

TECHNICAL NOTES

1. INTRODUCTION

This report provides information on usage of ICT and e-commerce by establishment for reference year 2022. The data were collected and compiled from Economic Census conducted in 2023.

The ICT indicators has been developed by the World Summit on the Information Society (WSIS) and was launched in June 2004. The purpose of the core list as a guidance/ input to countries that are conducting ICT surveys. The core list also assists in produce quality and internationally comparable ICT data.

There are 48 ICT indicators in six groups as follows:

- | | |
|--|------------------------|
| • <i>ICT infrastructure and access</i> | - <i>10 indicators</i> |
| • <i>Usage and access of ICT by households and individuals</i> | - <i>13 indicators</i> |
| • <i>Usage of ICT by businesses</i> | - <i>12 indicators</i> |
| • <i>ICT sector (producing)</i> | - <i>2 indicators</i> |
| • <i>International trade in ICT goods</i> | - <i>2 indicators</i> |
| • <i>ICT in education</i> | - <i>9 indicators</i> |

2. LEGAL AUTHORITY

*The Economic Census 2023 was conducted under the **Statistics Act 1965 (Revised 1989)**. **Section 5** under this Act requires any establishment operating in Malaysia to provide actual or best estimate information to the Department. According to the Act, the contents of the questionnaire are **confidential** and only aggregate figures are published.*

3. SCOPE AND COVERAGE

*This publication used data from Economic Census 2023 (reference year 2022). The census collected information from registered establishments in Agriculture, Mining & quarrying, Manufacturing, Construction and Services sectors. The classifications for industries were referring to Malaysia Standard Industrial Classification (MSIC) 2008 Version 1.0, which is in accordance with the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4 United Nations. The coverage for all sectors encompasses 1,200 categories of industries as shown in **Table 1**.*

Table 1: Category of industries by sector

Sector	Category of Industries
Agriculture*	142
Mining & quarrying	56
Manufacturing	259
Construction	72
Services	645
Total	1,174

Note: (*) Entrepreneurs in the Agriculture sector which registered with relevant government agencies for the purpose of receiving aid were **NOT** covered except palm oil's entrepreneurs.

4. SOURCE OF FRAME

The main source for the establishment statistics frame is from the Malaysia Statistical Business Register (MSBR), while for the Accommodation sub-sector, includes unregistered homestay. MSBR is a list of organisations/ enterprises operating in Malaysia that includes the Register of Companies (ROC), Register of Business (ROB) and Limited Liability Partnership (LLP) registered with the Companies Commission of Malaysia (CCM) as well as organisations registered with local authorities (LA) and professional bodies. The list in MSBR is updated regularly based on surveys and censuses conducted by the Department of Statistics Malaysia (DOSM) and administrative data sources from various agencies. The main source of administrative data is from the CCM.

In addition, DOSM also works together to obtain the latest information from other agencies such as the Employees' Provident Fund (EPF), the Royal Malaysian Customs Department, the Inland Revenue Board (IRB), Social Security Organisation (SOCSO), LA and professional bodies. The frame is updated by taking into account new establishments and any changes in the status of the establishments such as closed down, not in operation, change in activity and location/ correspondence address so as to ensure that the frame is at the most current status.

5. TYPE OF BUSINESS ACTIVITY

Type of business activity refers to both principal and secondary activities. The principal activity refers to the activity to which the establishment devoted most of its resources or activity which derived most of its income. Secondary activities are defined as those incidental or ancillary to the principal activity. The classification of the industry of the establishment is based on the principal activity and accordance with the Malaysia Standard Industrial Classification (MSIC), 2008 Ver. 1.0. The MSIC 2008 conforms to the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, published by United Nations Statistics Division, with modifications to suit local conditions.

6. CONCEPT AND DEFINITIONS

The industries are categorised into five main sectors namely Agriculture, Mining & quarrying, Manufacturing, Construction and Services. The sectoral definitions include the following activities:

6.1 Agriculture

Agriculture comprising the activities of growing, breeding and rearing of animals and production of animal products, felling of trees and other plants, as well as capture fishery and aquaculture includes the use/ utilisation of plants/ vegetal and animals natural resources. There are four subsectors:

6.1.1 Crops refer to production of crops products including organic farming. Crops also include the growing of non-perennial and perennial crops for the purpose of seed production;

6.1.2 Livestocks refer to animals or bird that are preserved for commercial and breeding purposes. Livestock production includes raising (farming) and breeding of all animals, also production of livestock products such as eggs, milk, honey, etc;

6.1.3 Forestry and logging includes the production of round wood for the forest based manufacturing industries as well as the extraction and gathering of wild growing non-wood forest product. Besides the production of timber, forestry activities which produce the product through the minimum process, such as fire wood, charcoal, wood chips and round wood used in unprocessed form are also included. These activities can be carried out in natural or forests plantation. This also includes part of the forestry operation based on fee or contract basis; and

6.1.4 Fisheries comprise of fishing and aquaculture, covering the use of fishery resources from marine, brackish or freshwater, with the purpose of capturing or gathering fish, crustaceans, molluscs and other marine organisms and products. Aquaculture refers to the production process involving the culturing or farming (including harvesting) of aquatic organisms using techniques designed to increase the production of the organisms beyond the natural capacity of the environment.

6.2 Mining & Quarrying

Mining and quarrying include the extraction of minerals occurring naturally as solids (coal and ores), liquids (petroleum) or gases (natural gas). Extraction can be achieved by different methods such as underground or surface mining, well operation, seabed mining, etc. However, the sub-sector of mineral mining and quarrying was not covered in this publication.

6.3 Manufacturing

The physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand, whether it is done in a factory or in the worker's home, and whether the products are sold at wholesale or retail.

The classification of eight (8) sub-sectors by division are as follows:

Division	Description
Food products	
10	Manufacture of food products
Beverages and tobacco products	
11	Manufacture of beverages
12	Manufacture of tobacco products
Textiles, wearing apparel and leather products	
13	Manufacture of textiles
14	Manufacture of wearing apparel
15	Manufacture of leather and related products

Division	Description
Wood products, furniture, paper products and printing	
16	Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
17	Manufacture of paper and paper products
18	Printing and reproduction of recorded media
31	Manufacture of furniture
Petroleum, chemical, rubber and plastic products	
19	Manufacture of coke and refined petroleum products
20	Manufacture of chemicals and chemical products
21	Manufacture of basic pharmaceutical, medicinal chemical and botanical products
22	Manufacture of rubber and plastics products
Non-metallic mineral products, basic metal & fabricated metal products	
23	Manufacture of other non-metallic mineral products
24	Manufacture of basic metals
25	Manufacture of fabricated metal products, except machinery and equipment
Electrical, electronic and optical products	
26	Manufacture of computer, electronics and optical products
27	Manufacture of electrical equipment
28	Manufacture of machinery and equipment n.e.c.
Transport equipment, other manufacturing and repair	
29	Manufacture of motor vehicles, trailers and semi-trailers
30	Manufacture of other transport equipment
32	Other manufacturing
33	Repair and installation of machinery and equipment

6.4 Construction

New construction, alteration, repair and demolition. The installation of any machinery or equipment installed which is built-in at the time of the original construction is included, as well as installation of machinery or equipment after the original construction but which requires structural alteration in order install.

6.5 Services

Services related to Electricity, gas, steam & air conditioning supply; Water supply, sewerage, waste management & remediation activities, Wholesale & retail trade; Transportation & storage; Information & communication; Accommodation; Food & beverage; Finance; Real estate; Professional, scientific & technical; Administrative & support services; Private education; Private health & social work; Art, entertainment & recreation and Personal services & other activities.

6.5.1 Electricity, gas, steam & air conditioning are defined as an activity of providing electric power, natural gas, steam, hot water and the like through a permanent infrastructure (network) of lines, mains and pipes. The dimensions of the network is not decisive; also included are the distribution of electricity, gas, steam, hot water and the like in industrial parks or residential buildings. This section therefore includes the operation of electric gas utilities, which generate, control and distribute electric power or gas. Also included is the provision of steam & air-conditioning supply;

6.5.2 Water supply; sewerage, waste management & remediation activities comprised of activities related to waste management includes collection, treatment & disposal such as scheduled waste, solid waste and waste water from industrial and household, including recovery materials & contaminated sites. The waste from the treatment process can be disposed of or used as input for other production process. Related activities in water treatment and supply are also included in this sector;

6.5.3 Wholesale & retail trade encompasses of wholesale and retail trades, sales and repair of motor vehicles & motorcycles;

- 6.5.4 Transportation & storage** includes all establishments provided land transport, freight transport by road, other land transport, water transport, warehousing & supporting activities such as storage & warehousing, terminal operations, car parking services, highway operations, port operations, cargo handling/stevedoring, shipping agencies & forwarding of freight and other supporting activities for transportation services;
- 6.5.5 Information & communication** comprises activities of publishing, motion picture, video & television programme production, sound recording & music publishing, programming & broadcasting, telecommunication services, computer programming, consultancy & related activities and information services;
- 6.5.6 Accommodation services** refer to the provision on a fee of short-term lodging, whether open to the general public or restricted to members of a particular organization. It excludes rental of long term furnished accommodation which is classified in Real Estate;
- 6.5.7 Food & beverages** services include food and beverage serving activities providing complete meals or drinks fit for immediate consumption, whether in traditional restaurants, self-service or take-away restaurants, whether as permanent or temporary stands with or without seating;
- 6.5.8 Financial services** include monetary intermediation activities; other financial service activities and activities auxiliary to financial services; insurance/ takaful, reinsurance/ retakaful and pension & provident funding activities; and activities auxiliary to insurance/ takaful and pension funding;
- 6.5.9 Real estate services** include acting as lessors, agents and/or brokers in one or more of the following: selling or buying real estate, renting real estate, providing other real estate services such as appraising real estate, property management or acting as real estate escrow agents. Activities in this division may be carried out on own or leased property and may be done on a fee or contract basis. Also included is the building of structures, combined with maintaining ownership of leasing of such structures;

- 6.5.10 Professional, scientific & technical** includes specialised professional, scientific & technical activities which require a high degree of expertise and training, and specialised knowledge and skills available to users. Activities performed include legal & accounting activities, activities of head offices, management consultancy activities, architecture & engineering activities, technical testing & analysis, scientific research & development, advertising & market research, other professional, scientific & technical activities and veterinary activities;
- 6.5.11 Administrative & support services** includes a variety of activities that support general business operations, including rental & leasing activities, employment activities, travel agency, tour operator & other reservation service activities, security & investigation activities, services to buildings and landscape activities & office administrative, office support & other business support activities;
- 6.5.12 Private educational services** refer to establishments registered with the Ministry of Education, Malaysia and the Ministry of Higher Education that provides academic, pre-primary & primary education, secondary education, higher education, other education and educational support activities;
- 6.5.13 Private health & social work services** include hospital services, medical & dental practice activities, other human health activities, residential care activities and social work activities without accommodation;
- 6.5.14 Arts, entertainment & recreation services** include a wide range of activities to meet varied cultural, entertainment & recreational interests of the general public, including live performances, operation of museum sites, gambling, sport and recreation activities; and
- 6.5.15 Personal services & other activities** includes activities of membership organisations, activities of business, employers and professional membership organisations, activities of trade unions, activities of others membership organisations, repair of computers and personal & household goods and other personal services activities such as washing and dry-cleaning of textiles and fur products; hairdressing and other beauty treatment and funeral and other services activities.

7. CENSUS YEAR

Refers to the year in which a census was conducted.

8. REFERENCE YEAR

The reference year of the census was the calendar year 2022. Establishments whose accounting year differed from calendar year were requested to report according to the accounting year or financial year covering at least six (6) months in the reference year.

9. METHOD OF COLLECTION

This census was generally conducted through three (3) methods of data collection, namely:

9.1 Online method through the e-BE portal

This method targets respondents who have used this method for previous routine surveys.

9.2 Data collection method via e-mail, post, fax and telephone

This method targets respondents who have used this method for previous routine surveys. Respondents were given a period of one month to complete and return the questionnaire to the DOSM.

9.3 Face-to-face data collection method

Field work operation is carried out to get feedback from establishments that have not yet given answers from the two methods above and this method also targets establishments that have never been involved in a routine survey the DOSM.

10. REPORTING UNIT

The reporting unit used in the Economic Census 2023 was the establishment. An establishment is defined as "an economic unit engaged in one activity, under a single legal entity and operating in a single physical location". Each establishment is assigned an industry classification based on its principal activity and not according to the activities of the parent company.

Each branch of a multi-branch organisation at a different location is conceptually treated as a different establishment. The establishment is requested to give separate returns for each activity in terms of value. However, if in practice, the accounts are centrally kept such that it is not possible to obtain separate data for each individual unit or branch, the entity or enterprise is treated as a single reporting unit and allowed to submit a consolidated questionnaire covering all the units or branches.

11. ICT DEFINITION

Based on Organisation for Economic Co-operation and Development (OECD) 2015 definition:

(a) Computer

*Computer includes personal computer, portable computer (e.g. laptop), tablet and other devices such as *smartphone.*

(b) Intranet

Refers to the internal communications network using internet protocols and allowing communication within the organisation.

(c) Extranet

Refers to a closed network that uses internet protocols to secure the sharing of business information with suppliers, vendors, customers or other business partners. It also can be part of a personal website business, where business partners can navigate after being confirmed in the login page.

(d) Local area network (LAN)

A network connecting computers and associated devices within a localized area such as a single building, department or site; it may be wireless.

(e) Wireless local area network (WLAN)

Local area network using high frequency radio waves instead of wires to communicate between networks-enabled devices. WLAN allows users to move around a small area within a radius of 20 to 91 meters.

Note.

* Malaysia including smartphone

(f) Wide area network (WAN)

A network that connects computers and associated devices within a wide geographic area, such as a region or country.

(g) Fixed broadband

Refers to a technology with a speed of at least 256 kbit/s in one or both directions. It consists of wired fixed broadband and fixed wireless broadband.

Wired fixed broadband internet access most commonly used to send/ receive information via cable/ fiber optic (ADSL, SDSL, VDSL), fiber optic technology/ cable technology.

(h) Mobile broadband

Refers to technology at speeds of not less than 256 kbit/s in one or both directions. It covers technologies such as 3G/ LTE/ 4G, UMTS, CDMA2000 and future technologies including both standard and dedicated data subscriptions. Typically used by mobile devices (e.g. laptops, tablets, USB wireless modems, smart phones and other mobile device.

Mobile broadband connection to the internet refers to access via WIFI hotspot (tethering) and not through a router (e.g. USB dongle/ modem/ surfstick such as YES dongle etc.).

(i) Website

A website is a collection of network-related web resources such as a website, multimedia content that is usually identified by a common domain name and published by at least one web server. Websites can be accessed through public Internet Protocol (IP) networks such as the Internet or private local area network (LAN) by the URL that identifies the site. A website can be a personal website, a corporate website for a company, a government website, an organization website and so on.

(j) Social media

Refers to those who have a user profile, account or user license depending on the needs and types of social media. Types of social media are social networks (e.g. Facebook and Instagram), enterprise blogs or enterprise microblogs (e.g. Twitter) and multimedia content sharing websites (e.g. YouTube).

(k) Mobile internet and technologies

Refers to an inevitable product in the development of the PC internet. It combines mobile and internet communications into one. This is a general term for activities where technology, platforms, business models and internet applications are combined with mobile communication technology (e.g. mobile IT equipment, Global Positioning System (GPS) equipment, wireless debit/ credit card payment terminals).

(l) Cloud computing

Cloud computing refers to ICT services used over the internet to access software, computing power, storage capacity, etc. (e.g. HUAWEI Cloud Server, AVM Cloud).

(m) Data analytic

Data analytic is a process or effort to process data into new information so that the characteristics of the data become easier to understand and useful for solving problems, especially those related to research (e.g. Tableau, Big Data Analytics, Mobile Business Intelligence).

(n) Management software

Management software is application software that helps users while performing management activities (e.g. Enterprise Resource Planning, etc.).

(o) Collaborative online platforms

Refers to economic partnerships (e.g. Lazada, Shopee, Grab, etc.).

12. E-COMMERCE DEFINITION

Based on (OECD) 2015, e-commerce transaction is defined as sale or purchase of goods or services, through a network of computers that have been designed for this purpose. E-commerce transactions can occur between enterprises, households, individuals, governments and public or private organisation to another.

Goods or services that have been ordered through e-commerce methods, but the payment or receipt of goods or services can be received either through online or offline.

E-commerce transaction, includes orders placed on websites, extranet or Electronic Data Interchange (EDI). However, the transactions made by telephone, fax, e-mail (mail that is typed manually) and the similar transactions are not categorised as e-commerce transactions.

- (a) **E-commerce income** means the total income of establishments with e-commerce transactions. Income for wholesale and retail trade establishments refers to the value of sales of goods and services. Sales value means the value of all items for which ownership or effective right to use with a view to ultimate purchase, has been transferred to others.
- (b) **E-commerce expenditure** means the amount of expenses for establishments that have e-commerce transactions.
- (c) **E-commerce by type of market**
- (i) **Domestic** means e-commerce transactions sales/ purchase that conducted in Malaysia.
 - (ii) **International** means e-commerce transactions sales/ purchase that conducted which involves international transaction.
- (d) **E-commerce by type of customers**
- (i) **Other business**
Business to Business (B2B) is related to e-commerce transaction between businesses which sell/ buy products or services to/ from another business. For example, a manufacturer can sell to a wholesaler or a wholesaler can sell to a retailer.
 - (ii) **Individual consumers**
Business to Consumer (B2C) is related to e-commerce transaction between businesses and consumers which sell/ buy products or services. For example, business sells garment to consumer (income) or business provide discount coupon to consumers through e-commerce platform (expenditure).
 - (iii) **Government and other non-business organisations**
Business to Government (B2G) is a business model that refers to businesses selling/ paying for products, services or information governments or government agencies. B2G networks or models provide a way for businesses to bid on government projects or products that governments might purchase or need for their organisations. This can encompass public sector organisations that propose the bids. B2G activities are increasingly being conducted via the internet through real-time bidding. B2G is also referred to as public sector marketing.

13. MICRO, SMALL AND MEDIUM ENTERPRISES (MSMEs)

The definition of MSMEs used is based on the new definition that came into effect on 1 January 2014 as shown in **Table 2**.

Table 2 : MSMEs Definition

Sector	MSMEs Size	Annual Turnover	Number of Full-Time Employees
Manufacturing	<i>Micro</i>	<i>Less than RM300,000</i>	<i>Less than 5 employees</i>
	<i>Small</i>	<i>Between RM300,000 to less than RM15 million</i>	<i>From 5 to less than 75 employees</i>
	<i>Medium</i>	<i>Between RM15 million to not exceeding RM50 million</i>	<i>From 75 to not exceeding 200 employees</i>
Agriculture, Mining and Quarrying, Construction and Services	<i>Micro</i>	<i>Less than RM300,000</i>	<i>Less than 5 employees</i>
	<i>Small</i>	<i>Between RM300,000 to less than RM3 million</i>	<i>From 5 to less than 30 employees</i>
	<i>Medium</i>	<i>Between RM3 million to not exceeding RM20 million</i>	<i>From 30 to not exceeding 75 employees</i>

Source: Guideline for New MSMEs Definition, SME Corp. Malaysia, October 2013

14. USAGE OF ICT PERCENTAGE CALCULATION

(a) Usage of Computer, Internet and Web Presence

(i) Percentage of computer usage

$$= \frac{\text{Number of establishment used computer}}{\text{Number of establishment operating}} \times 100$$

(ii) Percentage of internet usage

$$= \frac{\text{Number of establishment used internet}}{\text{Number of establishment operating}} \times 100$$

(iii) Percentage of business having web presence

$$= \frac{\text{Number of establishment having web presence}}{\text{Number of establishment operating}} \times 100$$

(b) Usage of Computer, Internet and Web Presence by State

(i) Percentage of computer usage by state

$$= \frac{\text{Number of establishment used computer by state}}{\text{Number of establishment operating by state}} \times 100$$

(ii) Percentage of internet usage by state

$$= \frac{\text{Number of establishment used internet by state}}{\text{Number of establishment operating by state}} \times 100$$

(iii) Percentage of businesses web presence by state

$$= \frac{\text{Number of establishment having web presence by state}}{\text{Number of establishment operating by state}} \times 100$$

(c) Type of Web Presence Owned

(i) *Percentage of owned website*

$$= \frac{\text{Number of establishment with owned website}}{\text{Number of establishment operating having web presence}} \times 100$$

(ii) *Percentage of presence on another entity's website*

$$= \frac{\text{Number of establishment with web presence on another entity's website}}{\text{Number of establishment operating having web presence}} \times 100$$

(iii) *Percentage of social media*

$$= \frac{\text{Number of establishment with social media}}{\text{Number of establishment operating having web presence}} \times 100$$

(iv) *Percentage of e-marketplace*

$$= \frac{\text{Number of establishment with e – marketplace}}{\text{Number of establishment operating having web presence}} \times 100$$

(d) Type of Computer Network Infrastructure Used

(i) *Percentage of intranet*

$$= \frac{\text{Number of establishment owned intranet}}{\text{Number of establishment operating using internet}} \times 100$$

(ii) *Percentage of extranet*

$$= \frac{\text{Number of establishment owned extranet}}{\text{Number of establishment operating using internet}} \times 100$$

(iii) *Percentage of Local Area Network (LAN)*

$$= \frac{\text{Number of establishment owned LAN}}{\text{Number of establishment operating using internet}} \times 100$$

(iv) Percentage of wireless local area network (WLAN)

$$= \frac{\text{Number of establishment owned WLAN}}{\text{Number of establishment operating using internet}} \times 100$$

(v) Percentage of wide area network (WAN)

$$= \frac{\text{Number of establishment owned WAN}}{\text{Number of establishment operating using internet}} \times 100$$

(vi) Percentage of others area network

$$= \frac{\text{Number of establishment owned others infrastructure network}}{\text{Number of establishment operating using internet}} \times 100$$

(e) Type of Internet Access*(i) Percentage of fixed broadband usage*

$$= \frac{\text{Number of establishment owned fixed broadband}}{\text{Number of establishment operating using internet}} \times 100$$

(ii) Percentage of mobile broadband usage

$$= \frac{\text{Number of establishment owned mobile broadband}}{\text{Number of establishment operating using internet}} \times 100$$

(iii) Percentage of both types of broadband usage

$$= \frac{\text{Number of establishment owned both types of broadband}}{\text{Number of establishment operating using internet}} \times 100$$

(f) Purpose of Internet Usage*(i) Percentage of sending or receiving email*

$$= \frac{\text{Number of establishment used for sending or receiving email}}{\text{Number of establishment operating using internet}} \times 100$$

(ii) *Percentage of telephoning over the internet usage*

$$= \frac{\text{Number of establishment used telephoning over the internet}}{\text{Number of establishment operating using internet}} \times 100$$

(iii) *Percentage of posting information or instant messaging*

$$= \frac{\text{Number of establishment posting information or instant messaging}}{\text{Number of establishment operating using internet}} \times 100$$

(iv) *Percentage of getting information about goods or services*

$$= \frac{\text{Number of establishment getting information about goods or services}}{\text{Number of establishment operating using internet}} \times 100$$

(v) *Percentage of getting information from government organisations*

$$= \frac{\text{Number of establishment getting information from gov. organisations}}{\text{Number of establishment operating using internet}} \times 100$$

(vi) *Percentage of interacting with government organisations usage*

$$= \frac{\text{Number of establishment interacting with government organisations}}{\text{Number of establishment operating using internet}} \times 100$$

(vii) *Percentage of internet banking usage*

$$= \frac{\text{Number of establishment used internet banking}}{\text{Number of establishment operating using internet}} \times 100$$

(viii) *Percentage of accessing other financial services*

$$= \frac{\text{Number of establishment accesing other financial services}}{\text{Number of establishment operating using internet}} \times 100$$

(ix) *Percentage of providing customer service*

$$= \frac{\text{Number of establishment providing customer service}}{\text{Number of establishment operating using internet}} \times 100$$

(x) Percentage of delivering products online

$$= \frac{\text{Number of establishment delivering product online}}{\text{Number of establishment operating using internet}} \times 100$$

(xi) Percentage of internal or external recruitment

$$= \frac{\text{Number of establishment used internal or external recruitment}}{\text{Number of establishment operating using internet}} \times 100$$

(xii) Percentage of staff training usage (e-learning applications)

$$= \frac{\text{Number of establishment used for staff (e – learning)}}{\text{Number of establishment operating using internet}} \times 100$$

(xiii) Percentage of internet usage for others

$$= \frac{\text{Number of establishment used for others}}{\text{Number of establishment operating using internet}} \times 100$$

(g) Usage of Digital Technology**(i) Percentage of website usage**

$$= \frac{\text{Number of establishment used for website}}{\text{Number of establishment operating using internet}} \times 100$$

(ii) Percentage of social media usage

$$= \frac{\text{Number of establishment used for social media}}{\text{Number of establishment operating using internet}} \times 100$$

(iii) Percentage of mobile internet and technologies usage

$$= \frac{\text{Number of establishment used for mobile internet and technologies}}{\text{Number of establishment operating using internet}} \times 100$$

(iv) *Percentage of cloud computing usage*

$$= \frac{\text{Number of establishment used for cloud computing}}{\text{Number of establishment operating using internet}} \times 100$$

(v) *Percentage of data analytics usage*

$$= \frac{\text{Number of establishment used for data analytics}}{\text{Number of establishment operating using internet}} \times 100$$

(vi) *Percentage of managements software usage*

$$= \frac{\text{Number of establishment used for management software}}{\text{Number of establishment operating using internet}} \times 100$$

(vii) *Percentage of online collaborative platforms usage*

$$= \frac{\text{Number of establishment used for online collaborative platforms}}{\text{Number of establishment operating using internet}} \times 100$$

(viii) *Percentage of digital technology usage for other purposes*

$$= \frac{\text{Number of establishment used for other purposes}}{\text{Number of establishment operating using internet}} \times 100$$

(ix) *Percentage of not using digital technologies*

$$= \frac{\text{Number of establishment not using digital technologies}}{\text{Number of establishment operating using internet}} \times 100$$

15. ROUNDING

The sum of the component figures may not tally with the sub-total or total figures due to rounding.

16. SUPRA STATE

Based on the System of National Accounts (SNA) 2008, categorisation of institutional units based on their economic interest and geographical activities can be as follows; (1) most activities are within a single region; (2) multi-provincial units with centers of interest in multiple provinces or regions but do not operate on a nationwide scale; and (3) units operating at the national level, with their centre of interests not confined to any specific geographical position (e.g. Supra State). Supra State at the state level is equivalent to an overseas organisation at the national level. In Malaysia, Supra State covers production activities beyond the centre for the key economic interest of any state.

17. COMPOUND ANNUAL GROWTH RATE (CAGR)

The calculation of annual growth rate (r) is based on the following formula:

$$y_t = y_0 (1 + r)^t$$

Solving for r ,

$$r = \left[e^{\frac{1}{t} \ln\left(\frac{y_t}{y_0}\right)} - 1 \right] \times 100$$

where,

y_t = Value at current year

y_0 = Value at previous year

t = Value at previous year, $y_t - y_0$

r = Annual growth rate

18. REVISION

Revision will be made to the published figures based on the latest census.

19. SYMBOLS AND ABBREVIATIONS

-	: data not available
&	: and
%	: per cent
b	: billion
etc.	: et cetera
e.g.	: example
CAGR	: Compound annual growth rate
RM	: Ringgit Malaysia
ISIC	: International Standard Industrial Classification
MSIC	: Malaysian Standard Industry Classification
n.e.c.	: not elsewhere classified
Ver.	: Version
W.P.	: Federal Territory