ESCAP: STATS CAFE PROGRAMME
The Compilation of Input-Output Tables and The Applications in Policy Making

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Outline

01 INTRODUCTION
Input-Output Table | The Importance of Input-output Tables | Product from SUT & IOT

02 MALAYSIA’S EXPERIENCE IN COMPILATION OF IO TABLES
Journey of Malaysia’s Input-Output Table | Manuals, Classifications and Data Sources | Collaboration & Engagement

03 INPUT-OUTPUT ANALYSIS
Special study on Input-Output Analysis

04 WAY FORWARD
Introduction

1. Input-Output Tables

❖ The Supply and Use and Input-Output (I-O) Tables offer the most detailed portrait of goods and services in the economy.

❖ The tables provide detailed analysis on the process of production and the use of goods and services (products) and the income generated from the production.

❖ It also illustrates the relationship between consumers and producers and interdependence between industries.

❖ I-O Tables are derived from SUT.

2. The Importance of Input-Output Tables

<table>
<thead>
<tr>
<th>SUPPLY AND USE TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Structure</td>
</tr>
<tr>
<td>• Provides changes in economic structure.</td>
</tr>
<tr>
<td>Production</td>
</tr>
<tr>
<td>• Observes the behaviour of the production of goods and services in an industry and study the production of that industry.</td>
</tr>
<tr>
<td>Exports</td>
</tr>
<tr>
<td>• Examines the usage of goods and services produced either it is export oriented or domestic consumption.</td>
</tr>
<tr>
<td>Employment</td>
</tr>
<tr>
<td>• Looks at the contribution of compensation of employees of an industry to identify whether the industry is labour or capital intensive.</td>
</tr>
<tr>
<td>Gross Fixed Capital Formation/Asset</td>
</tr>
<tr>
<td>• Studies the dependency of an industry on assets.</td>
</tr>
</tbody>
</table>

INPUT-OUTPUT ANALYSIS

<table>
<thead>
<tr>
<th>Impact analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linkages</td>
</tr>
<tr>
<td>• Linkages analysis is a method of measuring the importance of a sector in the production of goods and services in the economy.</td>
</tr>
<tr>
<td>• Backward linkages and forward linkages are commonly used in inter-sectoral analysis.</td>
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<tr>
<td>• Measure the economic impacts when there is a change in the final demand.</td>
</tr>
<tr>
<td>• Show the direct and indirect interdependence between sectors in the overall economy.</td>
</tr>
<tr>
<td>• Frequently used methods in analysis:</td>
</tr>
<tr>
<td>• Multiplier</td>
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<tr>
<td>• Decomposition</td>
</tr>
<tr>
<td>• Price Model</td>
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<tr>
<td>• Trade in Value Added</td>
</tr>
</tbody>
</table>

3. Products from SUT & IOT

Supply & Use Table

IO Table
I-O Update
Regional IO
Satellite
Distribution & Use Of Income Accounts And Capital Account
Input-Output Analysis
Social Accounting Matrix (SAM)
GDP
System of Environmental -Economic Accounting (SEEA)
Malaysia’s Experience in Compilation of Input-Output Tables
Journey of Malaysia’s Input-Output Table

Compilation of Input-Output Tables, Malaysia:

- IO Table was first compiled in 1970, covering Peninsular Malaysia only.
- IO Table 2015 (latest)

SUT and IO Table

Basic Table:
- Domestic Production Table at Basic Prices, Activity by Commodity
- Domestic Use Table at Basic Prices, Commodity by Activity

Symmetry Table:
- Domestic Production at Basic Prices, Commodity by Commodity; and
- Domestic Production at Basic Prices, Activity by Activity

Compilation of Regional Input-Output (RIO) Table

- RIO Tables 2010 was first compiled in 2014 and released for internal circulation in March 2016.
- RIO 2015 was released for internal circulation in January 2020.
- RIO 2010 & 2015 - 5 tables with classification 30 commodity x 30 activity.

Framework RIO

**A<sub>HP</sub>** Intermediate Demand and Import (Inter-Region) from Sabah

**A<sub>PP</sub>** Intermediate Demand and Import (ROW) for Peninsular

**A<sub>KP</sub>** Intermediate Demand and Import (Inter-Region) from Sarawak
Manuals, Classifications and Data Sources

**Classifications**

**INDUSTRY**
- Malaysia Standard Industrial Classification (MSIC)

**HOUSEHOLD EXPENDITURE**
- Classification of Individual Consumption by Purpose (COICOP)

**PRODUCTS**
- Malaysia Classification of Products by Activity (MCPA)

**IMPORTS & EXPORTS**
- Harmonized System (HS) Code
- Standard Industrial Trade Classification (SITC)

**NPISHs**
- Classification of Purpose of Non-Profit Institution Serving Household (COPNI)

**GOVERNMENT USE**
- Classification of the Function of Government (COFOG)

**Data Sources**

- Agriculture, Fishing & Forestry
  - Ministry of Agriculture and Food Industries.
  - Ministry of Plantation Industries and Commodities
  - Malaysian Cocoa Board
  - Malaysian Timber Industry Board
  - National Kenaf and Tobacco Board
  - Malaysian Pepper Board
  - Malaysian Rubber Board
  - Malaysian Palm Oil Board
  - Forestry Department Peninsular Malaysia, Sabah and Sarawak
  - Malaysian Fisheries Development Authority

- **Wholesale and Retail Trade Survey**
- **Household Expenditure Survey**

**Government Services**
- Ministry of Finance
- Accountant General’s Department of Malaysia
- Public Service Department Malaysia
Collaboration & Engagement

× To strengthen and empower the knowledge in the Input-Output Table, several series of workshops and engagements with international agencies and local academia were held.

× To uplift the collaboration between public and private sectors in the applications of policy making, inputs and insights at national and state levels are provided.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>PROJECT</th>
<th>AGENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-2018</td>
<td>Constructing the Supply and Use Tables</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>2014-2018</td>
<td>RCDTA 8838: Updating and Constructing the Supply and Use Tables For Selected Developing Member Economies</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>2006-2007</td>
<td>Analytical Works For Emergence of Chinese Economy and Reorganization of Asian Industrial Structure For Malaysia</td>
<td>Institute of Developing Economies (IDE), Japan</td>
</tr>
<tr>
<td>2005</td>
<td>Joint Research Project on The Compilation and Use of 2005 Asian International Input Output Table</td>
<td>Institute of Developing Economies (IDE), Japan</td>
</tr>
<tr>
<td>2002-2005</td>
<td>Analytical Works and Data Collection for Industrial Structure of Asia Pacific Region for Malaysia’ (ISAP)</td>
<td>Institute of Developing Economies (IDE), Japan</td>
</tr>
</tbody>
</table>
Input-Output Analysis
1. IO Analysis for policy making
- Impact of The Economic Stimulus Package: PRIHATIN & PENJANA
- Impact on the implementation of Goods and Services Tax to the economy using input-output price model
- An Insight Of Wholesale And Retail Sub-sectors In Malaysian Economy: An Input Output Analysis
- Import Content and Value Added Exports for Malaysia Using Input-Output Analysis

2. Other Initiatives
- Development on Input–Output Table at Constant price.
- Trade In Value Added analysis: Multiplier Decomposition
- Measuring Global Production of Goods and Services using Trade in Value Added
- Measuring the economic impact of Tourism industry in Malaysia: An Input-Output Analysis
- Newsletter
- Import Content and Value Added Exports for Malaysia Using Input-Output Analysis
- Articles/box articles
- Scientific poster
- Presentation
  - ✓ 62nd ISI World Statistics Congress (ISI WSC), 2019
  - ✓ Malaysia Statistics Conference (MyStats) 2020 & 2021
  - ✓ Statistics Colloquium and Scientific Poster
Way Forward

**IO Table**
1. To publish IO Table (update) for 2019 and 2020
2. To develop Input-Output dashboard
3. To compile Benchmark Input-Output Table 2022

**Regional IO**
1. To compile State Input-Output Table

**TIVA Analysis**
Aims to further analyse on:
1. Value-added Decomposition of Gross Exports
2. Revealed Comparative Advantage (RCA)
3. Global Value Chain (GVC)