UNDERSTANDING MOBILE INTERNET USE IN LOW- AND MIDDLE-INCOME COUNTRIES

The State of Mobile Internet Connectivity 2025

GSMA Mobile for Development

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The Connected Society programme works with the mobile industry, technology companies, the development community and governments to increase access to and adoption of mobile internet, focusing on underserved population groups in developing markets.

For more information, please visit www.gsma.com/connected-society

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UNDERSTANDING MOBILE INTERNET USE IN LOW- AND MIDDLE-INCOME COUNTRIES

In an increasingly digital world, the ability to connect is more important than ever. However, internet access alone is insufficient. It is equally important to ensure all individuals can use it to meet their needs. This requires moving beyond looking at basic mobile internet adoption to consider the frequency and diversity of usage. This report examines how people in low- and middle-income countries (LMICs) are using mobile internet and the range of activities they engage in online.

While the majority of mobile internet users access it on a daily basis, usage is often concentrated on a limited number of widely adopted use cases. Some people remain unaware of the different activities mobile internet can be used for. The frequency and diversity of mobile internet use varies across geographies and demographic groups, with certain segments less likely to fully benefit from the opportunities mobile internet can provide.

This report uses the results of the GSMA Consumer Survey. The survey aims to understand access to – and use of – mobile and mobile internet in LMICs. During 2017–2024, the GSMA has conducted nationally representative face-to-face surveys in 30 LMICs, accounting for 79% of the population in LMICs. This included 15 LMICs in 2024.[1]

More information on the GSMA Consumer Survey can be found in Appendix 1.

1 Countries surveyed in 2024 include Bangladesh, Egypt, Ethiopia, Guatemala, India, Indonesia, Kenya, Mexico, Nigeria, Pakistan, Philippines, Rwanda, Senegal, Tanzania and Uganda.

1. FREQUENCY AND DIVERSITY OF MOBILE INTERNET USE

A large proportion of mobile internet users access it daily, but many limit use to just one or two activities

Once people start to use mobile internet, it often becomes an integral part of their daily routines. Across the countries surveyed, an average of 82% of mobile internet users report using it daily. In only four countries are less than 80% of users making daily use of mobile internet.[2] As an example, in India, 49% of the population uses mobile internet, with 95% of this group using it daily.

This is not a universal experience, however. While mobile internet adoption typically results in daily use in the Asian and Latin American countries surveyed, the pattern is less consistent across the African countries included in the study. As many as 93% and 83% of mobile internet users are using it daily in Egypt and Senegal respectively, while this drops to as low as 55% in Ethiopia. Differences are also seen within countries. For example, in Rwanda, 76% of urban mobile internet users use it daily, compared to 56% of rural users. In Pakistan, 89% of men using mobile internet use it daily, compared to 78% of women using mobile internet. Significant demographic differences were predominantly seen in the Sub-Saharan African countries surveyed.

Many mobile internet users use it for just one or two activities – even those who use mobile internet every day. For example, in urban areas in Egypt where the majority of mobile internet users (92%) use it each day, only half use it for three or more activities per day. This also varies by country and within countries. In almost all the countries surveyed, rural respondents, women,[3] those aged 35 and over, and low-literacy respondents use mobile internet for fewer activities on a daily and weekly basis than urban counterparts, men, those aged 18–34 and literate respondents. These differences varied by country but were typically not large. It is also important to note that these demographics were also less likely to adopt mobile internet in the first place.

GSMA analysis also shows that the number of different activities people engage in on a weekly basis is higher than on a daily basis, emphasising how engagement in some activities occurs less frequently.[4]

2 The exceptions are in Sub-Saharan Africa: Ethiopia, Rwanda, Tanzania and Uganda.
3 The Mobile Gender Gap Report 2025, GSMA, 2025
4 The Mobile Gender Gap Report 2025, GSMA, 2025

2. MOBILE INTERNET USE BY DEVICE TYPE

Mobile internet use is influenced significantly by the type of device owned

Levels of mobile internet use are different for basic, feature and smartphone owners. Across the countries surveyed, there is a strong correlation between smartphone ownership and mobile internet adoption and use. Smartphone owners are significantly more likely than those who do not own a smartphone to be aware of mobile internet and use it regularly and for a diverse range of activities. This deeper level of mobile internet use among smartphone owners likely reflects that individuals often become familiar with mobile internet and its benefits before deciding to invest in more advanced and expensive devices.

The comparatively higher levels of regular and diverse use among smartphone owners holds true across demographic groups.[5] For example, in Uganda, among basic phone owners, 0% of those living in urban areas and 2% of those living in rural areas are making regular and diverse use of mobile internet respectively. This increases to 2% and 4% of urban and rural feature phone owners. Among urban and rural smartphone owners, as many as 62% and 42% make regular and diverse use of mobile internet. Interestingly, some of the gaps close too. For example, once women own a smartphone, their mobile internet use tends to closely mirror that of men.

While mobile internet use varies by type of handset, ownership itself also plays a role. Mobile internet users who own an internet-enabled phone perform, on average, a wider variety of mobile internet use cases each day than those who only borrow a mobile phone to use the internet. GSMA research shows that while phone sharing enables access to some services, it limits the ability of borrowers to use life-enhancing services and gain digital literacy skills (see Barriers to Mobile Internet Adoption and Use for more detailed analysis on the proportion of internet users accessing it on their own device).

5 In this report, regular and diverse mobile internet use is defined as performing at least three mobile internet use cases daily.

3. ENGAGEMENT LEVELS FOR DIFFERENT MOBILE INTERNET USE CASES

Communications, social media and entertainment continue to be the most common mobile internet activities

Internet-based communications (instant messaging, calling online, video calls), using mobile internet for social media, watching online videos and online entertainment are among the most commonly used mobile internet activities and are used most consistently across the countries surveyed.[6] On average, 83–89% of mobile internet users report engaging in each of the six activities (see Appendix 1 for more detail on the list of activities).

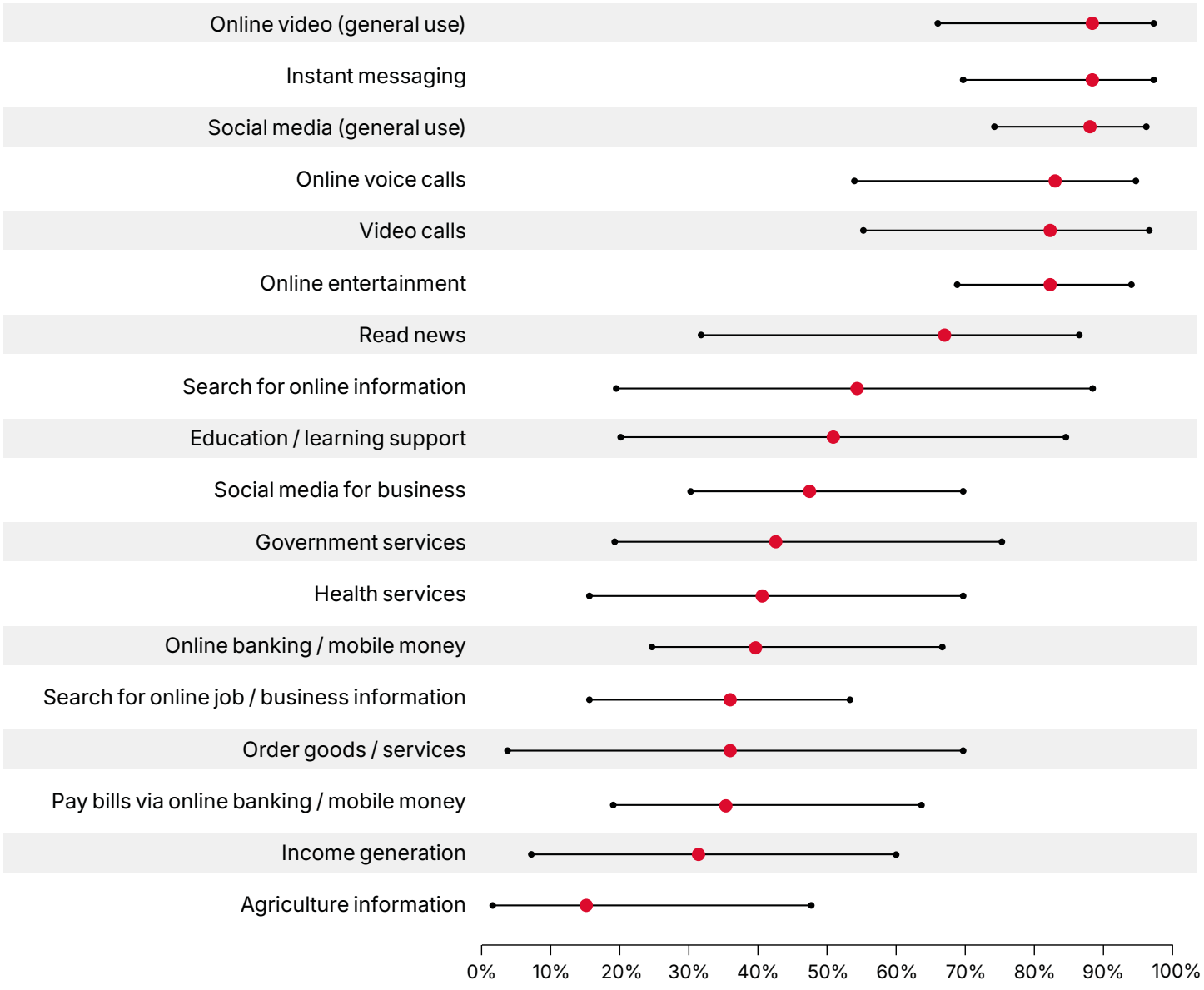
However, use of mobile internet for other activities is generally lower and shows significant variation across countries. For example, 70% of mobile internet users in Mexico have used mobile internet to access online health services or health information, compared to 16% in Pakistan. Similarly, 60% of mobile internet users in Mexico have used apps or websites on a mobile phone to generate income, compared to 7% in Ethiopia.

Many of the most widely used mobile internet activities are used for a range of purposes. Social media, for example, serves as a key gateway to a broad ecosystem of digital services. This includes accessing entertainment, communicating with friends and family, doing business[7,8,9] and seeking information and news.[10] For example, research conducted in 10 LMICs across Asia, Africa and Latin America found that micro-entrepreneurs used social media to communicate with customers and suppliers, and to market or promote products or services.[11] On average, 89% of mobile internet users across the GSMA consumer survey countries had used mobile for social media (see Figure 1), ranging from 75% in Pakistan to 97% in Philippines and Mexico. Almost half of mobile internet users (48%) were using social media to support work tasks or business ventures, ranging from 31% in Rwanda to 70% in Nigeria.

These patterns of use are consistent with analysis from prior years.

6 For further details on the different needs internet can fulfil, see Understanding people's mobile digital skills needs, GSMA, 2021.
7 Understanding women micro-entrepreneurs' use of mobile phones for business: Evidence from 10 low- and middle-income countries, GSMA, 2023
8 Empowered or Undermined? Women Entrepreneurs & the Digital Economy, Cherie Blair Foundation 2024
9 "5 learnings for connecting women to smartphones", NetHope, 2022
10 Reuters Institute Digital News Report 2022, Reuters Institute for the Study of Journalism, 2022
11 Understanding women micro-entrepreneurs' use of mobile phones for business: Evidence from 10 low- and middle-income countries, GSMA, 2023

Figure 1: Activities that mobile internet users report having engaged in at least once on a mobile phone, 2024
Percentage of mobile internet users



Base: Mobile internet users aged 18+. N = from 242 to 1,125 across the 15 countries surveyed in 2024.
Source: GSMA Consumer Survey, 2024

4. AWARENESS OF MOBILE INTERNET USE CASES

Most mobile internet users are aware of the most common use cases, but awareness significantly drops for the less frequent ones

For the first time, all mobile internet users were asked whether they were aware that they could use mobile internet for each of the 16 activities.[12] Across the countries surveyed, almost all mobile internet users are aware of the most common use cases: online calls, video calls, instant messaging, social media and watching online videos. However, awareness falls for less frequently used use cases. The mobile internet use cases that mobile internet users are least aware of include income generation, ordering goods or services, online banking, and health and government services.

In the majority of the countries, among mobile internet users, women, rural populations, those aged 35 and over, and those with low literacy were aware of fewer activities overall. However, the differences did not tend to be substantial.[13]

Ensuring people are aware of the range of ways they can use and benefit from mobile internet can increase meaningful connectivity.

12 Excludes “Social media for business” and “Paying bills via online banking or mobile money”, where awareness was not asked about.
13 With the exception of those with low literacy compared to literate counterparts, where more substantial differences were seen in some of the countries analysed.

DESPITE GROWING CONNECTIVITY, BARRIERS LIMIT FULL USE OF MOBILE INTERNET

Significant proportions of the population are not able to make full use of the internet, experiencing limited benefits from it as a result. In 2023, in most countries surveyed, many mobile internet users reported that they would like to use mobile internet more than they do.[14] They face a range of barriers, including safety and security concerns, affordability, and the connectivity experience. Literacy and digital skills and a perceived lack of relevance also play a role. For detailed analysis of the barriers to mobile internet adoption and to further use among existing users, see the report Barriers to Mobile Internet Adoption and Use.

This report is part of The State of Mobile Internet Connectivity 2025 report series. The other reports can be accessed below:

14 The State of Mobile Internet Connectivity Report 2024, GSMA, 2024

APPENDICES

APPENDIX 1: THE GSMA CONSUMER SURVEY

This report uses the results of the GSMA Consumer Survey. As part of the survey, the GSMA conducted face-to-face interviews in 15 LMICs in 2024, 12 LMICs in 2023, 12 LMICs in 2022, 10 LMICs in 2021, eight LMICs in 2020, 15 LMICs in 2019, 18 LMICs in 2018 and 24 LMICs in 2017.

The 15 LMICs surveyed in 2024 were Bangladesh, Egypt, Ethiopia, Guatemala, India, Indonesia, Kenya, Mexico, Nigeria, Pakistan, Philippines, Rwanda, Senegal, Tanzania and Uganda. The countries included in the survey across all years account for 79% of the population in LMICs.

Survey methodology

In all countries, a nationally representative sample of around 1,000 adults aged 18 and above was surveyed – except in India and China,[15] where the sample was around 2,000, and Ethiopia, where a full nationally representative sample was not achievable due to local conflict and security concerns.[16] The sampling frame was predominantly based on data from national statistics offices, including census data where possible and a range of other sources. Sampling points where interviews were conducted were distributed proportionately between urban and rural areas in accordance with census data and national statistics offices. To ensure wide geographical coverage and reduce the effects of clustering, a minimum of 100 sampling points were used in each country (200 in India). However, very remote areas or those with security concerns were excluded.

The research used a mix of purposive and random sampling approaches. Depending on the country, sampling points were either randomly distributed – with an administrative area's probability of selection proportionate to the size of its population (random sampling) – or selected to reflect the linguistic, cultural and economic variations of each country (purposive sampling).

Local experts and national statistics offices checked the sampling frames to ensure they were valid and representative.

Survey interviews were conducted under the direction of Ipsos with individuals in their local language(s) by both male and female interviewers. Data was collected using computer-assisted personal interviewing (CAPI). In more remote rural areas in countries such as Bangladesh, India and Pakistan, local teams tried to ensure female interviewers conducted the survey for female respondents, where practical. Interviews were conducted at respondents' homes. Within sampling points, systematic random routes were used for residence selection.

Weights were applied to the data using a random iterative method (RIM) whereby several non-interlocking quotas were applied in an iterative sequence and repeated as many times as needed for the quotas to converge. This corrected any imbalances in the profiles, although weightings (and the resulting impact on effective sample sizes) were minimised as much as possible by controlling key quota variables over the course of the fieldwork.

15 China was included in the 2017 and 2018 Consumer Surveys.

16 No interviews were conducted in the Amhara region, Western Tigray, Metekel-Zone (Benishangul Gumz), Zone 2 (Afar) and Guji-Zone (Oromia) due to local conflict and security concerns. These areas represent 27% of the population in Ethiopia, so the sample was representative of the remaining 73% who live outside these areas.

Question on mobile internet use

Survey respondents were asked, **"Have you ever used the internet on a mobile phone?"** and to select from one of the following answers:

- Yes, I have used the internet on a mobile phone in the last three months
- Yes, I have used the internet on a mobile phone longer than three months ago
- No, I have never used the internet on a mobile phone
- Don't know

In this report, a respondent to the GSMA Consumer Survey is considered a mobile internet user if they have used the internet on a mobile phone in the last three months.

To identify regular users of mobile internet, these mobile internet users were then asked, **"How frequently do you use the internet on a mobile phone?"** and to select from one of the following answers:

- At least once a day
- At least once a week
- At least once a month
- Less than once a month

In this report, a respondent to the GSMA Consumer Survey is considered a regular mobile internet user if they use the internet on a mobile phone at least once a day.

Question on smartphone ownership

Survey respondents were asked, **"Do you have a mobile phone that you have the sole or main use of? This may be a handset that you carry with you most days"**.

They were then asked a follow-up question, **"What type of mobile phone is that?"** and to select from one of the following answers:

- A basic mobile phone
- A feature mobile phone
- A smartphone

Prompts were provided to help identify the handset according to these three categories. In this report, a respondent to the GSMA Consumer Survey is considered a smartphone owner if they have a smartphone that they have sole or main use of.

Question on mobile internet awareness

Survey respondents were asked, **"Which of the following best describes your knowledge of accessing the internet on a mobile phone?"** and to select from one of the following answers:

- I was not aware it is possible to access the internet on a mobile phone
- I was aware it is possible to access the internet on a mobile phone

In this report, a respondent to the GSMA Consumer Survey is aware of mobile internet if they have ever used the internet on a mobile phone or are aware it is possible to access the internet on a mobile phone.

Question on mobile internet activities

For mobile internet use cases, this report uses data from the GSMA Consumer Survey on the tools and services used on a mobile phone. The GSMA Consumer Survey framed the following question: **"Thinking now about different tools and services you may use on a mobile phone. How frequently, if at all, do you do each of the following on a mobile phone?"**

Respondents could answer with one of the following:

- At least once a day
- At least once a week
- At least once a month
- Less than once a month
- Never done this, but aware that this can be done on a mobile phone
- Never done this and not aware that this can be done on a mobile phone

They were asked this question about the following use cases:

1. Make or receive calls on a mobile phone using an online provider (e.g. Skype, WhatsApp, Facebook Messenger, KakaoTalk, Google Voice, Viber)
2. Use instant messaging on a mobile phone (e.g. Facebook Messenger, WhatsApp, KakaoTalk, LINE, Viber, Snapchat)
3. Make or receive video calls where you can see the person you are speaking to (e.g. FaceTime, Skype, WhatsApp, Viber)
4. Search for online information on a mobile phone to help with my daily life (e.g. store opening times, recipes, maps, etc.)
5. Search for online information on a mobile phone to help with my work or job (e.g. search for suppliers or products, company information, etc.)
6. Use social media apps or social media websites on a mobile phone (e.g. Facebook, Instagram, TikTok, LinkedIn, Kakao, etc.)
   [Note: different from 7 as the purpose of this is to be overarching]
7. Use social media for your business or the work that you do on a mobile phone (e.g. social networking for your business, sharing information about business, etc.)
   [Note: different from 6 as the purpose of this is to look specifically at social media use for business]
8. Access online information on a mobile phone to support training, learning or education for me or someone else
9. Access online health services or health information on a mobile phone for me or someone else (e.g. to check symptoms online, book appointments, use a health app, etc.)
10. Use apps or websites on a mobile phone to earn money (e.g. selling goods/services online, using online platforms to find work, etc.)
11. Buy goods or services using the internet on a mobile phone (e.g. Amazon, eBay, Uber, etc.)
12. Use online entertainment services on a mobile phone (e.g. watch programmes, videos or movies, listen to music, play games, etc.) [Note: different from 13 as the purpose of this is to look specifically at entertainment]
13. Watch online videos on a mobile phone (e.g. YouTube, DailyMotion, etc)
    [Note: different from 12 as the purpose of this is to look more broadly at video consumption]
14. Access government services or government information using the internet on a mobile phone
15. Use online banking or online mobile money services on a mobile phone (e.g. pay bills, check balances, etc.)
    [Note: different from 16 as the purpose of this is to be overarching]
16. Use online banking services or online mobile money services to pay bills on a mobile phone [Note: different from 15 as the purpose of this is to look specifically at bill payments]
17. Read online news articles or news stories on a mobile phone
18. Access online information on farming or fishery services (e.g. weather updates, pest control, productivity tips, etc.)

In this report, a respondent to the GSMA Consumer Survey is considered a regular and diverse mobile internet user if they use the internet on a mobile phone at least once a day for at least three different activities.[17]

17 Note: activities 7 and 16 were not included in analysis of diverse mobile internet use to avoid double counting, as these are subsets of other questions.

APPENDIX 2: ADDITIONAL FIGURES

Figure 2 shows the proportion of mobile internet users in the surveyed countries who have engaged in different activities at least once on a mobile phone.

Figure 2: Activities engaged in online (ever performed over mobile)
Percentage of mobile internet users that report having engaged in the activity at least once on a mobile phone

		Online video (general use)	Instant messaging	Social media (general use)	Online voice calls	Video calls	Online entertainment	Read news	Search for online information	Education/ learning support	Social media for business	Government services	Health services	Online banking/ mobile money	Search for online job/ business information	Order goods/ services	Pay bills via online banking/ mobile money	Income generation	Agriculture information
AFRICA	Egypt	95%	93%	96%	89%	82%	91%	71%	60%	37%	40%	34%	42%	25%	28%	36%	22%	25%	2%
	Ethiopia	66%	70%	88%	54%	56%	71%	60%	28%	29%	33%	36%	29%	26%	20%	4%	23%	7%	8%
	Kenya	89%	91%	92%	78%	75%	86%	72%	64%	61%	49%	46%	47%	51%	42%	33%	47%	34%	28%
	Nigeria	82%	91%	88%	88%	86%	79%	66%	54%	50%	70%	42%	44%	67%	49%	40%	64%	49%	20%
	Rwanda	95%	91%	83%	70%	68%	84%	84%	55%	61%	31%	59%	42%	38%	35%	15%	33%	24%	23%
	Senegal	87%	90%	84%	85%	80%	75%	53%	36%	36%	50%	37%	23%	26%	28%	13%	25%	19%	9%
	Tanzania	89%	84%	85%	74%	80%	86%	81%	67%	70%	63%	57%	55%	53%	51%	32%	50%	47%	48%
	Uganda	84%	89%	90%	83%	74%	75%	60%	47%	47%	54%	27%	37%	26%	39%	10%	23%	13%	24%
ASIA	Bangladesh	97%	87%	92%	95%	96%	83%	56%	62%	42%	43%	33%	36%	44%	29%	40%	35%	37%	8%
	India	88%	83%	82%	83%	84%	86%	67%	58%	58%	51%	54%	50%	47%	39%	59%	41%	48%	22%
	Indonesia	92%	95%	88%	95%	95%	80%	63%	51%	37%	49%	31%	30%	34%	34%	61%	27%	28%	15%
	Pakistan	84%	78%	75%	76%	83%	69%	32%	20%	20%	34%	20%	16%	25%	16%	17%	19%	18%	6%
	Philippines	97%	98%	97%	94%	97%	95%	78%	62%	62%	38%	45%	43%	31%	34%	70%	25%	25%	10%
LATIN AMERICA	Guatemala	93%	94%	94%	94%	96%	87%	79%	69%	78%	58%	44%	50%	42%	45%	39%	39%	37%	7%
	Mexico	94%	97%	97%	94%	92%	92%	87%	89%	85%	57%	76%	70%	66%	54%	70%	64%	60%	2%

0-10% 11-30% 31-50% 51-70% 71-90% 91-100%

Base: Mobile internet users aged 18+. N = from 242 to 1,125.

Note: Percentages indicate the proportion of respondents who answered that they have ever performed each activity on a mobile. Respondents may have engaged in some use cases on a phone other than their own.

Source: GSMA Consumer Survey, 2024

APPENDIX 3: GLOSSARY

Feature phone	A mobile handset that allows basic access to internet-based services but on a closed platform that does not support a broad range of applications. The handset supports additional features such as a camera and the ability to play multimedia files such as music and video.
Low- and middle-income country (LMIC)	A country classified as low income, lower-middle income and upper-middle income by the World Bank Country and Lending Groups.
Mobile internet user	A person who uses internet services on a mobile device. Mobile internet services are defined as any activities that use mobile data.
Mobile (phone) owner/ subscriber	A person who subscribes to a mobile service. They do not necessarily use mobile internet.
Smartphone	A mobile handset enabling advanced access to internet-based services and other digital functions. Smartphone platforms, such as Android and iOS, support a broad range of applications created by third-party developers.

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