Measuring e-commerce – household surveys and beyond

Fourth meeting of the working group on measuring e-commerce and the digital economy, fourth meeting | 30 November 2023

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Partnership on Measuring ICT for Development

Steering Committee (2023-2025): ITU, UNCTAD, and UN DESA
Partnership activities in 2023/24

**Emphasis on timely and disaggregated data**

### 2023 activities

- Organized a Partnership session during [WSIS Forum 2023](#).
- Submitted an input to the [High-level Political Forum on Sustainable Development (HLPF)](#) in July 2023.
- Submitted an input to the [Global Digital Compact](#) online consultation.

### Planned 2024 activities

- Preparing a report to the [UN Statistical Commission](#) 55th session in March 2024.
  - Forum for Director General of National Statistical Offices (NSOs).
  - Item on ICT statistics - Discuss and endorse work of the Partnership and indicators.
- For 2024, prepare for comprehensive review of the [SDG Global Indicator Framework](#).
  - Partnership Thematic list of ICT indicators.
# Breadth of ITU data collection

## Three main areas

### ITU collects, verifies, harmonizes, and analyses telecommunication/ICT statistics - more than 200 economies worldwide

<table>
<thead>
<tr>
<th>Household</th>
<th>Administrative</th>
<th>Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes indicators on:</td>
<td>Includes indicators on:</td>
<td>Price baskets for</td>
</tr>
<tr>
<td>- Household access to television, computer, Internet</td>
<td>- Mobile-broadband coverage, by type</td>
<td>- Data-only mobile-broadband</td>
</tr>
<tr>
<td>- Individual Internet use (overall, by frequency, activity)</td>
<td>- Mobile- and fixed-broadband subscriptions</td>
<td>- Fixed-broadband</td>
</tr>
<tr>
<td>- Mobile phone ownership and use</td>
<td>- Bandwidth use</td>
<td>- Mobile data and voice (high and low consumption)</td>
</tr>
<tr>
<td>- ICT skills</td>
<td></td>
<td>- Mobile voice and SMS (low usage)</td>
</tr>
</tbody>
</table>

**New:** Big Data sources (eg, mobile phone data)
ICT data collection

Supply-side data
Primary source: telecom operators
Compiled by: Regulators/Ministries
Examples of indicators
• Subscriptions
• Coverage
• Traffic
• Prices

Demand-side data
Primary source: household surveys
Compiled by: National Statistical Offices
Examples of indicators:
• Household with Internet
• Device ownership
• Digital skills
• Online activities
• Barriers to connectivity

Other sources:
ITU’s RME: Telecom regulation, tariff policies
UNCTAD: ICT use by businesses
UNICEF: School connectivity
...
Establishing a common framework

**ITU expert groups**

**Expert Group on ICT Household Indicators (EGH)**
Reviews existing and develops new indicators on household ICT access and individual ICT use
Decides on demand-side ICT indicators to be collected through the ITU statistical questionnaires on access and use by households and individuals.

**Expert Group on Telecommunications Indicators (EGTI)**
Reviews existing and develops new telecommunication/ICT supply-side indicators
Decides on supply-side ICT indicators to be collected through the ITU statistical questionnaires on telecommunications/ICT

*Working together on issues related to indicators and topics common to both groups*
The digital divide (I)

Percentage of individuals using the Internet by region (2023)

<table>
<thead>
<tr>
<th>Region</th>
<th>Internet Use (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>37%</td>
</tr>
<tr>
<td>Americas</td>
<td>87%</td>
</tr>
<tr>
<td>Arab States</td>
<td>69%</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>66%</td>
</tr>
<tr>
<td>CIS</td>
<td>89%</td>
</tr>
<tr>
<td>Europe</td>
<td>91%</td>
</tr>
</tbody>
</table>

Source: ITU, Facts and Figures 2023
*ITU-D regions
The digital divide (II)

Percentage of population covered by type of mobile network by income group (2023)

<table>
<thead>
<tr>
<th>Type of Network</th>
<th>World</th>
<th>Low-income countries</th>
<th>Lower-middle-income countries</th>
<th>Upper-middle-income countries</th>
<th>High-income countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2G</td>
<td>98</td>
<td>91</td>
<td>98</td>
<td>99</td>
<td>100</td>
</tr>
<tr>
<td>3G</td>
<td>95</td>
<td>78</td>
<td>94</td>
<td>99</td>
<td>100</td>
</tr>
<tr>
<td>4G</td>
<td>90</td>
<td>39</td>
<td>92</td>
<td>98</td>
<td>99</td>
</tr>
<tr>
<td>5G</td>
<td>38</td>
<td>1</td>
<td>12</td>
<td>57</td>
<td>89</td>
</tr>
</tbody>
</table>

Source: ITU, Facts and Figures 2023
*The composition of income groups refers to the World Bank classification.
Data collection on e-commerce

Essential for ICT policy makers and businesses

In production

Internet use by activity (HH9)

- Purchasing or ordering goods or services (*SDG indicator)
- Selling goods or services

Purchasers by type of goods and services purchased (HH20)

Purchasers by payment channel used (HH21)

Purchasers by method of delivery (HH22)

Non-purchasers by reason for not purchasing (HH23)

On-going work on data harmonization of enablers

Joint EGH/EGTI subgroup on measuring mobile money (2021)

- 7 indicators collected through household surveys proposed and approved by EGH - Overlap with more detailed World Bank Findex survey
- 4 indicators collected through administrative sources proposed and approved by EGTI - IMF collects similar data through Financial Access Survey

Pilot questionnaire on administrative data on mobile money (2023)
Definitions

Clarity of definition
- Distinction between financial transactions over the mobile phone that depend on a bank account vs. those that do not require bank accounts
- Distinction between peer-to-peer (P2P) vs peer-to-merchant (P2M) transactions: may be collected separately, or only 1 rather than both collected
- Application of activity criteria: different mobile money agents within country may flag activity applying different time periods (i.e., not necessary 90 days)
- Definition of agents

Double-counting P2P transfers

Practical

Source of statistics: need to involve other organizations (Central Banks)

Service not available in some countries -> lack of relevance (especially higher income countries)

Regular data collection to be conducted by IMF given expertise - EGTI members to consult as needed
Potential for important insights from household surveys

Available data show important trends in e-Commerce and reasons for not purchasing online.

Share of individuals not purchasing online citing various reasons:
- Skills
- Trust concerns
- Technical concerns
- Privacy concerns
- Security concerns
- Prefer in-person
- Not interested

Preference for in-person or lack of interest cited often.
Concerns with trust, technical considerations, privacy, security or lack of skills cited less often.

Higher Internet use -> higher likelihood of purchasing online.

Wide range even among countries with high Internet use.

Share of Internet users making purchases online vs share of population using the Internet.
But data availability remains poor

Distinct countries providing data on various e-commerce indicators since 2019

Data availability low for all indicators - very low for data on the breakdown of e-commerce

Data heavily biased to high income countries and European countries in particular

No recent data available for low-income countries

New indicators adopted in 2018

Four additional indicators (HH20 to HH23) on e-commerce

Integration into surveys often slow - EGH monitoring take-up
Resources

Expert groups (registration required)

- EGH Forum
- EGTI Forum

ITU methodological publications

- Handbook for the Collection of Administrative Data on Telecommunications/ICT
- Manual for Measuring ICT Access and Use by Households and Individuals
- Methodological guide on the use of mobile phone data

Data dissemination

- ITU DataHub
- ITU Stats website
- Measuring digital development: Facts and Figures

ITU Academy training courses

- Measuring digital development: Telecommunications/ICT indicators
- Measuring digital development: ICT access and use by households and individuals
- Mobile Phone Data – Awareness Course

Other ITU resources

- ITU data collection schedule
- ITU Big Data project

Statistical principles

- Fundamental Principles of Official Statistics
- Principles Governing International Statistical Activities
Thank you!

For more information:
www.itu.int/en/ITU-D/Statistics