transparency International (2023). In terms of demographics, Nigeria is by far the most populous country (229.15 million), followed by Kenya (56.2 million) and Morocco (38.21 million). The least populous countries are Tunisia (12.56 million) and Senegal (18.22 million). The proportion of females in the population is consistent across countries, ranging from 49.44% in Nigeria to 50.8% in Senegal. The proportion of the young adult population (18–40 years) is also consistent, from 33.5% to 31.04%, with Kenya as an outlier at 36.27%. Greater cross-country disparities are observed in the level of urbanization. Tunisia (70.88%) and Morocco (65.64%) exhibit high levels of urbanization, whereas Kenya remains predominantly rural (69.95%).

Tunisia and Morocco lead in economic output per capita (current $US) with $3,895 and $3,672, respectively. GDP per capita is approximately half as much in Nigeria ($1,621), Kenya ($1.949), and Senegal ($1.745). Consumer price inflation is highest in Nigeria at 24.65%, while it ranges from 6.09% to 9.32% in the other countries.

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Consumer price inflation data was not available for Senegal. Perceived corruption, as measured by the Corruption Perceptions Index (CPI), is highest in Morocco and Tunisia, followed by Senegal. Nigeria and Kenya record substantially lower CPI.

Morocco and Tunisia have lower birth rates (17.16 and 15.6) compared to the other countries, which range from 27.54 to 36.31. Death rates, excluding Nigeria (12.43), are relatively similar across countries, ranging from 5.55 to 7.83. Fertility rates are highest in Nigeria (5.14) and Senegal (4.41) and lowest in Morocco (2.3) and Tunisia (2.06). Nigeria reports the lowest life expectancy at birth, at only 53.63 years. Kenya (62.06) and Senegal (67.91) fall in the middle, while Tunisia and Morocco lead with life expectancies exceeding 74 years. Infant mortality rates follow a similar trend, showing significant variation from 9.9 in Tunisia to 68.5 in Nigeria.

Turning to migration, all five target countries exhibit negative net migration, though their migration patterns differ considerably. In absolute terms, Morocco has the largest number of emigrants, at 3.26 million, followed by Nigeria with 1.67 million emigrants. However, in relative terms, emigrants from Nigeria constitute less than one percent of the total population. By contrast, Tunisia (7.18%), Senegal (3.81%), and Morocco (8.54%) record high relative shares of emigrants. Migration stocks also show notable differences when focusing on migrant populations in Europe. Of all Moroccan emigrants, 89.21% reside in Europe, as do 73.51% of Tunisian emigrants, equating to 663,232 Tunisian and 2,910,179 Moroccan emigrants in Europe. In comparison, only half of the 693,765 Senegalese emigrants migrated to Europe, with even smaller proportions for Kenya (35.06%) and Nigeria (28.33%).

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Table 2: Official country level statistics

	(1) Kenya	(2) Nigeria	(3) Tunisia	(4) Senegal	(5) Morocco
Population (in millions), 2024	56.2	229.15	12.56	18.22	38.21
Females, (%), 2024	50.45	49.44	50.70	50.8	49.7
Urban, (%), 2024	30.05	55.03	70.88	50.08	65.64
Rural, (%), 2024	69.95	44.97	29.12	49.92	34.36
Age 18–39, (%), 2024	36.27	32.21	31.04	33.5	33.05
GDP p.c. (current $US), 2024	1.949.89	1.621.12	3.895.38	1.745.97	3.672.11
Inflation (consumer prices, %), 2024 %,	7.67	24.65	9.32	N/A	6.09
Corruption Perception Index (CPI), 2023	31	25	87	70	97
Birth rate per 1,000 people, 2022	27.54	36.61	15.6	32.07	17.16
Death rate per 1,000 people, 2022	7.83	12.43	7.60	5.55	5.77
Fertility rate (births per woman), 2022	3.30	5.14	2.06	4.31	2.30
Life expectancy at birth (years), 2022	62.06	53.63	74.26	67.91	74.97
Mortality rate, infant (per 1,000 live births), 2022	30.5	68.5	9.9	28.2	14.8
Total Emigrant Stock, 2020	535.348	1.670,455	902.268	693.765	3.262,222
Migrants in Europe, 2020	187.678	473.250	663.232	333.550	2.910.179
Emigrants, (% of total population)	0.95	0.73	7.18	3.81	8.54
Migrants in Europe, (% of total Emigrants)	35.06	28.33	73.51	48.08	89,21
Net Migration, 2022	-10.000	-59.996	-4.000	-19.999	-39.998

Note: World Population Prospects (UN DESA, 2024), World Development Indicators (World Bank, 2024), Transparency International (2023), International Migrant Stock 2020 (UN DESA, 2020).

We also collected time series data for country-level GDP per capita, inflation and corruption to understand country differences and common trends. The complete visualization and analysis was however delegated to the Appendix, Graph 4 because we cannot compare the insights to our own survey data.

Comparison of existing survey data

After the country overview, this Section provides a comparison of existing survey data. Graph 1 depicts the shares of individuals with internet access and those who own a mobile phone with internet access from 2015 to 2023 in the target countries (Kenya, Nigeria, Tunisia, Morocco, and Senegal) based on survey data from Gallup (2024). The blue line represents these trends for survey participants aged 18–40, while the red line reflects responses from all individuals, regardless of age.

Subgraph 1a shows that internet access increased from 20 percent to approximately 50 percent from 2015 to 2023. For individuals aged 18–40, internet access rose from 25 to 65 percent, following a similar trend at higher levels. Internet access via mobile phones, illustrated in Subgraph 1b exhibits a comparable pattern. From 2017 to 2023, the share of individuals owning a mobile phone with internet access increased from 39 percent to 55 percent for the total population. Among the 18–40 age group, this trend is similarly observed, with the blue line consistently 5–10 percentage points above the red line. By 2023, 65 percent of the younger population owned a mobile phone with internet access. Unlike the general internet access question, data on mobile phone ownership with internet access was first collected in the 2017 Gallup survey, explaining the absence of data for 2015 and 2016.

During the COVID-19 pandemic in 2020 internet access and internet-capable phone ownership spiked for a single year and then dropped slightly above pre-pandemic

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levels in 2021. Although not directly connected to our own data collection efforts, this indicates an overrepresentation of individuals with internet access during the pandemic in the data because Gallup interviews were conducted via telephone instead of face-to- face that year. Furthermore, the same pattern, prolonged to a two year spike, can be observed in Graphs 3 and 2 for Morocco, where telephone interviews were conducted in 2020 and 2021. If the overrepresented individuals also share other systematic traits, e.g., being younger or living more often in urban areas, relying on the 2020 data threatens to biased estimates, which should be accounted for when working with Gallup data from 2020.

Graph 1: Internet access across DYNAMIG's target population

(a)·Internet·access   →   (b)·Owns·internet-capable·mobile·phone¶
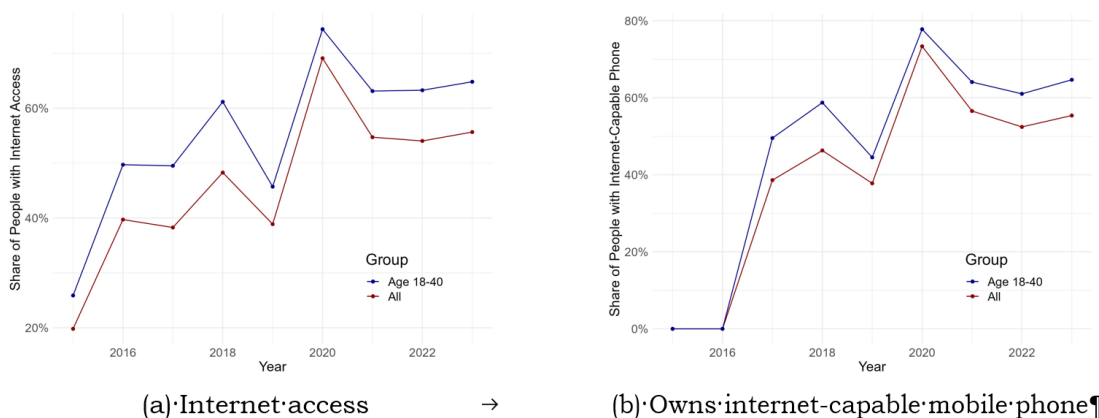
Note: **Internet access and access to mobile phones in DYNAMIG's target population (Kenya, Nigeria, Tunisia, Morocco, and Senegal) for individuals aged 18-40 from 2015-2023. The survey mode is face-to-face but was changed to telephone interviews for the year 2020 in all countries. In Morocco 2021 interviews were also conducted via telephone.**
Source: Gallup (2024)

Important for our study is whether the sample with internet access differs substantially from a full sample of people with and without internet access. For that purpose, we compare the weighted full sample to the weighted sample of people with internet access for our target countries combined. In the Appendix, we also provide country-specific comparisons. Table 3 provides an overview of the sample characteristics in 2023 relying on the Gallup World Poll data.

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Table 3: Representativity test DYNAMIG—Selected Gallup answer shares

Question	(1) Full Sample	(2) Internet Users	(3) Full Sample (w)	(4) Internet Users (w)	(5) Δ
Internet					
Access	60.99	100.00	55.65	100.00	44.35***
via Phone	60.51	91.34	55.39	90.21	34.82***
Demographics					
Age	35.93	32.85	35.98	32.18	-3.8***
Female	52.08	50.16	51.30	48.40	-2.9**
Income local	-	-	-	-	-
Income USD	7075	8384	6920	8490	1569***
Married	50.51	45.75	52.71	45.63	-7.08***
Single/Never Married	39.67	46.90	38.83	47.92	9.1***
Urban1 (original Gallup)	56.97	63.44	22.28	27.92	5.63***
Urban2 (city + suburb)	46.36	51.73	44.38	50.67	6.2***
Urban3 (city + suburb + villages)	75.24	79.67	73.42	78.28	4.85***
Education					
No formal	13.00	7.09	16.95	9.95	-7***
1-8 years	24.66	19.71	33.94	26.90	-7.04***
9 years secondary	40.08	42.55	35.01	41.63	6.62***
1-3 years tertiary	14.91	19.54	8.74	12.76	4.02***
4 years or more tertiary	7.04	10.95	4.98	8.49	3.51***
Likes Permanent Move	44.05	50.33	42.40	50.53	8.13***
Excellent/Good Economic Conditions	18.90	18.46	18.26	17.06	-1.2
Fair/PoorEconomic Conditions	79.31	80.39	80.13	81.96	1.83**
City Economy is Getting Better	29.50	32.61	29.58	32.23	2.65**
City Economy is Getting Worse	56.19	53.56	56.78	54.46	-2.32**
Standard of Living is Getting better	43.17	48.99	41.34	47.98	6.64***
Standard of Living is Getting worse	39.23	32.29	41.05	32.39	-8.66***
Satisfied with Standard of Living	53.68	57.16	52.53	56.34	3.81***
Satisfied with Overall City	66.19	66.50	66.30	66.36	0.06
Satisfied with Roads and Highways	43.35	42.39	42.94	42.66	-0.28
Satisfied with Educational System	49.03	48.63	48.73	48.57	-0.16
Satisfied with City Healthcare	41.32	41.41	41.38	41.08	-0.3
Satisfied with City Housing	41.68	41.99	41.25	40.23	-1.02
Feels Safe Walking Alone	57.66	58.69	58.22	60.17	1.95*
Confidence in National Government	43.33	40.90	35.31	30.75	-4.56***
Corruption Within Businesses	77.52	79.97	77.05	79.76	2.71***
Corruption in Government	81.48	83.31	64.42	62.94	-1.49
Lifeladder					
Today	5.70	5.95	5.62	5.95	0.33***
5 years ago	5.39	5.36	5.39	5.36	-0.02
in 5 Years	8.30	8.41	8.23	8.41	0.18*
Weights	No	No	Yes	Yes	
N. Obs.	5017	3060	5017	3060	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on Gallup survey data (Survey Wave 18.1). Age, income and Lifeladder are reported as averages. Column (5) is the difference between the weighted full sample and the subsample. Source: Gallup (2024).

We will describe the differences between the weighted samples. The non-weighted data is given additionally in rows (1) and (2). Generally, the sample with internet access is younger: 32.18 years old on average, compared to 35.98 years in the full sample, and consists of more men. Additionally, the sample has a higher income,

people are more often single, live in more urban places, and have a higher education. They also have more intentions to migrate.

A key concern for representativeness is whether individuals with internet access hold similar perceptions of their country's situation. Here, the sample with internet access is more positive about the current economic situation, as well as the future economic situation and the standard of living, compared to the full sample. However, there are no significant differences when it comes to satisfaction with the city and its amenities (roads, educational system, healthcare, housing, safe walking alone) and the perception of corruption in government. They have, however, less confidence in the government and perceive more corruption within businesses. The general patterns are similar across countries (see Tables 6, 8, 10, 12 and 14 in the Appendix), with most significant differences in perceptions in Nigeria.

Table 4, relying on the Afrobarometer data for our target countries, supports the main comparison findings found with the Gallup data.

Table 4: Representativity test DYNAMIG—Selected Afrobarometer answer shares

Question	Full Sample	Internet Users	Full Sample (w)	Internet Users (w)	Δ
Internet Capable Phone	55.66	100.00	56.24	100.00	43.76***
Female	50.09	46.41	49.29	45.93	-3.36***
Age	39.54	36.13	39.25	35.97	-3.28***
Urban	48.95	62.20	48.64	61.55	12.91***
No formal education	15.00	6.00	15.00	6.00	-9***
Some/completed primary	28.00	21.00	28.00	20.00	-8***
Some/completed secondary	34.54	39.00	34.97	38.88	3.92***
Some/completed tertiary	22.18	34.74	22.39	34.89	12.5***
Weights	No	No	Yes	Yes	
N. Obs.	7600	4230	7600	4230	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on round 9 Afrobarometer (2023) survey data. Age is reported as average. Column (5) is the difference between the weighted full sample and the subsample. Internet users are respondents that have an internet capable phone because the data does not contain information about general internet access. Source: Afrobarometer (2023).

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Our data

Next, we turn to our own dataset. Our dataset currently comprises 12,300 individuals, including 5,177 participants from Kenya and 7,123 from Nigeria. To assess country-level differences and evaluate sample representativeness, we compare key characteristics across the two samples and against 2023 Gallup World Poll (GWP) data on internet users[1] in Table 5.

On average, our respondents are 24.5 years old in Kenya and 24.5 years old in Nigeria, with approximately 80% identifying as male—reflecting higher male response rates. In both countries, the majority are unmarried (Kenya: 66.5%; Nigeria: 67.7%) and reside in urban or semi-urban areas (Kenya: 78.3%; Nigeria: 73%). Educational attainment is relatively high, with 54.6% of Kenyan and 44% of Nigerian respondents holding tertiary degrees. Migration aspirations are widespread, reported by 81.5% in Kenya and 77.9% in Nigeria.

There are notable country-level differences. Kenya's sample includes a higher share of female respondents (a 5.3 percentage point difference), and a greater proportion hold university degrees. Kenyan respondents express slightly higher migration aspirations.

Compared to 2023 Gallup World Poll (GWP) data on internet users, our sample skews younger (GWP average: Kenya 28.8, Nigeria 29.7), is more likely to have a tertiary education, and includes a larger share of unmarried individuals. Migration aspirations are also higher in our sample, which may partly

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[1] Wave 18.1 (2023) is the most recent available GWP dataset for Nigeria and Kenya.

reflect differences in question wording.[2] Differences in urban residence are only evident when applying a narrower definition of urban.

Table 5: Representivity check—Preliminary DYNAMIG survey data

Variable	Kenya	Gallup Kenya	Nigeria	Gallup Nigeria
Age	24.5	28.8	24.5	29.7
Men	77.1	50.9	81.8	56.5
Married	31.5	43.1	28.9	37.9
Single/Never Married	66.5	50.0	67.7	57.9
Urban	38.7/78.3	18.7 / 79.7	48.2/73	58.1/79.7
Education				
No formal	0.66	0.00	2.05	0.45
Tertiary education	54.9	40.7	44.0	54.3
Migration aspirations	81.5	48.2	77.9	66.8
N. Obs.	5177	652	7123	446

Note: Statistics are based on Gallup survey data (Survey Wave 18.1) using internet users only. The variable urban is defined 1. as a large city or suburb of a large city (Gallup) or only urban in the DYNAMIG sample, 2. as large city, suburb of a large city, or A small town or village (Gallup) or urban or semi-urban in the DYNAMIG sample.

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[2] GWP asks whether respondents would like to migrate permanently; we ask about migration aspirations more generally.

Conclusion

This report assessed the representativity of our sample by comparing it against three benchmarks: official statistics, nationally representative survey data, and subgroups of survey participants with internet access. The goal was to identify systematic differences that may arise from using social media platforms— specifically Meta—for participant recruitment and discuss implications for our project.

First, comparisons with official statistics (e.g., UN and World Bank data) highlight the demographic and socioeconomic diversity across the five focus countries. These macro-level differences, such as levels of urbanization, education, and migration rates, establish the broader context in which any sampling deviation can lead to biased inferences.

Second, when contrasting the full population with those who have internet access (based on Gallup and Afrobarometer data), we observe clear selection patterns. Individuals with internet access are generally younger, more educated, more urban, more likely to be male, and more optimistic about economic prospects. They also report higher migration aspirations. These biases are most pronounced in Nigeria.

Third, within the internet-user subgroup, our sample further deviates. Our respondents are younger on average, more educated, less likely to be married, and significantly more likely to express migration aspirations compared to internet users in the Gallup World Poll. For instance, 81.5% of Kenyan respondents in our sample express migration aspirations versus 48.2% in the Gallup sample. Likewise, male

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overrepresentation (over 80% in our sample vs. around 50–56% in Gallup) further limits generalizability. These findings highlight three layers of non-random selection:

General population vs. internet users—*introduces bias in age, gender, urban residence, and socioeconomic status.*

Internet users vs. Meta users—*introduces additional skew in digital engagement and platform-specific behaviors.*

Meta users vs. actual respondents—*reflects opt-in bias, with younger, more mobile-oriented individuals more likely to participat*e.

These cumulative biases necessitate caution when extrapolating survey-based insights to broader populations. While social media recruitment offers a cost-effective and scalable approach to data collection, it requires targeted sampling strategies and the application of adjustments such as post-stratification weighting. In the case of this project, the sampling strategy was intentionally designed to reach a younger, internet-connected population aged 18 to 40—demographics that are particularly relevant in the context of migration research as individuals from this specific group have the peak migration age in low- and middle-income countries and are more likely to be mobile or express migration aspirations (McKenzie, 2008; Migali and Scipioni, 2019; Aslany et al., 2021; Detlefsen and Marten, 2025).

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Appendix

The following section contains tables equivalent to Tables 4 and 3 for each of the five DYNAMIG countries. Similarly, it contains country-level graphs similar to Graph 1. Furthermore Graph 4 illustrates additional information about key time series. Lastly, we provide a list of questions for the survey data in Table 16.

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Kenya

Table 6: Representativity test Kenya—Selected Gallup answer shares

Question	(1) Full Sample	(2) Internet Users	(3) Full Sample (w)	(4) Internet Users (w)	(5) Δ
Internet					
Access	60.99	100.00	55.65	100.00	44.35***
via Phone	60.51	91.34	55.39	90.21	34.82***
Demographics					
Age	35.93	32.85	35.98	32.18	-3.8***
Female	52.08	50.16	51.30	48.40	-2.9**
Income local	-	-	-	-	-
Income USD	7075	8384	6920	8490	1569***
Married	50.51	45.75	52.71	45.63	-7.08***
Single/Never Married	39.67	46.90	38.83	47.92	9.1***
Urban1 (original Gallup)	56.97	63.44	22.28	27.92	5.63***
Urban2 (city + suburb)	46.36	51.73	44.38	50.67	6.2***
Urban3 (city + suburb + villages)	75.24	79.67	73.42	78.28	4.85***
Education					
No formal	13.00	7.09	16.95	9.95	-7***
1-8 years	24.66	19.71	33.94	26.90	-7.04***
9 years secondary	40.08	42.55	35.01	41.63	6.62***
1-3 years tertiary	14.91	19.54	8.74	12.76	4.02***
4 years or more tertiary	7.04	10.95	4.98	8.49	3.51***
Likes Permanent Move	44.05	50.33	42.40	50.53	8.13***
Excellent/Good Economic Conditions	18.90	18.46	18.26	17.06	-1.2
Fair/PoorEconomic Conditions	79.31	80.39	80.13	81.96	1.83**
City Economy is Getting Better	29.50	32.61	29.58	32.23	2.65**
City Economy is Getting Worse	56.19	53.56	56.78	54.46	-2.32**
Standard of Living is Getting better	43.17	48.99	41.34	47.98	6.64***
Standard of Living is Getting worse	39.23	32.29	41.05	32.39	-8.66***
Satisfied with Standard of Living	53.68	57.16	52.53	56.34	3.81***
Satisfied with Overall City	66.19	66.50	66.30	66.36	0.06
Satisfied with Roads and Highways	43.35	42.39	42.94	42.66	-0.28
Satisfied with Educational System	49.03	48.63	48.73	48.57	-0.16
Satisfied with City Healthcare	41.32	41.41	41.38	41.08	-0.3
Satisfied with City Housing	41.68	41.99	41.25	40.23	-1.02
Feels Safe Walking Alone	57.66	58.69	58.22	60.17	1.95*
Confidence in National Government	43.33	40.90	35.31	30.75	-4.56***
Corruption Within Businesses	77.52	79.97	77.05	79.76	2.71***
Corruption in Government	81.48	83.31	64.42	62.94	-1.49
Lifeladder					
Today	5.70	5.95	5.62	5.95	0.33***
5 years ago	5.39	5.36	5.39	5.36	-0.02
in 5 Years	8.30	8.41	8.23	8.41	0.18*
Weights	No	No	Yes	Yes	
N. Obs.	5017	3060	5017	3060	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on Gallup survey data (Survey Wave 18.1). Age, income and Lifeladder are reported as averages. Column (5) is the difference between the weighted full sample and the subsample. Gallup 18.1 data does not contain answers for Urban in Kenya. Source: Gallup (2024).

Table 7: Representativity test Kenya—Selected Afrobarometer answer shares

Question	Full Sample	Internet Users	Full Sample (w)	Internet Users (w)	Δ
Internet Capable Phone	52.46	100.00	52.31	100.00	47.69***
Female	50.00	45.27	49.85	45.31	-4.53***
Age	36.91	33.08	37.03	32.99	-4.04***
Urban	35.00	47.02	34.31	46.43	12.12***
No formal education	4.00	1.00	4.00	1.00	-3***
Some/completed primary	33.00	17.00	33.00	17.00	-15***
Some/completed secondary	40.78	45.74	41.44	45.36	3.93**
Some/completed tertiary	22.04	36.91	21.88	36.88	15***
Weights	No	No	Yes	Yes	
N. Obs.	2400	1259	2400	1259	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on Afrobarometer survey data (Round 9, 2021-2023). Age is reported as average. Column (5) is the difference between the weighted full sample and the subsample. Internet users are respondents that have an internet capable phone because Afrobarometer data does not contain information about general internet access. Source: Afrobarometer (2023).

Nigeria

Table 8: Representativity test Nigeria—Selected Gallup answer shares

Question	(1) Full Sample	(2) Internet Users	(3) Full Sample (w)	(4) Internet Users (w)	(5) Δ
Internet					
Access	44.60	100.00	33.17	100.00	66.83***
via Phone	44.50	93.05	33.93	90.02	56.09***
Demographics					
Age	30.28	29.67	32.12	29.91	-2.2***
Female	44.10	43.50	50.43	52.49	2.06
Income local	826773	982458	790517	993971	203455*'
Income USD	3105	3690	2969	3733	764***
Married	43.70	37.89	48.87	34.76	-14.1***
Single/Never Married	51.40	57.85	44.18	57.93	13.75***
Urban1	-	-	-	-	-
Urban2	49.70	58.07	44.83	53.38	8.55***
Urban3	75.24	79.67	73.42	78.28	4.85**
Education					
No formal	2.40	0.45	9.98	1.93	-8.05***
1-8 years	7.40	2.91	29.14	14.33	-14.81**
9 years secondary	54.00	42.15	44.20	50.98	6.78**
1-3 years tertiary	35.40	53.14	15.83	30.71	14.89***
4 years or more tertiary	0.60	1.12	0.30	0.54	0.24
Likes Permanent Move	58.60	66.82	50.96	64.37	13.4***
Excellent/Good Economic Conditions	27.30	32.29	25.83	30.56	4.73*
Fair/PoorEconomic Conditions	72.20	67.49	73.54	69.30	-4.25
City Economy is Getting Better	27.30	33.18	26.61	32.04	5.43**
City Economy is Getting Worse	62.30	56.50	63.57	58.76	-4.81*
Standard of Living is Getting better	39.30	47.53	34.30	44.04	9.74***
Standard of Living is Getting worse	52.60	42.60	57.92	46.73	-11.19**
Satisfied with Standard of Living	39.30	45.52	37.90	45.49	7.59***
Satisfied with Overall City	61.30	65.25	62.11	65.97	3.87
Satisfied with Roads and Highways	46.20	48.21	44.66	49.90	5.25*
Satisfied with Educational System	48.40	52.47	45.60	52.37	6.77**
Satisfied with City Healthcare	50.90	54.71	50.54	55.80	5.26*
Satisfied with City Housing	53.50	58.30	53.22	58.43	5.21*
Feels Safe Walking Alone	57.00	54.71	55.33	53.82	-1.51
Confidence in National Government	30.70	29.60	32.05	29.82	-2.23
Corruption Within Businesses	84.40	87.00	81.60	86.31	4.71**
Corruption in Government	89.40	90.58	89.69	90.01	0.33
Lifeladder					
Today	5.98	6.35	5.87	6.35	0.48**
5 years ago	5.79	5.40	5.89	5.40	-0.49***
in 5 Years	8.77	9.01	8.61	9.01	0.4***
Weights	No	No	Yes	Yes	
N. Obs.	1000	446	1000	446	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on Gallup survey data (Survey Wave 18.1). Age, income and Lifeladder are reported as averages. Column (5) is the difference between the weighted full sample and the subsample. Source: Gallup (2023).

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Table 9: Representativity test Nigeria—Selected Afrobarometer answer shares

Question	Full Sample	Internet Users	Full Sample (w)	Internet Users (w)	Δ
Internet Capable Phone	41.00	100.00	42.10	100.00	57.9***
Female	50.12	39.79	48.15	39.32	-8.82***
Age	34.91	33.63	34.93	33.48	-1.45***
Urban	43.50	62.65	42.80	60.58	17.78***
No formal education	17.00	1.00	16.00	1.00	-15***
Some/completed primary	17.00	7.00	18.00	7.00	-11***
Some/completed secondary	42.93	50.00	43.30	49.33	6.03***
Some/completed tertiary	22.72	42.20	23.15	42.60	19.45***
Weights	No	No	Yes	Yes	
N. Obs.	1600	656	1600	656	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on Afrobarometer survey data (Round 9, 2021–2023). Age is reported as average. Column (5) is the difference between the weighted full sample and the subsample. Internet users are respondents that have an internet capable phone because Afrobarometer data does not contain information about general internet access. Source: Afrobarometer (2023).

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Tunisia

Table 10: Representativity test Tunisia—Selected Gallup answer shares

Question	(1) Full Sample	(2) Internet Users	(3) Full Sample (w)	(4) Internet Users (w)	(5) Δ
Internet					
Internet					
Access	65.20	100.00	61.99	100.00	38.01***
via Phone	62.10	90.34	59.05	89.66	30.61***
Demographics					
Age	42.02	35.87	40.66	34.37	-6.3***
Female	52.30	50.61	50.93	48.01	-2.92
Income local	16515	18751	15670	17775	2105**
Income USD	14505	16470	13764	15612	1849**
Married	49.70	43.56	47.96	39.88	-8.08***
Single/Never Married	38.60	49.23	42.36	53.55	11.19***
Urban1	-	-	-	-	-
Urban2	63.70	69.17	62.10	68.26	6.15***
Urban3	75.24	79.67	73.42	78.28	4.85**
Education					
No formal	8.50	2.30	9.29	3.20	-6.08***
1-8 years	26.10	13.19	37.15	23.04	-14.12***
9 years secondary	43.20	52.91	39.15	52.19	13.05***
1-3 years tertiary	6.10	8.28	4.21	6.08	1.87*
4 years or more tertiary	16.10	23.31	10.20	15.49	5.29***
Likes Permanent Move	38.30	48.47	38.28	49.46	11.18***
Excellent/Good Economic Conditions	8.90	10.28	7.88	9.15	1.27
Fair/Poor Economic Conditions	90.50	89.42	91.62	90.52	-1.1
City Economy is Getting Better	12.60	14.11	12.01	13.25	1.24
City Economy is Getting Worse	56.90	53.99	59.33	56.50	-2.83
Standard of Living is Getting better	26.70	32.21	23.65	28.38	4.73**
Standard of Living is Getting worse	35.50	28.83	38.09	30.95	-7.14***
Satisfied with Standard of Living	51.40	55.06	47.49	50.97	3.49
Satisfied with Overall City	56.20	56.29	55.12	55.26	0.13
Satisfied with Roads and Highways	22.50	22.85	21.51	22.22	0.71
Satisfied with Educational System	19.60	22.70	17.94	21.29	3.35*
Satisfied with City Healthcare	22.10	24.23	21.97	24.07	2.1
Satisfied with City Housing	14.80	16.10	13.45	15.19	1.74
Feels Safe Walking Alone	63.70	66.56	64.88	68.98	4.1*
Confidence in National Government	38.80	34.97	38.66	34.24	-4.42*
Corruption Within Businesses	83.80	84.51	83.51	84.28	0.77
Corruption in Government	77.10	79.45	76.46	78.50	2.03
Lifeladder					
Today	5.58	5.86	5.48	5.86	0.37**
5 years ago	5.55	5.56	5.43	5.56	0.13
in 5 Years	7.54	7.77	7.50	7.77	0.27*
Weights	No	No	Yes	Yes	
N. Obs.	1000	652	1000	652	

Note: p=0.1, ** p=0.05, *** p=0.01. Shares based on Gallup survey data (Survey Wave 18.1). Age, income and Lifeladder are reported as averages. Column (5) is the difference between the weighted full sample and the subsample. Source: Gallup (2024).

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Table 11: Representativity test Tunisia—Selected afrobarometer answer shares

Question	Full Sample	Internet Users	Full Sample (w)	Internet Users (w)	Δ
Internet Capable Phone	61.42	100.00	62.47	100.00	37.53***
Female	50.42	50.47	49.84	49.03	-0.81
Age	49.88	41.44	48.19	41.51	-6.68**
Urban	68.00	74.08	68.30	75.36	7.07***
No formal education	9.00	1.00	9.00	1.00	-8***
Some/completed primary	34.00	24.00	33.00	24.00	-9***
Some/completed secondary	35.28	43.60	35.63	43.44	7.81***
Some/completed tertiary	21.40	30.65	21.75	30.85	9.09***
Weights	No	No	Yes	Yes	
N. Obs.	1200	737	1200	737	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on Afrobarometer survey data (Round 9, 2021–2023). Age is reported as average. Column (5) is the difference between the weighted full sample and the subsample. Internet users are respondents that have an internet capable phone because Afrobarometer data does not contain information about general internet access. Source: Afrobarometer (2023).

Senegal

Table 12: Representativity test Senegal—Selected Gallup answer shares

Question	(1) Full Sample	(2) Internet Users	(3) Full Sample (w)	(4) Internet Users (w)	(5) Δ
Internet					
Access	64.60	100.00	59.19	100.00	40.81***
via Phone	66.60	93.81	61.55	92.59	31.04***
Demographics					
Age	34.78	32.59	34.43	32.17	-2.27***
Female	55.00	50.15	53.42	47.73	-5.69**
Income local	2301965	2486126	2272169	2464483	192314**
Income USD	7756	8377	7656	8304	648**
Married	55.10	49.54	58.46	54.38	-4.08
Single/Never Married	36.40	43.50	34.69	40.47	5.78**
Urban1	53.00	60.84	50.95	59.50	8.55***
Urban2	58.00	66.56	57.56	67.82	10.26***
Urban3	75.24	79.67	73.42	78.28	4.85**
Education					
No formal	29.20	20.59	39.52	31.16	-8.36***
1-8 years	25.90	23.53	33.72	34.32	0.6
9 years secondary	33.90	40.40	22.23	28.39	6.16***
1-3 years tertiary	8.50	12.85	2.95	4.88	1.94*
4 years or more tertiary	1.40	2.01	0.52	0.76	0.24
Likes Permanent Move	43.60	48.76	41.71	46.95	5.25**
Excellent/Good Economic Conditions	20.50	19.97	20.96	19.72	-1.25
Fair/Poor Economic Conditions	79.20	79.88	78.77	80.24	1.48
City Economy is Getting Better	51.90	55.57	52.86	55.49	2.63
City Economy is Getting Worse	35.40	35.14	34.95	36.49	1.53
Standard of Living is Getting better	70.60	75.54	68.59	74.31	5.72**
Standard of Living is Getting worse	18.90	15.02	20.17	15.56	-4.61**
Satisfied with Standard of Living	62.00	65.63	62.89	65.80	2.91
Satisfied with Overall City	75.80	76.32	76.55	77.82	1.27
Satisfied with Roads and Highways	50.50	45.98	53.03	51.06	-1.97
Satisfied with Educational System	67.00	63.93	69.99	68.38	-1.62
Satisfied with City Healthcare	52.30	50.46	54.91	53.29	-1.62
Satisfied with City Housing	58.60	58.05	60.22	58.44	-1.79
Feels Safe Walking Alone	51.10	54.33	54.44	57.78	3.34
Confidence in National Government	50.60	46.75	51.75	45.41	-6.34**
Corruption Within Businesses	77.20	78.95	77.00	78.11	1.11
Corruption in Government	77.80	79.88	76.91	80.55	3.64*
Lifeladder					
Today	6.00	6.20	5.98	6.20	0.21*
5 years ago	5.21	5.25	5.26	5.25	-0.01
in 5 Years	8.48	8.62	8.44	8.62	0.18
Weights	No	No	Yes	Yes	
N. Obs.	1000	646	1000	646	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on Gallup survey data (Survey Wave 18.1). Age, income and Lifeladder are reported as averages. Column (5) is the difference between the weighted full sample and the subsample. Source: Gallup (2024).

Table 13: Representativity test Senegal—Selected Afrobarometer answer shares

Question	Full Sample	Internet Users	Full Sample (w)	Internet Users (w)	Δ
Internet Capable Phone	54.75	100.00	56.43	100.00	43.57***
Female	50.00	45.51	48.63	44.67	-3.95
Age	39.95	36.62	40.03	36.73	-3.3***
Urban	49.33	63.01	49.29	60.65	11.36***
No formal education	41.00	25.00	39.00	24.00	-15***
Some/completed primary	23.00	22.00	22.00	22.00	-1
Some/completed secondary	25.94	34.40	26.62	34.99	8.37***
Some/completed tertiary	11.01	18.57	11.67	19.07	7.4***
Weights	No	No	Yes	Yes	
N. Obs.	1200	657	1200	657	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on Afrobarometer survey data (Round 9, 2021–2023). Age is reported as average. Column (5) is the difference between the weighted full sample and the subsample. Internet users are respondents that have an internet capable phone because Afrobarometer data does not contain information about general internet access. Source: Afrobarometer (2023).

Morocco

Table 14: Representativity test Morocco—Selected Gallup answer shares

Question	(1) Full Sample	(2) Internet Users	(3) Full Sample (w)	(4) Internet Users (w)	(5) Δ
Internet					
Access	65.42	100.00	65.10	100.00	34.9***
via Phone	65.22	91.27	63.81	90.86	27.05***
Demographics					
Age	41.27	36.20	38.56	32.83	-5.73***
Female	56.16	55.27	50.89	49.34	-1.54
Income local	34902	41508	35993	43073	7080***
Income USD	6766	8046	6977	8349	1372***
Married	56.75	52.11	55.77	46.91	-8.87***
Single/Never Married	29.06	37.50	35.01	46.38	11.36***
Urban1	60.89	65.96	59.95	64.68	4.73**
Urban2	44.63	48.34	43.57	46.81	3.24
Urban3	75.24	79.67	73.42	78.28	4.85**
Education					
No formal	23.94	10.09	24.84	10.15	-14.69***
1-8 years	39.11	39.61	38.34	38.40	0.06
9 years secondary	24.04	31.63	22.67	30.74	8.07***
1-3 years tertiary	5.52	7.98	6.59	9.81	3.22**
4 years or more tertiary	7.09	10.69	7.21	10.91	3.7**
Likes Permanent Move	37.54	44.73	42.17	51.00	8.83***
Excellent/Good Economic Conditions	14.38	11.75	13.42	10.58	-2.84*
Fair/Poor Economic Conditions	78.33	83.73	80.29	85.81	5.52***
City Economy is Getting Better	23.74	25.15	25.24	27.38	2.14
City Economy is Getting Worse	61.18	60.69	60.22	58.92	-1.3
Standard of Living is Getting better	37.64	44.13	39.51	46.69	7.18***
Standard of Living is Getting worse	37.73	30.87	36.51	28.43	-8.08***
Satisfied with Standard of Living	66.60	64.46	66.27	63.99	-2.28
Satisfied with Overall City	64.63	60.69	63.50	59.53	-3.97
Satisfied with Roads and Highways	48.97	47.14	47.95	45.58	-2.37
Satisfied with Educational System	42.66	36.60	43.32	37.59	-5.73**
Satisfied with City Healthcare	25.91	23.04	26.22	24.18	-2.04
Satisfied with City Housing	30.54	29.22	30.34	28.49	-1.86
Feels Safe Walking Alone	68.28	67.77	67.96	66.86	-1.1
Confidence in National Government			0.00	0.00	
Corruption Within Businesses	62.46	67.92	64.74	70.86	6.12***
Corruption in Government			0.00	0.00	
Lifeladder					
Today	5.54	5.86	5.55	5.86	0.31**
5 years ago	5.66	5.74	5.57	5.74	0.17
in 5 Years	8.93	8.95	8.94	8.95	0.01
Weights	No	No	Yes	Yes	
N. Obs.	1015	664	1015	664	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on Gallup survey data (Survey Wave 18.1). Age, income and Lifeladder are reported as averages. Column (5) is the difference between the weighted full sample and the subsample. Gallup 18.1 data does not contain answers for Confidence in National Government and Corruption in Government in Morocco. Source: Gallup (2024).

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**Table 15: Representativity test Morocco—Selected Afrobarometer answer shares**

Question	Full Sample	Internet Users	Full Sample (w)	Internet Users (w)	Δ
Internet Capable Phone	76.75	100.00	76.54	100.00	23.46***
Female	50.00	50.05	49.83	50.03	0.2
Age	40.24	37.46	39.72	36.80	-2.91***
Urban	64.67	72.53	64.75	72.30	7.55***
No formal education	15.00	6.00	15.00	6.00	-9***
Some/completed primary	33.00	31.00	33.00	31.00	-2
Some/completed secondary	18.75	21.61	18.60	21.52	2.92*
Some/completed tertiary	33.67	41.26	33.75	41.47	7.72***
Weights	No	No	Yes	Yes	
N. Obs.	1200	921	1200	921	

Note: * p=0.1, ** p=0.05, *** p=0.01. Shares based on Afrobarometer survey data (Round 9, 2021—2023). Age is reported as average. Column (5) is the difference between the weighted full sample and the subsample. Internet users are respondents that have an internet capable phone because Afrobarometer data does not contain information about general internet access. Source: Afrobarometer (2023).

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Internet access over time

Graph 2: Weighted internet access per country from 2015–2023
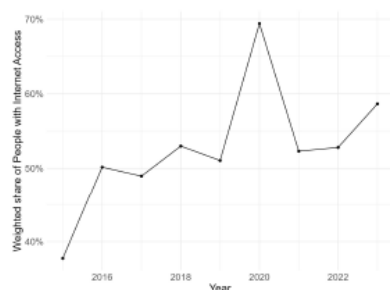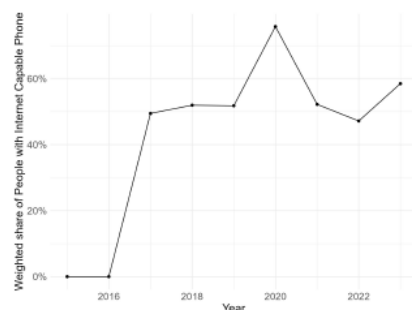

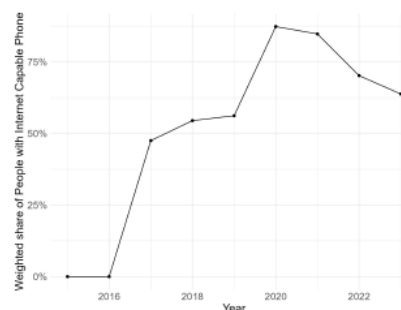
(a) Kenya
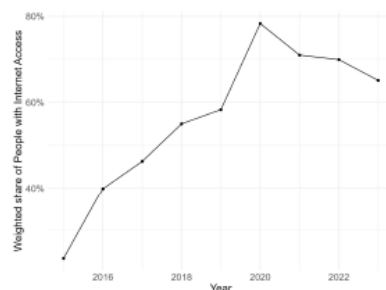
(b) Morocco
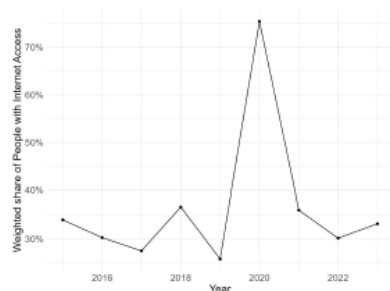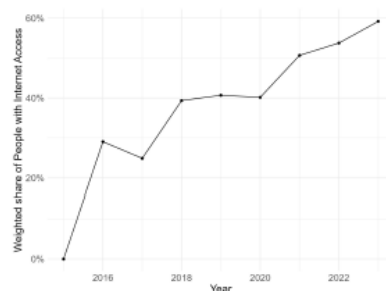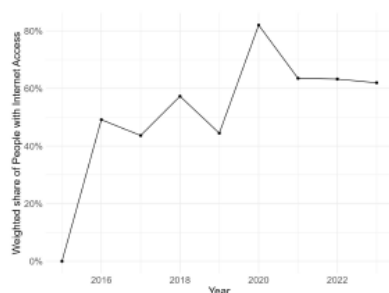
(c) Nigeria

(d) Senegal

(e) Tunisia

Note: Weighted internet access per country from 2015-2023 in (a) Kenya, (b) Morocco, (c) Nigeria, Senegal, and (e) Tunisia, based on Gallup survey answers. The survey mode is face-to-face but was changed to telephone interviews for the year 2020 in all countries. In Morocco 2021 interviews were also conducted via telephone. Source: (Gallup, 2024)

Graph 3: Weighted share of (internet-capable) phone owners per country: 2015–2023
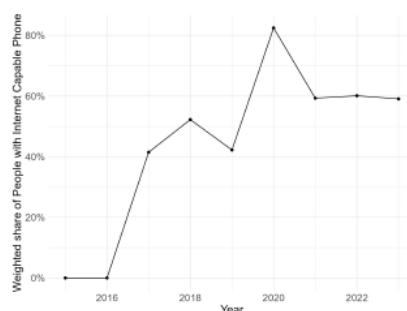

(a) Kenya

(b) Morocco
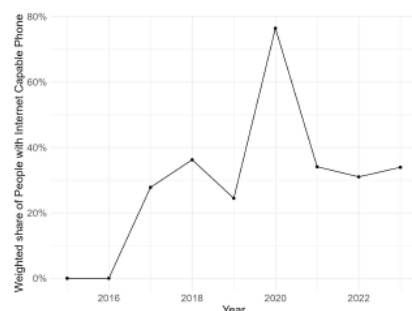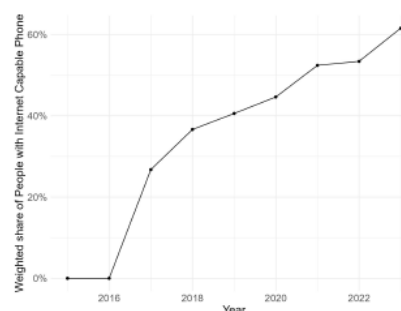
(c) Nigeria

(d) Senegal

(e) Tunisia

Note: Weighted share of people with a mobile phone that can access the internet per country from 2015—2023 in (a) Kenya, (b) Morocco, (c) Nigeria, (d) Senegal, and (e) Tunisia, based on Gallup survey answers. The Question was not asked before 2017. The survey mode is face-to-face but was changed to telephone interviews for the year 2020 in all countries. In Morocco 2021 interviews were also conducted via telephone. Source: Gallup (2024)

Official country-level statistics over time

In this section, Graph 4 presents time series data for three country-level indicators previously used in Table 2.

First, subgraph 4a illustrates GDP per capita (in current US Dollars) from 2000 to 2023. All five target countries exhibit positive GDP per capita growth over this period. Notably, all countries except Kenya experienced a minor dip during the 2008–2009 global financial crisis. Nigerian GDP per capita declined sharply after 2014, stabilized briefly in 2017, and dropped again in 2023. In contrast, Kenya's GDP per capita has grown almost linearly, although it also experienced a downturn in 2023. Morocco and Tunisia, which consistently maintain the highest GDP per capita levels, show a similar short-term decline in 2022, with their 2023 graphs returning to 2021 levels.

Second, subgraph 4b depicts annual consumer price inflation rates from 2000 to 2023. Nigeria and Kenya have experienced higher inflation levels and larger spikes compared to the other countries. All five countries saw inflation rise in 2022. While inflation in most countries remained relatively stable in 2023, Nigeria recorded a sharp increase to approximately 25%.

Third, subgraph 4c illustrates CPI scores from 2012 to 2023. Kenya and Nigeria show significantly lower CPI scores than Morocco, Tunisia, and Senegal. Especially Senegal and Morocco increase their scores from 2012 to 2018. Since 2018 only Kenya experiences a constant upward trend in CPI score, contrasting with the nearly constant or declining trends in the other countries. CPI scores for Tunisia, Morocco, and Nigeria have decreased, with Nigeria showing a small

increase in 2023. Nevertheless, Nigeria continues to have the lowest CPI score among the five countries.
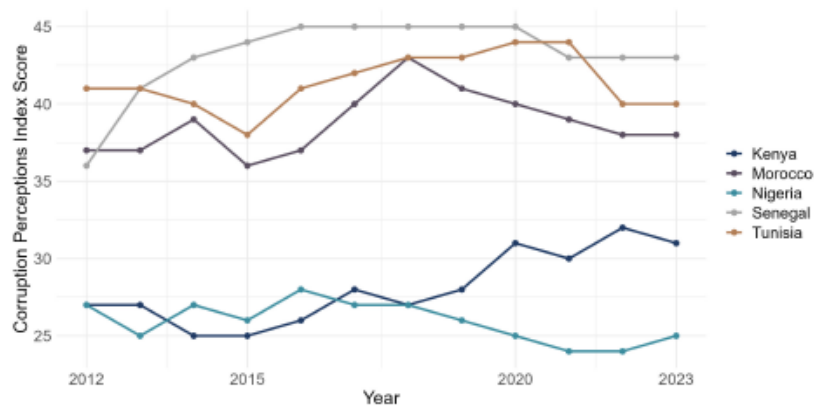
Graph 4: Official country-level time series statistics for DYNAMIG target countries
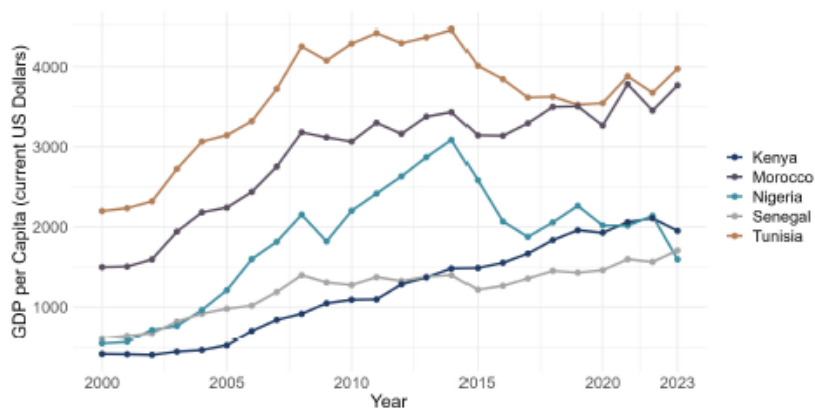
(a) GDP per Capita (current US Dollars)
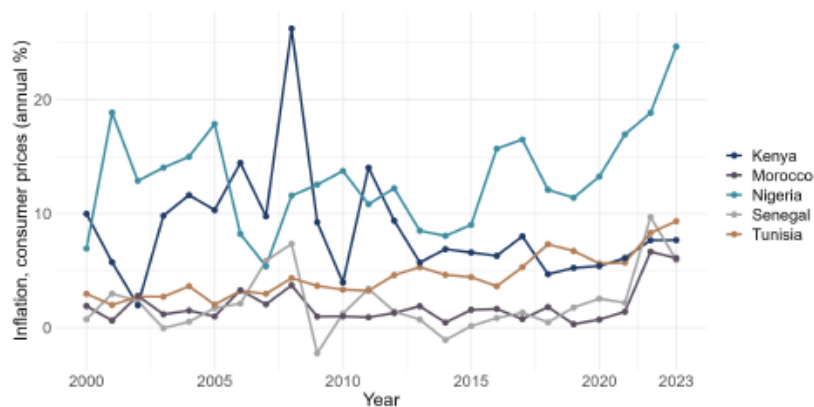
(b) Inflation, consumer prices (annual %)

(c) Corruption Perceptions Index Score

Note: (a) GDP per capita in current US Dollars from 2000–2003, (b) annual consumer price inflation from 2000–2003, (c) Corruption Perceptions Index Score from 2012–2023. Sources: Transparency International (2023) and World Bank (2024).

Question List

Table 16 lists further information about the survey data used for in section 4. It contains information about the name of the variables, full questions asked in the survey, answer options, sources and variable construction methods.

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Table 16: A: List of questions—Gallup and Afrobarometer

Name	(1) Question	(2) Answer Possibilities	(3) Source	(4) Notes
Internet				
Access	Do you have access to the internet in any way, whether on a mobile phone, a computer, or some other device?	1 = Yes	Gallup	
		0 = No, (DK)		
via Phone	Can your mobile phone be used to access the Internet?	1 = Yes	Gallup	
		0 = No, NA, (DK), (Refused)		
Demographics				
Age	Please tell me your age.	Numeric 18	Gallup	Average
Age	How old are you?	Numeric, 18	AB	Average
Female	Gender	1 = Female	Gallup	
		0 = Male		
Female	Respondent's gender	1 = Female	AB	Answered by interviewer
		0 = Male		
Income local	Per Capita Annual Income in Local Currency	Numeric	Gallup	Average
Income USD	Per Capita Annual Income in International Dollars	Numeric	Gallup	Average
Married	What is your current marital status?	1 = Married		
		0 = Single/Never been married, Widowed, Divorced, (DK), Separated, (Refused), Domestic partner	Gallup	
Single/Never Married	What is your current marital status?	1 = Single/Never been married	Gallup	
		0 = Married, Widowed, Divorced, (DK), Separated, (Refused), Domestic partner		
Urban 1	-	1 = Urban	Gallup	Staff-coded
		0 = Rural, NA		
Urban 2	-	1 = A large city, A suburb of a large city	Gallup	Staff-coded
		0 = A small town or village, A rural area or on a farm		
Urban 3	-	1 = A large city, A suburb of a large city, A small town or village	Gallup	Staff-coded
		0 = A rural area or on a farm		
Urban	-	1 = Urban	AB	Answered by interviewer
		0 = Rural		

Note: Gallup data is taken from Survey Wave 18.1. Interviews were conducted during June–November 2023).

Afrobarometer data is taken from survey round 9 (2021–2023).

Table 17: B: List of questions—Gallup and afrobarometer

Name	(1) Question	(2) Answer Possibilities	(3) Source	(4) Notes
Education	What is your highest completed level of education?	No formal education, 1 to 3 years tertiary, Completed 4 or more years tertiary (bachelors degree or higher), 1 to 8 years education, 9 years through completed secondary, (Refused), (DK)	Gallup	
No formal	Education Level	1 = No formal education 0 = others	Gallup	
1-8 years	Education Level	1 = 1 to 8 years education 0 = others	Gallup	
9 years secondary	Education Level	1 = 9 years through completed secondary 0 = others	Gallup	
1-3 years tertiary	Education Level	1 = 1 to 3 years tertiary 0 = others	Gallup	
4 years or more tertiary	Education Level	1 = Completed 4 or more years tertiary (bachelors degree or higher) 0 = others	Gallup	
Education	What is your highest completed level of education?	No formal schooling, Informal schooling only (including Koranic schooling), Some primary schooling, Primary school completed, Intermediate school or some secondary school/high school, Secondary school/high school completed, Post-secondary qualifications other than university, e.g. a diploma or degree from a polytechnic or college, Some university, University completed, Postgraduate, Refused, DK	AB	
No formal education	Education Level	1 = No formal schooling, Informal schooling only (including Koranic schooling) 0 = others	AB	
Some/completed primary	Education Level	1 = Some primary schooling, Primary school completed 0 = others	AB	
Some/completed secondary	Education Level	1 = Intermediate school or some secondary school/high school, Secondary school/high school completed 0 = others	AB	
Some/completed tertiary	Education Level	1 = Post-secondary qualifications other than university, e.g. a diploma or degree from a polytechnic or college, Some university, University completed, Postgraduate 0 = others	AB	

Note: Gallup data is taken from Survey Wave 18.1. Interviews were conducted during June–November 2023).

Afrobarometer data is taken from survey round 9 (2021–2023).

Table 18: C: List of questions—Gallup and Afrobarometer

Name	(1) Question	(2) Answer Possibilities	(3) Source	(4) Notes
Likes Permanent Move	Move Permanently to Another Country	1 = Like to move to another country 0 = Like to continue living in this country, (DK), (Refused)	Gallup	
Excellent/Good Economic Conditions	How would you rate economic conditions in this city or area to-day - as excellent, good, only fair, or poor?	1 = Good, Excellent 0 = Only fair, Poor, (DK), (Refused)	Gallup	
Fair/PoorEconomic Conditions	How would you rate economic conditions in this city or area to-day - as excellent, good, only fair, or poor?	1 = Only fair, Poor 0 = (DK), Good, Excellent, (Refused)	Gallup	
City Economy is Getting Better	Right now, do you think that economic conditions in the city or area where you live, as a whole, are getting better or get-ting worse?	1 = Getting better 0 = ((Do not read) (The same), Getting worse, (DK), (Refused)	Gallup	
City Economy is Getting Worse	Right now, do you think that economic conditions in the city or area where you live, as a whole, are getting better or get-ting worse?	1 = Getting worse 0 = ((Do not read) (The same), Getting better, (DK), (Refused)	Gallup	
Standard of Living is Getting better	Right now, do you feel your stan-dard of living is getting better or getting worse?	1 = Getting better 0 = (Do not read) (The same), Getting worse, (DK), (Refused)	Gallup	
Standard of Living is Getting worse	Right now, do you feel your stan-dard of living is getting better or getting worse?	1 = Getting worse 0 = (Do not read) (The same), Getting better, (DK), (Refused)	Gallup	
Satisfied with Standard of Living	Are you satisfied or dissatisfied with your standard of living, all the things you can buy and do?	1 = Satisfied 0 = (DK), Dissatisfied, (Refused)	Gallup	
Satisfied with Overall City	Are you satisfied or dissatisfied with the city or area where you live?	1 = Satisfied 0 = (DK), Dissatisfied, (Refused)	Gallup	
Satisfied with Roads and High-ways	In the city or area where you live, are you satisfied or dissatisfied with the roads and highways?	1 = Satisfied	Gallup	

Note: Gallup data is taken from Survey Wave 18.1. Interviews were conducted during June–November 2023).

Afrobarometer data is taken from survey round 9 (2021–2023).

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Table 19: D: List of questions—Gallup and Afrobarometer

Name	(1) Question	(2) Answer Possibilities	(3) Source	(4) Notes
Satisfied with Educational System	In the city or area where you live, are you satisfied or dissatisfied with the educational system or the schools?	0 = (DK), Dissatisfied, (Refused) 1 = Satisfied	Gallup	
Satisfied with City Healthcare	In the city or area where you live, are you satisfied or dissatisfied with the availability of quality healthcare?	0 = (DK), Dissatisfied, (Refused) 1 = Satisfied	Gallup	
Satisfied with City Housing	In your city or area where you live, are you satisfied or dissatisfied with the availability of good affordable housing?	0 = (DK), Dissatisfied 1 = Satisfied	Gallup	
Feels Safe Walking Alone	Do you feel safe walking alone at night in the city or area where you live?	0 = (DK), Dissatisfied, (Refused) 1 = Yes	Gallup	
Confidence in National Government	Do you have confidence in each of the following, or not? How about the national government?	0 = (DK), No, (Refused) 1 = Yes	Gallup	
Corruption Within Businesses	Is corruption widespread within businesses located in (country), or not?	0 = (DK), No, (Refused) 1 = Yes	Gallup	
Corruption in Government	Is corruption widespread throughout the government in (country), or not?	0 = (DK), No, (Refused) 1 = Yes	Gallup	
Lifeladder Today	On which step of the ladder would you say you personally feel you stand at this time?	1 = [0 = Worst possible, 9, ..., 10 = Best possible]	Gallup	Average
5 years ago	On which step would you say you stood five years ago? Ago	0 = (DK), (Refused) 1 = [0 = Worst possible, 9, ..., 10 = Best possible]	Gallup	Average
in 5 years	Just your best guess, on which step do you think you will stand in the future, say about five years from now?	0 = (DK), (Refused) [0-10]1 = [0 = Worst possible, 9, ..., 10 = Best possible] 0 = (DK), (Refused)	Gallup	Average

Note: Gallup data is taken from Survey Wave 18.1. Interviews were conducted during June–November 2023).

Afrobarometer data is taken from survey round 9 (2021–2023).