## GSMA

# The Mobile Gender Gap Report 2025

## GSMA

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# Introduction



Mobile phones and mobile internet can transform lives by providing connectivity, information, healthcare, education, e-commerce, financial services and income opportunities from anywhere.

In 2024, more people than ever accessed the internet via a mobile phone, including 3.7 billion people in low- and middle-income countries (LMICs).<sup>1</sup> Mobile remains the primary way people in LMICs access the internet, accounting for 84% of broadband connections in 2024.<sup>2</sup> This is especially true for the underserved, including women and those who live in rural areas. In 14 of the 15 countries surveyed for this report, female internet users were more likely than their male counterparts to exclusively use a mobile phone to get online,<sup>3</sup> with differences of up to 14 percentage points.<sup>4</sup>

In LMICs, 83% of women now own a mobile phone, 61% own a smartphone and 63% use mobile internet. Yet, mobile access and use remain unequal. Across these countries, women are still less likely than men to have access to mobile phones, mobile money, mobile internet and other mobile services. Women are also less likely to use these services on an equal basis, particularly those who are most underserved – including women with low literacy levels, low incomes, or who live in a rural area or have a disability.

The gender gap in mobile internet adoption had been closing steadily. Between 2017 and 2020, it had narrowed from 25% to 15%, but in 2021 and 2022 this gap widened to 18%. In last year's report, we highlighted that in 2023, for the first time in three years, the mobile internet gender gap had narrowed again, returning to 15%. This was because of women adopting mobile internet at a faster rate than men in 2023. Unfortunately, our latest data shows this positive trend did not continue in 2024 and progress has stalled once again. In 2024, the gender gap in mobile internet adoption remained relatively unchanged at 14% due to a similar number of women and men starting to use it across LMICs. Stakeholders need to intensify their efforts to close this critical and stubborn gender gap. Addressing the mobile gender gap provides significant social and commercial benefits to individuals, societies and economies, Connectivity is vital to achieving the United Nations Sustainable Development Goals (SDGs), including those related to health, education, climate and financial inclusion. GSMA analysis has estimated that over the eight years from 2023 to 2030,<sup>5</sup> closing the gender gap in mobile ownership and use in LMICs could deliver \$230 billion in additional revenue to the mobile industry,<sup>6</sup> and closing the gender gap in mobile internet adoption in LMICs would add \$1.3 trillion in additional gross domestic product (GDP).<sup>7</sup> Mobile access and use can also transform women's lives. GSMA research in 12 LMICs has shown that once women use mobile internet, most believe it has a positive impact on their lives and to a similar degree as men.<sup>8</sup>

In this eighth edition of *The Mobile Gender Gap Report* series, we share the latest figures on women's access to and use of mobile in LMICs, the barriers they face and how this compares to men. We also offer recommendations to close the mobile gender gap and reach more women with mobile, with suggested actions for mobile network operators (MNOs), policymakers and regulators, the development community and other stakeholders.

As the world becomes more digitised, ensuring that women can access and use mobile is essential. Now more than ever, we must strive for equal access and use so that women, their communities and society can reap the full, life-changing benefits of mobile. This requires investment, effort and attention from all.

<sup>1.</sup> GSMA Intelligence, Q4 2024.

<sup>2.</sup> International Telecommunication Union (ITU) estimates for 2024.

<sup>3.</sup> Except Indonesia, where male and female internet users were equally likely to access the internet exclusively via mobile.

<sup>4.</sup> The difference was greatest in Rwanda, where 77% of female internet users access it exclusively via mobile, compared to 63% of men.

<sup>5.</sup> This period is inclusive of the years 2023 and 2030.

<sup>6.</sup> GSMA. (2023). The Mobile Gender Gap Report 2023.

<sup>7.</sup> GSMA. (2024). The State of Mobile Internet Connectivity 2024.

<sup>8.</sup> GSMA. (2023). The Mobile Gender Gap Report 2023.

# This report provides:

The findings of this report draw on the annual **GSMA Consumer Survey**, which this year had more than



Updated data on the barriers to mobile internet adoption and use among men and women.

Updated figures on gender gaps in mobile ownership, smartphone ownership and mobile internet adoption in

LMICs and how these figures have changed over time.



New data on men's and women's awareness of different mobile internet use cases.



A spotlight on rural women's use of mobile compared to their male and urban counterparts.



A deep dive into women micro-entrepreneurs' use of mobile phones for business in comparison to men.

# 17,000 respondents from 15 LMICS

These face-to-face, nationally representative surveys<sup>9</sup> were conducted between August and November 2024. Analysis of other research and data from the GSMA, and a range of other organisations that investigate and track the mobile gender gap, also inform the findings of this report.

> Except for Ethiopia where, in 2022, sampling excluded the Tigray region and six zones, and in 2023 and 2024 excluded the Amhara region and six zones due to conflict.

# **Key findings**



## **Key findings**

- Progress has stalled in closing the gender gap in mobile internet adoption across lowand middle-income countries, with the gap remaining relatively unchanged in 2024. There were also no notable regional changes in 2024 except in Sub-Saharan Africa, where the gender gap has narrowed for the second year in a row.
- More than 1.5 billion women in low- and middle-income countries are now using mobile internet, but women's rate of adoption has slowed. Only 50 million women started using mobile internet in 2024 compared to 85 million in 2023 when the mobile internet gender gap narrowed. The rate of adoption among men remains relatively unchanged.
- 3. Women are now 14% less likely than men to use mobile internet across low- and middleincome countries. This translates to around 235 million fewer women than men. Currently, 74% of men in these countries use mobile internet compared to only 63% of women.
- 4. Around 60% of the 885 million women still not using mobile internet in low-and middleincome countries live in South Asia and Sub-Saharan Africa. These regions also have the widest gender gaps in mobile internet adoption, at 32% and 29%, respectively. In most survey countries in these regions, gender gaps are also wider in rural areas than in urban areas.
- 5. The gender gap in smartphone ownership across low- and middle-income countries remains unchanged at 14%. This translates to around 230 million fewer women owning smartphones than men. In these countries, 61% of women now own a smartphone compared to 71% of men. The rate of smartphone adoption across these countries has slowed significantly for both men and women.
- 6. The underlying gender gap in mobile ownership across low- and middle-income countries is 8% and has not changed notably in eight years. There are still 400 million women who do not own a mobile phone and they are proving difficult to reach.
- 7. The vast majority of mobile internet users access it from their own phone. However, in a couple of the survey countries, a relatively high percentage of women exclusively use the internet on someone else's mobile phone. These women are less likely than women who own an internet-enabled phone to use mobile internet every day and for a range of activities. Phone borrowing is most common in Pakistan,

where 35% of women who use mobile internet do not own an internet-enabled phone, compared to 6% of men.

- 8. Awareness of mobile internet is high and almost equal among men and women in most of the survey countries, but notable gender gaps remain in some countries. Awareness does not always lead to adoption, particularly for women.
- 9. For those who are already aware of mobile internet, the top reported barriers to adopting it are still affordability (primarily of handsets) and literacy and digital skills. With millions more women offline than men, they are disproportionately affected by these barriers. Women also tend to experience these barriers more acutely due to social norms and structural inequalities, such as lower education and income.
- 10. Once men and women use mobile internet, the top reported barriers to further use are still safety and security concerns, affordability (particularly data but also handsets) and connectivity experience. These barriers to further use vary more by local context and less by gender. For example, in countries with higher rates of mobile internet adoption, safety and security concerns tend to be reported more by both men and women.
- Most mobile internet users access it every day, especially men. Female mobile internet users tend to use it for a narrower range of use cases than men on a daily and weekly basis. The most popular use cases for both men and women are related to communication and entertainment.
- 12. Among mobile internet users, awareness of the most common use cases is near universal with little gender difference. However, awareness levels are lower for less frequently used use cases, especially among women. These use cases include those related to government services, health and education support.
- 13. The most valued features in an internetenabled phone, apart from price, are related to performance, functionality and longevity of the device rather than aesthetics, physical features or brand reputation. These preferences were similar regardless of gender or location.
- 14. Closing the gender gap in mobile internet adoption in low- and middle-income countries would add \$1.3 trillion in additional GDP from 2023 to 2030.

## **IN LOW- AND MIDDLE-INCOME COUNTRIES**



## **IN LOW- AND MIDDLE-INCOME COUNTRIES** ARE STILL **O** less likely than men to own a mobile phone 0 **MOBILE INTERNET ADOPTION** The top barriers preventing women who are aware of **mobile internet** from adopting it are: **1. AFFORDABILITY** (PRIMARILY OF HANDSETS) 2. LITERACY AND Ø. **DIGITAL SKILLS** Closing the **GENDER** \$1.3 GAP in mobile internet TRILLION adoption would add The most **popular** mobile internet use cases are related to communication and entertainment

And almost all mobile internet users are aware of these use cases





FURTHER MOBILE INTERNET USE

## The top barriers

preventing women who use mobile internet from using it more are:



## **1. SAFETY AND SECURITY CONCERNS**



## 2. AFFORDABILITY (particularly of data but also handsets)

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### **3. CONNECTIVITY EXPERIENCE**







The most valued features in an internet-enabled phone, apart from price, are:

**PERFORMANCE**, **FUNCTIONALITY** and LONGEVITY



# Definitions



#### **GENDER GAP**

The gender gap in mobile phone ownership, smartphone ownership and mobile internet adoption is calculated using the following formula:

Gender gap in ownership / use (%)



Male owners / users

Female owners / users (% of female population)



#### MOBILE OWNER

"Mobile phone owner" and "mobile owner" are used interchangeably in this report to mean a person who has sole or main use of a SIM card or mobile phone that does not require a SIM and uses it at least once a month. The vast majority of SIM owners also have sole or main use of a handset (a median of 92% across the countries, ranging from 87% to 96%).



#### FEATURE PHONE OWNER

A mobile owner that has sole or primary use of a feature phone. A feature phone is an internet-enabled mobile phone with a small screen and basic keypad with several letters per button. A feature phone may have some pre-installed apps but does not have the ability to download apps from an online app store, such as Google Play or the App Store. Smart feature phones are a subgroup of feature phones and are not recorded as a separate category in the survey.

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#### **SMARTPHONE OWNER**

A mobile owner that has sole or primary use of a smartphone. A smartphone is a mobile phone with a touchscreen display, an advanced operating system (Android or iOS) and the ability to download apps from an online app store, such as Google Play or the App Store.



#### MOBILE INTERNET USER

A person who has used the internet on a mobile phone at least once in the past three months.<sup>10</sup> Mobile internet users do not have to personally own a mobile phone. Therefore, they can be non-mobile phone owners who use mobile internet by accessing it on someone else's mobile phone.

<sup>10.</sup> Respondents were asked the question: "Have you ever used the internet on a mobile phone? Please think about all the different ways of using the internet on a mobile phone. Just to confirm, people are using the internet on their mobile phones when they do any of the following: visit internet websites (e.g. Google or Amazon), visit social networking websites (e.g. Facebook, Twitter, YouTube, Weibo), send emails or instant messages (e.g. WhatsApp, Snapchat, WeChat, LINE) or download apps." Mobile internet users are those who answered, "Yes, I have used the internet on a mobile phone in the past three months."

# The mobile gender gap in 2024



2024 was another challenging year for many in LMICs, with political instability, economic hardship and extreme weather events affecting entire populations. During this year, women's levels of mobile ownership, smartphone ownership and mobile internet adoption all remained relatively unchanged. There was a similar trend for men, resulting in gender gaps similar to those in 2023.

In last year's report, we shared the positive news that the gender gap in mobile internet adoption across LMICs had narrowed notably for the first time in three years to 15%, bringing it back to where it was in 2020. Our most recent data from 2024 shows that progress stalled, and this gender gap is relatively unchanged, with women across LMICs now 14% less likely than men to use mobile internet (see Figure 1). This translates to 235 million fewer women than men. Women's rate of adoption slowed in 2024 compared to 2023, when the mobile internet gender gap narrowed, while men's remained relatively unchanged. Around 50 million women across LMICs started using mobile internet in 2024 compared to 85 million in 2023.

As well as mobile internet adoption, it is also important to understand the gender gap in mobile ownership, specifically ownership of internetenabled devices. In 2024, progress in closing the smartphone gender gap also stalled. Women across LMICs remain 14% less likely than men to own a smartphone (see Figure 1), which translates to 230 million fewer women than men. There are 945 million women in LMICs who do not yet own a smartphone, which limits their ability to access and use mobile internet to meet their life needs.

Across LMICs, women are still 8% less likely than men to own a mobile phone of any type, which translates to 150 million fewer women than men. This gender gap has not changed notably since we began tracking it in 2017 (see Figure 1). Although nearly 2 billion women own a mobile phone in these countries, the 400 million women who do not own one are proving difficult to reach.

Gender gaps in mobile internet adoption, smartphone ownership and overall mobile ownership have been consistently widest in South Asia and Sub-Saharan Africa, where most of those not using mobile internet live (see Figure 1). In South Asia, the gender gap in mobile internet adoption in 2024 remained relatively unchanged at 32% with 330 million women in the region still not using it. However, there was promising progress in closing mobile gender gaps in Sub-Saharan Africa, the region with the highest proportion of women not yet using mobile internet. The mobile internet gender gap in Sub-Saharan Africa has narrowed consistently for the past two years, from 36% in 2022 to 32% in 2023, and now stands at 29%. However, there are still around 205 million women in the region who do not yet use it.

Addressing these gender gaps is crucial, as owning a mobile phone, particularly a smartphone, significantly increases mobile internet use among both men and women.

Women are less likely than men to own a mobile phone

#### Women are

14%

less likely than men to use mobile internet



## **Z million** fewer women than men are

using mobile

internet

Gender gaps across LMICs and by region, 2017-2024 Among total adult population





### Country-level gender gaps in mobile ownership, smartphone ownership and mobile internet adoption

While gender gaps in mobile ownership, smartphone ownership and mobile internet adoption remained relatively unchanged across LMICs, there were some variations at the country level.

Women are less likely than men to use mobile internet in all but three of the 15 survey countries<sup>11</sup> (see Figure 2). Promisingly though, mobile internet gender gaps narrowed in seven of the 12 countries surveyed in 2023 and 2024. In Pakistan, the gender gap narrowed substantially and more than any other survey country, from 38% to 25% (see Spotlight: Pakistan's breakthrough in women's digital inclusion). In Pakistan and Senegal, this was due to women adopting mobile internet at a significantly faster rate than men.<sup>12</sup> The mobile internet gender gap remained relatively flat in the other five survey countries, including India, whose large population has a significant impact on gender gap trends in South Asia and LMICs overall.

When it comes to mobile ownership, women are less likely than men to own a mobile phone (of any type) in more than half the survey countries (see Figure 2). However, in six of the 15 survey countries (Egypt, Kenya, Nigeria, Tanzania, the Philippines and Mexico), women are equally as likely as men to own one. This gender balance is particularly notable in Kenya, Nigeria, Tanzania and Mexico, where mobile ownership is near universal. Compared to 2023, the gender gap in mobile ownership remained relatively unchanged in most of the 12 countries surveyed in both 2023 and 2024, but narrowed in four (Egypt, Ethiopia, Uganda and Indonesia). This was most notable in Indonesia where it narrowed from 13% in 2023 to 5% in 2024 due to women's mobile ownership increasing more than men's. Mobile ownership also increased notably in Ethiopia in 2024, from 79% to 86% for men and even more for women -57% to 65% - narrowing the gender gap.

In most of the survey countries, gender gaps in mobile internet adoption are wider than gender gaps in mobile ownership. The exceptions are Indonesia and the Philippines, where there is essentially no mobile internet gender gap, and Pakistan, where the mobile internet gender gap is narrower than the mobile ownership gap (see Figure 2). Even in countries with a narrow gender gap in mobile ownership, the gender gap in mobile internet adoption can be wide, such as in Kenya, Nigeria, Tanzania and Uganda. One reason may be the high uptake of mobile money in these countries (except Nigeria, where mobile money adoption is still growing), which may have given women a strong incentive to own a mobile phone (including basic handsets).

Gender gaps in smartphone ownership also vary significantly by country, from 48% in Pakistan to -1% in the Philippines (see Figure 2). There are also differences in how smartphone gender gaps have changed over the past year. Gender gaps have narrowed in five of the 12 countries surveyed in both 2023 and 2024 (Bangladesh, Indonesia, Kenya, Nigeria and Mexico) due to women's ownership increasing and men's remaining relatively flat. For example, in Nigeria, men's smartphone ownership remained flat at around 50% in 2024, while women's increased from 32% in 2023 to 39% in 2024. As a result, the gender gap narrowed from 38% to 23%. In the other seven countries surveyed in both years, the smartphone ownership gender gap remained flat in four (Pakistan, Egypt, Uganda and Senegal) and widened slightly in three (Ethiopia, India and Guatemala). However, in all seven of these countries, women's smartphone ownership either remained the same or increased slightly.

11. The exceptions are Indonesia, the Philippines and Mexico, where women are equally as likely as men to use mobile internet.

12. In the other five countries where the mobile internet gender gap narrowed (Egypt, Kenya, Nigeria, Uganda and Indonesia), it was because men's adoption was relatively unchanged while women's adoption increased slightly.

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Mobile ownership, smartphone ownership and mobile internet adoption among men and women

Percentage of total adult population



Source: GSMA Consumer Survey, 2024

Base: Total population aged 18+

A mobile owner is defined as a person who has sole or main use of a SIM card (or a mobile phone that does not require a SIM) and uses it at least once a month. Mobile internet users do not have to personally own a mobile phone. The gender gap in mobile ownership, smartphone ownership and mobile internet adoption refers to how much less likely a woman is to own a mobile (or smartphone or to use mobile internet) than a man. n=493 to 982 for women and n=483 to 1,234 for men



35%

39%



AFRICA



Men Women (🗶) = Gender Gap

MOBILE INTERNET ADOPTION (%)

# The journey to mobile internet use





Mobile remains the primary – and often only – way that people in LMICs access the internet, especially women. In 14 of the 15 survey countries, a higher proportion of female internet users than male internet users accessed it exclusively on a mobile phone.<sup>13</sup> For example, in Senegal, 91% of female internet users access it exclusively on a mobile, compared to 84% of male users. Similarly, in Pakistan, 87% of women who use the internet do so exclusively on a mobile phone, compared to 81% of men.

While no two people have the same experience acquiring and using mobile technology, there are

common milestones and barriers on the journey to using mobile internet (Figure 3). Often, this journey starts with owning a handset (stage 1), progresses to being aware of mobile internet (stage 2) and then owning an internet-enabled phone (stage 3).<sup>14</sup> There are several reasons why awareness often precedes owning an internetenabled phone, such as being unlikely to invest in these more sophisticated and expensive devices without first knowing about mobile internet and its benefits. Internet-enabled phone ownership is typically followed by mobile internet adoption (stage 4) and, finally, to regular (stage 5) and diverse (stage 6) mobile internet use.

#### Figure 3

The mobile internet user journey



Understanding where men and women tend to get stuck on this user journey is key to targeting action and ensuring equal access and use. Data from the survey countries (Figure 5) shows the progress of men and women along this journey and how gender gaps tend to widen at each stage.

In the majority of countries, most people tend to drop off between mobile internet awareness (stage 2) and internet-enabled phone ownership (stage 3), particularly women. For example, while 84% of women in Nigeria are aware of mobile internet (stage 2), only 47% own an internet-enabled phone (stage 3) – a drop-off of 37 percentage points (see Figure 4). This dropoff is smaller for men, at 27 percentage points, meaning that even once women are aware of mobile internet, they are less likely than men to own an internet-enabled device. However, once women do own an internet-enabled phone (stage 3), most use mobile internet (stage 4). For example, 35% of women in Nigeria are mobile internet users, equivalent to a dropoff of just 12 percentage points (compared to an 11 percentage-point drop off for men). As such, focussing efforts on improving internetenabled phone ownership among women who are already aware of it (at stage 2) could be the most effective way to close the mobile internet gender gap, not only in Nigeria but also in other countries where there is a similar trend.

13. The exception is Indonesia, where male and female internet users were equally likely to access the internet exclusively on a mobile phone.

14. Either a feature phone or a smartphone

The mobile internet user journey in Nigeria Percentage of total adult population at each stage



Source: GSMA Consumer Survey, 2024

Base: Total population aged 18+

A mobile owner is defined as a person who has sole or main use of a SIM card (or a mobile phone that does not require a SIM) and uses it at least once a month. Mobile internet users do not have to personally own a mobile phone. Diverse daily mobile internet use is defined as performing at least three mobile internet use cases daily.

n=493 for women and n=510 for men

While most people who use mobile internet (stage 4) access it from their own internet-enabled phone, this is not always the case, particularly for women in settings with more restrictive social norms (see Figure 11). However, for those who own an internetenabled phone, particularly a smartphone, gender gaps are much narrower at each subsequent stage of the journey. In all the survey countries, once women own a smartphone, their rate of adoption and use of mobile internet is almost on par with men.<sup>15</sup> For example, among smartphone owners in Bangladesh, 90% of men and 87% of women use mobile internet (stage 4), with 89% and 83%, respectively, using it every day (stage 5) and 72% and 74% using it daily for three or more use cases (stage 6). This underscores the importance of ensuring women are able to own an internetenabled phone and use it as often as they like and for a range of activities that meet their needs.

<sup>15.</sup> The analysis is not shown here, but for more in-depth information see, for example, Figure 9 in The Mobile Gender Gap Report 2022.

The mobile internet user journey in survey countries

Percentage of total adult population

		<b>Stage 1</b> Mobile ownership	Stage 2 Mobile internet awareness	Stage 3 Internet- enabled pho ownership	Stage 4 Mobile internet adoption	Stage 5 Daily mobi internet us	Stage 6 Diverse daily mobile internet use
	Men	89%	89%	68%	63%	58%	34%
EGYPT	Women	86%	82%	60%	57%	54%	33%
ETHIODIA	Men	86%	71%	42%	28%	16%	9%
ETHIOPIA	Women	65%	53%	24%	16%	8%	3%
KENVA	Men	95%	88%	60%	55%	47%	34%
KENTA	Women	93%	84%	54%	43%	34%	22%
NIGERIA	Men	94%	90%	63%	52%	45%	26%
	Women	91%	84%	47%	35%	30%	18%
RWANDA	Men	72%	67%	53%	36%	25%	21%
	Women	59%	51%	39%	23%	14%	12%
SENEGAL	Men	92%	98%	78%	78%	69%	46%
	Women	81%	94%	62%	66%	50%	<mark>32%</mark>
TANZANIA	Men	93%	87%	44%	42%	29%	20%
	Women	91%	79%	33%	30%	16%	12%
UGANDA	Men	90%	81%	64%	37%	23%	17%
	Women	85%	70%	48%	24%	13%	10%
BANGLADESH	Men	85%	85%	66%	42%	41%	34%
	Women	68%	78%	48%	26%	24%	21%
INDIA	Men	84%	74%	61%	58%	56%	45%
	Women	71%	62%	39%	39%	36%	28%
INDONESIA	Men	91%	86%	69%	71%	65%	54%
	Women	87%	85%	69%	73%	68%	57%
PAKISTAN	Men	93%	89%	60%	60%	54%	33%
	Women	58%	86%	32%	45%	35%	18%
PHILIPPINES	Men	72%	88%	64%	73%	62%	61%
	Women	73%	87%	65%	73%	67%	60%
GUATEMALA	Men	81%	86%	71%	71%	65%	55%
	Women	75%	84%	61%	65%	59%	48%
MEXICO	Men	91%	97%	78%	85%	81%	71%
	Women	92%	98%	79%	83%	78%	71%

Source: GSMA Consumer Survey, 2024

Base: Total population aged 18+

A mobile owner is defined as a person who has sole or main use of a SIM card (or a mobile phone that does not require a SIM) and uses it at least once a month. Mobile internet users do not have to personally own a mobile phone. Daily and diverse mobile internet use is defined as performing at least three mobile internet use cases daily. n=493 to 982 for women and n=483 to 1,234 for men

# The gender gap in mobile ownership

83% of women in LMICs own a mobile phone (of any type) compared to 90% of men. As a result, women are 8% less likely than men to own a mobile phone. This gender gap has remained essentially the same every year since 2020 (see Figure 1) and growth in mobile ownership has remained relatively flat for both men and women. A total of 400 million women in LMICs still do not own a mobile phone compared to 230 million men. These women (and men) are particularly challenging to reach and typically the most underserved, including those who have low literacy levels, are older than 55, are unemployed, have low incomes, live in a rural area or have a disability.

The gender gap in mobile ownership varies across regions, from -2% in Europe and Central Asia to 18% in South Asia (see Figure 6). There have been no changes in regional mobile ownership gender gaps except in South Asia, where it widened slightly from 15% in 2023 to 18% in 2024.

Previous GSMA research has shown that the top barriers to mobile ownership for women (and men) who do not own a mobile phone are affordability (primarily of handsets) and literacy and digital skills.<sup>16</sup>

16. See Table 1 in *<u>The Mobile Gender Gap Report 2023</u>*.

Gender gap in mobile ownership in LMICs, by region *Among total adult population* 



Source: GSMA, 2024

The gender gap refers to how much less likely a woman is to own a mobile than a man. Mobile ownership is defined as having sole or main use of a SIM card (or a mobile phone that does not require a SIM) and using it at least once a month.

Based on survey results and modelled data for adults aged 18+.



# The gender gap in smartphone ownership

The type of mobile device a person owns matters, as it affects whether and how they use the internet. Once people own a smartphone, they are much more likely to be aware of mobile internet, adopt it, use it regularly and in a variety of ways. For example, in Uganda, 8% of men and 7% of women who own a basic phone use mobile internet, and this increases to 23% and 12%, respectively, among feature phone owners. However, among smartphone owners, 93% of men and 86% of women use mobile internet. With just a few exceptions, once women own a smartphone, their mobile internet awareness, adoption and use closely mirror that of men.

Across LMICs, 61% of women and 71% of men now own a smartphone. This means that while almost 1.5 billion women own a smartphone, there are still 945 million who do not, and 230 million fewer women own a smartphone than men (see Figure 7). While this is an increase from 2023 in the total number of people who own a smartphone, the gender gap did not change in 2024 – women are still 14% less likely than men to own a smartphone. In addition, growth in smartphone ownership slowed overall in 2024 for both men and women. In 2023, 115 million women and 95 million men acquired a smartphone, but in 2024, these numbers dropped to 45 million women and 65 million men. Regional gender gaps in smartphone ownership also remain unchanged, except in South Asia and Sub-Saharan Africa. In South Asia, the smartphone ownership gender gap widened slightly from 34% to 40%. This was driven primarily by India, where men's smartphone ownership increased slightly but women's remained unchanged, widening the gender gap from 32% in 2023 to 39% in 2024. In contrast, there was promising progress in Sub-Saharan Africa, where the gender gap in smartphone ownership narrowed from 28% in 2023 to 25% in 2024.

In some survey countries, a surprisingly high proportion of smartphone owners are not using mobile internet, especially women. In Ethiopia, Nigeria and Rwanda, around 20% of female smartphone owners and around 10% of male smartphone owners are not using mobile internet, despite almost all of them being aware of it. In India, there is also a relatively high percentage of women smartphone owners who are not using mobile internet (13%), but twothirds of these women are not even aware of it despite owning a smartphone. In comparison, around 9% of male smartphone owners in India do not use mobile internet even though most of them are aware of it.

Gender gap in smartphone ownership in LMICs, by region *Among total adult population* 



Source: GSMA, 2024

The gender gap refers to how much less likely a woman is to own a smartphone than a man. Based on survey results and modelled data for adults aged 18+.

#### **Basic phone and feature phone ownership**

Basic phones remain important handsets in many countries, particularly for women. For example, the most sophisticated handset owned by 40% of women in Nigeria is a basic mobile phone, compared to 29% of men. While these phones enable people to communicate via SMS/MMS or network calls and use mobile money via USSD, other use cases are limited without access to mobile internet.

In most survey countries, men and women are equally likely to own feature phones (including smart feature phones)<sup>17</sup> that provide basic

internet services, but these devices are owned by a relatively small proportion of people (approximately 5% of the total population; see Figure 8). Even among those who already own a handset, in most survey countries only a relatively small proportion own feature phones compared to other types of handsets. The exceptions are Bangladesh, Rwanda and Uganda, where a significant proportion of mobile owners own a feature phone. For example, 42% of male and 32% of female handset owners in Uganda own a feature phone – a higher proportion than either smartphones or basic phones.



17. The exceptions are Ethiopia, Nigeria and Uganda, where women are slightly less likely than men to own a feature phone.

#### Types of handsets owned by men and women

Percentage of total adult population

ta Men			19%	2%		6	6%		
с Ц	Wom	en	23%	5%	6	5	5%		
	2 Me	en		37%		15%		27%	
Ethio	Wom	en	28%	6	9%	15%			
ev –		en	289	%	10%		<b>50</b> 9	%	
Кал	Wom	en	3	1%	12%	5	4	2%	
eire	e Me	en	2	9%	13%			50%	
Nide	Wom	en		40%		9%		39%	
e po	B Me	en	20%		16%		37%		
Tew d	Wom	en	20%		16%	23%			
	5 Me	en	13% <mark>2</mark> 9	6		759	%		
Sana	Wom	en	13% 1 <mark>%</mark>	5		61%			
ine	B Me	en		47%		6%		38%	
Tanz	Wome	en		52	2%		5%	28%	
e pu	B Me	en	21%		38	3%		27%	
	wom	en	24%		279	%	21%	6	
hoch	Me Me	en	18%		25%		4	0%	
Joneg	Wom	en	17%		22%	25%	6	l	
 2.	_ M	en	17%	3%		58%			
	Wome	en	21%	3%	3	36%			
, cioo	B Me	en	17%	<mark>2%</mark>		67	'%		
	Wom	en	11% 1 <mark>%</mark>			68%			
ctan	M	en	32	2%	2%		58	3%	
ided	Wom	en	22%	<mark>2%</mark>	3	0%			
nine	M	en 3	<mark>%</mark> 0%		64%				
Dhilin	Wom	en 3	<mark>%</mark> 0%		65%				
eleme	M	en	<mark>6%1</mark> %			70%			
Guate Guate		en	8% 2%		6	0%			
vico	Me Me	en 🚦	<mark>5%</mark> 3%			75%			
Ň	Wome	en	<mark>6%</mark> 4%			75%			

The total percentage of handset owners does not exactly match the percentage of mobile owners in Figure 2. Figure 2 captures people who have sole or main use of a SIM card whereas Figure 8 represents people who have sole or main use of a handset.

Internet-enabled phone

Respondents are categorised according to the most advanced device they own and can only be included in one category. For example, smartphone owners that also own a basic or feature phone are counted only as smartphone owners. n=493 to 982 for women and n=483 to 1,234 for men

#### Most valued features of an internet-enabled phone

This year, we wanted to better understand which features of an internet-enabled phone (feature phone or smartphone) men and women value most, apart from price. We asked respondents who already owned an internet-enabled phone, or reported they were likely to get one in the next two years, how important they considered 13 different features for their next internet-enabled phone.<sup>18</sup>

Across survey countries, most respondents reported that the majority of the 13 features are important to them in an internet-enabled phone, apart from price, indicating that a range of factors matter to them when choosing a new device. For example, in Nigeria, male and female respondents reported that eight of the 13 features, on average, were 'very important'.

However, some features stood out as being the most important across survey countries. These features were all related to the performance, functionality and longevity of the device. The most-reported features were long battery life, durability, fast internet and processing speeds, large storage capacity and good camera quality. This did not vary much by gender (see Figure 9). For example, in Kenya, 74% of male respondents and 77% of female respondents reported that long battery life was a very important feature of an internet-enabled phone. This also did not vary by urban or rural location nor by whether someone already owned an internet-enabled phone.

The features reported by men and women respondents as less important in an internetenabled phone were related to aesthetics, physical features or brand perception, such as the phone's design or colour and how expensive or new it looked. This suggests that individuals, regardless of gender, mobile phone ownership or urban/rural location, tend to seek similar features in their next internet-enabled mobile phone beyond price.



18. Respondents were asked the following question: "Apart from price, how important, if at all, would the following features be to you if you were getting or buying a mobile phone that can access the internet (e.g. feature phone or smartphone)?"

Features of an internet-enabled phone reported as 'very important' across survey countries Among those who already own an internet-enabled phone or reported they were likely to get one in the next two years

			Men		Women			
		Min	Median	Max	Min	Median	Max	
	Long battery life	49%	76%	90%	46%	74%	90%	
	Durability	46%	69%	87%	43%	70%	87%	
	Faster internet speeds (e.g. 4G/5G, instead of 3G/2G)	46%	67%	78%	44%	64%	74%	
	Fast processing speed	44%	65%	84%	44%	64%	77%	
Performance, functionality and longevity	Large storage capacity	44%	64%	81%	41%	61%	79%	
	Good camera quality	44%	60%	79%	49%	63%	81%	
	Warranty	44%	56%	76%	45%	59%	73%	
	Multi-SIM capabilities	31%	49%	74%	32%	50%	71%	
	Comes pre-loaded with apps	40%	46%	61%	38%	49%	61%	
Aesthetics, physical features and brand perception	Well known/familiar brand	31%	45%	66%	33%	46%	66%	
	Large screen size	29%	44%	64%	31%	47%	57%	
	Appealing design or colour	20%	44%	56%	24%	43%	56%	
	How new or expensive the phone looks	20%	44%	64%	24%	41%	65%	

Source: GSMA Consumer Survey 2024

**Base:** Those who own an internet-enabled phone and those who do not own an internet-enabled phone but reported they were likely to get one in the next two years. Percentages indicate the proportion of people who answered, "Very important" to the question, "Apart from price, how important, if at all, would the following features be to you if you were getting or buying a mobile phone that can access the internet (e.g. feature phone or smartphone)?" Note that some features may fit in both categories.

n=245 to 509 for women and n=365 to 884 for men

# The gender gap in mobile internet adoption

In LMICs, 63% of women now use mobile internet compared to 74% of men. This means that for the first time, more than 1.5 billion women in these countries are using mobile internet. Although this is more women than ever before, a staggering 885 million remain unconnected compared to 630 million men. Women are now 14% less likely than men to use mobile internet across LMICs (see Figure 10).

Between 2017 and 2020, the mobile internet gender gap narrowed substantially (from 25% to 15%), but in 2021 and 2022 progress stalled and the mobile internet gender gap widened slightly. Promisingly, in 2023, the gender gap narrowed again for the first time in three years, to 15%; back to where it was in 2020. Unfortunately, in 2024, progress has stalled once again and the figure remains relatively unchanged at 14%. This translates to 235 million fewer women than men using mobile internet across LMICs. Furthermore, our latest data shows that women's rate of adoption has also slowed while men's has remained relatively unchanged. Around 50 million women across LMICs started using mobile internet in 2024 compared to 85 million in 2023. By comparison, a similar number of men in LMICs adopted mobile internet in 2024 (40 million) and 2023 (35 million).

At a regional level, mobile internet gender gaps are widest in South Asia and Sub-Saharan Africa, where around 60% of the 885 million women still not using mobile internet live (see Figure 10). In South Asia, this gender gap narrowed from 41% in 2022 to 31% in 2023, but did not shift materially in 2024. This year, the only region where there was any progress in closing the mobile internet gender gap was Sub-Saharan Africa, where the gap has narrowed from 36% in 2022 to 32% in 2023, and now 29% in 2024. This is important given there are still around 205 million women in the region who remain unconnected, equivalent to 61% of the adult female population.

Gender gap in mobile internet adoption in LMICs, by region *Among total adult population* 



Source: GSMA, 2024

The gender gap refers to how much less likely a woman is to use mobile internet than a man.

Mobile internet adoption is defined as a person who has used the internet on a mobile phone at least once in the past three months.

Mobile internet users do not have to personally own a mobile phone, so the above figures also include those who used mobile internet on someone else's phone. Based on survey results and modelled data for adults aged 18+.

#### How men and women are accessing mobile internet

In all survey countries, the vast majority of mobile internet users own an internet-enabled phone, particularly a smartphone, and are accessing the internet on their own device. For example, in Senegal, 95% of men and 88% of women who use mobile internet also own an internet-enabled phone.

However, data also shows that some mobile internet users do not own an internet-enabled phone and, therefore, must be accessing it from someone else's device. In most survey countries, users who are accessing the internet on someone else's mobile phone are primarily women. This is particularly an issue in Pakistan and India, where a significant proportion of female mobile internet users - 35% and 18%, respectively - only access mobile internet by borrowing someone else's internet-enabled phone. This is in comparison to 6% of male mobile internet users in Pakistan and 7% in India (see Figure 11). Some of these mobile internet users in India and Pakistan own a handset but without internet capabilities (i.e. a basic phone), but most do not own any type of mobile phone.

GSMA research has shown 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. Sharing devices does not provide the privacy required for some mobile services, such as maternal health apps, which female users may not feel comfortable accessing on a shared phone. Borrowing also prevents service providers from accurately providing information to an end user.<sup>19</sup> In contrast, accessing mobile internet on their own device means people can use the internet with greater privacy, more conveniently, regularly and in more ways to meet their life needs.

For example, in Pakistan, 91% of women who own an internet-enabled phone access mobile internet every day, compared to just 54% of women who only use mobile internet on someone else's phone (see Figure 13). This difference was less striking for women in India; while 94% of internetenabled phone owners use mobile internet daily, there are still 86% who do so only on someone else's device. In both India and Pakistan, mobile internet users who owned an internet-enabled phone also perform, on average, a greater number and variety of mobile internet use cases every day than those who only borrow a mobile phone to use the internet.



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19. GSMA. (2015). Bridging the gender gap: Mobile access and usage in low- and middle-income countries.
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Mobile internet users who do not own an internet-enabled phone Percentage of mobile internet users



Base: Mobile internet users aged 18+

Respondents are categorised according to the most advanced device they own and can only be included in one category. Therefore, if someone owned a smartphone and a basic phone, they would be categorised as a smartphone owner and not captured in this figure. n=91 to 477 for women and n=151 to 740 for men

Owns a basic phone



# Pakistan's breakthrough in women's digital inclusion

In Pakistan, mobile internet adoption among women has been increasing for several years, but 2024 was a year of significant progress. For the first time since 2021, the mobile internet gender gap narrowed, from 38% to 25% (Figure 12). This means that women in Pakistan are now 25% less likely than men to be using it. This change was the result of a significant increase in the proportion of women in Pakistan using mobile internet – from 33% in 2023 to 45% in 2024. This was the largest increase in mobile internet adoption by women among the countries surveyed in 2024 and was driven primarily by rural women. Adoption by men also increased by seven percentage points in 2024.

While there is still work to be done to achieve equal access among men and women, this

progress cannot be understated, as it means around 8 million women and around 5 million men in Pakistan started using mobile internet in 2024. This comes at a time when several stakeholders including the public and private sector have made concerted efforts to address the digital gender divide. For example, the Pakistan Telecommunication Authority launched a Digital Gender Inclusion Strategy<sup>20</sup> that aims to address the digital divide by creating more inclusive opportunities for women. There has also been continued commitment from MNOs - Jazz. Telenor and Ufone - to increase the proportion of women in their mobile internet customer base as part of the GSMA Connected Women Commitment Initiative.<sup>21</sup>

#### Figure 12

Mobile internet adoption in Pakistan, 2017–2024 Percentage of total adult population



Source: GSMA Consumer Survey, 2017 - 2024

Base: Total population aged 18+

Mobile internet use is defined as having used the internet on a mobile phone at least once in the past three months. Mobile internet users do not have to personally own a mobile phone.

n=575 for women and n=574 for men

20. Pakistan Telecommunication Authority. (2024). Digital Gender Inclusion Strategy

 GSMA Connected Women Commitment Initiative: <u>https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/connectedwomen/the-commitment/</u> Awareness of mobile internet is extremely high among both men and women in Pakistan, with little gender difference (89% and 86%, respectively). Addressing barriers beyond awareness will therefore be essential for more women to adopt mobile internet and use it safely and autonomously. These barriers include literacy and digital skills, handset affordability and social norms (see Figure 16), all of which prevent women from adopting mobile internet and, when they do, from using it more.

There is also an opportunity in Pakistan to encourage personal ownership of internetenabled phones among women. In most survey countries, smartphone ownership and mobile internet adoption are strongly correlated, but Pakistan is an exception. Despite strong growth in mobile internet adoption from 2023 to 2024, smartphone ownership did not increase to the same degree. This is due to the high prevalence of phone borrowing among women to use the internet: 35% of female mobile internet users in Pakistan do not own an internet-enabled phone and are borrowing one to get online (see Figure 11). This figure is much higher than for male mobile internet users in Pakistan (6%) and almost double the number of male or female users in all other survey countries.

While borrowing someone else's mobile phone to get online is an important step in women's mobile internet user journey in Pakistan, it should be noted that women who do not own an internet-enabled device are much less likely to use mobile internet on a daily basis than those who do own one. 91% of female mobile internet users in Pakistan who own an internetenabled phone access mobile internet every day. In contrast, only 54% of female mobile internet users who do not own a mobile phone, or only a basic phone, access the internet daily (see Figure 13). Women who use mobile internet on someone else's device also use it for fewer use cases - just 1.4 a day on average - while those who own an internet-enabled phone use it for 3.0 daily use cases on average. This highlights the importance of mobile ownership, specifically of internet-enabled phones, for women in Pakistan to use mobile internet to meet their needs to the same extent as men.

#### Figure 13

Frequency of mobile internet use among female users in Pakistan



Source: GSMA Consumer Survey, 2024

Base: Female mobile internet users aged 18+

n=176 for female mobile internet users who own an internet-enabled phone and n=91 for female mobile internet users who do not own an internet-enabled phone
# Understanding women's mobile internet use

It is important to ensure that women and men are not only able to adopt mobile internet, but also use it regularly and for a range of use cases that meet their needs. Even once women are online, they often face barriers to using mobile internet as frequently or for the same range of use cases as men (see Table 2). As a result, there are gender gaps in mobile internet use that mean women may not be benefitting from it to the same extent as men.

#### Gender gaps in diversity and frequency of mobile internet use

In most survey countries, once people start using mobile internet, most use it every day regardless of gender. However, in more than half the survey countries (eight out of 15), there is still a gender gap in daily use among mobile internet users even when overall usage levels are high. For example, in Kenya, Senegal, Pakistan and the Philippines, despite relatively high daily mobile internet use, female users are less likely than men to access it every day. In Senegal, 76% of women who use mobile internet access it every day compared to 89% of men. In Ethiopia, Rwanda, Tanzania and Uganda, there is not only a gender gap in daily mobile internet use but also lower daily usage levels among both male and female mobile internet users. In the remaining seven survey countries (Egypt, Nigeria, Bangladesh, India, Indonesia, Guatemala and Mexico), women who use mobile internet are equally likely as men to access it every day.

There are even many daily mobile internet users who only use it for one or two use cases,

especially women. For example, in Egypt, a relatively high proportion of women use mobile internet (57%) and almost all daily (54% of women), but just 33% use it for three or more activities every day (see Figure 5). In some countries, such as Bangladesh, Indonesia, the Philippines, Rwanda, Guatemala and Mexico, there is more diverse mobile internet use, with the vast majority of male and female daily users using it in three or more ways.

Overall, women tend to use mobile internet in fewer ways than men. In almost all the survey countries, women perform fewer mobile internet use cases than men on a daily basis and even on a weekly basis (see Figure 14). For example, in India, women who use mobile internet perform 5.7 use cases a day on average, compared to 6.5 for men. Although both men and women perform a higher number of use cases on a weekly basis, a gender gap remains, with women in India performing 7.6 different use cases a week on average compared to 8.6 for men (see Figure 14).



Average number of mobile internet use cases performed on a daily and weekly basis Among mobile internet users



#### Different types of mobile internet use

To understand the different ways in which men and women use mobile internet, users were asked about 16 distinct mobile internet use cases, from online calls to accessing online government services (see Appendix 2).

On a daily and weekly basis, the most common mobile internet use cases are the same for men and women. These are similar to previous years and tend to be instant messaging, social media and online entertainment, particularly watching online videos. Video calls and online calls are also common among male and female mobile internet users in survey countries outside of Africa. Some possible reasons for this may be less affordable data or a higher proportion of 3G connections<sup>22</sup> (rather than 4G or 5G) in the Africa region, which could limit the connectivity experience for these use cases.

Although the most common use cases are the same for men and women in all survey countries, female mobile internet users in most of the countries are less likely than men to use each of the 16 use cases (see Figure 24 in Appendix 2).

#### Awareness of different use cases

There could be many reasons for the gender gaps in mobile internet use cases. The first and most significant barrier to starting to perform any of these use cases is awareness that mobile internet can be used in that way. To understand this, we asked mobile internet users about their awareness of the 16 use cases.<sup>23</sup>

Across survey countries, 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, with little gender difference (see Figure 25 in Appendix 2). However, awareness dropped off for less frequently used use cases, especially for female mobile internet users. The mobile internet use cases that male and female users are least aware of include income generation, ordering goods or services, online banking, and health and government services. Across these use cases, awareness levels are as low as 49% for men who use mobile internet and 51% for women. In general, awareness of all 16 use cases was lowest among mobile internet users in Ethiopia, Senegal, India and Pakistan, particularly women. For example, in Pakistan, beyond communication and entertainment-related use cases, only around 50% of women and 60% of men who use mobile internet are aware that it could be used for other use cases such as those related directly to education, health or government services.

Ensuring that mobile internet users, especially women, are aware of the range of ways they can use and benefit from mobile internet could have a huge impact on digital inclusion for users and service providers alike.

22. There are high levels of 4G coverage, but a significant proportion of devices are still feature phones or 3G smartphones

23. Mobile internet users were considered aware of a particular use case if they had either performed that use case before or had not but reported knowing that it was possible to do using mobile internet.



#### Women micro-entrepreneurs' use of mobile for business

In LMICs, women micro-entrepreneurs<sup>24</sup> make a huge contribution to household income and well-being, their communities and national economies. Mobile phones and services have tremendous potential to support this contribution.

GSMA research from 2022 found that in most survey countries, women microentrepreneurs were less likely than men to use mobile phones for their business.<sup>25</sup> This still holds true for eight of the nine countries surveyed again in 2024,<sup>26</sup> and for three of the six additional countries surveyed (see Figure 15). Gender gaps in mobile use for business vary by country but are widest in Ethiopia (36%), Pakistan (28%) and Uganda (18%). In contrast, the use of mobile for business is equal among micro-entrepreneurs in Egypt, and higher among women microentrepreneurs in the Philippines, Guatemala and Mexico.

#### Figure 15

Micro-entrepreneurs who use a mobile phone for business purposes *Percentage of micro-entrepreneurs* 



Source: GSMA Consumer Survey, 2024 Base: Micro-entrepreneurs aged 18+

n=38 to 438 for women micro-entrepreneurs and n=114 to 671 for men micro-entrepreneurs

24. A micro-entrepreneur is defined as someone who runs their own business full time or part time and with fewer than nine employees. Data in this spotlight reflects the natural fall-out of micro-entrepreneurs from the overall nationally representative sample in each country.

25. GSMA. (2023). <u>Understanding women micro-entrepreneurs' use of mobile phones for business</u>.

26. The following nine countries were surveyed in both 2022 and 2024: Ethiopia, Kenya, Nigeria, Senegal, Bangladesh, India, Indonesia, Pakistan and Guatemala.

Promisingly, our latest data suggests notable growth in mobile for business use among micro-entrepreneurs in all nine countries surveyed in 2022 and 2024. The data also indicates that gender gaps in mobile for business use have narrowed in most of these countries. For example, in Kenya, mobile for business use increased from 69% in 2022 to 86% in 2024 among male microentrepreneurs and from 57% to 79% among female micro-entrepreneurs.

Previous GSMA research in 10 LMICs also found that one of the key barriers preventing women micro-entrepreneurs who own a mobile phone from using it for their business was not having the right kind of handset.<sup>27</sup> The latest data shows that, while in most survey countries most male and female micro-entrepreneurs own some type of mobile phone, women are less likely than men to own an internet-enabled phone. For example, women micro-entrepreneurs in Uganda are 32% less likely than their male counterparts to own a smartphone. This is important because internet-enabled phones, specifically smartphones, offer a range of value-added business uses that basic phones do not. Ensuring that women microentrepreneurs can access suitable handsets that meet their life and business needs (e.g. an internet-enabled phone and/or a mobile phone with suitable features, such as a camera) could drive their use of mobile to support their business.

Other barriers also can prevent microentrepreneurs who own a mobile phone from using it for their business. These barriers are similar for both men and women and include a lack of perceived relevance, safety and security concerns, not having the necessary confidence or digital skills and not being aware of the different ways in which a mobile can support their business.<sup>28</sup>

To ensure more micro-entrepreneurs use mobile for their business, especially women, stakeholders must address the barriers that stand in the way of them reaping the full benefits of mobile for their businesses, communities and economies.



GSMA. (2023). <u>Understanding women micro-entrepreneurs' use of mobile phones for business</u>

# Understanding barriers to mobile internet adoption and use



With substantial and persistent gender gaps in mobile internet adoption and use, it is essential to understand the barriers that prevent women from starting to use mobile internet and from using it more, and how these compare to men.

In each survey country, all respondents were asked whether they had heard of mobile internet before. Those who had were then asked whether certain barriers<sup>29</sup> prevented them from adopting it (if they did not use it) or from using it more (if they already used it). They were then asked which barriers they felt were most important and which was the single most important barrier.

Across survey countries, the top barriers preventing men and women from adopting and using mobile internet are mobile internet awareness, handset affordability, literacy and digital skills and safety and security concerns (see Figure 16).

Mobile internet awareness has grown significantly since we started tracking it in 2017 but has plateaued in recent years. While awareness is now high and almost equal in most survey countries, there are still four countries<sup>30</sup> where awareness is relatively low, particularly among women. In these countries, between 30% and 50% of women are not aware of mobile internet (see Figure 17).

Among those who are aware of mobile internet, barriers to both mobile internet adoption and use depend on the local context and, to a lesser extent, the gender of the respondent. However, there are still two top barriers to mobile internet adoption among both men and women who are aware of mobile internet but not using it: affordability (specifically of handsets) and literacy and digital skills (see Table 1). The top barriers to further mobile internet use vary more by country. Once men and women use mobile internet, the top barriers to further use tend to be safety and security concerns, affordability (particularly data but also handsets), and connectivity experience,<sup>31</sup> in varying order. For example, safety and security is the top reported barrier to further mobile internet use for men and women mobile internet users in India, Indonesia, the Philippines, Guatemala and Mexico. However, in Bangladesh, Kenya, Nigeria, Rwanda, Senegal, Tanzania and Uganda, the top barrier to further use for both men and women mobile internet users is affordability (see Table 2).

Women tend to experience barriers more acutely due to structural inequalities such as disparities in access to education and income. Analysis also shows that even when women have the same level of education, income, literacy and employment as men, they are still less likely to use mobile internet.<sup>32</sup> This suggests that other issues are at play, such as discrimination and social norms, which can manifest in various ways throughout the mobile internet user journey. In fact, barriers related directly to social norms emerge as the top barrier to mobile internet use for some respondents, but particularly for women in countries with more restrictive social norms, such as Pakistan.

<sup>29.</sup> This was a pre-defined list of 22 barriers that has been refined over years and based on the research and experience of the GSMA and other organisations.

<sup>30.</sup> Ethiopia, Rwanda, Uganda and India.

<sup>31.</sup> Connectivity experience as a barrier represents an aggregate of those who reported: "Using the internet on a mobile phone is too slow (e.g. connection speeds)" or "There is inconsistent coverage (e.g. connection drops) or no coverage to access the internet most of the time".

<sup>32.</sup> Butler, C. and Shanahan, M. (27 August 2020). "Does just being a woman reduce the likelihood of using mobile?" GSMA Mobile for Development Blog.

Top reported barriers to mobile internet adoption and use in survey countries *Percentage of total adult population* 

#### KEY















Source: GSMA Consumer Survey, 2024 Base: Total population aged 18+ n=493 to 982 for women and n=483 to 1,234 for men





**Affordability,** particularly of handsets, is one of the top three reported barriers to mobile internet adoption and use in almost all survey countries for those who are already aware of it. Data affordability is reported as a barrier to both adopting and using mobile internet, but to a lesser extent than handset affordability, especially in the African survey countries. For example, in Tanzania, 42% of women and 35% of men who are already aware of mobile internet report that handset affordability is their top barrier to mobile internet adoption or use, compared to 15% of women and 20% of men who reported data costs. Although affordability is the top barrier for both male and female respondents across the survey countries, research has shown that issues such as the gender pay gap and women's lower employment rates mean that handsets are already less affordable for women than men. GSMA analysis has found that, on average, the cost of an entry-level handset represents 24% of women's monthly income in LMICs, compared to 12% of men's.<sup>33</sup>



**Literacy and digital skills** are one of the top barriers to mobile internet adoption, but is reported much less frequently as the top barrier to further mobile internet use in survey countries. Still, in many countries it was reported as the top barrier to further use by a significant proportion of men and women who are aware of mobile internet. For example, 21% of men and 34% of women in Bangladesh who are aware of mobile internet report lack of literacy and digital skills as their top barrier to mobile internet adoption or further use. In most survey countries, basic literacy is reported more than digital skills as the top barrier to mobile internet adoption and further use by both male and female respondents.



**Safety and security concerns** continue to be a barrier to mobile internet use for many men and women who are already aware of it, particularly in Latin American and Southeast Asian survey countries. For example, in the Philippines, 64% of women and 60% of men who are aware of mobile internet report safety and security concerns as either their top barrier to mobile internet adoption or further use. This includes concerns related to the reliability of information found online, scams or fraud, information security, unwanted contact from strangers and exposure to harmful content. In all survey countries, these concerns are felt more by existing mobile internet users than those who do not yet use it, regardless of gender.



Access-related barriers cover a wide range of issues, from connectivity experience to social norms, so they are not grouped as a composite. In several countries, but especially for women in Pakistan, lack of family approval is a major barrier to mobile internet adoption, and restrictions on how and when women are allowed to use mobile internet is a barrier to further use. For example, 34% of women in Pakistan who are aware of mobile internet reported that family disapproval stops them from adopting or using it (compared to 11% of men). Considering the role of gatekeepers is therefore key to women's mobile internet adoption and equal use, especially in settings with more restrictive gender norms. There are no significant gender differences where connectivity experience is reported as the top barrier to mobile internet adoption or further use. For example, in Guatemala, 12% of women (and 16% of men) who are aware of mobile internet reported this as their top barrier to adoption or further use.



**Relevance** is a key barrier to using mobile internet, particularly for those who do not yet use it. This includes perceptions that the internet is not relevant and that there is a lack of content in local languages, which is reported as a barrier to a lesser extent in all survey countries. While not among the top reported barriers to adoption and further use for many, it is still reported by many men and women who are aware of mobile internet as a general barrier to adoption and use. For example, while not reported as the top barrier to mobile internet adoption or further use, 28% of men and 27% of women in India who are aware of mobile internet still reported the internet not being relevant as a barrier. It is also important to recognise that the perception of relevance depends on a respondent's awareness of all the various uses of mobile internet.

<sup>33.</sup> GSMA. (2024). The State of Mobile Internet Connectivity 2024.

### **Awareness of mobile internet**

Awareness of mobile internet is high and almost equal among men and women in 11 of the 15 survey countries, but there are notable gender gaps in the four remaining countries (see Figure 17). Awareness is relatively low in Ethiopia and Rwanda at around 50% for women and 70% for men, and in India at 62% for women and 74% for men (see Figure 17).

In most survey countries, growth in mobile internet awareness has slowed since 2019. However, there were some notable increases in the past year. Awareness increased between five and 11 percentage points for men in Ethiopia and Bangladesh, for women in India and Indonesia and for both men and women in Uganda. Even those who are aware of mobile internet do not necessarily use it. For example, in Bangladesh, despite 85% of men and 78% of women being aware of mobile internet, just 42% and 26%, respectively, use it. This suggests other barriers are at play (see Figure 16).

Beyond awareness of mobile internet itself, it is also important to consider whether people are aware of different mobile internet use cases. As noted in the *Awareness of mobile internet use cases* section, even when people are aware of mobile internet and use it, they may not be aware of the various ways in which they can use it, especially women (see Figure 25).



#### Figure 17

Mobile internet awareness Percentage of total adult population

Source: GSMA Consumer Survey, 2024

**Base:** Total population aged 18+ A person is considered aware of mobile internet if they have either used mobile internet before or have not used mobile internet but are aware they can access the internet on a mobile phone.

n=493 to 982 for women and n=483 to 1,234 for men

### Barriers to mobile internet adoption among those who are aware of it

For those who are already aware of mobile internet but do not use it, the top barriers to adoption across survey countries for both men and women remain the same: affordability and literacy and digital skills (see Table 1).

In all 15 survey countries – except for women in the Philippines – men and women who are aware of mobile internet report that affordability and literacy and digital skills are their top barriers to adoption. Of those who reported affordability as the top barrier to mobile internet adoption, the vast majority reported affordability of handsets, not data, as the barrier. For men and women who report literacy and digital skills as their top barrier to adoption, this tends to be reading and writing difficulties. The third top barrier across the survey countries is safety and security concerns, but this was reported to a much lesser extent than affordability or literacy and digital skills.

There are some variations by country (see Table 1). For example, affordability (particularly of handsets) remains the top barrier for men and women who are already aware of mobile internet in all seven Sub-Saharan African survey countries. However, literacy and digital skills remain the top barrier in South Asia.

As in previous years, family disapproval is the second most-reported top barrier to mobile internet adoption for female respondents in Pakistan, but is not reported as a significant barrier for men. This highlights the importance of considering social norms when addressing women's digital inclusion. While this is the only barrier explicitly related to social norms, all the barriers are underpinned by complex social norms that, in turn, lower women's access to income, education and employment opportunities in every country.

A lower rate of mobile internet access among women means that millions more women face these barriers and that addressing them would likely benefit women disproportionately.

#### Table 1

Top reported barriers to mobile internet adoption for those who are aware of it Among those who are aware of mobile internet but do not use it

		Women			Men	
	1	2	3	1	2	3
ALL COUNTRIES	Affordability	Literacy and digital skills	Safety and security concerns	Affordability	Literacy and digital skills	Safety and security concerns
Egypt	Literacy and digital skills	Affordability	Relevance	Literacy and digital skills	Affordability	Relevance
Ethiopia	Affordability	Literacy and digital skills	Relevance	Affordability	Literacy and digital skills	Connectivity experience
Kenya	Affordability	Literacy and digital skills	Safety and security concerns	Affordability	Literacy and digital skills	Safety and security concerns
Nigeria	Affordability	Literacy and digital skills	Safety and security concerns	Affordability	Literacy and digital skills	Safety and security concerns
Rwanda	Affordability	Literacy and digital skills	Safety and security concerns	Affordability	Safety and security concerns	Literacy and digital skills
Senegal	Affordability	Literacy and digital skills	Safety and security concerns	Affordability	Literacy and digital skills	Safety and security concerns
Tanzania	Affordability	Literacy and digital skills	Safety and security concerns	Affordability	Literacy and digital skills	Safety and security concerns
Uganda	Affordability	Literacy and digital skills	Safety and security concerns	Affordability	Literacy and digital skills	Safety and security concerns
Bangladesh	Literacy and digital skills	Affordability	Relevance	Literacy and digital skills	Affordability	Safety and security concerns
India	Literacy and digital skills	Safety and security concerns	Affordability	Literacy and digital skills	Affordability	Safety and security concerns
Indonesia	Literacy and digital skills	Safety and security concerns	Affordability	Literacy and digital skills	Affordability	Safety and security concerns
Pakistan	Literacy and digital skills	Family does not approve	Affordability	Literacy and digital skills	Affordability	Safety and security concerns
Philippines	Safety and security concerns	Connectivity experience	Affordability	Safety and security concerns	Literacy and digital skills	Affordability
Guatemala	Affordability	Literacy and digital skills	Safety and security concerns	Affordability	Safety and security concerns	Literacy and digital skills
Mexico	Literacy and digital skills	Safety and security concerns	Affordability	Safety and security concerns	Literacy and digital skills	Affordability

Source: GSMA Consumer Survey, 2024

**Base:** Adults aged 18+ who have not used mobile internet in the past three months on any device, despite being aware of it (excludes those who are not aware of mobile internet). The barriers above are composite barriers. These composite barriers are aggregates (not averages) of the responses for two to five sub-barriers (see Appendix 1). Access-related barriers are not grouped as a composite since they cover a disparate range of topics.

Rankings indicate the relative aggregated proportion of respondents who answered, "This is the most important reason stopping me" to the question, "Which one of those factors would you say is the single most important reason stopping you from using the internet on a mobile phone?"

# Barriers to further mobile internet use for existing users

Even once women start to use mobile internet, we know they are less likely than men to use it regularly and for a diverse range of use cases. Last year we also found that, in most survey countries, women who use mobile internet were more likely than men to report they would like to use it more than they do currently.<sup>34</sup> For example, this was the case for 60% of female mobile internet users in Uganda compared to 49% of male users. It is therefore important to understand not only the barriers preventing women from adopting mobile internet, but also the barriers that stop women who already use mobile internet from using it more and how this compares to men.

In line with findings from 2023, the top reported barriers to further mobile internet use for men and women are similar and vary more by country than by gender. Across survey countries, the top reported barriers to further mobile internet use among existing users are still safety and security concerns, affordability (particularly of data, but also handsets) and connectivity experience (see Table 2).

Safety and security concerns are among the top three barriers for male and female mobile internet users in all 15 survey countries except Ethiopia and for women in Pakistan. These concerns tend to be related to scams and fraud and information security, followed by harmful content, unwanted contact and the reliability of information online. High levels of reported safety and security concerns among men and women tend to correlate with high levels of mobile internet adoption. This is likely because as more people come online, digital threats become more common and increase both awareness of these harms and concerns about them. For example, the two countries with the highest levels of mobile internet adoption in our sample are Mexico and the Philippines. These are also the countries with the highest proportion of male and female mobile internet users reporting safety and security concerns as their top barrier to further use. As more people come online, addressing these concerns is essential to ensure they feel confident they can keep themselves, their families and personal information safe, and reap the full benefits of mobile internet.

Affordability is the top barrier to further use for men and women mobile internet users, particularly in survey countries in Sub-Saharan Africa (except among men in Ethiopia where it is second). While affordability is a top barrier to both adoption and further use, for existing mobile internet users in most survey countries, this tends to be related to the affordability of data, rather than handsets. For example, in Kenya, 28% of men and 25% of women who already use mobile internet reported data affordability as their top barrier to further use. In comparison, just 12% of men and 10% of women reported handset costs as their top barrier. There are some exceptions, such as Ethiopia, Rwanda and Uganda, where existing users reported handset costs more than data costs.

Connectivity experience is one of the top three barriers to further use in most survey countries for male and female mobile internet users. This is related to either slow connections, connections dropping most of the time or a lack of coverage overall. People can experience connectivity challenges for several reasons. For example, in most survey countries, 4G coverage is more than 85%, but a significant proportion of internet users are still using a feature phone or 3G smartphone, which would limit their connectivity experience. In Ethiopia, where connectivity experience is reported as the top barrier to further mobile internet use by 42% of men and 26% of women who already use it, almost half of all mobile broadband connections are 3G. Network performance may also play a role.

It is important to recognise that even in this later stage of the user journey, social norms can prevent women from using mobile internet more. For example, 39% of female mobile internet users in Pakistan reported that only being allowed to use mobile internet for a limited time stops them from using it more, compared to 16% of their male counterparts.

#### Table 2

Top reported barriers to further mobile internet use for existing mobile internet users Among mobile internet users

		Women			Men	
	1	2	3	1	2	3
ALL COUNTRIES	Safety and security concerns	Affordability	Connectivity experience	Safety and security concerns	Affordability	Connectivity experience
Egypt	Safety and security concerns	Connectivity experience	Affordability	Connectivity experience	Affordability	Safety and security concerns
Ethiopia	Affordability	Connectivity experience	Do not have time to use the internet more	Connectivity experience	Affordability	Do not have time to use the internet more
Kenya	Affordability	Safety and security concerns	Connectivity experience	Affordability	Safety and security concerns	Connectivity experience
Nigeria	Affordability	Safety and security concerns	Literacy and digital skills	Affordability	Safety and security concerns	Connectivity experience
Rwanda	Affordability	Safety and security concerns	Connectivity experience	Affordability	Safety and security concerns	Connectivity experience
Senegal	Affordability	Safety and security concerns	Connectivity experience	Affordability	Safety and security concerns	Connectivity experience
Tanzania	Affordability	Safety and security concerns	Connectivity experience	Affordability	Safety and security concerns	Connectivity experience
Uganda	Affordability	Connectivity experience	Safety and security concerns	Affordability	Connectivity experience	Safety and security concerns
Bangladesh	Affordability	Safety and security concerns	Connectivity experience	Affordability	Safety and security concerns	Connectivity experience
India	Safety and security concerns	Affordability	Literacy and digital skills	Safety and security concerns	Affordability	Connectivity experience
Indonesia	Safety and security concerns	Connectivity experience	Affordability	Safety and security concerns	Connectivity experience	Affordability
Pakistan	Affordability	Connectivity experience	Literacy and digital skills	Connectivity experience	Safety and security concerns	Literacy and digital skills
Philippines	Safety and security concerns	Connectivity experience	Affordability	Safety and security concerns	Connectivity experience	Affordability
Guatemala	Safety and security concerns	Connectivity experience	Affordability	Safety and security concerns	Connectivity experience	Affordability
Mexico	Safety and security concerns	Affordability	Connectivity experience	Safety and security concerns	Affordability	Connectivity experience

Source: GSMA Consumer Survey, 2024

Base: Mobile internet users aged 18+

Rankings indicate the relative aggregated proportion of respondents who answered, "This is the most important reason stopping me" to the question, "Which one of those factors would you say is the single most important reason stopping you from using the internet more on a mobile phone?"

The barriers above are composite barriers. These composite barriers are aggregates (not averages) of the responses for between two and five sub-barriers (see Appendix 1). Access-related barriers are not grouped as a composite since they cover a disparate range of topics.



# Rural women are the least likely to be digitally included

Tracking global, regional and country-level mobile gender gaps is critical to ensure women have equal access to mobile. However, women are not a homogeneous group, and certain women are even more likely to be digitally excluded. For example, rural women remain disproportionally unconnected and the least likely to access and use mobile technology compared to their male and urban counterparts. With around half of all women in LMICs living in rural areas,<sup>35</sup> addressing rural gender gaps is essential to drive digital inclusion for women overall.

In almost all the survey countries - 13 out of 15<sup>36</sup> – rural women are less likely than rural men, urban men and urban women to own a mobile phone, own a smartphone and use mobile internet. For example, in Rwanda, only 14% of rural women use mobile internet compared with 29% of rural men, 54% of urban men and 47% of urban women (see Figure 18). The mobile internet gender gap is also wider in rural areas than urban areas in most survey countries,<sup>37</sup> particularly Ethiopia, Rwanda, Senegal and Pakistan (see Figure 18). For example, in Senegal, urban women are 10% less likely than urban men to use mobile internet, but rural women are 20% less likely than rural men to do so.



35. World Bank estimates based on the United Nations Population Division's World Urbanization Prospects: 2018 Revision.

- 36. Exceptions include the Philippines and Mexico.
- 37. Exceptions include Kenya, Indonesia and Mexico, where rural and urban gender gaps are similar.

Mobile internet adoption by gender and locality in selected survey countries *Percentage of total adult population* 



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**Source:** GSMA Consumer Survey, 2024 **Base:** Total population aged 18+

Mobile internet use is defined as having used the internet on a mobile phone at least once in the past three months.

Mobile internet users do not have to personally own a mobile phone.

n=143 to 412 for urban men and n=100 to 822 for rural men; n=149 to 457 for urban women and n=120 to 671 for rural women

Beyond mobile internet adoption, it is also important to understand whether rural women who already use mobile internet are using it as regularly or in as many ways as other users to meet their needs. While fewer rural men use mobile internet every day than urban residents, significantly more rural men use it on a daily basis than rural women. Rural women also tend to use it for fewer use cases compared to their male and urban counterparts, even those who are daily users. For example, while 29% of rural women in Pakistan use mobile internet daily, only 13% use it in three or more ways every day compared to 29% of rural men, 39% of urban men and 29% of urban women.

Given the size of rural mobile gender gaps, it is important to understand the barriers rural women face to accessing and using mobile internet. Awareness of mobile internet is one of the key initial barriers to adoption but, promisingly, awareness levels among rural women are relatively high at more than 70% in almost all survey countries.<sup>38</sup> However, rural men, urban men and urban women still tend to have higher levels of awareness than rural women.<sup>39</sup>

Mobile internet awareness does not always translate into adoption, particularly for rural women. Across survey countries, there is a higher percentage of rural women than rural men who are aware of mobile internet but do not use it. This is particularly true in Bangladesh, where 54% of rural women are not accessing mobile internet despite being aware of it, compared to 46% of rural men and 47% of urban women. Rural women who are already aware of mobile internet report the same top barriers to adoption as urban women, as well as urban and rural men. These are affordability (primarily of handsets), literacy and digital skills and safety and security concerns. Similarly, while the top reported barriers to further mobile internet use among users are the same for rural and urban men and women, the relative importance of these barriers varies slightly in the rural context. For example, across all countries surveyed, safety and security concerns, affordability (primarily of data) and connectivity experience are the top reported barriers preventing rural female mobile internet users (and rural male users) from using it more. Urban men and women who use mobile internet report the same top barriers but, in most countries, connectivity experience is reported to a much lesser extent than in rural areas. Since there are more rural women who are the not using mobile internet, addressing these barriers is crucial for closing the digital divide.

Given that rural women often have limited physical access to essential services, they also have the most to gain from better access to mobile and mobile internet. Expanding mobile access and use can help provide rural women, including farmers and small business owners, with better access to important information and services, such as agricultural information, financial services and healthcare that support their livelihoods and daily lives.



- 38. Except in Ethiopia, Rwanda and India, where awareness among rural women remains low.
- 39. In some survey countries, including Senegal, Indonesia and Mexico, mobile internet awareness is relatively similar among rural women, rural men, urban women and urban men.

# Recommendations



As the world becomes increasingly digital, narrowing the mobile gender gap is essential for all women to participate fully in the digital economy. Achieving this goal will not only advance gender equality and deliver significant commercial and economic benefits, but will also advance the UN Sustainable Development Goals (SDGs), as digital inclusion is a powerful tool for socio-economic development more broadly.

The mobile gender gap is not going to close on its own, and the latest data is a clear call to action. Across LMICs, progress in closing the mobile internet gender gap has stalled and significant gaps remain. Increased focus, investment and collaboration are required from all stakeholders.

This will mean informed and targeted efforts from MNOs, policymakers, regulators and the development community to address the barriers limiting women's access and use of mobile. These include affordability; low levels of awareness, literacy and digital skills; safety and security concerns; a lack of access to networks and enablers; and a lack of relevant content and services that meet women's needs and preferences. The following recommendations offer practical guidance for different stakeholders to address specific barriers. This list is not exhaustive, and structural barriers such as income gaps, educational disparities and restrictive social norms that underpin the mobile gender gap, also need to be tackled.

By implementing these recommendations, stakeholders can move from commitment to meaningful action, driving digital inclusion and ensuring that no woman is left behind in the digital era.

Additional recommendations for MNOs and other organisations can be found in the *GSMA Connected Women report, Reaching 50 Million Women with Mobile: A Practical Guide.*<sup>40</sup> Governments and policymakers can refer to the GSMA report, *Policy Considerations to Accelerate Digital Inclusion for Women in Low- and Middle-Income Countries.*<sup>41</sup>

#### Recommendations for all stakeholders to close the mobile gender gap

ক্র্রী	Ensure there is a focus on gender equality and reaching women at an organisational and policy level, with senior leaders championing the issue and setting specific gender equity targets.
	Understand the mobile gender gap by improving the quality and availability of gender-disaggregated data and understanding women's needs and the barriers they face to mobile ownership and use.
Q 	Explicitly address women's needs, circumstances and challenges in the design and implementation of mobile-related products, services, interventions and policies. This includes addressing the barriers women face related to affordability, knowledge and digital skills, safety and security, access and the availability of relevant content, products and services.
	Collaborate and partner with different stakeholders to address the mobile gender gap. Targeted intervention is needed from industry, policymakers, the development community and other stakeholders to ensure that women are no longer left behind.

41. GSMA Connected Women. (2022). Policy considerations to accelerate digital inclusion for women in low- and middle-income countries.

<sup>40.</sup> GSMA Connected Women. (2020). "Top 10 recommendations for reaching women with mobile across low- and middle-income countries". Reaching 50 Million Women with Mobile: A Practical Guide.

Recommendations for closing the mobile gender gap in LMICs, by stakeholder and barrier addressed

Barrier addressed by the action	MNOs <sup>42</sup>	Internet companies	Policymakers and regulators <sup>45, 46, 47</sup>
Affordability	Support industry efforts to improve the availability of lower cost internet-enabled phones. E.g. Ensure ultra low-cost smartphones and smart feature phones are part of the device portfolio for customers to purchase directly.	Partner with MNOs to address handset affordability. E.g. Offer subsidies for low-cost smartphones to encourage mobile internet adoption.	Ensure policies and regulations help lower the cost of handsets and data for cort of disproportionately benefit women. E.g. Review and remove sector-specific taxes and fees for handsets and data. For that treat handsets as luxury items, excise duties on data charges and SIM registric social media use.
Knowledge and digital skills	Design solutions to reduce the burden of the "one-off" cost of internet-enabled phones for consumers, making them more affordable, especially smartphones. E.g. Partner to provide microloans, instalment repayment	Consider how to adapt products and services to make them more affordable without compromising quality. E.g. Make "data-light" versions of apps or lightweight operating systems to help reduce the cost for more price- sensitive users.	Adopt policies and regulations that make it easier for users, especially women data and other services. E.g. Enable innovative financing mechanisms for handsets, such as facilitating gre enable women to cover the upfront cost of mobile handsets.
Safety and security	plans or subsidised devices. Develop clear and transparent pricing for credit and data, and introduce more creative pricing to appeal to price-	Implement digital skills training, paying attention to women's needs, interests and circumstances. E.g. Through partnerships or via products and services.	Consider subsidy programmes to help make handsets and data services more E.g. Design subsidy programmes that target underserved women. <sup>48</sup>
Access	sensitive customers. E.g. Encourage low-cost or free trial of mobile internet services through promotional deals or extend the length of data packages.	Develop apps, services and other measures to help women feel safer online. E.g. Adopt privacy and safety-by-design approaches <sup>44</sup> and make it easy and safe for customers to report online abuse. Collaborate with relevant government agencies	Address wider policy and regulatory barriers that are discriminatory to wom financing and can impede their ability to afford handsets and data. E.g. Review and revise regulations and laws <sup>49</sup> (such as inheritance, property, e equal value laws) that affect women's access to finance and ability to secure
Relevance	Improve customers' digital skills, including providing assistance to new users who may need additional support and paying attention to women's needs, interests and circumstances.	to ensure these reports are responded to quickly and effectively.	Develop and deliver digital skills training programmes that meet women's pre- how they want to learn.
	E.g. Train and incentivise mobile agents to provide digital skills training and support to customers, such as using the GSMA Mobile Internet Skills Training Toolkit. <sup>43</sup>	Help women to navigate the internet confidently and safely and to feel secure and in control when using internet apps and services.	a focus on mobile given the mobile-first nature of access for many.
	Consider incentivising women's social networks to help teach them how to use mobile handsets and services. E.g. Leverage existing customers, friends and family, savings groups, community groups, etc.	E.g. Provide training on how to avoid and respond to negative behaviours and threats. Ensure mobile apps and operating systems are accessible for women who are less confident and have fewer literacy skills.	<ul> <li>Invest in public education and digital literacy initiatives that improve the confision of women and girls.</li> <li>E.g. Mainstream basic mobile and digital skills in school curricula, with particula the interests and advancement of women and girls of all ages, education levels, with mobile internet.</li> </ul>
	Develop apps and services that can help increase safety for women. E.g. Develop intuitive "safety services" like apps to help	E.g. Consider local languages, clear user menus with fewer steps, simplified content, simple terminology and a shorter sign-up process. Use icons, symbols, pictures, videos and comic-style stories in addition to (or instead of) text.	Raise awareness of the threats preventing women and girls from accessing and and how these threats can be addressed or reduced. E.g. Public awareness campaigns, investing in digital literacy programmes and f programmes/curriculum (targeting both men and women).
	women alert contacts in an emergency or call-blocking services. Consider the role of gatekeepers in facilitating women's	Develop and incorporate tools to improve the usability of digital services for women with low literacy levels or who only speak their local language. E.g. Integrate voice search, chatbots or text-to-speech.	Strengthen measures to protect women against internet-related abuse and harassn E.g. Review existing legal and policy frameworks to ensure they recognise digita fraud, and make it easy and safe to report online abuse.
	E.g. Demonstrate through marketing the value of women having access to mobile phones and mobile internet.	Understand and incorporate the content, features, channels and services that women in your market find useful and relevant.	Encourage the development and uptake of apps and services that make it safe and use the internet. E.g. Encourage the adoption of privacy and safety-by-design approaches. <sup>50</sup>
	Ensure agent networks are accessible for women. E.g. Ensure locations and operating hours are accessible for women and consider recruiting female agents in settings where gender roles are very different and women feel mere comfortable interacting with other women	E.g. Make relevant video content in local languages more available and accessible.	Create an enabling policy and regulatory environment to help women purchase and E.g. Review your Know Your Customer (KYC) requirements and ID registration p not exclude women.
	Ensure marketing and services are accessible for women and those with lower literacy, digital skills and awareness	<ol> <li>More detailed recommendations on how MNO's can increase mobile adoption among women can be found here: <u>https://www.gsma.com/</u> <u>solutions-and-impact/connectivity-for-good/mobile-for-development/</u> <u>reaching-women-with-mobile/</u></li> <li>GSMA Mobile Internet Skills Training Toolkit (MISTT): <u>https://www.</u></li> </ol>	Ensure mobile-related sales, access and training facilities are accessible for wome E.g. Ensure regulation does not unintentionally exclude women from becoming age Ensure digital government services are accessible for those with lower literacy a
	E.g. Offer content and advertising through channels that are accessible to women in local languages. Use simple messaging, avoid technical jargon and consider the use of pictures, icons and videos.	<ul> <li>44. For example, providers could help users manage their privacy by making them aware of their app's privacy default settings. For more information on safety-by-design approaches, see: GSMA. (2012). <i>Privacy Design Guidelines for Mobile Application Development</i>.</li> </ul>	E.g. Provide an interactive voice response (IVR) helpline, use simple terminology, symbols, pictures, videos and comic-style stories in addition to (or instead of) terminology. Raise awareness of the benefits of mobile for women to address social norms access and use of mobile.
	Communicate the relevance of mobile ownership and mobile internet use in women's daily lives. E.g. Showcase relatable use cases in marketing targeted at women and/or ensure that women are featured in more broadcast advertising campaigns as active users of the service.		<ul> <li>E.g. Challenge misconceptions and help gatekeepers understand the benefits of m</li> <li>Raise awareness of mobile internet-enabled content, apps and services and here to women's lives.</li> <li>E.g. Promote the life-changing benefits of mobile internet via relevant channels stations and local workers supporting the delivery of basic government services</li> </ul>
			Create an enabling environment that supports the development of content, approximation of content, approximation of the second state of the second

#### Ensure that digital public services are developed to meet the needs of women.

E.g. Consult and engage all types of women when designing and testing e-gov apps and services.

umers, which is likely

example, import taxes ation and taxes on



	networks and grassroots networks led by
to pay for handsets,	women, such as women's savings groups.
ater access to credit to	Fund and/or facilitate mobile-based digital literacy training for women. E.g. Use trusted local community and peer
ffordable.	networks to deliver digital skills training to women, potentially in partnership with an MNO.
en accessing	Raise awareness of the threats preventing women from accessing and using the
qual pay for work of redit.	E.g. Awareness campaigns, digital literacy programmes and formal education programmes/curriculum.
erences for what and	
re the training includes	Develop and support initiatives to increase women's access to and use of mobile and mobile internet.
lence and digital skills	Also consider how mainstream projects and interventions can be adapted to advance digital inclusion for women.
attention to meeting income and familiarity	Raise awareness of the barriers to women's mobile ownership and use, and advocate for stakeholders to take action
using the internet	to address the mobile gender gap.
ormal education	Work to address restrictive social norms.
ent.	access to mobile technology by challenging
l harassment and	positive and relevant use cases.
r for women to access	E.g. Fund awareness campaigns in partnership with the government or other stakeholders to address restrictive social norms that limit women's access to and use of mobile.
access mobile services.	
olicy to ensure they do	45. More detailed recommendations on how policymakers can increase mobile adoption among the underserved can be found here: <u>https://www.gsma.com/solutions- and-impact/connectivity-for-good/mobile-for-</u>
<b>n as well as men.</b> nts.	internet-adoption-policy-considerations/. 46 More detailed recommendations on how policymakers
nd digital skills.	can improve handset affordability can be found here: http://gsma.com/solutions-and-impact/connectivity- for-good/mobile-for-development/gsma_resources/
local languages, icons, t.	improving-handset-affordability-in-low-and-middle- income-countries/
hat restrict women's	<ol> <li>More detailed recommendations on how policymakers can improve digital skills can be found here: <u>https:// www.gsma.com/solutions-and-impact/concectivity-</u> forgood/mpile_fordeulopment_crma_recoverged</li> </ol>
bbile for women.	advancing-digital-skills-for-greater-digital-inclusion-in- low-and-middle-income-countries/
w they can be relevant	<ol> <li>The GSMA has developed a Handset Subsidy Toolkit to support governments with structuring effective handset subsidy programmes. If this is of interest,</li> </ol>
	<ul> <li>please send an email to: <u>connectedsociety@gsma.com</u>.</li> <li>49. Governments can consult the World Bank's <u>Women</u>.</li> </ul>
and services that meet	Business and the Law data set to identify laws and regulations that may hinder gender equality.
omen.	50. For example, providers could help users manage their privacy by making them aware of their app's privacy default settings. For more information on safety-by- design approaches, see: GSMA. (2012). <i>Privacy Design</i>
vernment content,	Guidelines for Mobile Application Development.
	63

#### Development community

Partner with and support the mobile ecosystem on projects that promote affordable handsets.

E.g. Handset financing schemes provided





## **Appendix 1:** Barriers to mobile internet adoption and use

In each of the 15 survey countries:

- Respondents who were aware of mobile internet but had not used it (in the past three months) were asked to identify the barriers preventing them from adopting it.<sup>51</sup>
- Respondents who had used mobile internet (in the past three months) were asked to identify the barriers preventing them from using it more.

Respondents selected from a list of 22 barriers during a face-to-face survey. For barriers to mobile internet adoption and further mobile internet use, respondents were first asked to identify all relevant barriers from this list (see Figure 21 and Figure 23) and then to identify those that were most important and, finally, to identify the single most important barrier (see Figure 20 and Figure 22).

Strongly related or thematically overlapping barriers were grouped into composites that were used to calculate country-level and overall rankings of barriers.<sup>52</sup> The results may not fully reflect the importance of subtle, underlying structural impediments, particularly those grounded in social norms that disproportionately affect women and might not be reported directly by respondents, such as the perceived inappropriateness of spending money on mobile services for themselves.



<sup>51.</sup> Respondents who were not aware of mobile internet were not asked to identify the barriers preventing them from using it as it was not deemed appropriate.

<sup>52.</sup> These composite barriers are aggregates (not averages) of responses for between two and five sub-barriers. Access-related barriers are not grouped as a composite as they cover a disparate range of topics. "All countries" barriers (top of Table 1 and Table 2) were calculated by averaging country-level data for the 15 countries surveyed.

Top barriers to mobile internet adoption Percentage of those who are aware of mobile internet but do not use it who reported the following as the single most important barrier to adopting mobile internet

			AFFOR	DABILITY	LITE	ERACY AND	DIGITAL SKI	LLS	RELE	/ANCE		SAFE	TY AND SEC	URITY					ACCESS			
			HANDSET COST	DATA COST	READING/ WRITING DIFFICULTIES	DIFFICULTIES USING A MOBILE IN GENERAL	NOT CONFIDENT USING MOBILE INTERNET	NOT SUFFICIENT SUPPORT IN LEARNING TO USE THE INTERNET	INTERNET IS NOT RELEVANT FOR ME	INSUFFICIENT CONTENT IN LOCAL LANGUAGE	STRANGERS CONTACTING ME	HARMFUL CONTENT (SELF/ FAMILY)	INFORMATION SECURTIY	DO NOT TRUST INFORMATION ON WEBSITES OR APPS	SCAMS OR FRAUD	INCONSISTENT/ NO COVERAGE	SLOW CONNECTION SPEEDS	INTERNET DRAINS MY BATTERY	ACCESS TO AGENT SUPPORT	DO NOT HAVE TIME TO USE MOBILE INTERNET	SHARED PHONE ACCESS	FAMILY DOES NOT APPROVE
	Egypt	м	31%	6%	24%	11%	4%	5%	3%	3%	0%	2%	1%	0%	3%	2%	1%	0%	0%	2%	0%	0%
		w	24%	2%	30%	10%	2%	4%	6%	3%	2%	1%	1%	0%	2%	4%	0%	2%	0%	1%	1%	6%
	Ethiopia	м	42%	3%	15%	4%	10%	1%	4%	0%	2%	0%	0%	0%	0%	8%	3%	3%	0%	5%	0%	0%
		W	41%	6%	21%	6%	9%	1%	5%	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	4%	0%	1%
	Kenya	м	51%	4%	9%	3%	6%	0%	2%	1%	4%	3%	3%	0%	4%	1%	1%	1%	1%	4%	2%	0%
		W	60%	4%	5%	1%	5%	2%	3%	1%	2%	1%	2%	2%	6%	2%	0%	1%	2%	1%	0%	1%
	Nigeria	M	32%	3%	24%	4%	4%	2%	4%	2%	1%	1%	1%	2%	4%	3%	0%	1%	1%	5%	1%	3%
AFRICA			54%	5%	21%	2% 10/	4%	1%	3%	0%	2%	3%	2%	1%	2%	1%	0%	1%	0%	3%	3%	4%
	Rwanda	W	55%	1%	12%	1%	1%	3 /8 2%	1%	3% 4%	1%	4 <i>/</i> 0 6%	2%	1%	5%	2%	1%	1%	2%	2 /0 3%	1%	0%
		м	38%	7%	17%	0%	1%	0%	6%	0%	3%	0%	3%	3%	5%	5%	1%	3%	0%	8%	0%	0%
	Senegal	w	54%	4%	12%	4%	2%	0%	4%	1%	1%	1%	1%	3%	4%	2%	1%	1%	0%	2%	1%	1%
		м	47%	10%	5%	2%	4%	3%	2%	1%	1%	3%	1%	1%	5%	2%	3%	2%	1%	6%	1%	0%
	Tanzania	w	61%	6%	3%	2%	3%	7%	0%	0%	1%	2%	1%	1%	5%	0%	2%	3%	0%	1%	0%	0%
		м	55%	5%	8%	0%	5%	1%	3%	0%	2%	2%	1%	0%	2%	4%	1%	0%	3%	5%	2%	0%
	Uganda	w	49%	8%	8%	3%	4%	4%	4%	0%	2%	0%	0%	0%	3%	3%	1%	0%	1%	5%	3%	0%
	Denniedeele	м	7%	12%	17%	6%	2%	1%	12%	3%	5%	3%	2%	2%	3%	3%	0%	5%	4%	3%	4%	3%
	Bangladesh	w	9%	6%	30%	4%	4%	4%	6%	1%	1%	5%	2%	1%	1%	2%	2%	4%	5%	2%	4%	6%
	India	м	5%	14%	12%	3%	6%	5%	5%	1%	2%	3%	2%	1%	6%	6%	9%	6%	4%	1%	3%	1%
	Incla	w	8%	9%	21%	5%	1%	2%	4%	4%	4%	2%	6%	2%	8%	4%	2%	3%	1%	3%	7%	3%
ASIA	Indonesia	м	14%	12%	11%	7%	3%	5%	3%	0%	2%	9%	6%	0%	7%	4%	0%	0%	0%	9%	6%	2%
		w	10%	6%	14%	8%	4%	0%	6%	4%	3%	0%	5%	2%	15%	4%	0%	0%	4%	2%	4%	5%
	Pakistan	м	12%	5%	38%	3%	3%	3%	8%	3%	1%	5%	5%	1%	1%	1%	4%	1%	1%	2%	1%	2%
		w	9%	7%	26%	3%	2%	3%	6%	0%	1%	5%	4%	0%	0%	2%	4%	1%	1%	3%	3%	20%
	Philippines	м	7%	2%	9%	4%	6%	1%	2%	0%	7%	1%	18%	4%	18%	4%	3%	2%	0%	5%	2%	1%
		w	6%	4%	0%	2%	4%	4%	3%	1%	6%	4%	13%	10%	27%	7%	5%	1%	1%	5%	0%	0%
	Guatemala	м	38%	7%	7%	9%	0%	2%	2%	0%	4%	2%	7%	0%	7%	6%	0%	2%	0%	4%	2%	2%
LATIN		W	40%	6%	25%	3%	3%	2%	0%	0%	3%	0%	2%	2%	8%	1%	0%	0%	0%	1%	0%	1%
	Mexico	М	12%	2%	15%	5%	17%	- 7%	8%	0%	2%	- 0%	10%	3%	5%	2%	2%	2%	0%	6%	2%	- 0%
		w	9%	- 7%	6%	9%	8%	8%	- 0%	0%	9%	5%	12%	- 3%	9%	- 3%	- 0%	- 0%	0%	5%	- 3%	- 3%

Source: GSMA Consumer Survey, 2024
 Base: Adults aged 18+ who have not used mobile internet in the past three months, despite being aware of mobile internet (excludes those who are not aware of mobile internet).
 Percentages indicate the proportion of respondents who answered, "This is the most important reason stopping me" to the question, "Which one of those factors

would you say is the single most important reason stopping you from using the internet on a mobile phone?" n=53 to 259 for women and n=41 to 253 for men

Men Women

Least frequently cited barrier in that country



Most frequently cited barrier in that country

A barrier to mobile internet adoption Percentage of those who are aware of mobile internet but do not use it who reported the following as a barrier to adopting mobile internet

			AFFORD	ABILITY	LIT	ERACY AND	DIGITAL SK	ILLS	RELE	VANCE		SAFE	TY AND SEC	URITY					ACCESS			
			HANDSET COST	DATA COST	READING/ WRITING DIFFICULTIES	DIFFICULTIES USING A MOBILE IN GENERAL	NOT CONFIDENT USING MOBILE INTERNET	NOT SUFFICIENT SUPPORT IN LEARNING TO USE THE INTERNET	INTERNET IS NOT RELEVANT FOR ME	INSUFFICIENT CONTENT IN LOCAL LANGUAGE	STRANGERS CONTACTING ME	HARMFUL CONTENT (SELF/ FAMILY)	INFORMATION SECURTIY	DO NOT TRUST INFORMATION ON WEBSITES OR APPS	SCAMS OR FRAUD	INCONSISTENT/ NO COVERAGE	SLOW CONNECTION SPEEDS	INTERNET DRAINS MY BATTERY	ACCESS TO AGENT SUPPORT	DO NOT HAVE TIME TO USE MOBILE INTERNET	SHARED PHONE ACCESS	FAMILY DOES NOT APPROVE
	Favot	м	56%	54%	55%	43%	50%	41%	40%	27%	28%	33%	31%	30%	31%	32%	27%	26%	22%	38%	16%	11%
		w	54%	45%	51%	41%	42%	36%	48%	24%	28%	31%	32%	28%	33%	33%	27%	27%	22%	28%	23%	24%
	Ethiopia	м	70%	35%	43%	36%	45%	40%	23%	22%	19%	12%	11%	13%	19%	39%	32%	21%	17%	25%	9%	3%
		w	70%	39%	50%	40%	49%	37%	23%	22%	15%	11%	13%	12%	19%	29%	26%	18%	18%	26%	9%	4%
	Kenya	м	75%	50%	24%	14%	24%	17%	21%	16%	29%	23%	32%	15%	32%	22%	14%	25%	13%	21%	17%	3%
		w	78%	54%	24%	15%	29%	23%	19%	18%	24%	27%	25%	20%	31%	19%	11%	27%	15%	22%	14%	2%
	Nigeria	м	54%	40%	42%	30%	30%	16%	26%	17%	20%	18%	19%	16%	28%	17%	9%	25%	16%	29%	15%	12%
AFRICA		W	58%	50%	46%	24%	36%	22%	28%	15%	27%	23%	24%	20%	26%	19%	11%	24%	11%	23%	16%	13%
	Rwanda	M	72%	35%	18%	9%	18%	33%	9%	30%	22%	27%	26%	19%	39%	33%	25%	19%	18%	22%	24%	4%
		W	77%	45%	28%	13%	33%	34%	19%	34%	29%	35%	32%	23%	42%	31%	27%	17%	16%	28%	25%	4%
Sene	Senegal	M	55%	33%	34%	20%	17%	12%	16%	12%	17%	16%	27%	23%	23%	19%	17%	25%	14%	24%	14%	7%
		W	70%	46%	39%	29%	28%	17%	17%	22%	28%	23%	26%	24%	33%	24%	19%	21%	18%	19%	17%	12%
	Tanzania	M	59%	40%	14%	14%	17%	10%	14%	15%	12%	8%	13%	10%	22%	17%	15%	19%	6%	16%	8%	5%
		w	68%	48%	12%	15%	20%	15%	11%	12%	12%	14%	140	8%	22%	14%	11%	15%	9%	11%	6%	6%
	Uganda	M	75%	48%	27%	17%	26%	17%	23%	20%	16%	18%	17%	16%	24%	27%	21%	24%	15%	21%	13%	2% 7%
		M	78% 21%	⊃2% 22%	30% 26%	29%	29%	28%	23%	28%	12%	24%	17%	10%	32%	32% 10%	۲۶ <u>۵</u> %	28%	16%	24% 15%	0%	3%
	Bangladesh	W	10%	2270	20%	10%	14%	12 %	15%	12 /0	8%	13%	8%	9%	0%	6%	0 %	13%	14%	12%	578 17%	970 11%
		M	36%	39%	31%	30%	30%	71%	<b>7</b> 1%	26%	31%	30%	37%	28%	378	31%	27%	33%	27%	21%	26%	26%
	India	w	30%	29%	37%	26%	22%	26%	25%	27%	29%	27%	30%	25%	32%	21%	27%	25%	27%	24%	29%	25%
		M	45%	49%	26%	34%	39%	36%	44%	35%	36%	39%	45%	33%	47%	36%	35%	33%	30%	40%	33%	30%
ASIA	Indonesia	w	53%	50%	26%	36%	48%	36%	43%	36%	47%	47%	48%	32%	54%	43%	40%	40%	34%	44%	34%	29%
		м	59%	58%	65%	50%	40%	33%	52%	38%	33%	41%	43%	31%	39%	32%	32%	27%	29%	41%	30%	17%
	Pakistan	w	66%	68%	56%	53%	51%	39%	57%	45%	38%	50%	48%	36%	46%	43%	36%	39%	42%	44%	45%	52%
		м	50%	37%	19%	20%	34%	31%	26%	14%	58%	54%	57%	34%	62%	44%	44%	40%	18%	34%	24%	18%
	Philippines	w	42%	44%	9%	26%	26%	26%	18%	19%	62%	57%	63%	56%	76%	56%	51%	47%	15%	24%	24%	7%
		м	49%	37%	22%	21%	16%	20%	11%	11%	32%	41%	37%	25%	43%	28%	18%	30%	11%	18%	10%	14%
	Guatemala	w	67%	59%	38%	27%	28%	30%	17%	16%	43%	43%	43%	34%	53%	40%	26%	18%	18%	25%	16%	15%
AMERICA		м	47%	41%	25%	34%	50%	41%	27%	27%	36%	44%	48%	37%	43%	35%	23%	28%	28%	27%	23%	26%
	Mexico	w	39%	42%	23%	34%	30%	38%	23%	21%	39%	45%	41%	32%	45%	25%	21%	22%	31%	27%	27%	21%

Source: GSMA Consumer Survey, 2024

Base: Adults aged 18+ who have not used mobile internet in the past three months despite being aware of it (excludes those who are not aware of mobile internet).

Percentages indicate the proportion of respondents who answered, "Yes – this is something that stops me" to the question, "For each of the possible reasons that I read out, please indicate whether this is something that stops you at all from using the internet on a mobile phone." n=82 to 304 for women and n=57 to 261 for men



Least frequently cited barrier in that country



Top barrier to further mobile internet use Percentage of mobile internet users who reported the following as the single most important barrier to using mobile internet more

			AFFORD	OABILITY	LITE	RACY AND	DIGITAL S	KILLS	RELE	VANCE		SAFET	Y AND SEC	URITY						ACCESS				
			HANDSET COST	DATA COST	READING/ WRITING DIFFICULTIES	DIFFICULTIES USING A MOBILE IN GENERAL	NOT CONFIDENT USING MOBILE INTERNET	NOT SUFFICIENT SUPPORT IN LEARNING TO USE THE INTERNET	INTERNET IS NOT RELEVANT FOR ME	INSUFFICIENT CONTENT IN LOCAL LANGUAGE	STRANGERS CONTACTING ME	HARMFUL CONTENT (SELF/ FAMILY)	INFORMATION SECURTIY	DO NOT TRUST INFORMATION ON WEBSITES OR APPS	SCAMS OR FRAUD	INCONSISTENT/ NO COVERAGE	SLOW CONNECTION SPEEDS	INTERNET DRAINS MY BATTERY	ACCESS TO AGENT SUPPORT	DO NOT HAVE TIME TO USE MOBILE INTERNET	SHARED PHONE ACCESS	FAMILY DOES NOT APPROVE	ONLY ALLOWED TO USE MOBILE INTERNET FOR SPECIFIC REASONS	ONLY ALLOWED TO USE MOBILE INTERNET FOR A LIMITED AMOUNT OF TIME OR AT CERTAIN TIMES OF THE DAY
	Egypt	м	4%	17%	5%	1%	1%	1%	2%	1%	3%	3%	5%	3%	5%	32%	5%	5%	0%	6%	0%	2%	1%	0%
		w	3%	17%	4%	0%	1%	0%	4%	0%	7%	5%	6%	1%	7%	14%	6%	7%	1%	12%	0%	0%	1%	2%
	Ethiopia	м	17%	8%	3%	0%	1%	0%	1%	1%	2%	2%	1%	0%	2%	26%	15%	5%	0%	10%	3%	2%	0%	1%
		W	19%	16%	0%	1%	2%	0%	4%	4%	0%	0%	0%	1%	1%	15%	11%	7%	0%	8%	4%	2%	0%	4%
	Kenya	M	12%	28%	1%	0%	1%	0%	0%	0%	7%	5%	4%	2%	7%	8%	7%	6%	1%	4%	1%	0%	2%	2%
		W	10%	25%	0%	0%	0%	2%	1%	0%	4% 6%	3% <del>7</del> %	1%	3% 2%	10%	9% 11%	5%	10%	0%	5%	5%	0%	1%	1%
	Nigeria	M	12%	18%	8% 7%	1%	270 19/	0%	5%	2 %	6%	3% 0%	1%	∠% 7%	8% 12%	0%	3% 2%	7%	0%	10%	0%	0%	2 %	1%
AFRICA		M	26%	12%	3%	0%	//	1%	2%	1%	3%	8%	178	3%	8%	11%	5%	1%	0%	4 /0 2%	4%	1%	0%	1%
	Rwanda	w	32%	16%	0%	1%	1%	4%	0%	1%	0%	4%	10%	4%	3%	12%	5%	0%	0%	2%	3%	1%	0%	2%
		м	6%	23%	5%	1%	0%	0%	1%	1%	5%	2%	5%	2%	12%	14%	5%	6%	1%	8%	1%	1%	0%	0%
	Senegal	w	9%	25%	10%	1%	1%	0%	0%	1%	3%	3%	6%	1%	7%	13%	4%	4%	0%	8%	2%	0%	0%	1%
		м	20%	32%	1%	1%	0%	1%	4%	0%	1%	3%	2%	2%	4%	7%	4%	5%	1%	4%	0%	2%	2%	1%
	Tanzania	w	8%	31%	1%	3%	0%	2%	2%	3%	8%	4%	3%	1%	5%	6%	8%	7%	0%	3%	2%	3%	1%	1%
		м	24%	28%	1%	0%	1%	1%	1%	1%	1%	0%	2%	0%	6%	17%	4%	6%	1%	3%	2%	0%	0%	0%
	Uganda	w	25%	26%	3%	0%	1%	0%	1%	0%	4%	2%	1%	1%	2%	16%	3%	4%	0%	5%	6%	1%	0%	0%
		м	4%	20%	3%	3%	5%	4%	2%	0%	2%	5%	5%	4%	4%	1%	16%	7%	0%	2%	0%	8%	3%	5%
	Bangladesh	w	5%	16%	2%	3%	5%	2%	3%	0%	3%	7%	4%	1%	5%	2%	15%	9%	0%	7%	3%	3%	1%	3%
	India	м	4%	11%	4%	2%	3%	2%	3%	2%	5%	4%	6%	3%	12%	5%	8%	9%	2%	5%	2%	2%	2%	4%
	Inclid	w	2%	12%	4%	3%	3%	2%	3%	2%	4%	4%	6%	2%	15%	5%	6%	7%	2%	5%	3%	3%	5%	2%
۵۵۱۵	Indonesia	м	3%	7%	2%	1%	0%	1%	0%	1%	6%	7%	14%	1%	19%	15%	6%	2%	1%	5%	4%	0%	1%	2%
		w	4%	5%	1%	1%	0%	0%	0%	1%	8%	9%	13%	3%	19%	14%	4%	4%	2%	4%	3%	0%	2%	1%
	Pakistan	м	5%	10%	13%	1%	1%	1%	2%	3%	3%	2%	8%	2%	4%	8%	19%	4%	1%	8%	1%	0%	1%	3%
		w	5%	13%	11%	2%	1%	2%	3%	1%	2%	4%	3%	1%	3%	5%	12%	6%	0%	6%	6%	3%	6%	5%
	Philippines	м	5%	5%	0%	0%	0%	1%	0%	1%	9%	7%	10%	4%	31%	9%	7%	2%	1%	2%	3%	1%	1%	1%
		w	3%	5%	0%	1%	1%	1%	0%	0%	10%	7%	12%	7%	29%	7%	7%	2%	0%	2%	2%	1%	1%	2%
	Guatemala	м	8%	6%	4%	1%	2%	0%	1%	1%	4%	9%	11%	3%	19%	15%	3%	1%	1%	4%	1%	0%	0%	3%
		w	9%	5%	7%	1%	2%	2%	1%	1%	7%	4%	13%	2%	17%	13%	3%	4%	1%	3%	2%	0%	1%	2%
	Mexico	М	7%	4%	1%	1%	1%	1%	0%	1%	11%	13%	17%	3%	20%	7%	3%	1%	2%	2%	1%	0%	3%	1%
		w	5%	5%	1%	0%	1%	0%	2%	1%	9%	18%	21%	4%	18%	4%	1%	2%	2%	1%	1%	0%	1%	2%

Source: GSMA Consumer Survey, 2024

Base: Mobile internet users aged 18+

Percentages indicate the proportion of respondents who answered, "Yes – this is something that stops me" to the question, "And which one of those factors would you say is the single most important reason stopping you from using the internet more on a mobile phone?" n=68 to 346 for women and n=109 to 514 for men



Most frequently cited barrier in that country

A barrier to further mobile internet use Percentage of mobile internet users who reported the following as a barrier to using mobile internet more

			AFFORD	ABILITY	LITE	RACY AND	DIGITAL SH	KILLS	RELE	ANCE		SAFET	Y AND SEC	URITY						ACCESS				
			HANDSET COST	DATA COST	READING/ WRITING DIFFICULTIES	DIFFICULTIES USING A MOBILE IN GENERAL	NOT CONFIDENT USING MOBILE INTERNET	NOT SUFFICIENT SUPPORT IN LEARNING TO USE THE INTERNET	INTERNET IS NOT RELEVANT FOR ME	INSUFFICIENT CONTENT IN LOCAL LANGUAGE	STRANGERS CONTACTING ME	HARMFUL CONTENT (SELF/ FAMILY)	INFORMATION SECURTIY	DO NOT TRUST INFORMATION ON WEBSITES OR APPS	SCAMS OR FRAUD	INTERNET DRAINS MY BATTERY	ACCESS TO AGENT SUPPORT	INCONSISTENT/ NO COVERAGE	SLOW CONNECTION SPEEDS	DO NOT HAVE TIME TO USE MOBILE INTERNET	SHARED PHONE ACCESS	FAMILY DOES NOT APPROVE	ONLY ALLOWED TO USE MOBILE INTERNET FOR SPECIFIC REASONS	ONLY ALLOWED TO USE MOBILE INTERNET FOR A LIMITED AMOUNT OF TIME OR AT CERTAIN TIMES OF THE DAY
	Egypt	м	12%	17%	6%	6%	7%	6%	8%	5%	11%	9%	10%	7%	9%	25%	16%	15%	7%	13%	5%	4%	1%	0%
		w	9%	16%	4%	5%	7%	5%	5%	4%	11%	11%	10%	8%	10%	15%	15%	14%	4%	11%	2%	3%	1%	2%
	Ethiopia	м	43%	40%	12%	12%	11%	12%	6%	11%	19%	10%	15%	19%	16%	64%	61%	38%	14%	28%	10%	6%	0%	1%
		w	40%	44%	12%	6%	9%	11%	12%	13%	8%	5%	10%	13%	10%	57%	53%	36%	7%	40%	15%	6%	0%	4%
	Kenya	м	37%	47%	2%	5%	6%	6%	9%	9%	29%	22%	26%	21%	34%	31%	26%	39%	8%	18%	9%	7%	2%	2%
		W	31%	47%	3%	3%	6%	7%	7%	6%	27%	23%	26%	21%	32%	33%	24%	36%	5%	19%	13%	4%	1%	1%
	Nigeria	м	19%	28%	14%	10%	10%	9%	8%	9%	18%	12%	14%	17%	19%	21%	15%	27%	9%	16%	9%	9%	2%	1%
AFRICA		W	22%	35%	20%	14%	16%	16%	15%	15%	24%	13%	14%	22%	26%	24%	16%	27%	14%	17%	11%	9%	1%	5%
	Rwanda	M	55%	41%	7% C%	5%	17%	17%	5%	18%	32%	34%	39%	37%	39%	50%	45%	23%	12%	24%	5%	5%	0%	1%
		w N	57%	55%	6%	6% <del>7</del> %	11%	18%	5%	14%	22%	25%	32%	38%	39%	55%	45%	7.2%	14%	28%	C%	9%	0%	2%
	Senegal	M	27%	49%	13%	12%	17%	5%	7%	14%	28%	21%	31%	26%	43%	40%	34%	32%	9% 15%	23%	<b>Б%</b>	5% 7%	0%	1%
		M	30%	<b>37</b> %	30 %	12%	17 %	12%	0 %	14%	17%	24%	33% 17%	27 % 10%	24%	44 %	20%	72%	13%	2770	0%	00/	2%	170
	Tanzania	W	37%	40%	976 10%	12.70	0%	10 %	1/%	14%	22%	20%	20%	15%	24/0	20%	23%	33%	070 11%	19%	3 /8 1/1 %	17%	1%	1%
		м	51%	71%	8%	6%	7%	11%	17%	16%	23%	18%	20%	18%	20%	52%	A1%	51%	12%	19%	13%	4%	0%	0%
	Uganda	w	50%	65%	12%	8%	14%	12%	11%	18%	20%	16%	18%	14%	20%	48%	33%	42%	9%	22%	17%	-7% 6%	0%	0%
_		м	13%	21%	6%	6%	5%	9%	9%	6%	10%	12%	12%	11%	11%	13%	22%	15%	8%	11%	5%	10%	3%	5%
	Bangladesh	w	12%	21%	7%	6%	8%	11%	9%	6%	15%	11%	12%	13%	19%	15%	25%	14%	7%	14%	10%	10%	1%	3%
		м	32%	37%	20%	22%	25%	22%	27%	20%	30%	31%	32%	25%	33%	29%	33%	37%	22%	26%	25%	22%	2%	4%
	India	w	34%	42%	24%	25%	26%	27%	28%	22%	31%	34%	36%	27%	39%	34%	27%	33%	23%	29%	31%	24%	5%	2%
		м	34%	30%	10%	13%	17%	14%	17%	18%	38%	38%	43%	25%	41%	39%	33%	35%	15%	24%	13%	11%	1%	2%
ASIA	Indonesia	w	32%	27%	10%	13%	15%	17%	16%	14%	38%	37%	42%	27%	41%	40%	33%	30%	14%	23%	15%	11%	2%	1%
		м	33%	37%	21%	18%	18%	13%	19%	26%	26%	26%	27%	24%	33%	31%	44%	34%	16%	26%	15%	11%	1%	3%
	Pakistan	w	50%	49%	31%	27%	33%	22%	34%	23%	33%	35%	36%	35%	42%	39%	45%	43%	23%	42%	38%	18%	6%	5%
		м	41%	33%	5%	7%	13%	13%	14%	15%	58%	50%	60%	45%	70%	47%	46%	38%	14%	18%	22%	10%	1%	1%
	Philippines	w	46%	45%	3%	9%	14%	17%	16%	15%	66%	57%	65%	55%	75%	50%	48%	41%	16%	24%	25%	10%	1%	2%
		м	21%	19%	6%	7%	9%	8%	5%	4%	28%	28%	32%	21%	33%	34%	18%	18%	7%	8%	7%	4%	0%	3%
LATIN	Guatemala	w	24%	24%	8%	7%	12%	8%	6%	6%	35%	30%	36%	17%	41%	33%	22%	22%	7%	9%	7%	3%	1%	2%
AMERICA	Movies	м	17%	14%	4%	5%	8%	7%	5%	5%	29%	32%	35%	21%	33%	16%	14%	15%	7%	9%	8%	5%	3%	1%
	Mexico	w	22%	18%	3%	6%	12%	10%	9%	7%	35%	39%	41%	24%	41%	17%	13%	19%	10%	8%	8%	3%	1%	2%

Source: GSMA Consumer Survey, 2024

Base: Mobile internet users aged 18+

Percentages indicate the proportion of respondents who answered, "Yes – this is something that stops me" to the question, "For each of the possible reasons that I read out, please indicate whether this is something that stops you at all from using the internet more on a mobile phone." n=91 to 477 for women and n=151 to 740 for men

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Most frequently cited barrier in that country

## Appendix 2: Use cases

#### Figure 24

Weekly mobile internet use cases among mobile internet users Percentage of mobile internet users who perform each use case at least once a week

			SOCIAL MEDIA	INSTANT MESSAGING	ONLINE VIDEO	ONLINE ENTERTAINMENT	CALL ONLINE	VIDEO CALLS	READ NEWS	SEARCH FOR ONLINE INFORMATION	EDUCATION/ LEARNING SUPPORT	SEARCH FOR ONLINE JOB/BUSINESS INFORMATION	HEALTH SERVICES	GOVERNMENT SERVICES	INCOME GENERATION	ONLINE BANKING/ MOBILE MONEY	ORDER GOODS/ SERVICES	AGRICULTURE
	Equat	м	83%	78%	75%	78%	67%	57%	40%	25%	18%	18%	17%	14%	13%	12%	12%	2%
	Едург	w	86%	83%	76%	75%	71%	64%	42%	25%	18%	7%	13%	12%	14%	8%	9%	1%
	Ethionia	м	74%	58%	45%	47%	39%	29%	44%	15%	20%	18%	10%	20%	6%	19%	2%	5%
		w	69%	49%	42%	45%	28%	22%	31%	10%	14%	4%	11%	19%	3%	6%	0%	0%
	Konya	м	79%	83%	72%	74%	59%	51%	54%	41%	39%	23%	23%	23%	24%	34%	19%	4%
	Кепуа	w	78%	77%	70%	64%	55%	47%	43%	32%	30%	12%	16%	19%	15%	26%	12%	4%
	Nigoria	м	76%	79%	61%	61%	71%	69%	53%	34%	31%	24%	26%	26%	35%	50%	23%	15%
	Nigeria	w	76%	76%	60%	58%	76%	64%	36%	34%	32%	18%	26%	21%	33%	41%	22%	9%
AFRICA	Dwanda	м	76%	83%	89%	88%	51%	34%	77%	42%	44%	30%	21%	27%	15%	21%	5%	11%
	Kwaliua	w	69%	81%	81%	72%	44%	28%	68%	39%	40%	29%	19%	28%	10%	16%	5%	10%
	Sonoral	м	73%	82%	73%	64%	74%	53%	47%	30%	26%	29%	14%	32%	17%	19%	9%	11%
Senegal W Tanzania W Uganda W	72%	78%	68%	60%	68%	55%	30%	21%	18%	25%	11%	16%	8%	14%	6%	7%		
	м	69%	70%	70%	69%	56%	54%	60%	48%	50%	30%	44%	42%	35%	34%	21%	10%	
	w	76%	75%	69%	65%	53%	56%	58%	51%	53%	13%	41%	44%	33%	34%	24%	1%	
	72%	72%	57%	53%	56%	43%	46%	31%	25%	41%	14%	13%	8%	11%	6%	36%		
	Uganua	w	78%	82%	62%	56%	64%	46%	25%	25%	20%	37%	13%	4%	8%	7%	3%	32%
	Papeladach	м	83%	78%	84%	80%	81%	86%	46%	42%	31%	25%	30%	26%	26%	38%	25%	13%
	Ballylauesh	w	91%	85%	92%	90%	79%	89%	49%	43%	25%	17%	21%	22%	25%	20%	18%	6%
	India	м	77%	79%	80%	83%	74%	76%	58%	45%	44%	38%	42%	41%	39%	39%	37%	19%
	Шиа	w	69%	74%	78%	83%	72%	71%	44%	40%	46%	17%	34%	38%	36%	32%	30%	14%
A CI A	Indonasia	м	84%	92%	82%	80%	91%	87%	43%	32%	24%	30%	15%	19%	19%	20%	20%	12%
	Inconesia	w	82%	91%	80%	74%	90%	87%	40%	33%	26%	19%	14%	15%	12%	19%	24%	6%
	Dakistan	м	71%	72%	73%	66%	72%	65%	25%	13%	13%	15%	11%	15%	14%	15%	9%	4%
	Fakistali	w	51%	59%	62%	54%	60%	67%	11%	7%	9%	2%	7%	8%	9%	7%	7%	1%
	Dhilippings	м	96%	93%	96%	93%	87%	88%	63%	42%	47%	26%	25%	26%	11%	14%	25%	8%
	Philippines	w	94%	95%	92%	90%	84%	92%	65%	50%	56%	20%	29%	26%	19%	17%	30%	5%
	Guatamala	м	90%	89%	83%	84%	88%	84%	58%	49%	67%	40%	30%	23%	22%	27%	18%	5%
LATIN	Guatemala	w	89%	89%	79%	77%	86%	84%	54%	45%	63%	23%	26%	24%	23%	25%	21%	2%
AMERICA	Movice	м	87%	90%	84%	85%	85%	73%	73%	74%	68%	61%	48%	56%	50%	55%	46%	2%
	Mexico	w	90%	92%	81%	81%	83%	75%	70%	69%	69%	32%	44%	48%	42%	46%	39%	1%

Source: GSMA Consumer Survey, 2024

Base: Mobile internet users aged 18+

Percentages indicate the proportion of respondents who answered that they perform each use case at least once a day or at least once a week using mobile internet. n=91 to 477 for women and n=151 to 740 for men

Men Women



Most reported weekly use case in that country

Awareness of mobile internet use cases Percentage of mobile internet users

			SOCIAL MEDIA	INSTANT MESSAGING	ONLINE VIDEO	ONLINE ENTERTAINMENT	CALL ONLINE	VIDEO CALLS	READ NEWS	SEARCH FOR ONLINE INFORMATION	EDUCATION/LEARNING SUPPORT	HEALTH SERVICES	GOVERNMENT SERVICES	INCOME GENERATION	ONLINE BANKING / MOBILE MONEY	ORDER GOODS/ SERVICES
	Equat	м	99%	99%	99%	98%	99%	96%	95%	89%	85%	86%	83%	84%	83%	88%
	сады	w	100%	98%	100%	98%	99%	97%	96%	91%	86%	88%	85%	84%	81%	89%
	Ethiopia	м	96%	96%	86%	93%	92%	90%	92%	72%	75%	74%	77%	63%	77%	49%
	Етпоріа		94%	91%	80%	94%	86%	89%	87%	75%	74%	69%	78%	62%	74%	55%
	Kanya	м	99%	99%	99%	97%	98%	97%	94%	96%	93%	91%	88%	89%	91%	86%
	кепуа	w	97%	98%	96%	97%	96%	96%	90%	90%	91%	87%	82%	89%	92%	85%
		м	97%	98%	95%	92%	96%	96%	88%	84%	81%	80%	79%	86%	94%	81%
	Nigeria	w	95%	97%	96%	92%	96%	95%	85%	80%	85%	75%	79%	85%	92%	77%
AFRICA	Duranda	м	99%	99%	100%	99%	95%	96%	99%	90%	92%	87%	95%	88%	87%	87%
	Rwanda	w	99%	100%	99%	98%	93%	98%	98%	89%	95%	87%	93%	87%	86%	88%
	Concerci	м	93%	96%	96%	90%	95%	93%	86%	75%	79%	70%	81%	71%	65%	61%
	Senegai	w	92%	94%	94%	88%	92%	92%	75%	65%	67%	63%	69%	60%	55%	53%
Tanzania W Uganda W	м	97%	95%	98%	97%	93%	92%	96%	90%	95%	92%	88%	86%	89%	79%	
	w	98%	95%	96%	97%	91%	95%	96%	92%	94%	88%	86%	80%	84%	71%	
		м	100%	97%	99%	97%	99%	97%	99%	93%	95%	92%	93%	82%	86%	84%
	w	97%	99%	97%	97%	99%	97%	97%	92%	92%	91%	84%	86%	86%	87%	
	Described	м	97%	96%	99%	93%	96%	100%	86%	91%	85%	79%	79%	79%	85%	78%
	Bangladesh	w	99%	97%	98%	95%	100%	98%	82%	80%	77%	76%	77%	75%	74%	78%
	to de	м	91%	92%	93%	92%	91%	91%	85%	79%	79%	74%	76%	73%	74%	81%
	India	w	90%	90%	92%	91%	91%	89%	79%	74%	79%	68%	72%	71%	68%	79%
	Index etc.	м	97%	98%	96%	92%	97%	98%	87%	81%	75%	75%	74%	79%	76%	87%
ASIA	Indonésia	w	92%	97%	95%	90%	97%	97%	83%	78%	71%	70%	68%	70%	71%	88%
	Delitera	м	89%	89%	91%	85%	89%	90%	67%	63%	66%	61%	61%	65%	72%	63%
	Pakistan		83%	88%	94%	85%	87%	91%	57%	55%	57%	54%	52%	54%	56%	51%
	DL II.	м	99%	99%	99%	99%	99%	99%	95%	90%	89%	84%	85%	85%	80%	95%
	Philippines	w	98%	100%	99%	99%	99%	100%	97%	92%	93%	88%	89%	87%	84%	96%
	Customela	м	99%	99%	99%	99%	98%	99%	96%	96%	98%	95%	93%	89%	93%	91%
LATIN	Guatemala	w	99%	98%	98%	96%	96%	98%	95%	95%	95%	91%	88%	83%	85%	87%
AMERICA	Maria	м	100%	99%	99%	99%	100%	99%	98%	98%	98%	95%	96%	92%	97%	96%
	AMERICA	w	100%	100%	99%	98%	99%	99%	97%	98%	97%	92%	93%	91%	92%	94%

Source: GSMA Consumer Survey, 2024

Base: Mobile internet users aged 18+

Percentages indicate the proportion of respondents who were aware that mobile internet could be used to perform each use case. Someone was considered aware of a particular use case if they had either performed that use case before, or had not but reported knowing that it was possible using mobile internet. Note: Awareness levels for "agricultural information" and "searching for online information for work" could not be calculated as these questions were not asked to the full sample of mobile internet users and are therefore not shown here.

n=91 to 477 for women and n=151 to 740 for men





## **Appendix 3:** Methodology

This report is based on an analysis of the results of face-to-face surveys conducted by the GSMA in 15 LMICs in 2024. This is supplemented by 2017–2023 GSMA survey results from 15 additional countries,<sup>53</sup> as well as third-party survey results that cover another 14 countries.<sup>54</sup>

### Survey methodology

In all countries surveyed in 2024, a sample of approximately 1,000 male and female adults aged 18 and over were surveyed, except for India where the sample was approximately 2,000. The samples were nationally representative, except for Ethiopia where no interviews were conducted in the Amhara region and four other zones<sup>55</sup> due to local conflict and security concerns. These areas represent 27% of the population in Ethiopia, therefore, the sample was representative of the 73% who live outside these areas.

In all countries, the sampling frame was based predominantly on data from national statistics offices, including census data where possible, and a range of other sources. To ensure a geographically representative distribution of interview subjects, particularly in urban and rural areas, around 100 sampling points were used per country. However, very remote areas or areas with security concerns were excluded. Interviews were conducted with individuals in their local language. All surveys were interviewer-administered using handheld devices. Both female and male interviewers conducted the surveys and, 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. Data was weighted to known population profiles to correct any imbalances in the distributions achieved during fieldwork.

55. Western Tigray, Metekel-Zone (Benishangul Gumz), Zone 2 Zone (Afar) and Guji-Zone (Oromia).

<sup>53.</sup> Six countries were surveyed by the GSMA in 2017, 2018, 2019, 2020, 2021, 2022, 2023 and 2024: Kenya, Nigeria, Bangladesh, India, Pakistan and Guatemala. Two countries were surveyed by the GSMA in 2017, 2018, 2019, 2021, 2022, 2023 and 2024: Indonesia and Mexico. One country was surveyed by the GSMA in 2019, 2021, 2022, 2023 and 2024: Egypt. One country was surveyed by the GSMA in 2022, 2023 and 2024: Egypt. One country was surveyed by the GSMA in 2022, 2023 and 2024: Egypt. One country was surveyed by the GSMA in 2022, 2023 and 2024: Ethiopia. One country was surveyed by the GSMA in 2019, 2023 and 2024: Uganda. One country was surveyed by the GSMA in 2019, 2023 and 2024: Uganda. One country was surveyed in 2017 and 2024: Tanzania. One country was surveyed only in 2024: Rwanda. One country was surveyed in 2017, 2021 and 2022: Ghana. Two countries were surveyed by the GSMA in 2017, 2018, 2019 and 2020: Algeria and Mozambique. Three countries were surveyed by the GSMA in 2017, 2018, and 2019: Brazil, Myanmar and South Africa. Four countries were surveyed by the GSMA in 2017: Chile, Colombia, Nicaragua, Thailand and Vietnam. However, since Chile is now defined as a high-income country. it is not included in this analysis. Fieldwork was conducted from September to January in 2017. 2018, 2019, 2020. 2021

<sup>54.</sup> Data was sourced from <u>After Access</u> (Cambodia, Paraguay, Peru and Rwanda for mobile and mobile internet for 2017 and Uganda and South Africa for mobile internet for 2018 and 2022); from <u>Pew Global Attitudes and Trends</u> (mobile and mobile internet for Jordan and Lebanon for 2017 and Philippines for 2018 and 2019); <u>ITU</u> (Iran for mobile and mobile internet for 2017 to 2019); <u>RLMS-HES</u> (Russia for mobile, mobile internet and smartphone for 2018 and 2019); <u>CNNIC</u> (China for mobile internet for 2017 to 2022); and <u>ZimStat</u> (Zimbabwe for mobile, mobile internet and smartphone for 2020).

# Extrapolating the mobile gender gap to non-surveyed countries

This report provides estimates of the gender gaps in LMICs for three key metrics:



#### MOBILE OWNERSHIP

MOBILE INTERNET ADOPTION SMARTPHONE OWNERSHIP

The estimates of gender gaps for countries covered by the 2017-2024 GSMA Consumer Surveys are derived from the survey results. The group of survey countries depends on the year and covers 29 countries representing up to 75% of the adult population in all LMICs.<sup>56</sup> In addition, we relied on third-party and publicly available survey data when we considered it robust. This provided gender gap proxy measures for selected years of mobile ownership in another 10 countries, mobile internet use in 14 countries and smartphone ownership in two countries.<sup>57</sup>

To estimate the size of the mobile gender gaps in the remaining LMICs, we relied on machine learning classifiers, which are trained using data from countries where observations of gender gaps in mobile technology are available. We combined these observations into a dataset that included other variables that are potential predictors of mobile gender gaps, such as indicators of technology adoption and socioeconomic conditions. We used this dataset as training data to teach the classifiers what patterns of technology adoption and socio-economic conditions are associated with larger or smaller mobile gender gaps. The trained classifiers then used these recognised patterns to make predictions about gender gaps in countries that were not directly surveyed. We used separate classifiers to estimate each type of mobile gender gap (mobile ownership, mobile internet use and smartphone ownership).

We gathered data on potential predictors of mobile gender gaps. This data, which was not uniformly available for every country and year, included indicators sourced from the United Nations Human Development Index (HDI), the World Bank, Gallup World Poll and others (Table 3). Given that some data was missing for certain country-year combinations, we relied on a multiple imputation technique. This created several estimates for each missing value based on the patterns observed in other variables of the dataset.

56. United Nations Department of Economic and Social Affairs, Population Division. (2022). World Population Prospects 2022.

57. Data was sourced from <u>After Access</u> (Cambodia, Paraguay, Peru and Rwanda for mobile and mobile internet for 2017 and Uganda and South Africa for mobile internet for 2018 and 2022); from <u>Pew Global Attitudes and Trends</u> (mobile and mobile internet for Jordan and Lebanon for 2017 and Philippines for 2018 and 2019); <u>ITU</u> (Iran for mobile internet for 2017 to 2019); <u>RLMS-HES</u> (Russia for mobile, mobile internet and smartphone for 2018 and 2019); <u>CNNIC</u> (China for mobile internet for 2017 to 2022); and <u>ZimStat</u> (Zimbabwe for mobile, mobile internet and smartphone for 2020).

#### Table 3

Variables used as predictors of mobile gender gaps

Variable(s)	Source
Mean schooling years - females and males and gender ratio	UN Human Development Reports
Expected schooling years for a child entering education – females and males and gender ratio <sup>58</sup>	UN Human Development Reports
Human Development Index – overall and females only	UN Human Development Reports
Gender Inequality Index	UN Human Development Reports
Gender Development Index	UN Human Development Reports
Gross national income (GNI) per capita – female and male absolute income and gender ratio	UN Human Development Reports
Gross domestic product (GDP) per capita, purchasing power parity (PPP)	IMF World Economic Outlook
Percentage of persons with access to internet – overall and females only	Gallup World Poll
Gender gap in internet use	Gallup World Poll
Percentage of persons owning a mobile phone for personal calls – overall and females only	Gallup World Poll
Gender gap in mobile ownership for personal calls	Gallup World Poll
Facebook gender gap	GSMA Intelligence analysis of Facebook Audience Insights
World region dummy variables	World Bank regional groupings
Income group dummy variables	World Bank analytical classifications
Measure of gender equality under law – overall index score and individual area scores	World Bank Women, Business and the Law indicators
Average revenue per subscriber	GSMA Intelligence database

Source: GSMA Intelligence analysis

#### Adult male and female mobile subscribers

This was calculated using the estimated gender gap in mobile ownership, GSMA Intelligence estimates and forecasts of the adult mobile penetration rate and UN estimates and forecasts of the adult population by gender.

Adult male and female mobile internet users

This was calculated using the estimated gender gap in mobile internet use, GSMA Intelligence

estimates and forecasts of the adult mobile internet penetration rate and UN estimates and forecasts of the adult population by gender.

#### Adult male and female smartphone users

This was calculated using the estimated gender gap in smartphone ownership, GSMA Intelligence estimates and forecasts of the adult smartphone penetration rate and UN estimates and forecasts of the adult population by gender.

<sup>58.</sup> The gender ratio for a variable is calculated by taking the female value and dividing it by the male value. For example, the gender ratio for mean schooling years is equal to mean female schooling years divided by mean male schooling years.

# Endnotes

1. GSMA Intelligence, Q4 2024.

2. International Telecommunication Union (ITU) estimates for 2024.

- 3. Except Indonesia, where male and female internet users were equally likely to access the internet exclusively via mobile.
- 4. The difference was greatest in Rwanda, where 77% of female internet users access it exclusively via mobile, compared to 63% of men.
- 5. This period is inclusive of the years 2023 and 2030.
- 6. GSMA. (2023). The Mobile Gender Gap Report 2023.
- 7. GSMA. (2024). The State of Mobile Internet Connectivity 2024
- 8. GSMA. (2023). The Mobile Gender Gap Report 2023.
- 9. Except for Ethiopia where, in 2022, sampling excluded the Tigray region and six zones, and in 2023 and 2024 excluded the Amhara region and six zones due to conflict.
- 10. Respondents were asked the question: "Have you ever used the internet on a mobile phone? Please think about all the different ways of using the internet on a mobile phone. Just to confirm, people are using the internet on their mobile phones when they do any of the following: visit internet websites (e.g. Google or Amazon), visit social networking websites (e.g. Facebook, Twitter, YouTube, Weibo), send emails or instant messages (e.g. WhatsApp, Snapchat, WeChat, LINE) or download apps." Mobile internet users are those who answered, "Yes, I have used the internet on a mobile phone in the past three months."
- 11. The exceptions are Indonesia, the Philippines and Mexico, where women are equally as likely as men to use mobile internet.
- 12. In the other five countries where the mobile internet gender gap narrowed (Egypt, Kenya, Nigeria, Uganda and Indonesia), it was because men's adoption was relatively unchanged while women's adoption increased slightly.
- 13. The exception is Indonesia, where male and female internet users were equally likely to access the internet exclusively on a mobile phone.
- 14. Either a feature phone or a smartphone.
- 15. The analysis is not shown here, but for more in-depth information see, for example, Figure 9 in The Mobile Gender Gap Report 2022.
- 16. See Table 1 in The Mobile Gender Gap Report 2023.
- 17. The exceptions are Ethiopia, Nigeria and Uganda, where women are slightly less likely than men to own a feature phone.
- 18. Respondents were asked the following question: "Apart from price, how important, if at all, would the following features be to you if you were getting or buying a mobile phone that can access the internet (e.g. feature phone or smartphone)?"
- 19. GSMA. (2015). Bridging the gender gap: Mobile access and usage in low- and middle-income countries.
- 20. Pakistan Telecommunication Authority. (2024). Digital Gender Inclusion Strategy.
- GSMA Connected Women Commitment Initiative: <u>https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/</u> <u>connected-women/the-commitment/</u>
- 22. There are high levels of 4G coverage, but a significant proportion of devices are still feature phones or 3G smartphones.
- 23. Mobile internet users were considered aware of a particular use case if they had either performed that use case before or had not but reported knowing that it was possible to do using mobile internet.
- 24. A micro-entrepreneur is defined as someone who runs their own business full time or part time and with fewer than nine employees. Data in this spotlight reflects the natural fall-out of micro-entrepreneurs from the overall nationally representative sample in each country.
- 25. GSMA. (2023). Understanding women micro-entrepreneurs' use of mobile phones for business.
- 26. The following nine countries were surveyed in both 2022 and 2024: Ethiopia, Kenya, Nigeria, Senegal, Bangladesh, India, Indonesia, Pakistan and Guatemala.
- 27. GSMA. (2023). Understanding women micro-entrepreneurs' use of mobile phones for business.
- 28. Ibid.
- 29. This was a pre-defined list of 22 barriers that has been refined over years and based on the research and experience of the GSMA and other organisations.
- 30. Ethiopia, Rwanda, Uganda and India.

- 31. Connectivity experience as a barrier represents an aggregate of those who reported: "Using the internet on a mobile phone is too slow (e.g. connection speeds)" or "There is inconsistent coverage (e.g. connection drops) or no coverage to access the internet most of the time".
- 32. Butler, C. and Shanahan, M. (27 August 2020). "Does just being a woman reduce the likelihood of using mobile?" GSMA Mobile for Development Blog.
- 33. GSMA. (2024). The State of Mobile Internet Connectivity 2024.
- 34. See Figure 16 in *The Mobile Gender Gap Report 2024*.
- 35. World Bank estimates based on the United Nations Population Division's World Urbanization Prospects: 2018 Revision.
- 36. Exceptions include the Philippines and Mexico.
- 37. Exceptions include Kenya, Indonesia and Mexico, where rural and urban gender gaps are similar.
- 38. Except in Ethiopia, Rwanda and India, where awareness among rural women remains low.
- 39. In some survey countries, including Senegal, Indonesia and Mexico, mobile internet awareness is relatively similar among rural women, rural men, urban women and urban men.
- 40. GSMA Connected Women. (2020). "Top 10 recommendations for reaching women with mobile across low- and middle-income countries". Reaching 50 Million Women with Mobile: A Practical Guide.
- 41. GSMA Connected Women. (2022). Policy considerations to accelerate digital inclusion for women in low- and middle-income countries.
- 42. More detailed recommendations on how MNOs can increase mobile adoption among women can be found here: <u>https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/reaching-women-with-mobile/</u>.
- 43. GSMA Mobile Internet Skills Training Toolkit (MISTT): <u>https://www.gsma.com/mobilefordevelopment/connected-society/mistt/</u>
- 44. For example, providers could help users manage their privacy by making them aware of their app's privacy default settings. For more information on safety-by-design approaches, see: GSMA. (2012). *Privacy Design Guidelines for Mobile Application Development*.
- 45. More detailed recommendations on how policymakers can increase mobile adoption among the underserved can be found here: <u>https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/gsma\_resources/accelerating-mobile-internet-adoption-policy-considerations/</u>.
- 46. More detailed recommendations on how policymakers can improve handset affordability can be found here: <a href="http://gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/gsma\_resources/improving-handset-affordability-in-low-and-middle-income-countries/">http://gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/gsma\_resources/improving-handset-affordability-in-low-and-middle-income-countries/</a>
- 47. More detailed recommendations on how policymakers can improve digital skills can be found here: <u>https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/gsma\_resources/advancing-digital-skills-for-greater-digital-inclusion-in-low-and-middle-income-countries/</u>
- 48. The GSMA has developed a Handset Subsidy Toolkit to support governments with structuring effective handset subsidy programmes. If this is of interest, please send an email to: connectedsociety@gsma.com.
- 49. Governments can consult the World Bank's Women, Business and the Law data set to identify laws and regulations that may hinder gender equality.
- 50. For example, providers could help users manage their privacy by making them aware of their app's privacy default settings. For more information on safety-by-design approaches, see: GSMA. (2012). *Privacy Design Guidelines for Mobile Application Development*.
- 51. Respondents who were not aware of mobile internet were not asked to identify the barriers preventing them from using it as it was not deemed appropriate.
- 52. These composite barriers are aggregates (not averages) of responses for between two and five sub-barriers. Access-related barriers are not grouped as a composite as they cover a disparate range of topics. "All countries" barriers (top of Table 1 and Table 2) were calculated by averaging country-level data for the 15 countries surveyed.
- 53. Six countries were surveyed by the GSMA in 2017, 2018, 2019, 2020, 2021, 2022, 2023 and 2024: Kenya, Nigeria, Bangladesh, India, Pakistan and Guatemala. Two countries were surveyed by the GSMA in 2017, 2018, 2019, 2021, 2022, 2023 and 2024: Indonesia and Mexico. One country was surveyed by the GSMA in 2019, 2021, 2022, 2023 and 2024: Senegal. One country was surveyed in 2017, 2022, 2023 and 2024: Ethiopia. One country was surveyed in 2017, 2023, 2023 and 2024: Uganda. One country was surveyed in 2017 and 2024: Philippines. One country was surveyed in 2018 and 2024: Tanzania. One country was surveyed only in 2024: Rwanda. One country was surveyed in 2017, 2021, 2022, 2023 and 2022: Ghana. Two countries were surveyed by the GSMA in 2017, 2018, 2019 and 2020: Algeria and Mozambique. Three countries were surveyed by the GSMA in 2017, 2018 and 2019: Brazil, Myanmar and South Africa. Four countries were surveyed by the GSMA in 2017 and 2018: Argentina, Dominican Republic, China, Côte d'Ivoire. Five countries were surveyed by the GSMA only in 2017: Chile, Colombia, Nicaragua, Thailand and Vietnam. However, since Chile is now defined as a high-income country, it is not included in this analysis. Fieldwork was conducted from September to January in 2017, 2018, 2019, 2020, 2021 and 2022.
- 54. Data was sourced from <u>After Access</u> (Cambodia, Paraguay, Peru and Rwanda for mobile and mobile internet for 2017 and Uganda and South Africa for mobile internet for 2018 and 2022); from <u>Pew Global Attitudes and Trends</u> (mobile and mobile internet for Jordan and Lebanon for 2017 and Philippines for 2018 and 2019); <u>ITU</u> (Iran for mobile and mobile internet for 2017 to 2019); <u>RLMS-HES</u> (Russia for mobile internet and smartphone for 2018 and 2019); <u>CNNIC</u> (China for mobile internet for 2017 to 2022); and <u>ZimStat</u> (Zimbabwe for mobile, mobile internet and smartphone for 2020).
- 55. Western Tigray, Metekel-Zone (Benishangul Gumz), Zone 2 Zone (Afar) and Guji-Zone (Oromia).
- 56. United Nations Department of Economic and Social Affairs, Population Division. (2022). World Population Prospects 2022.
- 57. Data was sourced from <u>After Access</u> (Cambodia, Paraguay, Peru and Rwanda for mobile and mobile internet for 2017 and Uganda and South Africa for mobile internet for 2018 and 2022); from <u>Pew Global Attitudes and Trends</u> (mobile and mobile internet for Jordan and Lebanon for 2017 and Philippines for 2018 and 2019); <u>ITU</u> (Iran for mobile and mobile internet for 2017 to 2019); <u>RLMS-HES</u> (Russia for mobile, mobile internet and smartphone for 2018 and 2019); <u>CNNIC</u> (China for mobile internet for 2017 to 2022); and <u>ZimStat</u> (Zimbabwe for mobile, mobile internet and smartphone for 2020).
- 58. The gender ratio for a variable is calculated by taking the female value and dividing it by the male value. For example, the gender ratio for mean schooling years is equal to mean female schooling years divided by mean male schooling years.

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