Advancement of Data Transmission Through Malaysia External Trade Statistics (METS) Online

Tan Bee Bee

Department of Statistics Malaysia

Abstract

Policy makers, Malaysian businesses and the general public rely on external trade statistics to assist them in making data-driven decisions on trade and the economy. These data are essential to understanding the Malaysian economy with respect to its major trading partners and the impact from global developments. This is especially so in the case of Malaysia which is a very open economy where in 2014 total trade was 135% of Gross Domestic Product. Understanding the importance of accessible and timely external trade statistics, Department of Statistics Malaysia (DOSM) has strived towards an online dissemination of these statistics. This paper aims to share the effort and initiative of Department of Statistics Malaysia towards online dissemination of external trade statistics also known as METS online. Users can now have access to timely external trade statistics through METS online anywhere, anytime and with any device be it laptop, desktop, tab or mobile. METS Online is easy to use, is interactive and provide details of product with classification up to 6 digit HS or 5-digit SITC as well as covering all the trading partners and with a long time series from 1990. DOSM will continue to improve METS online with more coverage, scope and in line with international developments and bringing external trade statistics to the doorstep of users.

1. Introduction

External Trade statistics (ETS) or International Merchandise Trade Statistics refers to the provision of data on the movement of goods between countries and areas. In Malaysia ETS has been compiled since the formation of the Department of Statistics, Malaysia (DOSM) in 1949. At that time the Department was known as Bureau of Statistics and the statistics produced then was just external trade and estate agriculture. The source document for ETS from then till now is from the Royal Malaysian Customs Department (Customs).

Being an open economy, external or international trade is very important to the economy of Malaysia. In 2014, total trade was RM 1.5 trillion and 135% of Gross Domestic Product. International merchandise trade also plays a crucial role in economic development because the process binds the producers and consumers who are located in various locations and different countries into a global economic system. Thus the production and dissemination of the data has to be efficient and timely. This is also in line with some of the objectives of DOSM which are to improve and strengthen statistical services and delivery system as well as to be highly responsive to customer needs in a dynamic and challenging environment.

DOSM is always concerned on the need of a reliable, up to date and easy access to external trade statistics among the stakeholders and public. Due to the limitation on the usage of ICT until the 90's era, data dissemination was done manually through publications via conventional (snail) mail and fax. The increase in the usage of ICT has slowly transformed the data dissemination in stages from hardcopies to softcopies and then to online data.

Users of trade data include policy makers, Malaysian businesses, embassies, the general public as well as companies overseas who have interest to trade with Malaysia. Internally, trade data is an important input to the compilation of Balance of Payments Statistics and Gross Domestic Product. Recognising the importance to meet user's needs for timely ETS with easy access, DOSM embarked to facilitate the matter with the first online dissemination in 2010.

2. Background

2.1 Processing

Malaysia ETS is compiled by DOSM on a monthly basis from the manual or electronic forms or declarations submitted to the Customs by importers and exporters or their agents. Types of Customs Declarations include Customs 1 for Imports, Customs 2 for Exports and Customs 3 for both Imports and Exports. Other sources of data include from the Free Zone Authorities and the source document is ZB1(Imports) and ZB2(Exports). Currently total number of transactions is about 3.2 million a month where more than 97% of the declarations are received electronically. The electronic forms has assisted to significantly reduce human error and time needed in data processing. ETS is now made available to the public about 5 to 6 weeks after the reference month from 7 to 8 weeks previously. Besides receiving the forms electronically, the shorter processing time is also attributed to the modernisation of work process in DOSM where the processing is now done on PCs instead of mainframe.

The processing of Malaysia's ETS follow the guidelines in the International Merchandise Trade Statistics 2010 Manual.

The Department of Statistics Malaysia (DOSM) and Customs work closely together in order to improve the quality, timeliness and reliability of the External Trade statistics especially in terms of quality reporting and at the same time DOSM will continue to comply with the international standards in the compilation of international merchandise trade.

2.2 Classification

The classification reported in the source document is the Harmonised Commodity Description and Coding System (HS) managed by the World Customs Organisation. HS classification facilitates tariff collection and is

internationally comparable up to 6 digits. HS is regularly updated to be up to date with changes in technology or patterns of international trade. Malaysia is currently adopting the latest HS classification which is HS2012. However, there are 2 classification system at the detailed tariff level where for intra-ASEAN trade, the AHTN which is a 10-digit code is adopted while the 9-digit HS is applied for extra-ASEAN Trade. Currently there are about 12,324 AHTN codes and 9,450 HS codes.

For publication and dissemination purposes, the Standard International Trade Classification (SITC) is used. This in line with the recommendation of UNSD and International practices which views the SITC as an analytical tool. SITC is under the purview of UNSD and it is comparable on a worldwide basis up to 5-digit referred to as basic heading and this classification facilitates economic analysis. The detailed 9-digit code is to cater to national needs and there are about 16,345 codes at the moment.

3. Importance and Users of Malaysia's ETS

External trade is important to the economy of Malaysia. Malaysia was ranked 23 out of more than 200 countries for exports and 26 for imports in 2014 for external trade. Also, total trade was RM 1.5 trillion and 135% of GDP. These indicators reaffirm the importance of external trade and the openness of the Malaysia economy. Also in the face of data driven decisions, import/export data is much sought for trade promotion and negotiation, analyzing sectoral performance as well as trade by partner countries. The objective of these activities is aimed to improve the economy of the country and enhance its competitiveness. Globalization has also led to complex data needs in a dynamic and borderless environment. Thus improvements in the delivery system must always be the top priority. Trade data, should be made accessible anywhere, anytime and on any device to meet user needs. And this can be done as technological advancement has erased many barriers to

communication eg. with the introduction of the world wide web in the 1990's, the enhancement in storage capacity and the onset of mobile devices.

Users of METS include the Government, businesses, embassies and researchers. There were 25,193 users on METS Online from January to September 2015. Besides that, the number of free download of external trade statistics monthly publication was 11,379 for the same period. DOSM also handle 187 monthly subscriber files per month while for ad-hoc requests, it averaged about 80-100 per month. These are some of the statistics to show the importance of trade data.

4. Objective of METS Online

Recognising the importance of ETS and the need for timely online data amidst the scenario of globalisation, IT advancement and sophisticated users, METS Online which is the online access to trade data was developed :-

i.   To improve DOSM's delivery system by providing timely merchandise trade information online in line also with open data initiatives

ii.   To enable that merchandise trade information be accessible anywhere, anytime and on any device to facilitate users and thus able to serve users in the most effective way possible, and

iii.   As part of Innovation activities of DOSM to increase productivity

Prior to METS Online, ETS was requested via mail, email, fax and purchase at DOSM where the service delivery is constrained to office hours.

5. Development of METS Online

The first version of METS Online was developed in-house by DOSM in 2010. This version was also launched on DOSM website in the same year and enables users to obtain trade statistics between Malaysia and its trading partners in the form of fixed template from 2006 to latest (until the launch of Version 2) with details up to HS 4 digit/ SITC 3 digit.

Version 2, which is an enhanced/improved version was also developed in-house by DOSM and was launched in September 2014. It offers more details (up to HS 6 digit/ SITC 5 digit) and the time series starts from 2000. It is also more interactive and has a Search function. The increase in details for HS product codes saw it increasing from about 1200 to 5000 while for the SITC classification, the increase was from 262 product codes to almost 3000. For the development of this version, benchmark reviews were done and the countries that were reviewed were USA, Japan, Indonesia , Thailand and UN Comtrade. This version was mostly benchmarked on UN Comtrade.

The development specification for the IT side in terms of hardware were the need for two servers which function as the application server and database server. As for software, the system uses Linux, Apache, Java and Microsoft SQL. The total cost involved was estimated at RM200,000.

6. Accessing METS Online

METS Online is accessed via DOSM portal (www.statistics.gov.my) under online services. It can be accessed via Internet Explorer 8.0+, Mozilla Firefox 3.6+ or Google Chrome with a resolution of at least 1024 by 768 and on any device be it laptop, desktop or mobile devices. Thus users can have immediate and direct access to trade data at anytime and anyplace and not only during office hours or at counters.

7. Features of METS Online

To meet user needs METS Online offers 5 main modules with the details as follows:-

7.1   Overall

There are 2 output for this module. For the first output, users can obtain the time series from 1990 to current available month for total

exports, imports, total trade and trade balance. The second output has a similar time series but portrays import and export data at SITC 1-digit. This is to assist users who need to look at more details of the import export composition. Data for all the modules can be exported to 'excel' format.

7.2   Search by product code

This module offers the users to search for products at 2, 4 or 6 digit HS code as well as 1 to 5 digit SITC codes. There are about 5,000 6-digit HS codes and 3,000 5-digit SITC codes of which about 80% of them are active. The search can also combine with country details, whether single country or multiple countries. The module also provides a Search function by keyword and users can also combine it with a specific country. Eg. If you would like to search for 'gloves', all codes which are related to gloves will be displayed. This module covers data from 2000 to latest available month or year. The same period is also covered for all the other modules except for the overall module which has a longer reference period from 1990.

7.3   Search by Partner Country

Under this module, users are able to search for the partner countries they are interested in. They are also able to match up the details they want, be it 3-digit SITC or 4-digit HS. Another feature is that they can also select multiple countries and whether the data is needed at monthly or annual level. This is useful for users who need to know the major products traded with a respective country.

7.4   Search by Geographical Grouping

Geographical grouping refers to area location eg. whether it is North America, South Asia, North Africa etc. There are 13 selections available and users can also opt to select for all the 13 groupings either at total level or by HS/SITC breakdown.

7.5   Search by Economic Grouping

This module facilitates the search by economic grouping like ASEAN Free Trade Area (AFTA), North American Free Trade Agreement(NAFTA), European Union (EU) etc. Users who would like to analyse from the perspective of economic grouping will find this module useful. There are 7 selections of Economic Grouping for this module. As with the 3 modules above, this selection can be combined with product details to get a more in-depth output.

The layout screen for all the modules are in the **Appendix.**

8. Way Forward

Disseminating data online is a vast improvement to what used to be conventional methods of dissemination like hardcopies and softcopies. However in the era of globalisation and technology advancement in IT, continuous improvement in data dissemination and information sharing must always be a key and important consideration as users become more and more sophisticated. Official statistics must bring its audience what they are looking for. The need for easy accessibility to timely comprehensive data is of utmost importance to assist better decision making and policy making in a timely manner. The effort of improving data transmission through METS is a continuous process. Thus with timeliness, accessibility and comprehensiveness in mind, Mets Online has continued to improve offering more details from its first launch in 2010 to its second launch in 2014 and also spanning a longer time series. But the journey does not end there. Among the proposals for improvement are:-

8.1   To enhance the scope and comprehensiveness for dissemination like increasing to more product codes or disseminating based on the tariff lines which is 9 digit HS, 10- digit AHTN and 9-digit SITC as well as major products

8.2   Increasing the use of data visualisation for better data presentation and communication

8.3   And to continuously move in-line with global developments on online databases and open data policy

9. Conclusion

Making timely, comprehensive data easily accessible and available to users which include stakeholders or the general public continues to be a very important agenda for DOSM. The Department recognises the importance of timely and accessible data for better decision making and will continue to strive to improve its data dissemination activities.
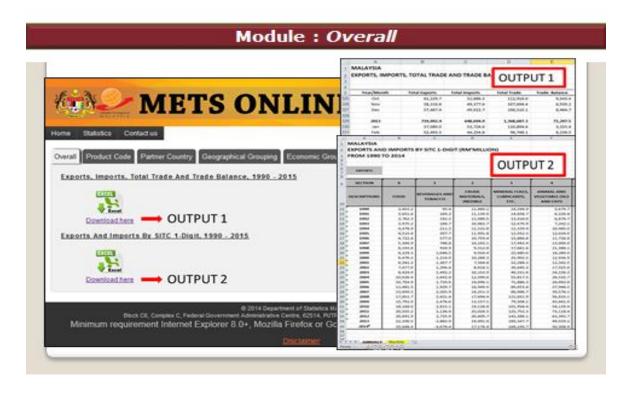
References

United Nations(2011), International Merchandise Trade Statistics, Concepts and Definitions 2010

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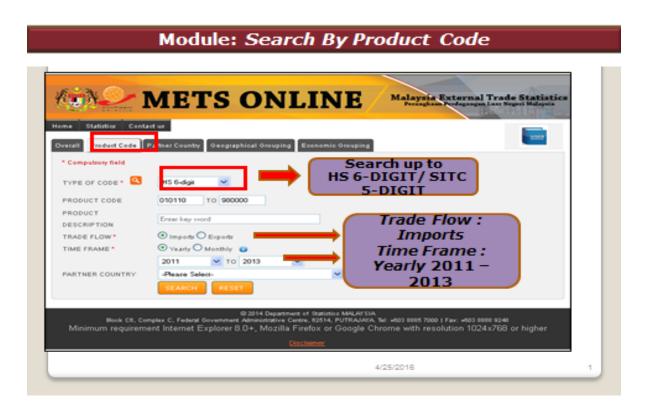
Zeelenber Kees, and de Bie Steven, 2012, Trust and Dissemination in Official Statistics, Statistics New Zealand

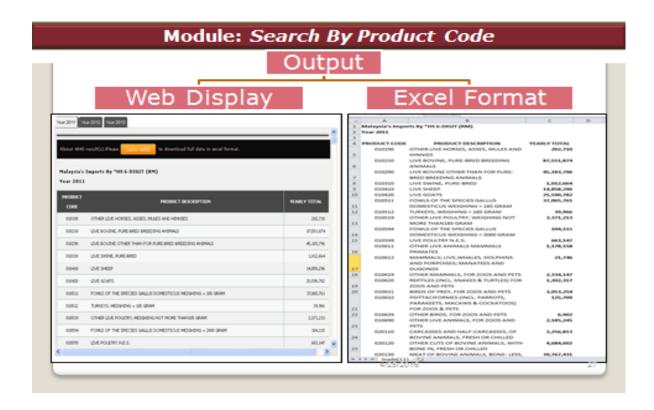Materials from METS Online, DOSM portal

i)   This is the Overall Module with 2 output

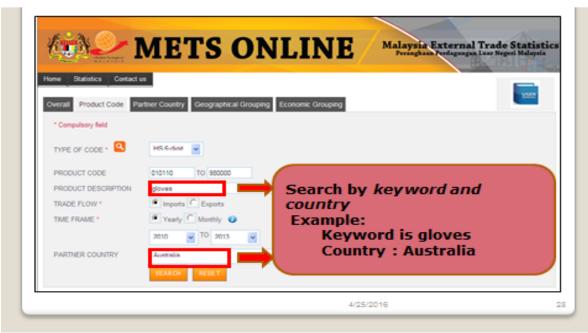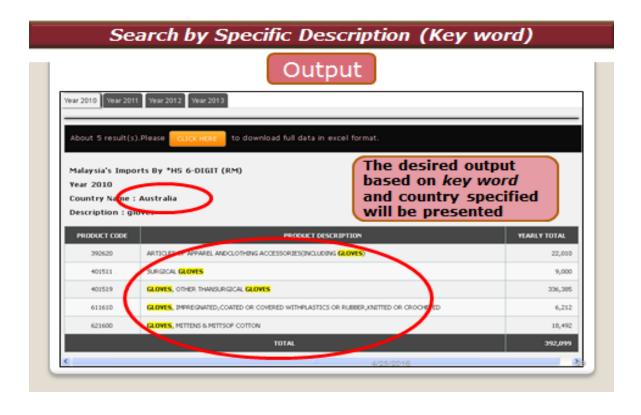ii)   This is the Search by Product Code Module

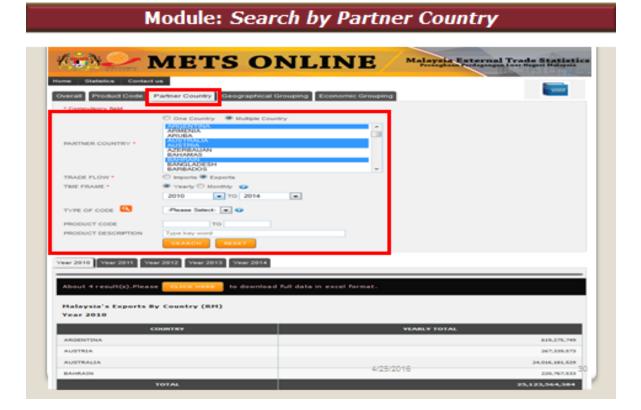iii) This is the output from the 'Search by Product Module'

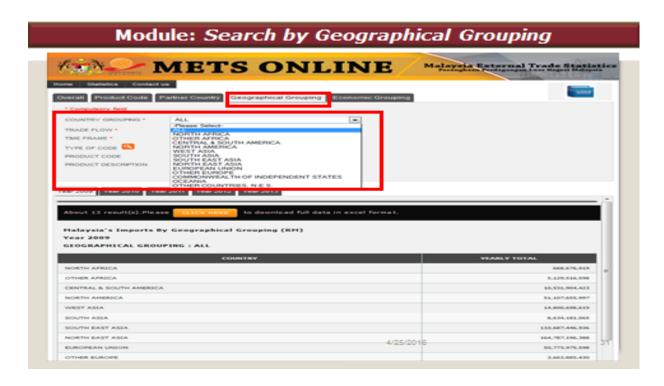iv) This is the 'Search by Keyword' and the output follows in the next screen.

Search by Specific Description (Key word)

Output

The desired output based on *key word* and country specified will be presented

Malaysia's Imports By *HS 6-DIGIT (RM)
Year 2010
Country Name : Australia
Description : gloves

PRODUCT CODE	PRODUCT DESCRIPTION	YEARLY TOTAL
392620	ARTICLES OF APPAREL AND CLOTHING ACCESSORIES(INCLUDING GLOVES)	22,000
401511	SURGICAL GLOVES	9,000
401519	GLOVES, OTHER THAN SURGICAL GLOVES	336,385
611610	GLOVES, IMPREGNATED,COATED OR COVERED WITH PLASTICS OR RUBBER,KNITTED OR CROCHETED	6,212
621600	GLOVES, MITTENS & MITTS OF COTTON	18,492
	TOTAL	392,099

v) This module is the Search by Partner Country.   Multiple countries can be selected.

Module: *Search by Partner Country*

vi) This is Search by Geographical Grouping.

vii) This is Search by Economic Grouping.