Embracing the Ecommerce Revolution in Asia and the Pacific

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Promoting Connectivity for Inclusive Asia and the Pacific, 27th June 2018

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

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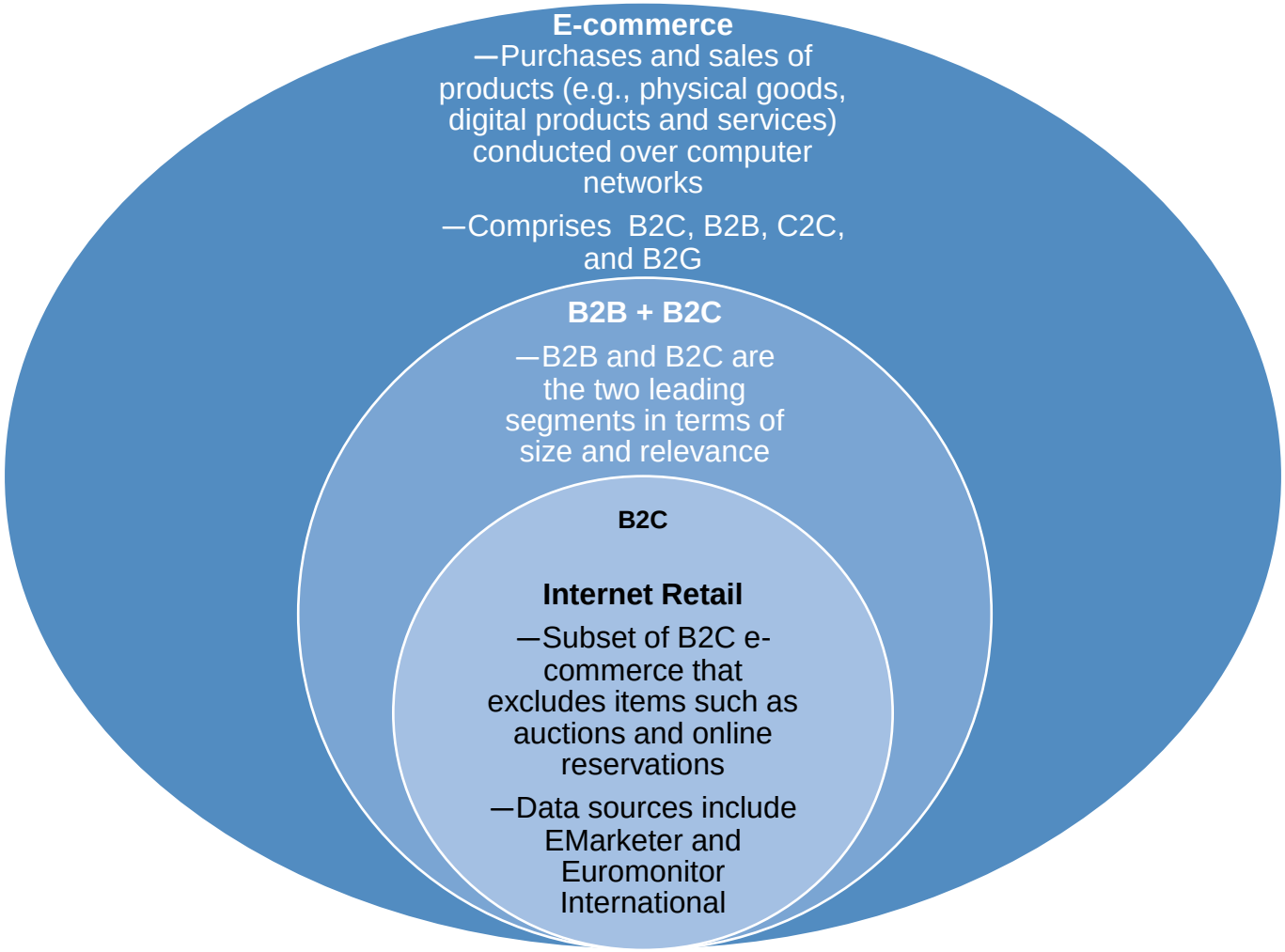
Evolution of E-commerce in Asia and the Pacific

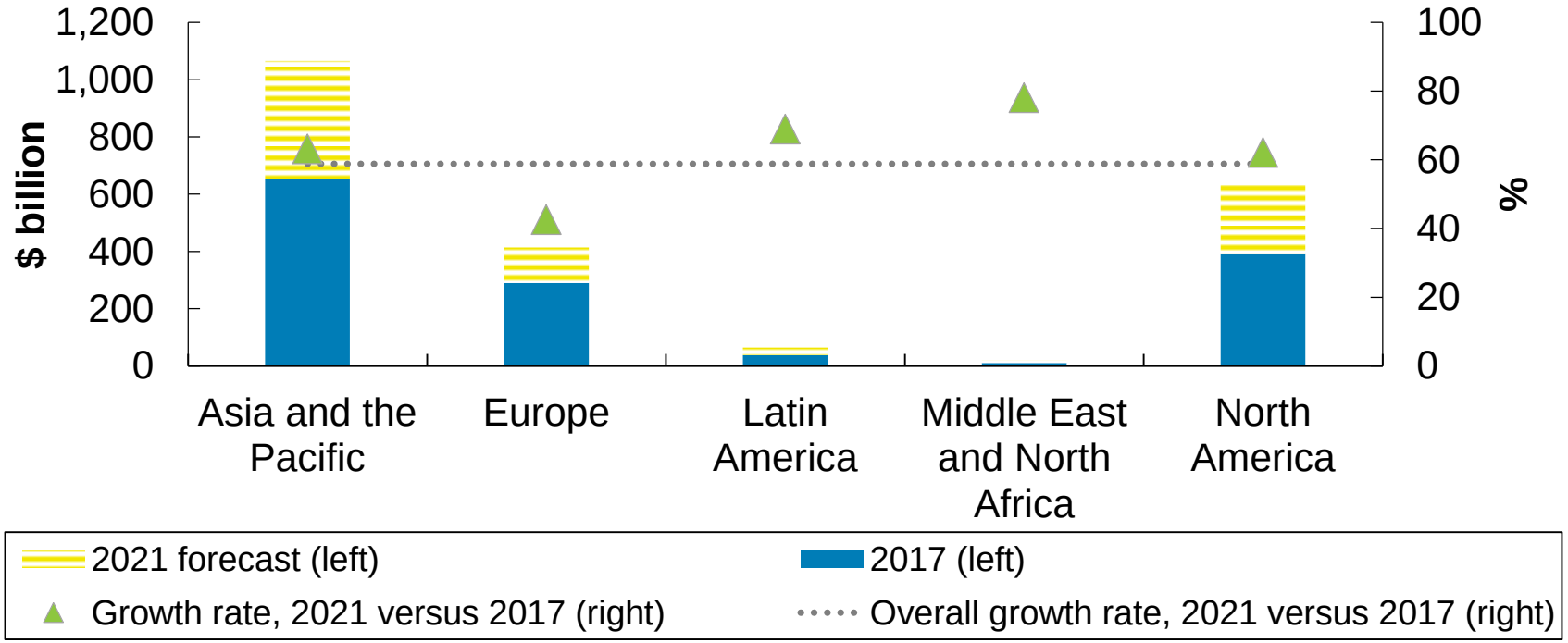
Coverage of E-Commerce



B2B = business-to-business, B2C = business-to-consumer, B2G = business-to-government, C2C = consumer-to-consumer, UNCTAD = United Nations Conference on Trade and Development.
Sources: Ecommerce Foundation (2016a), eMarketer (2017b), Euromonitor International (2018), and UNCTAD (2015).

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

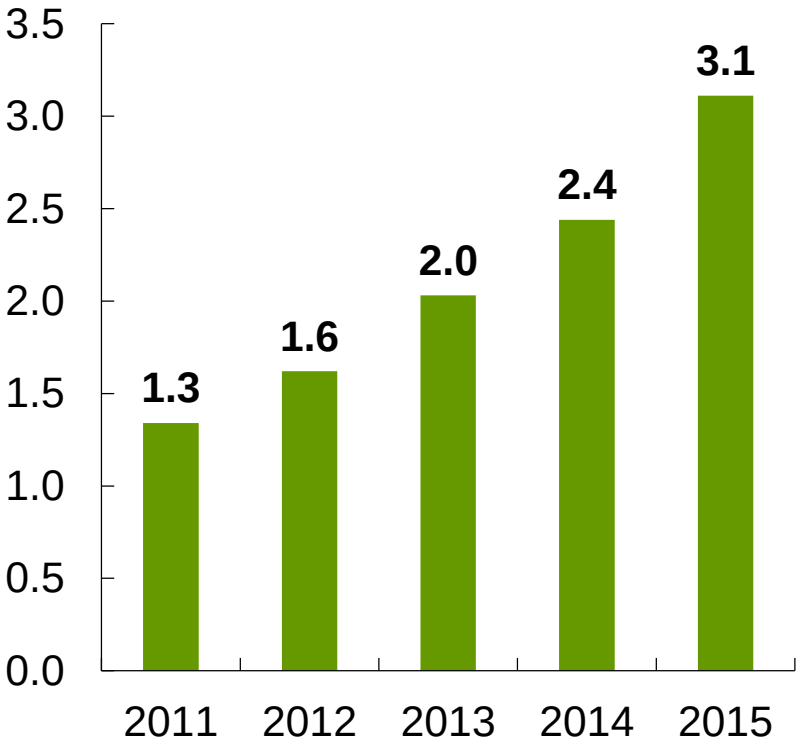
Comparison of Internet Retailing Market Size, 2017-2021 (forecast)



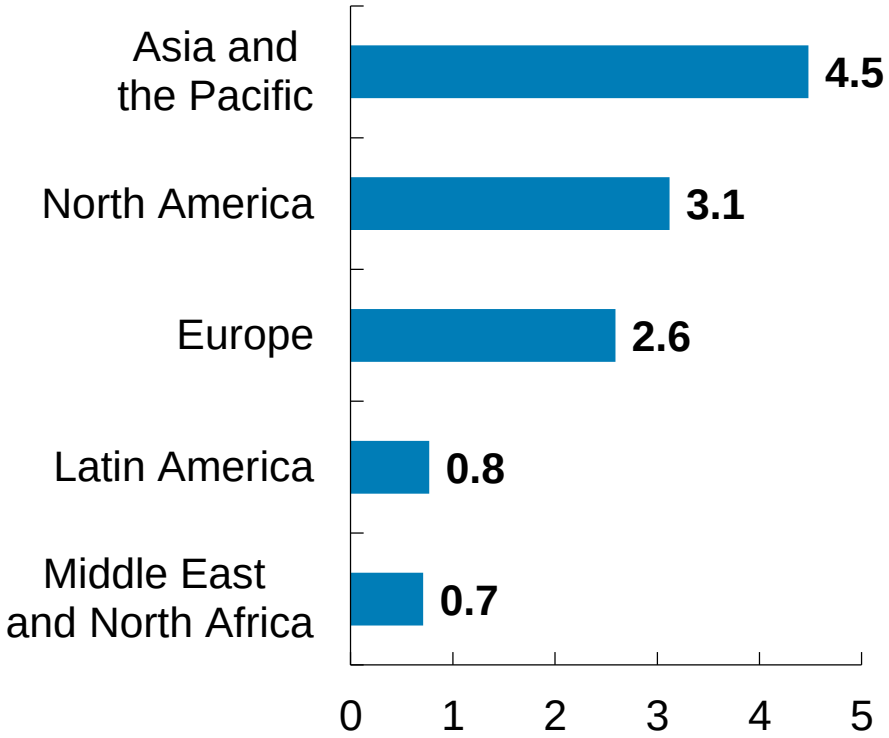
Note: Market size refers to the total goods and services sold through internet retail market. See Box 1.1 for the definition of internet retailing. Asia and the Pacific comprises of Australia; Azerbaijan; Hong Kong, China; India; Indonesia; Japan; Kazakhstan; Malaysia; New Zealand ; the People's Republic of China; the Philippines; Singapore; the Republic of Korea; Taipei,China; Thailand; Uzbekistan; and Viet Nam.
Source: Kshetri (2018) using data from Euromonitor International. Passport database.

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).

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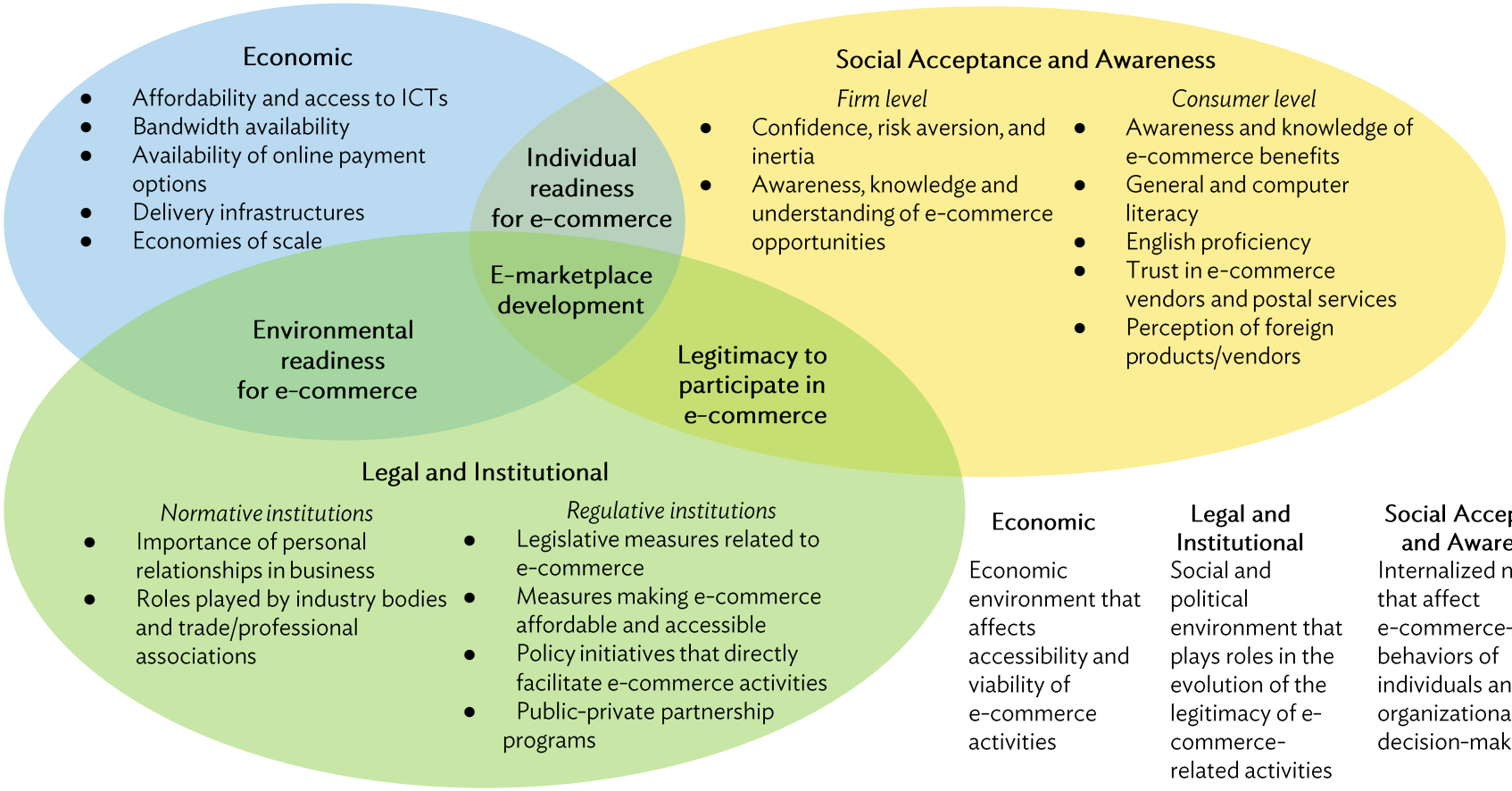
Analytical Framework

Factors Affecting the Development of e-marketplace



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

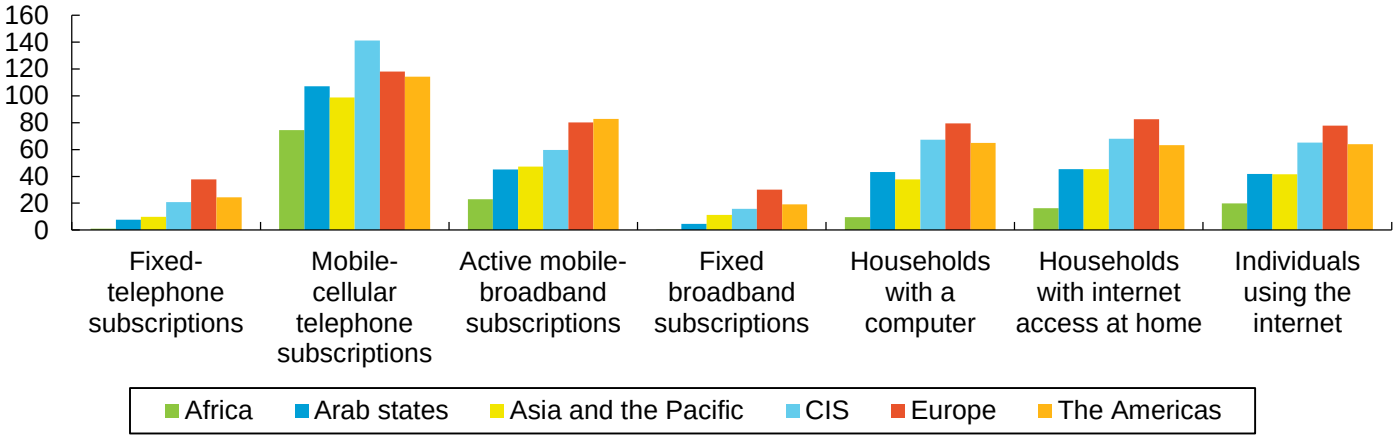
Social Acceptance and Awareness
Internalized norms that affect e-commerce-related behaviors of individuals and organizational decision-makers

ICT = information and communications technology.
Source: ADB compilation based on Kshetri (2007a, 2018a), North (1996), Parto (2005), Scott (1995, 2001), and World Bank (2016a).

Current Status and Challenges

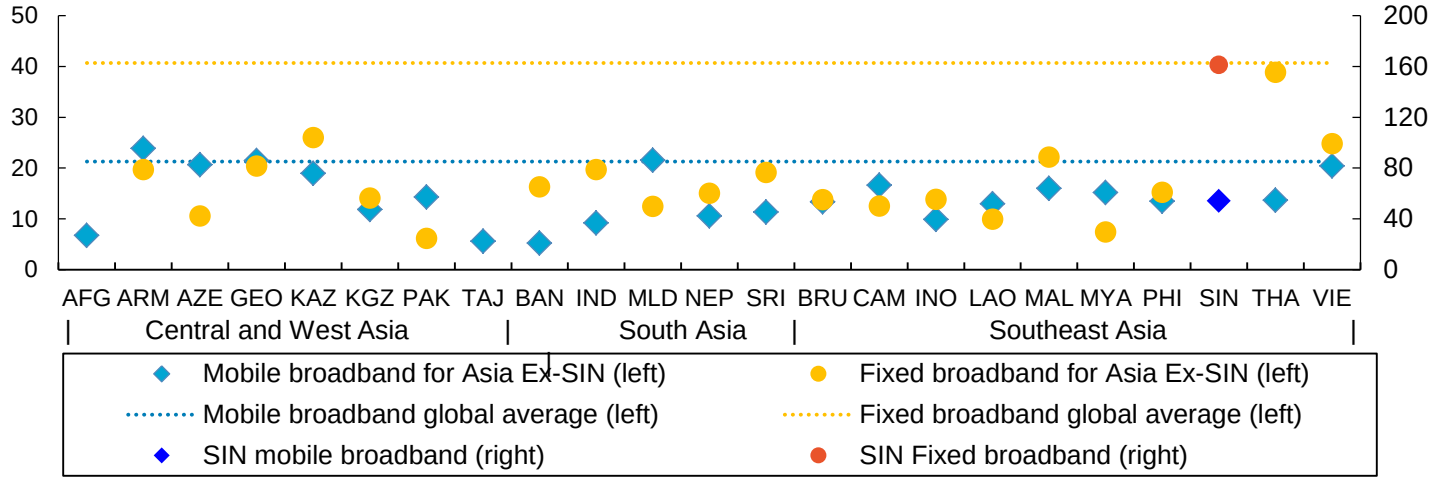
ICT Infrastructure

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



Source: International Telecommunication Union. Statistics. https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

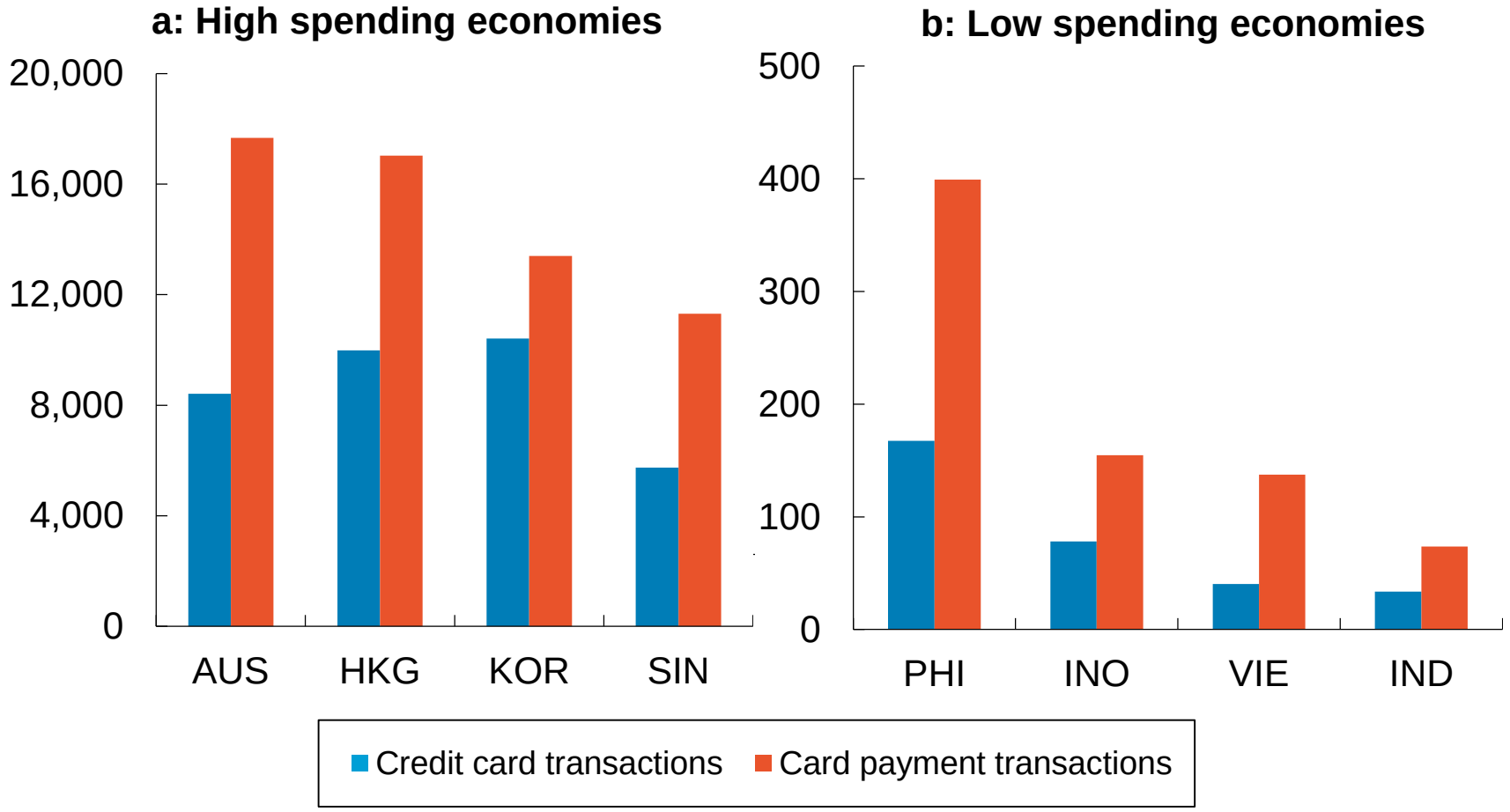
Mobile and Fixed Broadband Speed—Central and West Asia, South Asia, and Southeast Asia, as of December 2017 (megabits per second, download)



Source: Speedtest. Speedtest Global Index December 2017. http://www.speedtest.net/global-index

E-payment

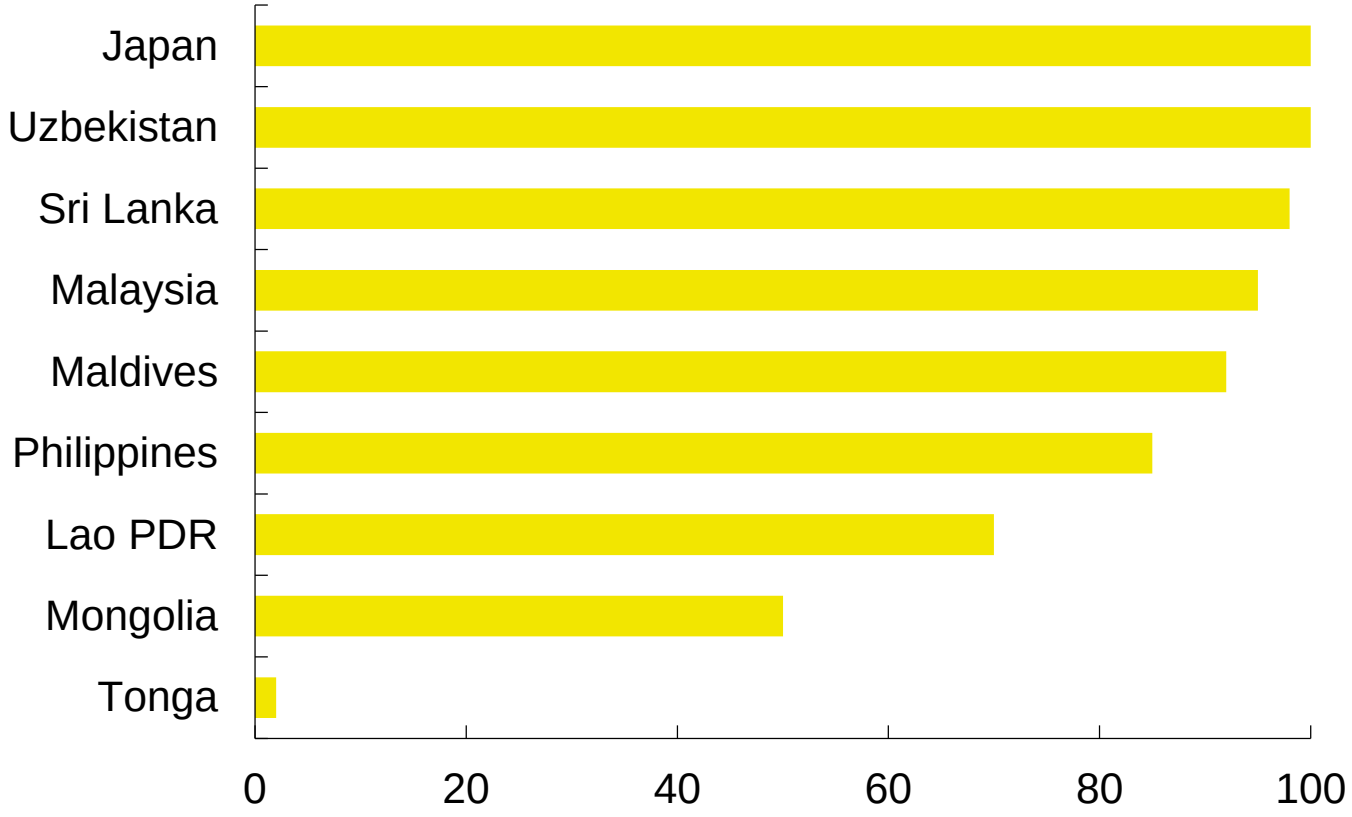
Card Payment Transactions—Selected Asian Economies, 2016
($ per capita)



Source: Kshetri (2018a) using data from Euromonitor International. Passport database.

Delivery Infrastructure

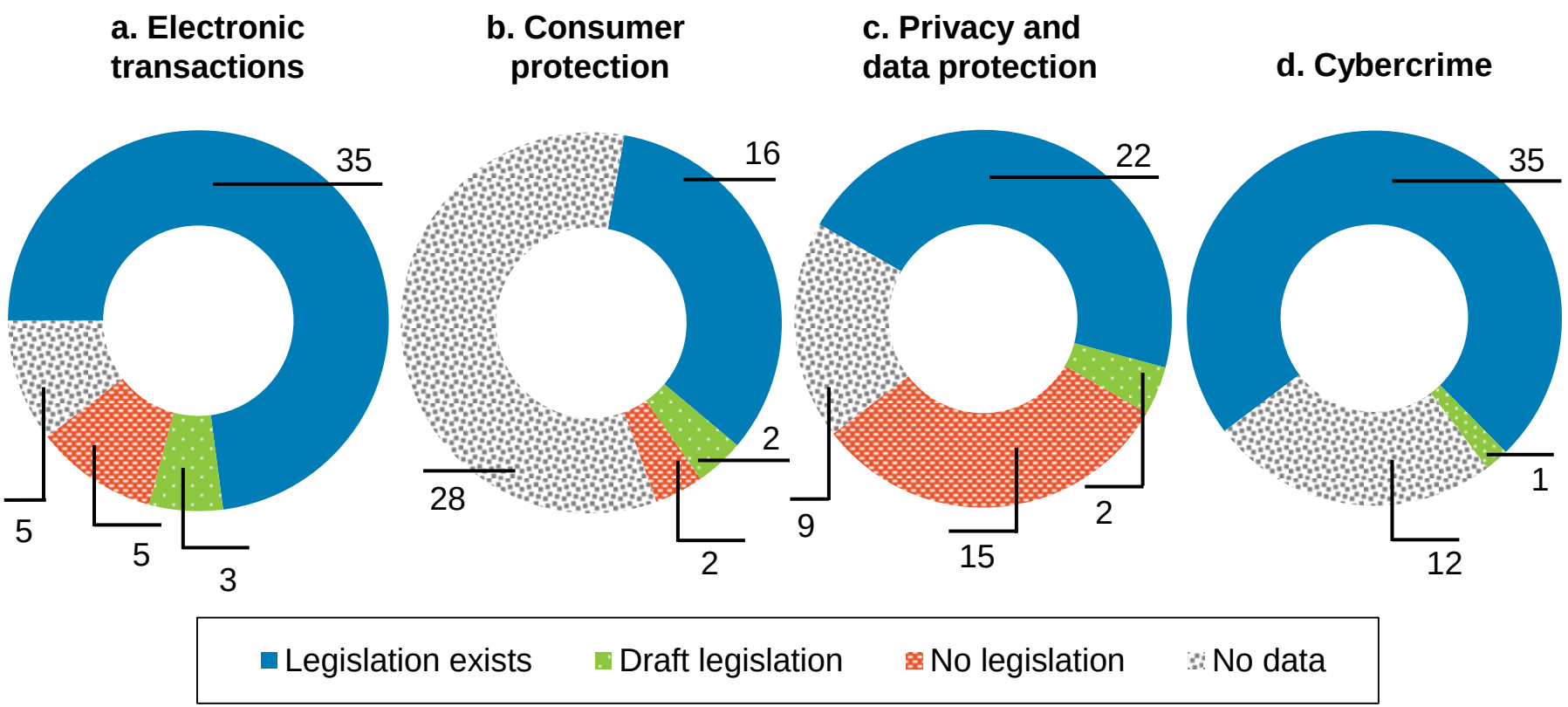
Population with Access to Home Mail Delivery—Selected Asian Economies, 2015 (% of population)



Source: Universal Postal Union. http://www.upu.int/en/ressources/statistiques-postales/resultats-2015.html

Legislation

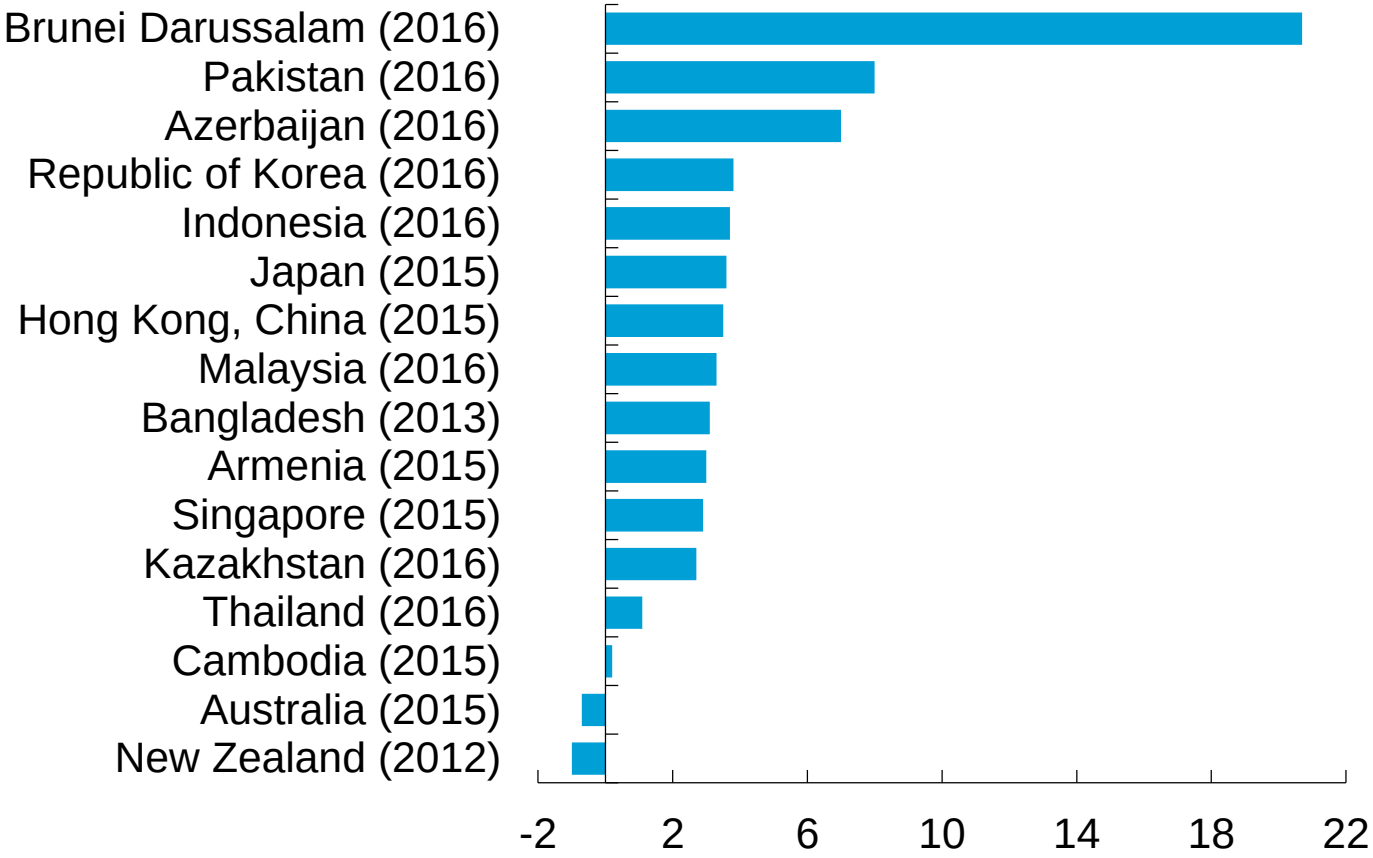
Status of E-commerce Legislation—Asia and the Pacific, as of December 2017 (Number of economies)



Sources: various international and local sources

Uneven Opportunities: Gender Gap

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



Source: International Telecommunication Union. Gender ICT statistics. http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

Key Opportunities

Economic Benefits and Costs of Using E-commerce

Benefits	Costs
• Boosts efficiency and increases gross domestic product • Allows economies to increase participation in global value chains • Increases labor productivity and supports job creation, entrepreneurship, innovation, and creativity • Leads to energy savings and lower carbon emissions • Advances inclusive growth (benefitting developing economies, rural areas, women and the elderly, among others)	• Requires social and physical capital investment • Could lead to transfer pricing and erosion of tax revenue • Potential to widen economic disparity • Potential to distort competition

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

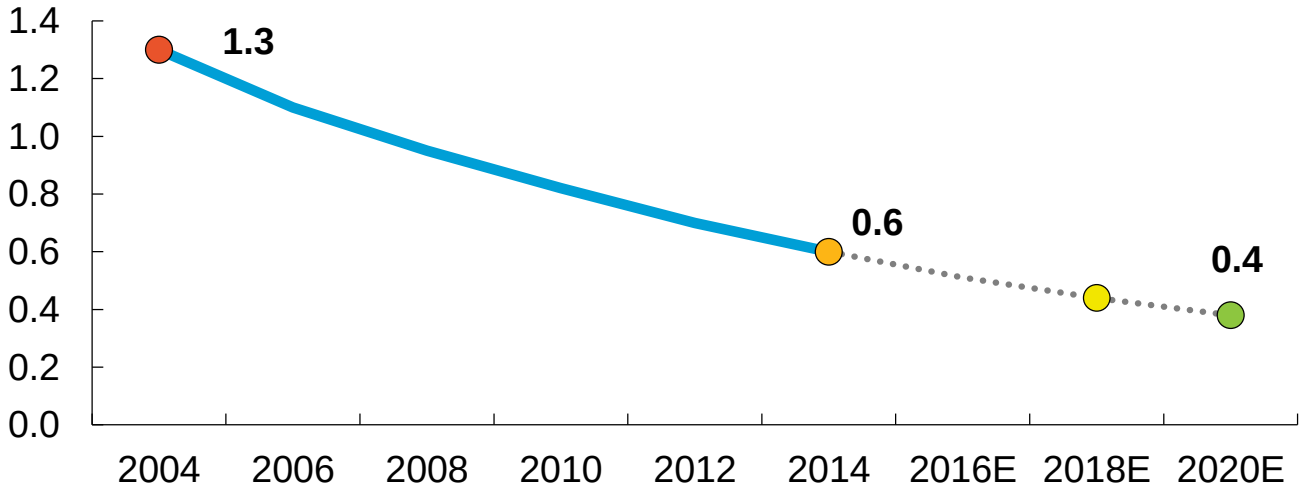
Collect data:
- Online shoppers
- Available products
- Purchasing habits of online shoppers

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

Technology	Examples of use	Benefits of combining with 5G
IoT	IoT can improve consumer experience, track inventory in real-time and manage more effectively (e.g., JD.com)	5G's faster data-transmission will make it easier to transfer data created by IoT devices.
AI	AI-enabled apps—such as Amazon and Google assistant—can order products online, track orders and perform other e-commerce activities.	5G's faster data-transmission will allow quicker access to additional information and help the AI better understand the environment and context.
Blockchain	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).	5G can help feed information (e.g., from IoT devices) required for a smart contract more efficiently. It can also provide better security.
AR/VR	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).	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.

Source: ADB compilation based on Dave (2017), Harbet (2018), IDG (2018), and Xiao (2017).

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

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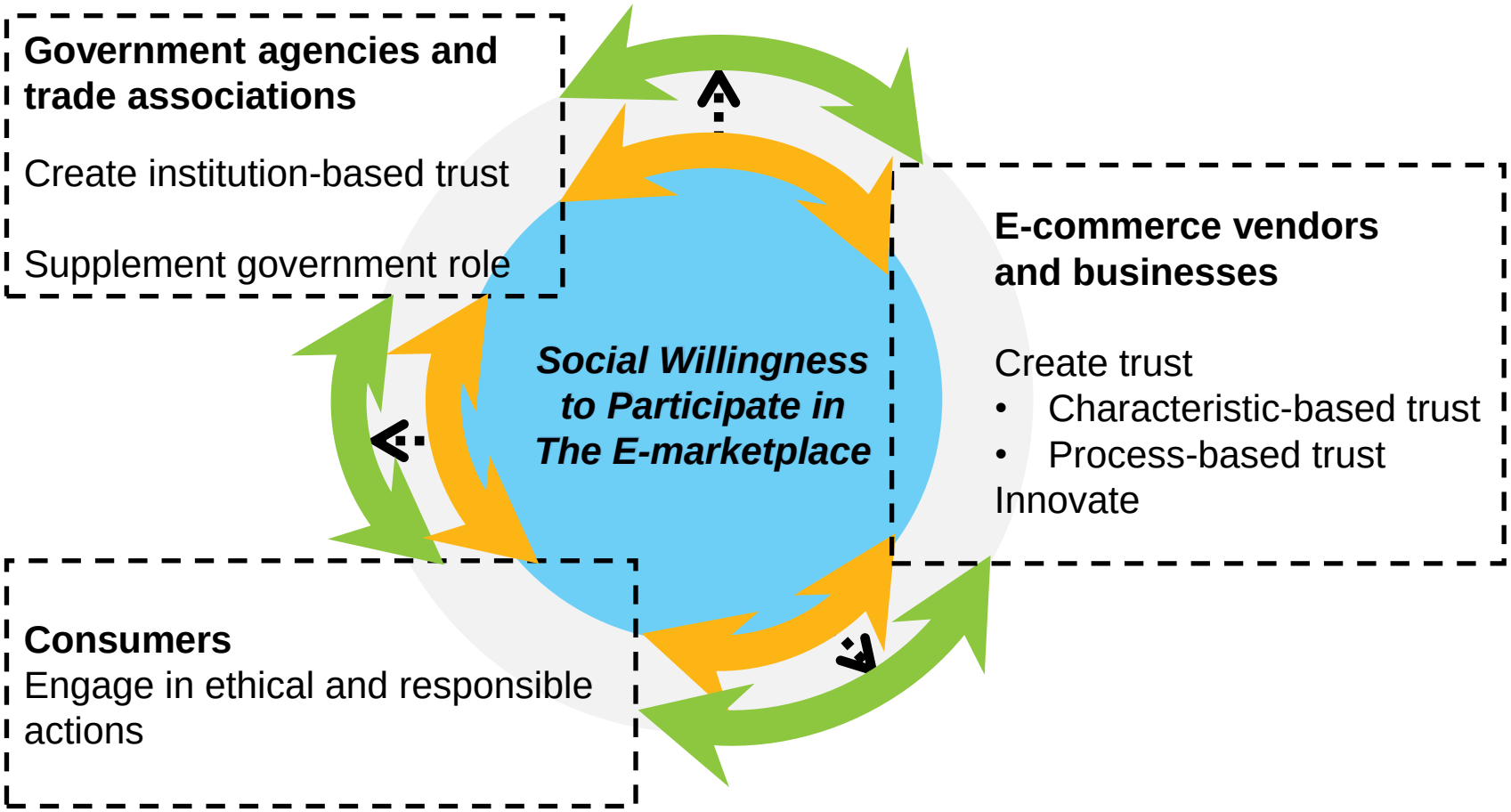
Creating a Virtuous Cycle in E-marketplace Development



Source: ADB compilation based on Albers-Miller (1999), Ang *et al.* (2001), Levi (1998), and Zucker (1986).

Thank you!