

UNCTAD ETDA INTERNATIONAL WORKSHOP ON MEASURING E-COMMERCE Towards a Thriving Digital Economy Era

Diana Korka

ICT Analysis Section, Division on Technology and Logistics, UNCTAD

**A Global Outlook on Information Economy Statistics
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Contents

- UNCTAD's programme on information economy statistics and the Partnership on Measuring ICT for Development
- A global and regional perspective on e-commerce statistics (UNCTAD B2C e-commerce index)
- Learning from national approaches to measuring e-commerce

UNCTAD's Programme on Measuring the Information Economy

- ❑ With the collaboration of the **Partnership on Measuring ICT for Development** (since 2004)
- ❑ An international, multi-stakeholder initiative to improve the availability and quality of ICT data and indicators
- ❑ Building consensus on common methodologies for core indicators to inform policy makers



UNCTAD Focus on the Information Economy

- ❑ Technical assistance: to boost the capacity of national statistical systems to produce internationally comparable ICT indicators
 - Advisory missions
 - Regional training courses - build regional networks of ICT statisticians
 - Training of trainers
 - Training material
- ❑ The Swedish International Development Cooperation Agency (Sida) supports UNCTAD and the Partnership financially in the area of measuring ICT

UNCTAD Focus on the Information Economy

- Core indicators
 - 12 indicators on **ICT access and use by enterprises** (B1 to B12)
 - 2 indicators on the **ICT producing sector** (ICT1 and ICT2)
 - 2 indicators on international **trade in ICT goods** (ICT3 and ICT4)
 - Ongoing work on *trade in ICT services and in ICT-enabled services*

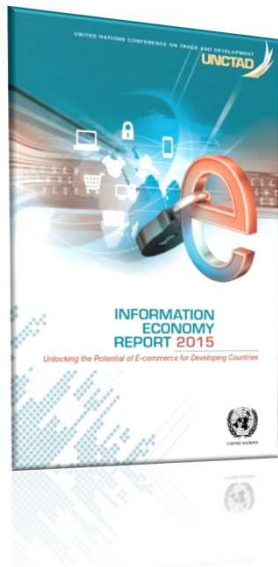
- Manual: definitions, standards, model questions
 - UNCTAD Manual for the production of Statistics on the Information Economy - in Arabic, English, French, Spanish, Russian
 - UNCTAD training material

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UNCTAD and E-commerce

- 2 core indicators on e-commerce:
 - proportion of businesses buying (B7) and selling (B8) online + other related: with web presence (B6), with extranet (B11), delivering products online (B12)
- UNCTAD organized session at ITU WTIM on measuring e-commerce, Sep 2012, Bangkok, Thailand
- UNCTAD International Workshop on ICT and E-Commerce Statistics, June 2013, Beijing, China
- UNCTAD at World Summit on the Information Society Forum (WSIS)
 - WSIS+10 High Level Event June 2014, E-business Action Line Facilitation meeting - How Can E-business Become More Inclusive?
 - WSIS May 2015, International e-Commerce for Developing Countries: Practical Case Studies in Overcoming Barriers to Trade Through Digital Channels
- **UNCTAD Information Economy Report 2015**
Unlocking the Potential of E-commerce for Developing Countries

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Content

- Review of global and regional trends
- UNCTAD B2C E-commerce Index
- New evidence on the economic impact of e-commerce
- Global mapping of cyberlaws
- E-commerce by small and rural enterprises in developing countries
- Case studies
- Policy recommendations

Download it free of charge at unctad.org/ier

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Measuring E-commerce

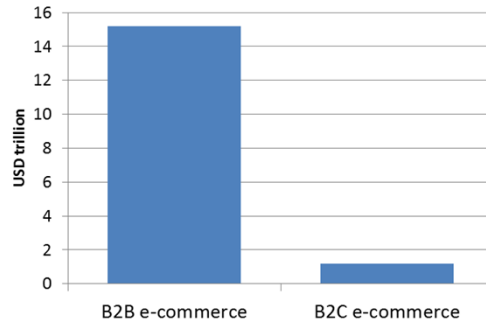
- ❑ Definition developed by OECD, adopted by the Partnership *"sale/purchase of goods and services, conducted over computer networks"* - revised, no longer narrow/broad distinction
- ❑ Useful distinctions between
 - B2B, B2C, C2C, G2B
 - Domestic and international/cross border (in India and Singapore >50% are cross-border, in Republic of Korea 75% domestic)
 - Via EDI or via website (see Eurostat)
 - By enterprise size class (attention to small and medium enterprises)
 - By main economic activity (ISIC rev.4)
 - By goods and services
- ❑ Very few official statistics beyond Eurostat and OECD countries

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B2B revenues by far the largest type of e-commerce

- Share of B2B in e-commerce revenue
 - US: 89%
 - Canada: 64%
 - EU: 87%
 - Rep. of Korea: 91%
 - Russia: 57%

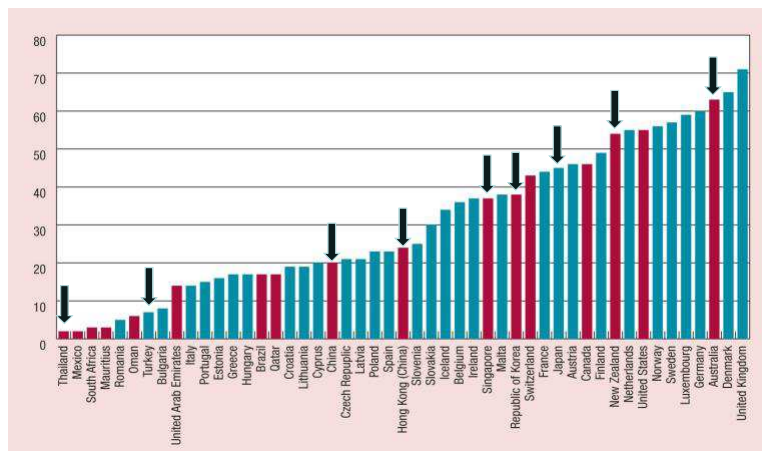
Global B2B and B2C global revenues, 2012-13



Source: UNCTAD IER 2015 estimates based on national sources, eMarketer, and others.

Share of individuals purchasing online 2013

Asia-Pacific major market with great diversity



Source: UNCTAD IER 2015, based on Eurostat, ITU and national data (in red).

UNCTAD B2C E-commerce Index 2014

Indicators included

- ❑ Percentage of individuals using the Internet
 - Sources: ITU, Eurostat and national surveys => 216 economies
- ❑ Credit card (% age 15+)
 - Source: World Bank Findex survey => 149 economies
- ❑ Secure Internet servers (per 1 million people)
 - Source: World Bank => 209 economies
- ❑ Percentage of the population having mail delivered at home
 - Source: Universal Postal Union => 168 economies

- ❑ Total coverage => 130 economies

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UNCTAD B2C E-commerce Index 2014

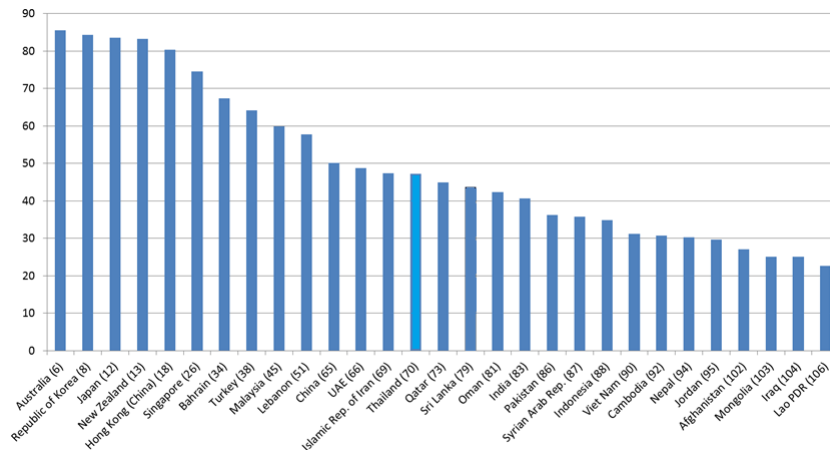
Top 10 economies, by region

Globally	Developing economies	Africa	Asia and Oceania	LAC	Transition economies
Luxembourg	Republic of Korea	Mauritius	Republic of Korea	Chile	TFYR Macedonia
Norway	Hong Kong (China)	South Africa	Hong Kong (China)	Uruguay	Serbia
Finland	Singapore	Egypt	Singapore	Trinidad and Tobago	Russian Federation
Canada	Bahrain	Tunisia	Bahrain	Brazil	Bosnia and Herzegovina
Sweden	Turkey	Morocco	Turkey	Argentina	Albania
Australia	Chile	Sierra Leone	Malaysia	Costa Rica	Georgia
Denmark	Uruguay	Zambia	Lebanon	Dominican Republic	Ukraine
Republic of Korea	Trinidad and Tobago	Madagascar	China	Mexico	Armenia
United Kingdom	Malaysia	Zimbabwe	United Arab Emirates	Bolivarian Republic of	Belarus
Israel	Brazil	Mali	Islamic Republic of Iran	Colombia	Moldova

Source: UNCTAD IER 2015.

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UNCTAD B2C E-Commerce Index Asia-Pacific



Source: UNCTAD IER 2015.

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Measuring E-commerce Other Useful Metrics

☐ Household and individual surveys:

- Type of products bought online
- Type of devices used by e-commerce consumers
- Barriers to e-commerce for consumers
- Average spend per purchase
- Most visited e-commerce site
- The role of social media
- Preferred payment and delivery options

☐ Establishment/business surveys:

- Total volume of e-commerce sales and as a % of total turnover
- Businesses with a website
- Questions on automated business processes (CRM, ERP)
- Barriers to e-commerce for businesses

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Challenges with Compiling E-commerce Data

- ❑ Limited inclusion of ICT/e-commerce questions in surveys: more often in household surveys than in enterprise surveys
- ❑ Low or occasional frequency
- ❑ Sample representativity & coverage
- ❑ Comparability in terms of definitions & questions used
- ❑ Difficult for households to specify total amount spent online
- ❑ Availability of business registers (up-to-date, no dormant businesses) - they only cover domestic and not foreign businesses
- ❑ Incidence of the informal sector
- ❑ B2C - numerous low-value irregular transactions, below administrative thresholds - may lead to biases in national accounts statistics (underestimating imports)
- ❑ C2C hard to measure: may need to rely on private data sources

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Measuring E-commerce by Statistics Canada

- ❑ In 2012, Canadians spent \$18.9 billion online (Canadian Internet Use Survey, household survey) - useful to identify main type of purchased items
- ❑ In 2012, Canadian enterprises made \$13.4 billion in online sales (SDTIU)
- ❑ Survey of [Digital Technology and Internet Use \(SDTIU\)](#)
 - covers Canadian private enterprises in almost all industry sectors
 - exclude very small firms, defined based on revenue, had under \$250K in revenue
 - sample unit = enterprise (not establishment) => exclude intra-firm transactions (between two establishments within the same enterprise)
 - 17,000 enterprises, stratified sampling, first by industry level (2-nd or 3-rd level of NAICS), then by enterprise size (revenue-based), with large units, sampled with certainty, and medium and small units, random sampling; sample sizes are adjusted for non-response with an expected response rate of 65%
 - Imputation is used for partial non-response: eg. tax data used to impute "sales over Internet" in combination with the "%of sales conducted over the Internet"

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Measuring E-commerce by the Office for National Statistics, UK

- ❑ In 2013, UK enterprises made e-commerce sales of a total value of £557 billion ([E-commerce and ICT Survey of business](#))
 - covers UK private enterprises with 10 or more employees in selected sectors
 - exclude very small firms, like self-employed and 0 employees
 - 7'850 enterprises, stratified simple random sampling, by industry level and by enterprise size (employment-based: 10-49, 50-249, 250-999, +1000)
 - Industries covered: manufacturing, utilities, construction, wholesale, retail, transport & storage, accommodation & food services, information & communication, other services. Exclude: agriculture, forestry and fishing, mining and quarrying, veterinary activities, public administration and defense, social security, education, health and social work, arts, entertainment and recreation.
- ❑ Difficult to collect data on e-commerce purchases => focus on sales
- ❑ 22% of businesses with e-commerce sales, 51% with e-commerce purchases
- ❑ E-commerce sales =20% of business turnover
- ❑ 65% EDI sales (B2B proxy), 35% website sales

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Measuring E-commerce A Way Forward

- ❑ Learning from national experiences /approaches to measuring e-commerce
- ❑ Importance of metadata availability => to understand how to interpret the data
- ❑ Emergence of other data sources: metadata equally important
- ❑ Choice between several indicators
- ❑ Evaluating impact

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