



Asia–Pacific Economic Statistics Week 2019
Integrating economic statistics in monitoring Agenda 2030

Theme of APES 2019

Topic 2:

Emerging Issues in Economic Statistics

Title:

E-COMMERCE:

THE CONTRIBUTION TO THE MALAYSIA'S ECONOMY

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Asia-Pacific Economic Statistics Week Bangkok 17 – 21 June 2019
Seminar Component
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Title of paper: E-Commerce: The Contribution to the Malaysia’s Economy

Abstract

E-commerce is a medium or platform of buying and selling goods and services over the internet. This mechanism is widely used by all economics activities in Malaysia where its transform the traditional way of doing business. These significant transformations influence the specific economy in Malaysia such as manufacturing and services sectors. Anticipating the importance of e-commerce growth and its contributions to the economy, Department of Statistics, Malaysia (DOSM) took the initiative to embark on the surveys regarding the Usage of ICT and E-Commerce by Establishment (ICTEC) and ICT Use and Access by individuals and Household survey (ICTHS) to obtain the required statistics. Therefore, this paper aims to share the findings of the surveys and the compilation of e-commerce in Malaysia. The contribution of ICT to Malaysia’s economy in 2017 was 18.3%, comprising of ICT industry 13.2% and e-commerce for non-ICT industries 5.1%, while value added of e-commerce registered RM85.8 billion. Meanwhile, percentage of individuals using internet increased by 9.0 percentage points from 71.1 percent in 2015 to record 80.1 percent in 2017. This result was in tandem with the target of Sustainable Development Goals (SDGs): Goal 9 to build the resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation. Apparently, Malaysia has improved on the ICT infrastructure especially on the access and development of information and communications technology and strive to provide universal and affordable access to the internet. The statistics reflects Malaysia’s efforts to achieve the target of goal 9 especially on the inclusiveness and competitive economic forces in order to generate employment, income, facilitate international trade and enable the efficient use of resources. The fast growth of e-commerce business and ICT’s technology will accelerate economic growth, connectivity, mobility and well-being of the people.

Keywords: ICT, e-commerce, SDGs

(286 words)

¹ The views expressed are solely the authors’ and no responsibility for them should be attributed to the Department of Statistics, Malaysia. Special thanks to Mdm. Nurhidayah Abu Zarin for her fruitful contribution of this paper.

INTRODUCTION

E-commerce offers lucrative and vast opportunities. The convergence of the informational economy through ICT, Internet and electronic commerce has become more important transformation towards economic growth. It's not a surprise that selling and purchasing also have taken to the internet and provide to the opportunities that are abound to make a significant presence in the global market. This has become a trend, and has brought many changes in the society which has affected the pattern of human life and the world of economy. In Malaysia, these significant transformations of e-commerce have influenced the specific economy such as manufacturing and services sectors. Thus, a standard concept and definition has been used to measure the impact especially on the e-commerce growth and its contributions to the economy,

Internationally, Organisation for Economic Co-operation and Development (OECD) plays a vital role in producing the manual for ICT, internet and e-commerce. This manual is used to measure the development of e-commerce statistics where it is part of reliable source of comparable economic statistic and social data amongst the National Statistical Office (NSO). The OECD also monitors trends, analyses and forecasts economic developments, and researches social changes and evolving patterns in trade, environment, agriculture, technology, taxation, and other areas. Moreover, OECD is to promote policies that will improve the economic and social well-being of people around the world by providing a forum in which governments can work together to share experiences and seek solutions to common problems and identify good practice and coordinate domestic and international policies, (OECD, 2011). The Malaysia's NSO namely Department of Statistics Malaysia (DOSM) is a premier government agency under the Ministry of Economic Affairs entrusted with the responsibility to collect and interpret the latest statistics in monitoring of national economic performance and social development.

Based on mid-term review of the Eleventh Malaysia Plan 2016-2020, the share of e-commerce to Gross Domestic Product (GDP) was targeted at 20.8 per cent by 2020. The National E-Commerce Strategic Roadmap will assist all e-commerce traders to increase their contribution to the overall GDP to reach RM211 billion by 2020. Realising the importance of e-commerce activities to the Malaysia's economy, DOSM has taken the initiative to embark on the surveys regarding the Usage of ICT and E-Commerce by Establishment (ICTEC) and

ICT Use and Access by individuals and Household survey (ICTHS) to obtain the e-commerce statistics. Therefore, this paper aims to share the findings of the surveys and the compilation of e-commerce in Malaysia. These surveys are conducted through face to face interview with establishment and household. The structured questionnaire has been design to collect the usage of ICT and e-commerce information. The statistics obtained from the surveys were in line with the target of Sustainable Development Goals (SDGs): Goal 9 to build the resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation. As a result, Malaysia has improved on the ICT infrastructure especially on the access and development of information and communications technology and strive to provide universal and affordable access to the internet. The findings of the surveys reflects Malaysia's efforts to achieve the target of goal 9 especially on the inclusiveness and competitive economic forces in order to generate employment, income, facilitate international trade and enable the efficient use of resources. The fast growth of e-commerce business and ICT's technology will accelerate economic growth, connectivity, mobility and well-being of the people.

LITERATURE REVIEW

In a study of e-commerce (Purohit and Purohit, 2005) stated that e-commerce contains a massive development potential which contribute to the economic growth. In arrange to realise its full potential to bring around the basic changes required for economic development; it is relevant to recognise that e-commerce gives an environment in which different activities can effectively be created.

E-commerce arguably has a potential to add a higher value to businesses and consumers in developing countries than in developed countries. Yet most developing country-based enterprises have failed to reap the benefits offered by modern information and communications technologies (Kshetri, 2007). Some business models have emerged that overcome e-commerce obstacles in developing countries. In a developing country, a company's success depends on its ability to immediately organise and manage multiple e-business models. The lack of economies of scale in a developing country excludes the ability of the country's businesses to focus in one or a few e-business activities

According to Infocomm Media Development Authority of Singapore (2016), the engagement of e-commerce activities among enterprises had maintained around 13% from 2014 to 2016.

There is considerable interest in the role of e-commerce as a significant factor to the contribution of economic growth. For example enterprises from Infocomm and Media sector, Transportation and Storage sector were more likely to engage in e-commerce compared to those in other sector. According to the working paper of Defining and Measuring the Digital Economy 2018 by Bureau of Economic Analysis (BEA) U.S Department of Commerce in 2018 e-commerce output generally measured as the wholesale or retail trade margin on “digitally ordered’ goods and services sold over the internet or through some other electronic market which includes Business to Business (B2B) wholesale and Business to Consumer (B2C) retail transactions from e-market establishment. From 2006 to 2016, BEA estimates that digital economy real value added grew at an average annual rate of 5.6 percent, outpacing the average annual rate of growth for the overall economy of 1.5 percent. In 2016, the digital economy was a notable contributor to the overall economy, it accounted for 6.5 percent of current dollar GDP, 6.2 percent of current dollar gross output, 3.9 percent of employment, and 6.7 percent of employee compensation.

The implementations of e-commerce during the early years between 2008 until 2011 were spurred by the increased availability of internet services and usage of computer in the households and offices. The development of e-commerce in the late 2000s was so well received that they became the country's most online marketplace and as part of economic contributions (Economic Planning Unit, 2015).

Government of Malaysia is committed to drive Malaysia towards Digital Economy. A Malaysia Digital Economy Forum with the theme of “Transforming Business and Society through E-Commerce” was jointly held by Ministry of International Trade and Industry (MITI) and the Malaysia Digital Economy Corporation (MDEC) in 2018. The forum aims to educate local stakeholders, including Small Medium Enterprises (SMEs), on the importance of digitalisation and encourage them to leverage on e-commerce for their businesses. In the forum, it was reported that Malaysia's digital economy has seen exponential growth since 2016. In 2016, 58,824 online businesses have already registered with the Companies Commission of Malaysia (SSM).

Malaysia is the first in the world outside China to establish a Digital Free Trade Zone (DFTZ) which comprises e-Fulfillment Hub, Satellite Services Hub and e-Service Platform to stimulate growth in electronic trade. The purpose of DFTZ is to develop the digital economy and cross-border trading activity using the e-commerce. DFTZ aims to increase e-commerce

growth and contribution to GDP by RM211 billion (approximately US\$47.68 billion) by 2020 (Malaysia Digital Economy Corporation, 2017).

CONCEPTS AND DEFINITIONS

Based on OECD: Glossary of Statistical Terms 2013; e-commerce transaction is the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders. Method of payment and the ultimate delivery of the e-commerce goods or services might be done through computer network/internet or traditionally. This concepts, definitions and classifications are adapted to Malaysia's requirement to reflect the e-commerce industry in Malaysia

METHODOLOGY AND FRAMEWORK

Usage of ICT and E-Commerce by Establishment Survey (ICTEC) is a structured survey to collect the necessary information on e-commerce. It serves as essential information to answer the research questions and objectives pertaining to e-commerce in Malaysia. In general, this survey used a sampling design approach which covers all economy sectors which are Agriculture, Mining & Quarrying, Manufacturing, Construction and Services.

Sampling design of the survey is a one-stage stratified random sampling. Categories of industries and state level have been classified as stratum, and the establishment as the sampling unit. Each stratum (industry) has been set up to four substrata to ensure the distributed sample takes into account the economic characteristics of the industry. The main substratum is heterogeneous, was fully covered. Whereas, other substratum that are homogeneous were sampled. Main substratum include large establishments that have a significant total revenue in the industry while for the second to fourth substratum are based on small and medium enterprise (SME) categories.

Meanwhile for ICT Use and Access by Individuals and Households survey (ICTHS) data collection was carried out using the personal interview approach. The sampling frame used for the selection of sample ICTHS 2017 was based on the Household Sampling Frame which made up of Enumeration Blocks (EBs) created for the 2010 Population and Housing Census which was updated from time to time. EBs are geographical contiguous areas of land which identifiable boundaries created for survey operation purposes, which is on average, contains

about 80 to 120 LQs. 57 All EBs are formed within gazette boundaries i.e. within administrative, districts or local authority areas.

The measurement of e-commerce value added derived from the ICT Satellite Account (ICTSA) is based on the recommendations by Internet Economy Outlook 2012, OECD. There are two recommended approaches, which are narrow and broad. Narrow approach takes into account the value added of wholesale and retail sectors. While broad approach includes all industries across the economy. For Malaysia's case, the broad approach was applied in measuring the value added of e-commerce. It is assume the share of revenue from e-commerce in total revenue for each industry sector is proportional to the share of value added from e-commerce in total value added for the same industry.

The existing annual surveys and censuses were also enhanced to accommodate ICTSA compilation by incorporating ICT module that provides data on e-commerce value by establishments and sectors. E-commerce information is essential to measure the overall performance of Digital Economy in Malaysia. ICTEC will also provide information on the e-commerce transactions by categories of Business to Consumer, Business to Business and Business to Government. The survey enables us to break down the e-commerce value by categories, and identify the providers and users of e-Commerce services

MAIN FINDINGS

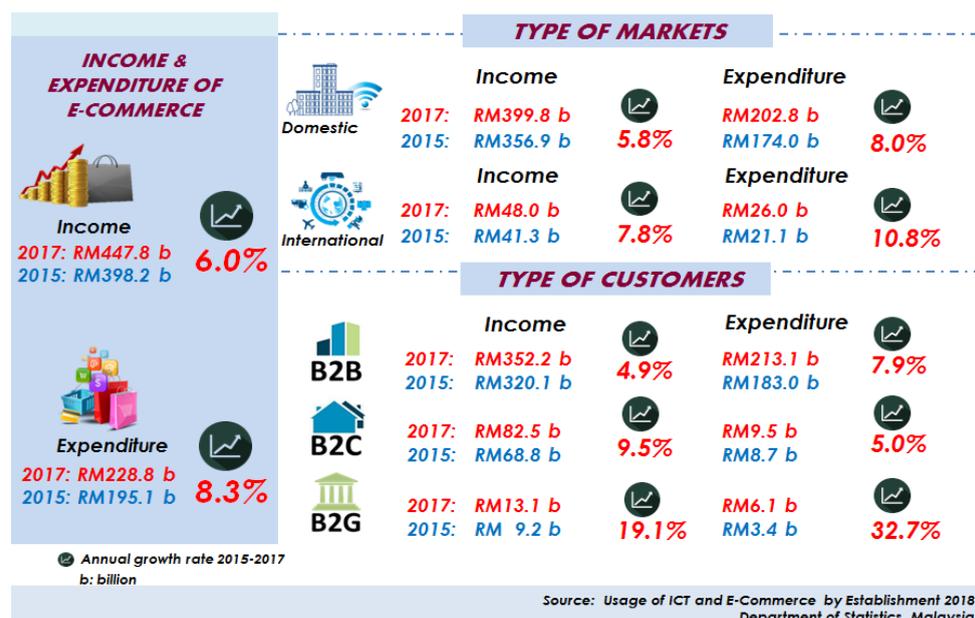
ICTEC 2017

The e-commerce transactions recorded a value of RM447.8 billion compared to RM398.2 billion in 2015 with an annual growth rate at 6.0 per cent. Income from e-commerce transactions in Malaysia in 2017 was dominated by the domestic market of RM399.8 billion with a share of 89.3 per cent compared to the international market of RM48.0 billion (10.7%). In 2017 the highest income from e-commerce transactions by type of customer was obtained through Business to Business (B2B) at RM352.2 billion with annual growth rate of 4.9 per cent. This was followed by Business to Consumer (B2C) of RM82.5 billion (9.5%) and Business to Government (B2G) RM13.1 billion (19.1%).

The e-commerce expenditure transactions recorded a value of RM228.8 billion compared to RM195.1 billion in 2015 with an annual growth rate at 8.3 per cent. It was recorded domestic

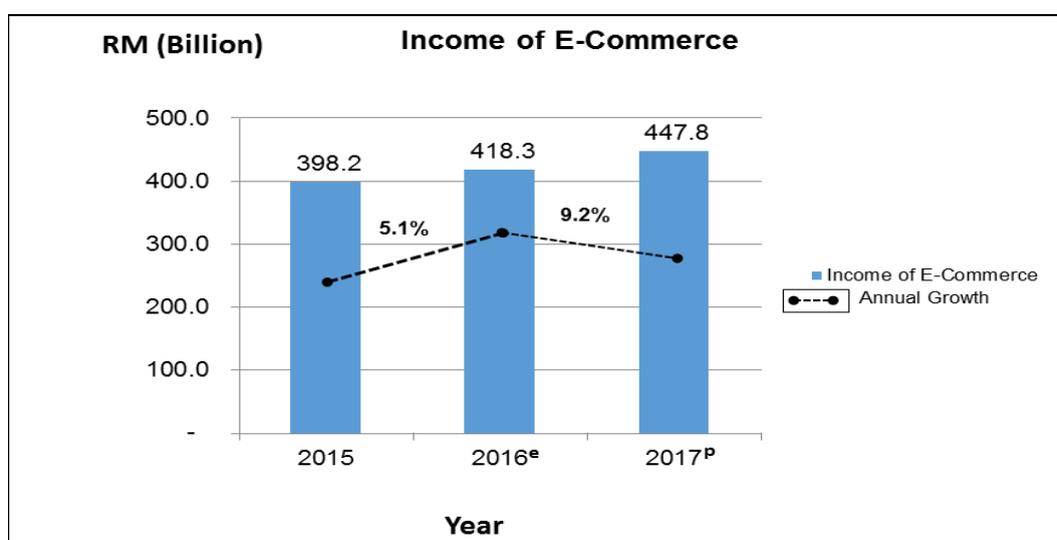
market of RM202.8 billion with a share of 88.7 per cent compared to the international market RM26.0 billion (11.3%). In 2017, business to business (B2B) recorded the highest e-commerce expenditure of RM213.1 billion with annual growth rate of 7.9 per cent. This was followed by business to consumer (B2C) (RM9.5 billion; 5.0%) and business to government (B2G) (RM6.1 billion; 32.7%) as shown in **Table**.

Table: Income and Expenditure of E-Commerce Transaction



E-commerce transaction shows a growing annual change of 9.2 per cent from 2016 to 2017 as shown in **Chart 1**.

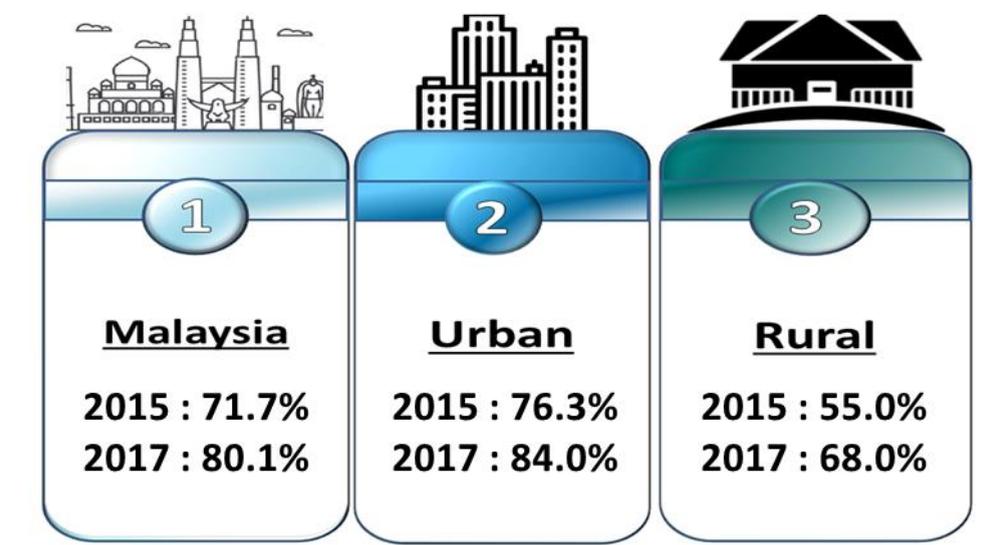
Chart 1: Annual Change Income of E-Commerce Transaction



ICTHS 2017

Percentage of individuals using Internet increased by 9.0 percentage points from 71.1 per cent in 2015 to 80.1 per cent in 2017. Internet usage in urban area showed an increase of 7.7 percentage points to 84.0 per cent in 2017 from 76.3 per cent in 2015. The Internet usage in rural area also increased to 68.0 per cent in 2017 from 55.0 per cent in 2015 as shown in Exhibit.

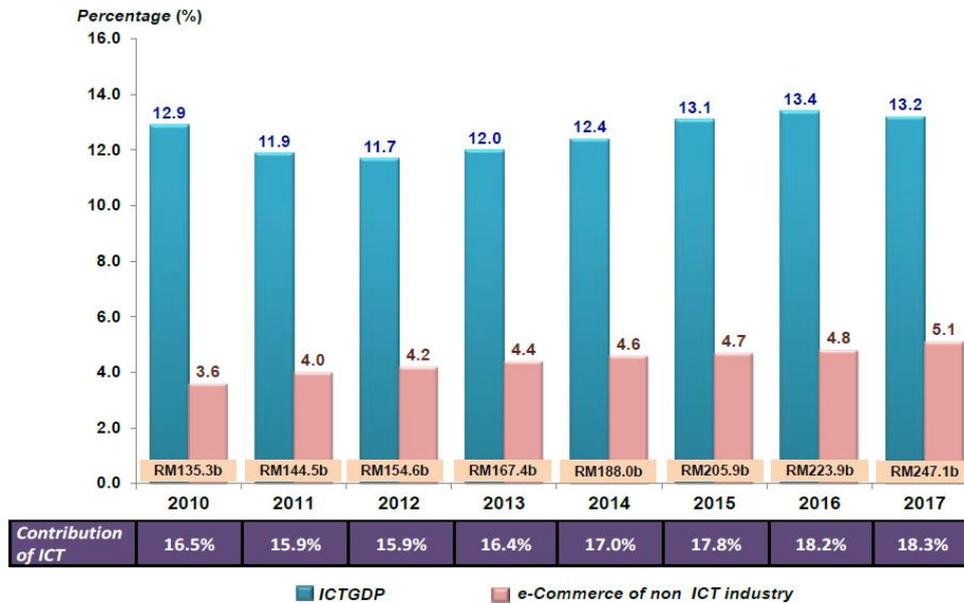
Exhibit: Percentage of Individuals Using Internet by Strata, 2015 And 2017



ICTSA 2017

On overall, in 2017 ICT contributed 18.3 per cent to GDP comprising of ICTGDP (13.2%) and e-commerce for non ICT industries (5.1%). The value added of e-commerce registered an increase to RM85.8 billion as compared to RM75.0 billion in 2016. E-commerce recorded a growth of 14.3 per cent led by non ICT industry with a share of 80.3 per cent. The contribution of e-commerce to GDP recorded 6.3 per cent attributed by e-commerce for non ICT industry 5.1 per cent and e-commerce for ICT industry 1.2 per cent as shown in **Chart 2**.

Chart 2: Contribution of ICT to Economy - Value and Percentage Share



CONCLUSION

Malaysia is rapidly growing region with overwhelming usage of internet access and becoming more attractive to business especially to the e-commerce activities. Modern businesses are in a race to provide the best finest services to their consumers, with the development of ICT technology and the era of digital economy, most business has become simple, easy and up to date. However, there are challenges to identify the businesses involvement in the digital economy toward e-commerce. Some of the digital economy identification is not available in business registration. As at now, only Wholesale and Retail Trade activity has an identifier as an online business in Companies Commission of Malaysia registration.

This paper has shared the findings of the surveys and the compilation of e-commerce in Malaysia. The statistics of ICT usage and e-commerce are important in order to monitor the resilient infrastructure of ICT and sustainable industrialisation in Malaysia as indicated in the SDGs, by 2016, the proportion of the population covered by a third generation (3G) mobile broadband network stood at 61 per cent in the Least Developed Countries (LDCs) and 84 per cent globally. Based on the result, Malaysia has improved on the ICT infrastructure especially on the access and development of information and communications technology

and strives to provide universal and affordable access to the internet. These efforts will make the e-commerce business become more competitive in order to generate employment, income, facilitate international trade and enable the efficient use of resources as targeted in goal 9 of SGDs. The fast growth of e-commerce business and ICT's technology will accelerate economic growth, connectivity, mobility and well-being of the people.

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