

MALAYSIA STATISTICAL BUSINESS REGISTER

1. Introduction

As stipulated in the Statistic Act 1965 (Revised 1989), the Department of Statistics Malaysia (DOSM) is responsible to produce official national statistics. Being the producer it is imperative for DOSM to ensure the availability, reliability and on-time social and economic statistics for policy makers and users. Economic statistics are produced either through censuses/surveys or administrative sources, date as far back as 1950's. Malaysia Statistical Business Register (MSBR), which comprises businesses operating in Malaysia, is a backbone of conducting economic censuses/surveys.

2. Malaysia Statistical Business Register (MSBR)

2.1 The Roles of MSBR

Business register comprises of establishments engage in various economic activities in Malaysia. The **primary function** of MSBR in Malaysia is to identify the target population for economic statistics which can be used as an enumeration list for Economic Census and for Survey Sampling Frame. The **other functions** are to provide central storage of administrative data that serves as a control file for data collection and processing, source for economic research and finally to assist in respondent relation and the management of respondent burden.

2.2 The MSBR Evolution

It was called Central Register System (CRS) back then and the development was initiated in 1988 as an outcome of a study made by a Special Committee which looked into the possibility of establishing a unified frame for the economic surveys and censuses. The CRS was set up in 1994 in a PC based system using Dbase IV and was upgraded in 1996 into a Local Area Network (LAN) environment. Further enhancements were made in 2002 with the upgraded to Wide Area Network (WAN) environment as well as incorporated features need from the users, requirement for new surveys and to accommodate new

industrial codes.

At present, the department has developed an integrated and online system to replace the numerous non-integrated systems. It is named as the New Enterprise Wide Statistical System (NEWSS). The business register which also known as **Establishment/Enterprise (EE) Frame Module** will be supporting the pre-collection, collection and processing module.

2.3 The Coverage of MSBR

MSBR has identified two types of **statistical units** which are establishment and enterprise. The register comprises all of establishments/enterprises operating in Malaysia. The **industry classifications** in the register are based on Malaysia Standard Industrial Classification 2008 version 1.0 which is comparable to ISIC version 4 of the United Nations.

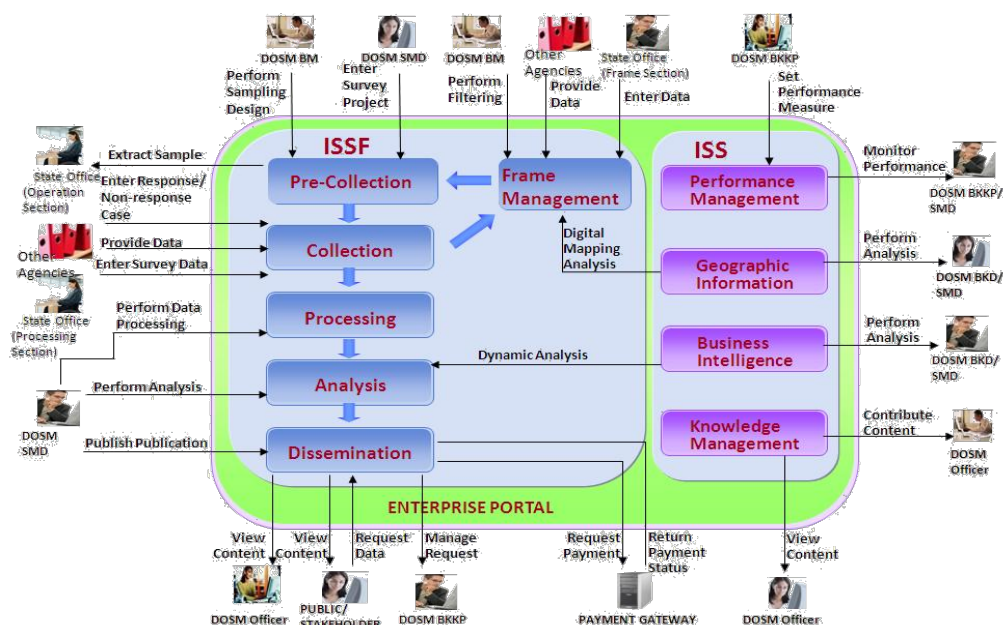
2.4 The MSBR Framework

The frame management focuses on merging and consolidating information from other agencies and collection of the information by the team within DOSM with the main vision of providing latest information. It serves for all the censuses and surveys carried out by DOSM. The foundation and concept of the business register are driven by the needs of the System of National Account. It also supported the department business process module and in line with the Generic Statistics Business Process Model (GSBPM) outlined by the UNECE.

The MSBR is designed under the NEWSS platform which integrated proposed solution called as Integrated Statistical Systems Framework (ISSF) as shown in Figure 1. It provides the main business functionalities of DOSM on pre-collection, collection, processing, analysis and dissemination. The web browser shall be the front end interface to this integrated system and it provides wider access capabilities anywhere and anytime through web based application.

Figure 1 : NEWSS Design Layout





Modules for implementing the management framework in Establishment/Enterprise Frame (EE Frame) are as follows:

Module	Function
Screening Agency information Business Profiles	Maintenance through list information from administrative sources.
Establishment/Enterprise Duplicate Data Collection Respondent Management Control	Maintenance of establishment and enterprise information
Report Business Intelligence (BI)	To generate monitoring reports and analysis tools
Geographical Information System (GIS)- EE	To monitor the number/type of establishments in an enumeration block.

The Generic Statistical Business Process Model (GSBPM) was developed by the UNECE and the Conference of European Statistician Steering Group on Statistical Metadata. Since its inception, in 2010 DOSM has taken step to **strengthen the processes and quality assurance** needed to produce official statistics by aligning according to the **GSBPM**.

One of the main differences between the maintenance of statistical business register and surveys/censuses is that register maintenance is usually continuous activity. Furthermore it is constantly updated from mixture of administrative and statistical

sources. Thus it is important to map the process according to the nine sub processes outline in GSPBM.

Specify needs, Design and Build will clearly define the sources according to the industries. This is to ensure the sources are relevant to the user requirement and aligned with the changes in Malaysia business landscape. Collect and Process phase can be applied to data obtained from censuses/surveys feedback, administrative records and screening process. These will involve identifying the units and running the collection process according to suitable formats which can be integrated with the register. Analyse and Disseminate will prepare the output to be validated and made ready for the release. Finally the evaluation phase will provide the information to improve the quality of the register.

3. Maintaining the MSBR

A perfect register should reflect the real business world. This means the structures; classifications; linkages; data contents; availability status and contact information should be as close to reality as possible. The key maintenance activities are identifying births, deaths, updating link between unit, updating the data items and removing duplicates.

The register will provide the latest number of active population that is used to construct the survey frame and to calculate the weights for blow-up process for variables of interest. As such, the weights can be calculated based on responded samples to provide the estimated population figures for that particular variable. However, MSBR should minimize the number of frame defect to avoid the gap between the estimated figures and the actual population.

The **data items** are unique ID number that serves as the primary identifiers; company/establishment ID number created by source of agencies; contact information such as business name, postal and location address and others; activity and industry classifications; legal status and equity structure; basic financial information such as revenue, expenditure, salary, number of person engage and others; company and establishment organisation structure; and censuses/surveys control status indicators.

The Methodology and Research Division at the headquarters and 14 States Offices throughout Malaysia are responsible for maintaining the MSBR through integrated and online system in NEWSS.

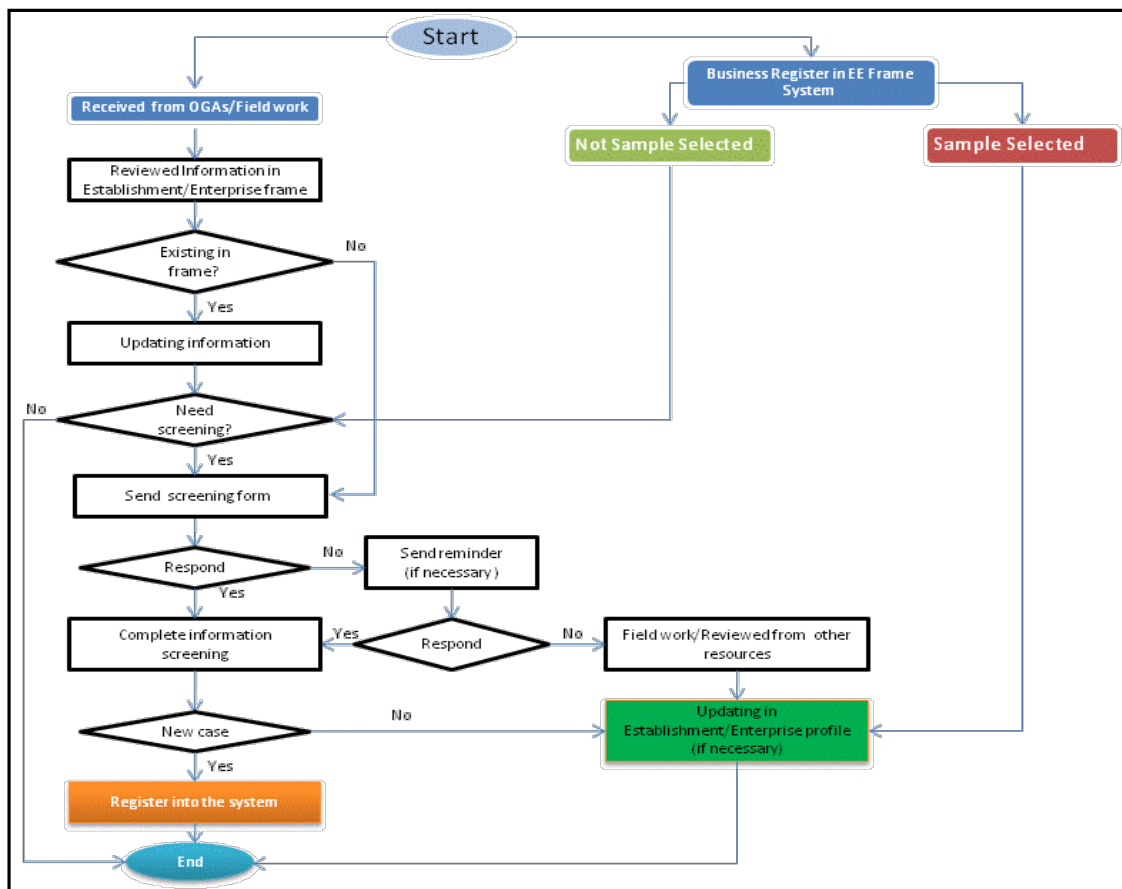
There are about 949 thousand active enterprises/establishments in MSBR. Services sector is the largest constituted of 86.06% followed by the Construction sector 6.86% as shown in Table 1.

Table 1 : Actives Enterprises/Establishments By Sectors

SECTOR	ACTIVE	
	TOTAL ACTIVE	% ACTIVE BY SECTOR
ACTIVITIES OF EXTRATERRITORIAL ORGANIZATIONS AND BODIES	9	0.001%
ENVIRONMENTAL	1,032	0.11%
ELECTRICAL AND GAS	338	0.04%
CONSTRUCTION	65,156	6.86%
MANUFACTURING	49,898	5.25%
SERVICES	817,416	86.06%
MINING AND QUARRYING	943	0.10%
AGRICULTURE, FORESTRY AND FISHING	15,046	1.58%
TOTAL MSBR	949,838	100%

The key maintenance activities on Malaysia BR are identifying births, deaths, updating link between unit, updating contact and classification and removing duplicates. The details are shown in Figure 2.

Figure 2 : BR Updating Flow



There are **three sources for updating the information** namely administrative data, censuses/surveys feedback and screening sources which are explained as below:

i. Administrative Data Source

Administrative sources present the most efficient source of information. To effectively utilise the administrative system it is pertinent to store in the register the identifier used by the administrative system. There are three main criteria when utilising the records such as characteristic of the source, data dimension and data quality.

DOSM has divided the sources into two categories which are central source and non-central source. Central source is a list of businesses whose profile is monitored by the central agency whereas the non-central source is controlled at the states level. The central source is a list of businesses whose profile is monitored by central agency such as Companies Commission of Malaysia (CCM), Employees Provident Funds (EPF), SME Corp, etc.

ii. Censuses/Survey Feedbacks

Feedbacks from censuses/surveys continue to play an important role in maintaining the MSBR. The register is updated by the 14 States Offices through Operational Information Control Module via web base. These assist the field enumerators to access and update the most current information which will improve the timeliness and efficiency. Besides it enhance the quality assurance of the information updated as it can be monitored by the subject matters along the operational flow.

iii. Screening Source

Industries which are not covered in any censuses/surveys have to be updated in term of the detail activity and the company profiles. Questionnaires are being sent to respondents and the contents of the questionnaire are contact information, legal status, equities, activities, revenue, salary, person engaged and other basics information.

DOSM has taken step in applying **geospatial data** as source to update the register. The department through Household (HH) Frame Module has designed Integrated Listing Module (InLis) to accommodate the listing process for establishment/enterprises using maps beside the normal exercise for household. In future it will further update into geospatial data through Geographical Information System Module. DOSM continues the effort by having engagement with Telekom Malaysia in using web geospatial portal known as TM Smart Map. The facility allows the department to access latest information mainly the location of businesses which really assist in reducing the non-response cases due to incomplete and outdated contact information.

4. **Strengthening MSBR**

One of the main differences between the maintenance of SBR and surveys/censuses is that register maintenance is continuous activity. Furthermore it is constantly updated from mixture of administrative and statistical sources. Being a backbone to economic statistics it is important to ensure the register is comprehensive, accurate, reliable and timely. As described before, the foundation and concept of the MSBR are driven by the needs of the System of National Account and supported by GSBPM.

The MSBR needs to comprise recent information and structure of companies and businesses. It is to ensure the utmost accuracy in the data, particularly, those used as stratification variables in the sampling process for future surveys. Currently, DOSM has established strong collaboration with registrar of companies and businesses in Malaysia. There are two main agencies which are CCM and EPF. DOSM has taken step ahead by signing Memorandum of Understanding (MoU) to strengthen the relationship and smart partnership. DOSM also has taken a step to initiate communication with Custom and Inland Revenue Board (IRB). DOSM has taken initiative to enhance the awareness to all the local council and local authority the important of economic statistics and ways to upkeep the business licenses according to the statistical needs. Beside ministry and agencies, the department also has strong relationship with professional bodies, businesses associations, cooperatives and registrar of society which regularly update the status and profiles.

As recommended by United Nation Statistical Division (UNSD), countries are encouraged to integrate their trade register with their business register and to take steps towards establishing an integrated system of economics statistics for data compilation and analysis. Integrated trade statistics with business statistics can connect trade information with its economic, social, environmental and financial dimensions. In response to this, DOSM plans to carry out the project in the middle of 2015. DOSM realizes the approach is beneficial where the real data can be relied on rather than theoretical assumptions, no need for data collection since the data is already collected, detailed level of trade data can be maintained and the most important economic characteristics are available such as economic activity, number of employees, turnover etc.

Last but not least, the statistical community has recognized the potential for big data in improving accuracy and reducing costs for official statistics. The advancement in information technology has reduced data collection, storage, and processing costs with the development of new sources data i.e. big data sets. Therefore, a new powerful method needs to be discovered to exploit this 'big data'. MBSR offers some advantages over surveys as platforms for 'big data' initiatives. It is a data set with the following dimensions:

- i) **Volume:** MSBR is by definition voluminous covering all eligible business establishments/ enterprises

- ii) **Variety:** MSBR can cover a large number of data items providing a various source of analysis on many dimensions.
- iii) **Velocity:** Velocity refers to the frequency and timeliness of the data
- iv) **Veracity:** Veracity is strength of MSBR. Mandatory reporting with tax authority efforts to insure complete reporting provides a strong basis for accuracy.

5 Conclusion

To further nation's progress, policymakers and users need economic and social statistics to measure how the nation is performing so that policies can be made and their implementation can be monitored. The data need not to stay static as the users' needs are keeping on increasing and timeliness in the production of statistical data.

DOSM has taken steps to reengineer the register to meet the users' demand after the Economic Census 2011. It began with the changes from silos to integrate and online. To beef up its role as a national provider for economics statistics, the department has taken effort to strengthen the business process; enhancing the use of administrative data sources; keep the register up to date; reduce respondent burden, strengthening the sampling role; and establishing business demography statistics and business profiling.

For statistical organisation to stay relevant, an integrated and wholesome approach in statistical data collection has to be adopted. DOSM has taken active response to the challenges ahead and the need from the policymakers and planners through implementation of The Strategic Plan 2010 -2014. The plan is to ensure DOSM remains relevant with the function as outlined in the act and to achieve the vision to be the leading statistical agency internationally by the year 2020.