Measuring domestic and cross-border e-commerce

UNCTAD Working Group on Measuring E-commerce and the Digital Economy

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Contents

• e-commerce value
• Online shoppers
• Cross border
• Recommendations
WORTH HIGHLIGHTING

1. x2x

2. Direction
   a) Domestic sales by domestic firms
   b) Overseas sales by domestic firms
   c) Overseas purchases by consumers

3. Official vs. unofficial
B2C e-commerce value

Business surveys
Enterprises' turnover from EDI-type sales: 11%
Enterprises' turnover from web sales - B2B and B2G: 4%
Enterprises' turnover from web sales - B2C: 3%

Data for 32 economies

All enterprises, without financial sector (10 persons employed or more)
United Kingdom

Website sales to private customers (share by firm size)

Proportion of UK businesses making e-commerce sales, by size of business, 2018

Source: Office of National Statistics, E-commerce and ICT activity

Micro enterprises (<10 employees), 2018
96% of all businesses
37% of employment
21% of turnover
Other regions

**E-commerce Revenue of the Services Sector**

In 2017, the e-commerce revenue of the Services Sector was $173.3 billion, accounting for 6% of the total operating receipts.

Within the Services Sector, the Wholesale Trade, Information & Communications and Transportation & Storage industries contributed to over 90% of the e-commerce revenue.

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**Vietnam E-Commerce Overview 2016**

- Growth rate: 35% (2014), 37% (2015), 23% (2016)

Internet users shopping online estimation:
- 58% in 2014, 62% in 2015, 65% in 2016

Online purchase value of an individual in USD:
Report on the Household Expenditure Survey 2017/18

Household online expenditure as proportion of total (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>2012/13</th>
<th>2017/18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.7</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Proportion of households with online expenditure (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>2012/13</th>
<th>2017/18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31</td>
<td>60</td>
</tr>
</tbody>
</table>

Online share of expenditure for transport, 2017/18, (%)

<table>
<thead>
<tr>
<th>Category</th>
<th>2012/13</th>
<th>2017/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAXI &amp; PRIVATE HIRE</td>
<td>47</td>
<td>77</td>
</tr>
<tr>
<td>PASSENGER AIR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2017/18 online expenditure: S$4 billion
Proportion of GDP: 0.8%
Estimating B2C e-commerce

<table>
<thead>
<tr>
<th>EGYPT</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt online shoppers (% of 15+ pop.)</td>
<td>3.1%</td>
<td>3.3%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Egypt population 15+ (m)</td>
<td>58.8</td>
<td>59.9</td>
<td>61.0</td>
</tr>
<tr>
<td>Egypt online shoppers (m)</td>
<td>1.8</td>
<td>1.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Jumia GMV per customer (US$)</td>
<td>$264</td>
<td>$260</td>
<td>$245</td>
</tr>
<tr>
<td>Egypt estimated B2C (US$ m)</td>
<td>$481</td>
<td>$508</td>
<td>$552</td>
</tr>
<tr>
<td>Growth</td>
<td>6%</td>
<td>9%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OMAN (OMR m)</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic B2C e-commerce sales</td>
<td>83</td>
<td>104</td>
<td>130</td>
</tr>
<tr>
<td>of which: tickets</td>
<td>64</td>
<td>77</td>
<td>100</td>
</tr>
<tr>
<td>of which: other</td>
<td>20</td>
<td>27</td>
<td>30</td>
</tr>
<tr>
<td>Share of GDP</td>
<td>0.3%</td>
<td>0.4%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Excluding tickets</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>B2C e-commerce imports</td>
<td>3</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>
## Top ten countries by E-commerce sales, 2017

<table>
<thead>
<tr>
<th>Rank</th>
<th>Economy</th>
<th>Total ($ billion)</th>
<th>As a share (% of GDP)</th>
<th>B2B ($ billion)</th>
<th>Share (%) of all e-commerce</th>
<th>B2C ($ billion)</th>
<th>Annual average spend per online shopper ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>United States</td>
<td>8,883</td>
<td>46</td>
<td>8,129</td>
<td>90</td>
<td>753</td>
<td>3,851</td>
</tr>
<tr>
<td>2</td>
<td>Japan</td>
<td>2,975</td>
<td>61</td>
<td>2,828</td>
<td>95</td>
<td>147</td>
<td>3,248</td>
</tr>
<tr>
<td>3</td>
<td>China</td>
<td>1,931</td>
<td>16</td>
<td>869</td>
<td>49</td>
<td>1,062</td>
<td>2,574</td>
</tr>
<tr>
<td>4</td>
<td>Germany</td>
<td>1,503</td>
<td>41</td>
<td>1,414</td>
<td>92</td>
<td>88</td>
<td>1,668</td>
</tr>
<tr>
<td>5</td>
<td>Korea (Rep.)</td>
<td>1,290</td>
<td>84</td>
<td>1,220</td>
<td>95</td>
<td>69</td>
<td>2,983</td>
</tr>
<tr>
<td>6</td>
<td>United Kingdom</td>
<td>755</td>
<td>29</td>
<td>548</td>
<td>74</td>
<td>206</td>
<td>4,658</td>
</tr>
<tr>
<td>7</td>
<td>France</td>
<td>734</td>
<td>28</td>
<td>642</td>
<td>87</td>
<td>92</td>
<td>2,577</td>
</tr>
<tr>
<td>8</td>
<td>Canada</td>
<td>512</td>
<td>31</td>
<td>452</td>
<td>90</td>
<td>60</td>
<td>3,130</td>
</tr>
<tr>
<td>9</td>
<td>India</td>
<td>400</td>
<td>15</td>
<td>369</td>
<td>91</td>
<td>31</td>
<td>1,130</td>
</tr>
<tr>
<td>10</td>
<td>Italy</td>
<td>333</td>
<td>17</td>
<td>310</td>
<td>93</td>
<td>23</td>
<td>1,493</td>
</tr>
<tr>
<td><strong>Top 10 Total</strong></td>
<td><strong>19,315</strong></td>
<td><strong>36</strong></td>
<td><strong>16,782</strong></td>
<td><strong>87</strong></td>
<td><strong>2,533</strong></td>
<td><strong>2,904</strong></td>
<td></td>
</tr>
<tr>
<td><strong>World</strong></td>
<td><strong>29,367</strong></td>
<td></td>
<td><strong>25,516</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>3,851</strong></td>
</tr>
</tbody>
</table>

Online shoppers
Household surveys
Online shopper data 2018

**European Union (% of individuals)**

- LAST ONLINE PURCHASE: IN THE 12 MONTHS FROM NATIONAL SELLERS: 60%
- FROM SELLERS FROM OTHER EU COUNTRIES: 52%
- FROM SELLERS ABROAD (OTHER EU OR NON EU COUNTRIES): 21%
- FROM SELLERS FROM THE REST OF THE WORLD (NON-EU): 27%
- FROM SELLERS WITH UNKNOWN COUNTRY OF ORIGIN: 7%

**Brazil, Purchased product or service via Internet (millions)**

- 2012: 25
- 2013: 29
- 2014: 33
- 2015: 39
- 2016: 41
- 2017: 43
- 2018: 44

**Morocco, Individuals having made purchases/orders online (%)**

- Total: 14%
- Male: 17%
- Female: 11%

**Thailand, Internet users making online purchase for goods and services 2018 (%)**

- Whole kingdom: 16%
- Municipal: 18%
- Non-Municipal: 14%
Global Findex 2017

- Used the internet to buy something online in the past year (% age 15+)
- 144 economies (before 71 countries)
- Disaggregated by gender & other variables
Used the internet to buy something online in the past year (% age 15+), 2017

Source: Global Findex database.
Global online shoppers (million)

Cross border
Cross border value

- Republic of Korea only country where *official* statistics on total cross border B2C value data is available
- Japan has official data on its B2C trade with China and USA
Cross border B2C value examples


CBS. 2019. “EU webshops generate €1.6 billion in the Netherlands.”

Online and cross-border commerce size and growth estimates

US and China are the biggest markets in terms of online spend, but Japan and India are growing fast.
Estimated cross border B2C sales of top ten merchandize exporters, 2017

<table>
<thead>
<tr>
<th>Rank</th>
<th>Economy</th>
<th>Total ($ billion)</th>
<th>As a share (%) of merchandize exports</th>
<th>% of B2C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>United States</td>
<td>102</td>
<td>6.6</td>
<td>13.5</td>
</tr>
<tr>
<td>2</td>
<td>China</td>
<td>79</td>
<td>3.5</td>
<td>7.5</td>
</tr>
<tr>
<td>3</td>
<td>United Kingdom</td>
<td>31</td>
<td>7.0</td>
<td>15.0</td>
</tr>
<tr>
<td>4</td>
<td>Japan</td>
<td>18</td>
<td>2.6</td>
<td>12.2</td>
</tr>
<tr>
<td>5</td>
<td>Germany</td>
<td>15</td>
<td>1.0</td>
<td>17.1</td>
</tr>
<tr>
<td>6</td>
<td>France</td>
<td>10</td>
<td>1.8</td>
<td>10.6</td>
</tr>
<tr>
<td>7</td>
<td>Canada</td>
<td>8</td>
<td>1.8</td>
<td>12.7</td>
</tr>
<tr>
<td>8</td>
<td>Italy</td>
<td>4</td>
<td>0.7</td>
<td>16.2</td>
</tr>
<tr>
<td>9</td>
<td>Korea (Rep.)</td>
<td>3</td>
<td>0.5</td>
<td>3.8</td>
</tr>
<tr>
<td>10</td>
<td>Netherlands</td>
<td>1</td>
<td>0.2</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td><strong>Top 10 Total</strong></td>
<td><strong>270</strong></td>
<td><strong>3.0</strong></td>
<td><strong>10.7</strong></td>
</tr>
<tr>
<td></td>
<td><strong>World</strong></td>
<td><strong>412</strong></td>
<td>2.3</td>
<td>10.7</td>
</tr>
</tbody>
</table>

Conclusions

Impacts

Official data
Consumer welfare

• Research found that retail e-commerce impact in the United States benefited consumer consumption by 1% between 2007 and 2017, around US$1,000 per household.*

• In China, a study of rural households in three provinces found the cost of living reduced by 0.81% across all households and 5.5% for those using e-commerce.**

• A study on cross border e-commerce in the European Union countries found that household consumption benefited by 1.1%.***


Value added

**Malaysia (% of GDP)**

- 2010: 12.9
- 2011: 11.9
- 2012: 11.7
- 2013: 12
- 2014: 12.4
- 2015: 13.1
- 2016: 13.4
- 2017: 13.2

↑2%

**Mexico (% of GDP)**

- 2013: 3.0
- 2014: 3.4
- 2015: 3.5
- 2016: 4.0

↑42%

Source: Department of Statistics, Information and Communication Technology Satellite Account 2017

Source: INEGI. Sistema de Cuentas Nacionales de México. Valor Agregado Bruto del Comercio Electrónico
# Employment

## Retail trade employment change (000s), 2011-2016

<table>
<thead>
<tr>
<th></th>
<th>EU</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>(121)</td>
<td>674</td>
</tr>
<tr>
<td>Internet</td>
<td>220</td>
<td>118</td>
</tr>
<tr>
<td><strong>Net</strong></td>
<td><strong>100</strong></td>
<td><strong>792</strong></td>
</tr>
</tbody>
</table>

Note: Retail excludes pure play Internet shops. Source: Eurostat and Bureau of Labor Statistics.

## Full Time Equivalent Employees
(3-month moving average, 000s) Change December 2007-June 2017

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BRICK-AND-MORTAR RETAIL</td>
<td>-140</td>
</tr>
<tr>
<td>ECOMMERCE JOBS</td>
<td>401</td>
</tr>
<tr>
<td>WAREHOUSE (FULFILLMENT CENTERS)</td>
<td>274</td>
</tr>
<tr>
<td>ELECTRONIC SHOPPING</td>
<td>126</td>
</tr>
<tr>
<td><strong>BRICK-AND-MORTAR + ECOMMERCE</strong></td>
<td><strong>261</strong></td>
</tr>
</tbody>
</table>

Note: Brick-and-mortar retail is equal to retail minus nonstore retail. Assumes 40-hour week.
B2x indicators

COMMUNITY SURVEY ON ICT USAGE AND E-COMMERCE IN ENTERPRISES

1. What was the value of your web sales?
   1. What was the value of your web sales of goods or services, in 2019? OR
   2. What percentage of total turnover was generated by web sales of goods or services, in 2019?

2. What was the percentage breakdown of the value of web sales in 2019 by type of customer:
   1. Sales to private consumers (B2C)
   2. Sales to other enterprises (B2B) and Sales to public sector (B2G)

3. What was the value of your EDI-type sales?
   1. What was the value of your EDI-type sales of goods or services, in 2019?
   2. What percentage of total turnover was generated by EDI-type sales of goods or services, in 2019?

4. What was the percentage breakdown of the turnover from orders received that were placed via a website or apps in 2018 by customers located in the following geographic areas?

COMMUNITY SURVEY ON ICT USAGE IN HOUSEHOLDS AND BY INDIVIDUALS

1. When did you last buy or order goods or services for private use over the internet?
   ☐ Within the last 3 months
   ☐ Between 3 months and a year ago
   ☐ More than 1 year ago
   ☐ Never bought or ordered over the Internet

2. From whom did you buy the mentioned goods via a website or app in the last 3 (12) months? Include online purchases from enterprises or private persons.
   ☐ National sellers
   ☐ Sellers from the rest of the world
   ☐ Country of origin of sellers is not known
Proportion of businesses receiving orders over the Internet

International online dataset of e-commerce indicators