Embracing the Ecommerce Revolution in Asia and the Pacific

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Key messages

- E-commerce revolution in Asia and the Pacific presents vast economic potential

- E-commerce market in the region remains highly heterogeneous in (i) economic factors and conditions, (ii) legal and institutional environment and (iii) social acceptance

- The emergence of new technologies will significantly impact the e-commerce landscape

- Border procedures and regulatory burdens should improve to foster cross-border e-commerce

- Developing an e-commerce ecosystem requires a holistic approach and concerted efforts by all stakeholders
Evolution of E-commerce in Asia and the Pacific
E-commerce
— Purchases and sales of products (e.g., physical goods, digital products and services) conducted over computer networks

B2B + B2C
— B2B and B2C are the two leading segments in terms of size and relevance

B2C

Internet Retail
— Subset of B2C e-commerce that excludes items such as auctions and online reservations
— Data sources include eMarketer and Euromonitor International

Asia and the Pacific is the largest and fast growing e-commerce market

Comparison of Internet Retailing Market Size, 2017-2021 (forecast)

Note: Market size refers to the total goods and services sold through internet retail market. See Box 1.1 for the definition of internet retailing. Asia and the Pacific comprises of Australia; Azerbaijan; Hong Kong, China; India; Indonesia; Japan; Kazakhstan; Malaysia; New Zealand; the People’s Republic of China; the Philippines; Singapore; the Republic of Korea; Taipei, China; Thailand; Uzbekistan; and Viet Nam.

It is also the largest as % of GDP

Global E-commerce (% of GDP)

Regional E-commerce, 2015 (% of GDP)

GDP = gross domestic product.

Note: Business-to-Consumer (B2C) e-commerce covers any contract for the sale of goods and/or services, fully or partially concluded by a technique for distance communication. Values refer to the total of goods and services sold through B2C transactions as a percentage of GDP.

Source: Ecommerce Foundation (2016).
Analytical Framework
Factors Affecting the Development of e-marketplace

**Economic**
- Affordability and access to ICTs
- Bandwidth availability
- Availability of online payment options
- Delivery infrastructures
- Economies of scale

**Social Acceptance and Awareness**

*Firm level*
- Confidence, risk aversion, and inertia
- Awareness, knowledge and understanding of e-commerce opportunities

*Consumer level*
- Awareness and knowledge of e-commerce benefits
- General and computer literacy
- English proficiency
- Trust in e-commerce vendors and postal services
- Perception of foreign products/vendors

**Individual readiness for e-commerce**

**E-marketplace development**

**Environmental readiness for e-commerce**

**Legitimacy to participate in e-commerce**

**Legal and Institutional**

*Normative institutions*
- Importance of personal relationships in business
- Roles played by industry bodies and trade/professional associations

*Regulative institutions*
- Legislative measures related to e-commerce
- Measures making e-commerce affordable and accessible
- Policy initiatives that directly facilitate e-commerce activities
- Public-private partnership programs

**Economic**
- Economic environment that affects accessibility and viability of e-commerce activities

**Legal and Institutional**
- Social and political environment that plays roles in the evolution of the legitimacy of e-commerce-related activities

**Social Acceptance and Awareness**
- Internalized norms that affect e-commerce-related behaviors of individuals and organizational decision-makers

ICT = information and communications technology.
Current Status and Challenges
ICT Infrastructure

Key ICT Indicators by Region, 2016 (per 100 inhabitants)


Mobile and Fixed Broadband Speed—Central and West Asia, South Asia, and Southeast Asia, as of December 2017 (megabits per second, download)

E-payment

Card Payment Transactions—Selected Asian Economies, 2016
($ per capita)

a: High spending economies

b: Low spending economies

Population with Access to Home Mail Delivery—Selected Asian Economies, 2015 (% of population)

Legislation

Status of E-commerce Legislation—Asia and the Pacific, as of December 2017 (Number of economies)

- **a. Electronic transactions**: Legislation exists (35), Draft legislation (5), No legislation (5), No data (3).
- **b. Consumer protection**: Legislation exists (28), Draft legislation (2), No legislation (2), No data (9).
- **c. Privacy and data protection**: Legislation exists (15), Draft legislation (2), No legislation (2), No data (12).
- **d. Cybercrime**: Legislation exists (35), Draft legislation (11), No legislation (12), No data (1).

Sources: various international and local sources
Uneven Opportunities: Gender Gap

Gender Gap in Internet Access—Selected Asian Economies
(% of males minus % of females)

Brunei Darussalam (2016)
Pakistan (2016)
Azerbaijan (2016)
Republic of Korea (2016)
Indonesia (2016)
Japan (2015)
Hong Kong, China (2015)
Malaysia (2016)
Bangladesh (2013)
Armenia (2015)
Singapore (2015)
Kazakhstan (2016)
Thailand (2016)
Cambodia (2015)
Australia (2015)
New Zealand (2012)

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Key Opportunities
# Economic Benefits and Costs of Using E-commerce

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<thead>
<tr>
<th>Benefits</th>
<th>Costs</th>
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<tbody>
<tr>
<td>• Boosts efficiency and increases gross domestic product</td>
<td>• Requires social and physical capital investment</td>
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<tr>
<td>• Allows economies to increase participation in global value chains</td>
<td>• Could lead to transfer pricing and erosion of tax revenue</td>
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<tr>
<td>• Increases labor productivity and supports job creation, entrepreneurship, innovation, and creativity</td>
<td>• Potential to widen economic disparity</td>
</tr>
<tr>
<td>• Leads to energy savings and lower carbon emissions</td>
<td>• Potential to distort competition</td>
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<tr>
<td>• Advances inclusive growth (benefitting developing economies, rural areas, women and the elderly, among others)</td>
<td></td>
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Source: ADB compilation based on Anvari and Norouzi (2016); Bram and Gorton (2017); Ca’ Zorzi (2000); Carnegie Melon University (2009); Cockfield et al. (2013); Hinojosa (2017); Mueller and Shoenmaker (2007); Organisation for Economic Co-operation and Development, United Nations Conference for Trade and Development (UNCTAD), and World Trade Organization (2016); Palsson, Pattersson, and Hiselius (2017); Savrul and Kılıç (2011); UNCTAD (2015, 2017b); and World Bank (2003, 2016b).
Enhancing Inclusiveness

- Rapid growth in internet and mobile phone access
- Developments in e-payment
- Improving logistics-related technologies and infrastructure to benefit the disadvantaged
- E-commerce-enabling technologies in developing countries and LDCs
- Improved access to advanced e-commerce-enabling technologies for SMEs
Emerging Technologies affecting E-Commerce Landscape

Big Data Use in the People’s Republic of China to Boost Customer Retention and Spending

Collect data:
- Online shoppers
- Available products
- Purchasing habits of online shoppers

Use data:
- Identify customer groups
- Use machine learning to decide on product lines and promotions

Increase customer retention and spending:
- Segment customer groups
- Target offerings

Source: ADB based on Wang (2016)

Average Sensor Cost for the Internet of Things—Global ($ per unit)

Source: BI Intelligence (2014)
### Emerging Technologies affecting E-Commerce Landscape

<table>
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<tr>
<th>Technology</th>
<th>Examples of use</th>
<th>Benefits of combining with 5G</th>
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<tr>
<td><strong>IoT</strong></td>
<td>IoT can improve consumer experience, track inventory in real-time and manage more effectively (e.g., JD.com)</td>
<td>5G’s faster data-transmission will make it easier to transfer data created by IoT devices.</td>
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<td><strong>AI</strong></td>
<td>AI-enabled apps—such as Amazon and Google assistant—can order products online, track orders and perform other e-commerce activities.</td>
<td>5G’s faster data-transmission will allow quicker access to additional information and help the AI better understand the environment and context.</td>
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<tr>
<td><strong>Blockchain</strong></td>
<td>Blockchain-based smart contracts can be used by online vendors to automate order fulfillment. Blockchains have been used in supply chain management systems and B2B e-commerce (e.g. the PRC’s JD.com).</td>
<td>5G can help feed information (e.g., from IoT devices) required for a smart contract more efficiently. It can also provide better security.</td>
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<td><strong>AR/VR</strong></td>
<td>AR enabled apps allow a potential customer to place real products in a virtual setting to provide clear visualization of product use (e.g., Lego and IKEA).</td>
<td>5G network’s higher bandwidth, reduced latency and greater uniformity (mobile connection’s consistency across locations) allows transmission of complex worlds and sophisticated inputs that require processing of huge amounts of data.</td>
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Way Forward
E-commerce boosts efficiency, enhances market access for businesses and consumers, and generates spillover effects.

To unlock the potential of digital trade and e-commerce, it is imperative to take on the following measures:

- Enhance affordability of and access to ICT
- Institute legal, regulatory and institutional reforms
- Improve logistics and delivery infrastructure
- Intensify regional efforts to modernize and harmonize regulations
- Broaden the e-payment availability and options
Fostering Cross-Border E-Commerce

- Global cross-border B2C e-commerce to grow at 27% from 2014 to 2020 to reach almost $1 trillion.

- Various efforts underway to reduce complex border crossing procedures and regulatory burdens
  - National Single Window (NSW)—a one stop-shop to speed up customs clearance
  - Automated System for Customs Data (ASYCUDA) system developed by UNCTAD
  - New Framework Agreement on the Facilitation of Cross-Border Paperless Trade in Asia and the Pacific
  - International customs rules for cross-border e-commerce being developed by WCO

- Securing tax revenues while minimizing taxation costs are crucial
Creating a Virtuous Cycle in E-marketplace Development

Government agencies and trade associations
Create institution-based trust
Supplement government role

E-commerce vendors and businesses
Create trust
- Characteristic-based trust
- Process-based trust
Innovate

Consumers
Engage in ethical and responsible actions

Social Willingness to Participate in The E-marketplace

Thank you!