ITU-UNESCAP-APT Capacity Building Workshop
Information Society Statistics: Core ICT Indicators
Bangkok, 6-8 November 2007

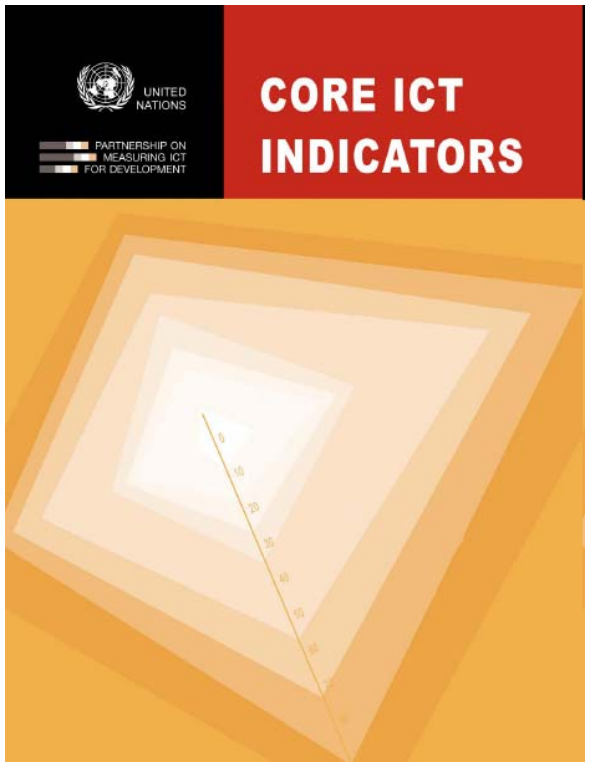
ICT Business Statistics: Core Indicators

Dr. Susan Teltscher
Chief, ICT Policy and Analysis Unit
ICT and E-Business Branch, SITE
UNCTAD

Core list of ICT indicators

Core ICT Indicators are a result of the work of the *Partnership on Measuring ICT for Development*

PARTNERSHIP ON MEASURING ICT FOR DEVELOPMENT



Core list of ICT indicators

Set of indicators	*Basic core*	*Extended core*	*Reference*	*Total*
ICT infrastructure and access	**10**	**2**		**12**
ICT access and usage by households and individuals	**10**	**3**	**1**	**14**
ICT usage by businesses	**8**	**4**		**12**
ICT sector and trade in ICT goods	**4**			**4**
Total	**32**	**9**	**1**	**42**

Core ICT Business Indicators

Defined in 2005

Require regular updating and revising

New indicators may appear and old ones may become obsolete

B1. Proportion of businesses using computers

A *computer* includes: a desktop, portable or handheld computer (e.g. a personal digital assistant), minicomputer, mainframe. A computer *does not* include equipment with some embedded computing abilities: such as mobile phones or TV sets, nor does it include computer-controlled machinery or electronic tills.

The *proportion of businesses using computers* is calculated by dividing the number of in-scope businesses using computers during the 12-month reference period by the total number of in-scope businesses.

B2. Proportion of employees using computers

A *computer* included: a desktop, portable or handheld computer (e.g. a personal digital assistant), minicomputer, mainframe. A computer *does not* include equipment with some embedded computing abilities: such as mobile phones or TV sets, nor does it include computer-controlled machinery or electronic tills.

Employees refer to all persons working for the business, not only those working in clerical jobs. They include working proprietors **DELETE: and partners**, as well as employees.

The *proportion of employees using computers* is calculated by dividing the number of employees using computers by the total number of employees.

B3. Proportion of businesses using the Internet

The *Internet* refers to Internet protocol (IP) based networks: WWW (the World Wide Web), an extranet over the Internet, EDI over the Internet, Internet accessed by mobile phones and Internet email.

The *proportion of businesses using the Internet* is calculated by dividing the number of in-scope businesses using the Internet by the total number of in-scope businesses.

B4. Proportion of employees using the Internet

The *Internet* refers to Internet protocol (IP) based networks: WWW, an extranet over the Internet, EDI over the Internet, Internet accessed by mobile phones and Internet email.

Employees refer to all persons working for the business, not only those working in clerical jobs. They include working proprietors **DELETE: and partners**, as well as employees.

The *proportion of employees using the Internet* is calculated by dividing the number of employees using the Internet (in all in-scope businesses) by the total number of employees (in all in-scope businesses).

B5. Proportion of businesses with a Web presence

A *Web presence* includes a Web site, home page or presence on another entity's Web site (including a related business). It excludes inclusion in an online directory and any other Web pages where the business does not have substantial control over the content of the page.

The *proportion of businesses with a Web presence* is calculated by dividing the number of in-scope businesses with a Web presence by the total number of in-scope businesses.

B6. Proportion of businesses with an intranet

An *intranet* refers to **ADD: an internal company communications** network using the same protocol as the Internet and allowing communication *within* an organisation. It is typically set up behind a firewall to control access.

The *proportion of businesses with an intranet* is calculated by dividing the number of in-scope businesses with an intranet by the total number of in-scope businesses.

B7. Proportion of businesses receiving orders over the Internet

Orders include orders received via the Internet whether or not payment was made online. This includes orders received via Web sites, specialised Internet marketplaces, extranets, EDI over the Internet, Internet-enabled mobile phones and email. It also includes orders received on behalf of other organisations and orders received by other organisations on behalf of the business.

For international comparability, the *proportion of businesses receiving orders over the Internet* is most simply calculated by dividing the number of in-scope businesses receiving orders over the Internet by the total number of in-scope businesses. Alternatively, output could be presented as the proportion of in-scope businesses using the Internet

B8. Proportion of businesses placing orders over the Internet

Orders include orders placed via the Internet whether or not payment was made online. Includes orders placed via Web sites, specialised Internet marketplaces, extranets, EDI over the Internet, Internet-enabled mobile phones and email. Excludes orders which were cancelled or not completed.

For international comparability, the *proportion of businesses placing orders over the Internet* is most simply calculated by dividing the number of in-scope businesses placing orders over the Internet by the total number of in-scope businesses. Alternatively, output could be presented as the proportion of in-scope businesses using the Internet.

B9. Proportion of businesses using the Internet by type of access

Categories should allow aggregation to narrowband and broadband, where broadband excludes slower technologies, such as dial-up, ISDN and most 2G mobile phone access. Broadband will usually have an advertised download speed of at least 256 kbit/s, **ADD: in one or both directions.** As businesses can use more than one type of access service, multiple responses are possible. Businesses can use more than one type of access service, multiple responses are possible.

B9. Proportion of businesses using the Internet by type of access (ctd)

- **Response categories**
  - **Analog modem** (dial-up via standard phone line)

ADD: Dial-up is a connection to the Internet via an analague modem and telephone line, which requires that the modem dial a phone number when Internet access is needed. The analogue modem converts a digital signal into analogue for transmission by traditional (copper) telephone lines. It also converts analogue transmissions back to digital.

B9. Proportion of businesses using the Internet by type of access (ctd)

- **Response categories**
  - ISDN (Integrated Services Digital Network)

  ISDN is a telecommunication service that turns a traditional (copper) telephone line into a higher speed digital link. ISDN is usually considered to be narrowband.

  - DSL (ADSL, SDSL, VDSL etc.)

  ADD: DSL (digital subscriber line) line is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines. DELETE: high-bandwidth, local loop technology carrying data at high speeds over traditional (copper) telephone lines.

B9. Proportion of businesses using the Internet by type of access (ctd)

- **Response categories**
  - Cable modem

  A cable modem uses cable TV lines for connecting to the Internet.

  - Other narrowband

  Includes mobile phone and other forms of access with an advertised download speed of **ADD: less than** 256 Kbit/s, **ADD: in one or both directions**. **Narrowband mobile phone access services include CDMA 1x (Release 0), GPRS, WAP and i-mode.**

B9. Proportion of businesses using the Internet by type of access (ctd)

- **Response categories**
  - Other broadband

Includes high speed leased lines, **ADD: fibre-to-the-home DELETE: optic fibre cable**, some mobile phone access (3G and 3.5G), powerline, satellite, fixed wireless, **ADD: WiMAX etc** with an advertised download speed of **ADD: equal to, or greater than, 256 kbit/s, in one or both directions DELETE: >= 256 Kbit/s.**

ADD: Broadband mobile phone access services include Wideband CDMA (W-CDMA), known as Universal Mobile Telecommunications System (UMTS) in Europe; High-speed Downlink Packet Access (HSDPA), complemented by High-Speed Uplink Packet Access (HSUPA); CDMA2000 1xEV-DO and CDMA 200 1xEV-DV.

B10. Proportion of businesses with a local area network (LAN)

A *local area network* (LAN) refers to a network connecting computers within a localised area such as a single building, department or site; it may be wireless.

The *proportion of businesses with a LAN* is calculated by dividing the number of in-scope businesses with a LAN by the total number of in-scope businesses.

B11. Proportion of businesses with an extranet

An *extranet* is a **ADD: closed network that uses Internet protocols to securely share enterprise's information with suppliers, vendors, customers or other businesses partners. It can take the form of a secure extension of an Intranet that allows external users to access some parts of the enterprise's Intranet. It can also be a private part of the enterprise's website, where business partners can navigate after being authenticated in a login page. DELETE: private, secure extension of an intranet running on Internet protocol. It allows selected external users to access some parts of an organisation's intranet.**

The *proportion of businesses with an extranet* is calculated by dividing the number of in-scope businesses with an extranet by the total number of in-scope businesses.

B12. Proportion of businesses using the Internet by type of activity

Internet activities are: *see response categories*. Businesses can respond in respect of more than one activity.

For ***international comparability***, output is most simply presented as the proportion of in-scope businesses undertaking each activity, for instance, the proportion of businesses using the Internet for sending or receiving emails. An alternative presentation is the proportion of business Internet users undertaking each activity.

B12. Proportion of businesses using the Internet by type of activity (ctd)

- **Response categories**
  - **DELETE: For getting information:**
    - ✓ About goods or services
    - ✓ From government organisations/public authorities (from Web sites or via email)
    - ✓ Other information searches or research activities

    REPLACE WITH:

    - For getting information about goods and services

    - For getting information from government organisations/public authorities (from Web site or via email)

    - For other information searches or research activities *(to be place at the end of the list)*

B12. Proportion of businesses using the Internet by type of activity (ctd)

- Response categories (ctd)
  - For sending or receiving emails
  - For performing Internet banking or accessing other financial services
  - For DELETE: dealing (interacting) with government organisations/public authorities. ADD: It does not include getting information from government organizations.
  - For providing customer services
  - For delivering products online

M1: Proportion of businesses using a mobile phone

M2: Proportion of businesses receiving orders via a mobile phone

M3: Proportion of businesses placing orders via a mobile phone

M1: Proportion of businesses using a mobile phone

Mobile phones refer to portable telephones subscribing to a public mobile telephone service using cellular technology, which provides access to the PSTN. Users of both post-paid subscriptions and pre-

M2: Proportion of businesses receiving orders via a mobile phone

Orders received include orders received via the mobile phone whether or not payment was made via the mobile phone.

M3: Proportion of businesses placing orders via a mobile phone

Orders placed include orders placed via the mobile phone whether or not payment was made via the mobile phone.

M11: Proportion of businesses using a mobile phone by type of activity

Possible response categories:

- For getting information about goods or services
- For sending or receiving email
- For accessing the Internet
- For accessing banking or other financial services
- For interacting with government

For further information:

- UNCTAD Website dedicated to Measuring the Information Economy: measuring-ict.unctad.org
- UNCTAD *Manual on the Production of Statistics on the Information Economy*
- The Partnership's *Core ICT Indicators* publication
- UNCTAD Information Economy Report (annual)
- The OECD Guide to Measuring the Information Society, available on the OECD Web site: www.oecd.org/sti/measuring-infoeconomy

Joint ITU-UNESCAP-APT Capacity Building Workshop
Information Society Statistics: Core ICT Indicators
Bangkok, 6-8 November 2007

Thank you

susan.teltscher@unctad.org

measuring-ict.unctad.org

www.unctad.org/ecommerce