TRAINING COURSE ON

Source Data: Usage of ICT and E-commerce by Establishment (ICTEC) - Malaysia’s experienced

for

National Bureau of Statistics of Maldives

25th May 2021 (Tuesday)
Outline

1. Introduction
2. Concept and definition (references)
3. Scope and coverage (methodologies and data collection)
4. Questionnaire
5. Indicator on ICT (benchmarking and alternative)
6. Means of dissemination
1. Introduction
Usage of ICT and E-commerce by Establishment (ICTEC)

ICTEC
Survey for the usage of ICT and e-commerce by establishment in Malaysia

- survey starting 2015
- Implement every 2 years
- Latest preparing for reference year 2019

OBJECTIVE
To collect information on establishment regarding the use of ICT and e-commerce transaction for the reference year

- For the use of
  - ICT Satellite Account report
  - Digital Economy report
  - National E-Commerce Council
2. Concept and definition (references)
Concept and definition (references)

Usage of ICT and E-commerce by Establishment (ICTEC)

MANUAL/REFERENCE

• OECD Model Survey on ICT Usage by Businesses
• OECD Guide to measuring the information society 2011
• Core ICT indicators (from ITU and OECD)

Basic core
B1  Proportion of businesses using computers
B2  Proportion of employees using computers
B3  Proportion of businesses using the Internet
B4  Proportion of employees using the Internet
B5  Proportion of businesses with a Web presence
B6  Proportion of businesses with an intranet
B7  Proportion of businesses receiving orders over the Internet
B8  Proportion of businesses placing orders over the Internet

Extended core
B9  Proportion of businesses using the Internet by type of access: Categories should allow an aggregation to narrowband and broadband, where broadband excludes slower speed technologies, such as dial-up modem, ISDN and most 2G mobile phone access. Broadband will usually have an advertised download speed of at least 256 kbit/s.
B10 Proportion of businesses with a Local Area Network (LAN)
B11 Proportion of businesses with an extranet
B12 Proportion of businesses using the Internet by type of activity
Concept and definition (references)

**Usage of ICT and E-commerce by Establishment (ICTEC)**

**BUSINESS ACTIVITY (BASED ON MALAYSIA STANDARD INDUSTRIAL CLASSIFICATION 2008 (MSIC 2008) VER. 1.0.)**

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 is in 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, United Nations Statistics Division**, with modifications to suit local conditions.

[Website link](http://msic.stats.gov.my/bi/)

- **MSIC Structure**
- **MSIC Description**
- **MSIC Code**

The Malaysia Standard Industrial Classification (MSIC) search engine system or e-MSIC was developed to facilitate the users to find the relevant industrial code. The MSIC 2008 version 1.0 is an update of industry classification developed based on the International Standard of Industrial Classification of All Economic Activities (ISIC) Revision 4.
Concept and definition (references)

Usage of ICT and E-commerce by Establishment (ICTEC)

ICT DEFINITION (BASED ON OECD, 2015)

i. Intranet
   Refers to the internal communications network using Internet protocols and allowing communication within the organisation.

ii. 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.

iii. 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.

iv. 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.

v. Wide Area Network (WAN)
   A network that connects computers and associated devices within a wide geographic area, such as a region or country.

E-COMMERCE DEFINITION (BASED ON OECD, 2015)

E-commerce transaction is the 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 organization 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.g. email)

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.
3. Scope and coverage
(methodologies and data collection)
Scope and coverage
(methodologies and data collection)

SCOPE AND COVERAGE

- covers registered establishments in the Agriculture, Mining & quarrying, Manufacturing, Construction and Services sectors.
- coverage for the overall economic activity encompass of 1,142 industries at 5-digit level according to the Malaysian Industrial Classification Standards (MSIC), 2008 Version 1.0.

SOURCE OF FRAME

- Main source of information for the frame was the Companies Commission of Malaysia (CCM)
- Malaysian Industrial Development Authority (MIDA)
- Ministry of Agriculture and Agro-based Industry
- Construction Industry Development Board, Malaysia (CIDB)
- Minerals & Geosciences Department, Malaysia (JMG)
- Energy Commission
- Others (various businesses and trade associations, newspaper advertisements and websites)

SURVEY YEAR

Survey year refers to the year in which a survey was conducted. It was conducted once in every two years.

REFERENCE YEAR

The reference year of the survey was the previous calendar year. Establishments whose accounting year differed from calendar year were requested to report according to the accounting year or financial year covering the major part of the reference period.

METHOD OF COLLECTION

- by mail inquiry
- Respondents given one month to complete and return the questionnaire to the Department.
- After that period, field enumeration was undertaken to expedite response from the remaining establishments.
Scope and coverage
(methodologies and data collection)

Usage of ICT and E-commerce by Establishment (ICTEC)

**SAMPLING DESIGN**

Sampling design of the survey is a **one-stage stratified random sampling**. Categories of industries at two (2), three (3), four (4) and five (5) digit MSIC at 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.

**SAMPLE SIZE**

The **main statistics** used to **estimate** the sample size is the **total revenue**. The formula used in the estimation of the sample size for a stratum is as follows:

\[
n = \frac{\left(\sum N_i S_i\right)^2}{V + \sum N_i S_i^2}
\]

where;

- \( n \) = Sample size
- \( N_i \) = Population size for stratum i
- \( S_i \) = Variance for stratum i
- \( V \) = Desired variance
4. Questionnaire
Questionnaire

Usage of ICT and E-commerce by Establishment (ICTEC)

Survey Form, ICTEC 2020 (Reference Year 2019)

1. Identification particulars
2. Legal organisation
3. Shareholders’ fund and ownership structure
4. Persons engaged/ revenue/ expenditure
5. Usage of ICT
6. Online services and e-commerce transactions
5. Indicator on ICT (benchmarking and alternative)
Indicator on ICT (benchmarking and alternative)

Usage of ICT and E-commerce by Establishment (ICTEC)

Communications and Multimedia: Pocket Book of Statistics

Penetration Rates (%)

- Fixed-broadband
- Mobile-broadband
- Mobile-cellular
- Pay TV

Note:
1. Fixed-broadband refers to penetration rate per 100 premises
2. Mobile-broadband and mobile-cellular refer to penetration rate per 100 inhabitants
3. Pay TV refers to penetration rate per 100 households

Broadband

Total Broadband Subscriptions (‘000)

- Fixed-broadband Subscriptions (‘000)
- Mobile-broadband Subscriptions (‘000)

Broadband Traffic (exabytes)
6. Means of dissemination
Means of dissemination

Usage of ICT and E-commerce by Establishment (ICTEC)

https://www.dosm.gov.my
THANK YOU

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