Challenges Faced by the National Statistics Office
Department of Statistics, Malaysia

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1.   INTRODUCTION

1.1   Background of the Department

The Department of Statistics, Malaysia (DOSM) was established in 1949 under the Statistics Ordinance 1949 and was then known as Bureau of Statistics. In 1965, the Statistics Act 1965 was passed by the Parliament and the Statistics Ordinance was repealed. Under this new Act, The Bureau of Statistics was to be known as the Department of Statistics, headed by the Chief Statistician. The new Act was more comprehensive and it further strengthened the authority of the Department to collect statistics. The Department was established with 12 divisions at the headquarters, Kuala Lumpur and branch offices in Sabah and Sarawak. Subsequently, State Branch Offices were set up at all state capitals. In 2001, the State Branch Offices were upgraded and known as the Department of Statistics State Office.

To facilitate the growing statistical needs, Operational Centres (POs) were set up to expedite data collection. To date, DOSM has 16 Divisions including the Statistical Training Institute, Malaysia (ILSM), 14 State Offices and 28 POs. In the efforts to develop competent and competitive human capital, the ILSM was established in 2011 to provide continuous and more structured training programmes.

1.2   Role and Responsibilities

Malaysia adopts a centralized statistical system. DOSM as the main official statistical agency is responsible for the country's official statistics to collect, process, interpret and disseminate data through

the censuses/surveys conducted and compilation of secondary data. The official statistics includes statistics which are internationally comparable whereby the concepts, definitions and methodology are in accordance with the United Nations or associate bodies' guidelines.

The principal statistics produced by DOSM comprise economic areas such as agriculture, mining and quarrying, manufacturing, construction, services, national accounts, balance of payments, economic indicators and external trade. Meanwhile, social/demographic statistics covers population, labour force, household income and expenditure, prices, environment, health, education and housing.

2. CHALLENGES

Malaysia is currently facing numerous challenges due to global economic and social changes. To facilitate these challenges, the government has embarked on various transformation programmes which can only be successful with efficient implementations and improvements of service deliveries through changes and continuous efforts by civil servants. The focus of these transformation programmes includes innovative service delivery system and the pursuance of high-income nation by 2020. As such DOSM plays a crucial role in providing statistical inputs in the planning, implementing, monitoring and evaluation of these programmes. In carrying out this role, DOSM adopted all aspects of the Generic Statistical Business Process Model from identifying customer needs to the implementation of the dissemination, evaluation of statistical products and services produced.

The DOSM is responsive to the various challenges as it affects the structure and functions of the Department. The main challenges faced by DOSM are:

2.1 Formulation of Development Policies

Malaysia has set a goal of becoming a developed country and high income nation by the year 2020. To achieve this, the government has introduced four pillars as a strategic thrust to help Malaysia transformation, namely:

i. "1Malaysia: People First, Performance Now "

This concept asks for all Malaysians to be united, putting harmony and efficient governance right at the forefront. The 1Malaysia concept is the core philosophy that drives the

roadmap of the country. The principle of "People First" focuses on the efforts meets the needs and demands of the people, and "Performance Now "emphasis on transparency and government accountability in delivering of service.

    ii.   Government Transformation Programme (GTP)

GTP is the implementation map to improve the performance of the Government engine to fulfill the aspirations and wants of the people. The two main features of the GTP are:

- Centred on the priorities that matter most to the rakyat i.e. People First.
- Creating fundamental changes on a nationwide basis to deliver big results fast i.e. Performance Now.

In achieving the above mentioned objectives, seven National Key Result Areas (NKRAs)[1] were identified. Each NKRA has its own National Key Performance Indicators (NKPIs) which is specific targets to be achieved in the interests of the people.

    iii.   Economic Transformation Programme (ETP)

ETP is a comprehensive economic plan and focus aims to transform Malaysia into a high-income nation by the year 2020. The ETP will be driven by six Strategic Reform Initiatives (SRIs)[2] which will form the basis of the relevant policy measures.

    iv.   Malaysia Five Year Development Plan

Malaysia Five Year Development Plan is a comprehensive strategic planning of national development policies. The government embarked the Tenth Malaysia Plan (2011-2015) based on the outcome approach towards realizing Vision 2020 in line with the main thrusts of National Mission and "1Malaysia – People First, Performance Now" concept. To ensure effective planning and implementation of the development programmes, the thrusts of National Mission are elaborated in the NKRA and the Key Results Area (KRA) in the Tenth Malaysia Plan.

Therefore, to ensure the implementation of Development Policies and National Vision is on the right path, the Government continuously

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[1] Refer to Annex 1
[2] Refer to Annex 2

reviews and evaluates the effectiveness of the development programmes. As a result, there would be changes in prioritization or discontinuation of programmes and the introduction of new policies.

Hence, as the producer of national statistics, the direction and strategies of DOSM should be flexible in tandem with the development policies and the NKRA. In facing these challenges, the knowledge, skills and experience are important aspects to determine that the Department's personnel are at the best level of competency in which the excellence of the organisation lies in its innovative and creative human capital. To instill the skills, professionalism and competence among the DOSM personnel, continuous training will be given either in the field of statistics, management and other relevant fields.

The challenges in globalisation, advancement in technology and the increasing demand of statistical products by users have spurred DOSM to formulate a Five-Year Corporate Plan commencing 1988. The Corporate Plan which charts the direction of the Department is in line with the national development policies.

2.2   Globalisation

The rapid developments in ICT and economic liberalisation have accelerated market globalisation. Changes in the direction of globalisation have significantly affected the nation's competitiveness. The advancement of ICT and its increased use in trade has allowed better accessibility to various products and services worldwide. ICT has also enabled trade transactions and international services to be conducted online.

 As a result, information is transmitted rapidly whereby information can be made available in real-time, thus causing the information to be easily obsolete. This pose a challenge to DOSM products as users are able to compare the release time with that of other national statistical organizations. As such, proactive measures and responsiveness to the current needs as well as setting new benchmarks in the production of official national statistics are the priority of DOSM. The openness in the ICT system not only facilitates better delivery of products; it also poses threats to the security of information. Online data transmission from providers to DOSM or vice versa is always exposed to intrusion by cyber criminals. Furthermore, systems application and data repository

are also susceptible to hackers. This is a challenge to DOSM to provide a secure cyber security.

In the borderless world and increasing demand for data, timeliness and data reliability are crucial. In 1996, IMF introduced a data standard known as Special Data Dissemination Standard (SDDS) which focuses on timeliness and transparency in the production of data. To fulfill the standard, DOSM will expand the coverage of Advanced Release Calendar to other areas of subject matter. Globalization has also given opportunities to companies in Malaysia to expand its investment abroad. These activities have grown rapidly. As more companies are involved, the number of country destinations had also increased. The expansion of these activities had posed challenges to the balance of payments statistics in data collection for direct investment abroad.

2.3   Economic Liberalisation

The Services Sector in Malaysia has been targeted as the new engine of growth under Third Industrial Master Plan (IMP3). The IMP3, 2006-2020, serves as an important planning instrument in expanding the sources of growth and positioning Malaysia's long term industrial competitiveness. Apart from the manufacturing sector, the non-Government services sector will be targeted for greater development.

Realising the potential growth in the services sector, the government has decided to liberalise the 27 services subsectors, with no equity condition imposed. These subsectors cover health and social, tourism, transportation, business and computers services and other related services. Liberalisation of the services sector is being implemented with the aim of developing a conducive business environment to attract investments, technologies, as well as to create high skilled employment opportunities. These efforts are expected to increase the services sector competitiveness and to act as a new economic growth sector. Thus, it will stimulate the sector's contribution to the economic growth.

In Malaysia, the services sector accounted for 54.2% of GDP in 2011 and is targeted to reach 66.5% by 2020 as envisaged in the IMP3. Given the growing importance of services in terms of its potential contribution to GDP and its expectation to account for a substantial percentage of consumers spending, it is vital to produce relevant indicators or measurements for the range of services industries.

However, current indicators pertaining to the services sector are broadly covered under the scope of Consumer Price Index (CPI) and Producer Price Index (PPI). In view of these short comings, DOSM is undertaking steps to develop indices for this sector, namely the Index of Services (IoS), Services Producer Price Index (SPPI) and also to strengthen the Statistics of International Trade in Services (SITS).

The drastic change in Malaysian economy also requires transformation in the monitoring and implementation systems. This will not only have a direct impact on the structure of the economy but also on the data collection system. New industries continue to flourish rapidly across the nation's boundary which necessitates a more comprehensive balance of payments statistics, particularly in the International Trade Services Sector. These would enable stakeholders and users monitor the impact of liberalisation. However, existing data sources are inadequate to accommodate these needs. To achieve the objectives outlined in the economic liberalisation, DOSM has already taken steps towards narrowing the data gaps.

2.4 Demand of the General Public on the Usage and Accessibility of Data

The present society is highly knowledgeable and exposed to the various sources of global information. Economic analysis is no longer at a macro level instead it has become more complex and detailed. As a result, the stakeholders' and users' expectation have increased and varies. Thus, as more information is gathered, the more detailed analysis is required. To overcome these challenges, DOSM is improving its capacity in statistical methodology such as data mining, small area estimation and consistencies between establishment and household surveys to produce robust estimates.

The globalisation and advancement in ICT have enabled free flow of information and becomes a challenge to DOSM as provider of official statistics. Users tend to compare the products and dissemination methods practiced by DOSM with that of other national statistical agencies. This creates challenge to DOSM to provide a better dissemination infrastructure and comprehensive information via relevant medium of communication.

While DOSM conventionally has been providing aggregated data, it is now faced with demands for micro data, both by the local and international users. To safe guard the confidentiality of the respondents, the Micro Data Policy was introduced in 2011 whereby the respondents' identity is anonymised. At the same time, the infrastructure for accessing the micro data via DOSM web portal is being developed.

Stronger ICT capacity among DOSM personnel has helped expedite the production of statistical products. To this end, DOSM has taken new initiatives to integrate the system applications, resulting in the development of an integrated computerised system known as the National Enterprise-Wide Statistical Systems (NEWSS). The system, which uses a central database, serves the following purposes:

i. To standardise, consolidate and improve the existing system/ application to support the strategic requirement and the operation of Department of Statistics;

ii. To simplify, improve and expedite the process of statistical data dissemination;

iii. To develop an integrated business process management that adheres to international statistical standards; and

iv. To build up a central repository to facilitate data sharing between the Department of Statistics and other government agencies.

The implementation of the first phase of NEWSS began in 2008 and ended in March 2010. This completion marks another milestone in the history of ICT in the DOSM as a one stop centre for statistical information.

2.5 Demand on Evidence - Based Decision Making

Evidence-Based Decision Making is defined as an approach which 'helps people make well informed decisions about policies, programmes and projects by putting the best available evidence from research at the heart of policy development and implementation.' (Davies, 2004: 3). Evidence based decisions can produce more effective policy decisions, and as a result, better outcomes for the community. When evidence is not used as a basis for decision making, or the evidence that is used is

not an accurate reflection of the 'real' needs of the key population/s, the proposals for change are likely to produce ineffective outcomes and may even lead to negative implications for those they are seeking to benefit (Urban Institute, 2003).

In the 1970's and 1980's, the monitoring and analysis of economy were generally at macro level. Status of development and economic forecast were aimed at national level. In the 1990's, the requirements of data cascaded to state level. The monitoring of economic progress is now focused on regional and smaller areas. At present, decisions made during planning, implementation and monitoring of policies are mostly based on evidence. These are done through the feedback systems and in-depth studies pertaining to any issue.

Evidences do not only prove the success or failure of programme, status and progress of programme but also specific areas at micro level. As an example, analysis on poverty does not only determine the rate; the data must be able to show where the poor are located. Thus, DOSM has to migrate from current practices towards the use of geospatial data. Stakeholders require in-depth analysis which can relate the data to the actual situation. This entails a high analytical skills and knowledge. DOSM will continue to enhance the analytical ability of its personnel.

2.6   Coordination in Data Collection

DOSM undertakes various surveys in economic and social sectors. Data collection in the economic sectors needs to be coordinated in order to reduce respondents' burden. At the same time, there are several similar variables being collected in the different surveys from the same establishments. The evolution of data requirements as highlighted earlier compelled the widening of areas of research. Hence, data collection has become more complex.

The use of integrated questionnaires will lessen respondent's burden as well as operational costs. In addition, the use of administrative data will complement existing data sources. Here, DOSM will leverage on the advancement in ICT and networking among government agencies to optimise the usage of administrative data.

The quest for secondary statistics both in the economic and social areas presents a challenge to DOSM particularly in the compilation of time series data. Issues of inconsistencies, fluctuating levels and trends

as well as outliers has to be addressed amicably with the data providers through:

a)   *Set-up Technical Working Group (TWG)*

The existence of technical group to undertake the responsibility of tapping the administrative data is important. This TWG comprise of representatives from all the relevant divisions in DOSM and the counterpart agencies, to resolve the issues.

b)   *Engagement with Data Providers/Respondents*

This is an effort towards establishing data communication to increase a better comprehension and understanding of the data requirement. This exercise would contribute to better response rate as well as improved data quality.

3.   THE CHANGING ENVIRONMENT AND ITS IMPLICATION

The effects of globalisation, changes in national economic and social agenda, developments in information technology, users' expectations on delivery system and pressure arising from adverse reactions of respondents have serious implications to DOSM. In adapting to these changes and challenging development, DOSM need to be more responsive, sensitive and innovative in providing services. Therefore, DOSM will:

- Strengthen its role as the leading statistical agency and must be user oriented to meet current and future needs through benchmarking the best practices of reputable statistical organisations;

- To focus on collaboration with other government agencies and the private sectors including higher education institutional to increase research, data sharing, analysis and to reduce respondents' burden;

- To review and enhance methodologies, procedures and survey manuals so as to produce data in a timely manner, reduce cost and increase response rates via a more professional rapport with data suppliers;

- To focus on the establishment of a relevant and comprehensive business registry and depicted into geospatial data;

- To develop first-class human capital that is innovative and knowledgeable through training, networking and active participation at the international arena. The training policy of the Department focuses on development of attitudes, skills and knowledge through a structured, competency based training programme and a life-long learning culture;

- To ensure continuous improvement in data quality and reduced collection time, processing and data dissemination;

- To enhance information delivery systems through the availability of time series data that can be accessed interactively;

- To develop a central repository for data collected and processed by DOSM and other government agencies. This infrastructure is in line with the dynamic and challenging data usage by the statistical community;

- To produce new products that is relevant and meet user requirement and focusing more on analysis;

- To educate the public on the importance of statistics and data provision; and

- To enhance the use of ICT among the personnel.

CONCLUSION

Changes in the economic structure, sophisticated and complex requests from users and ICT development have led to new data requests and high expectations for statistical products and services. In order to meet these dynamic needs in a challenging environment, DOSM is always responsive to users' requirements; continuously develop appropriate instruments and indicators as tools for policy formulation and monitoring of development programmes.

Throughout 63 years of existence, DOSM encounters challenges in generating national statistics for the nation. A changing environment interlinked with globalisation, liberalisation of trade and services and continuous technological progress have brought about new dimensions in data requirements. DOSM has to be responsive and proactive in setting up the future direction in order to remain relevant to the statistical services of the country.

The main challenge of DOSM is to ensure that data produced can fulfill the demands and expectations of its stakeholders and user's particularly micro level data and relevant indicators. The efficiency of the statistical data dissemination system is to be enhanced to enable real time data retrieval.

DOSM has to realign its strategic direction towards being a world class statistical organisation by 2020. Its statistical services and products must be comparable with other National Statistics Office (NSO) of developed countries. DOSM must overcome all challenges encountered to remain relevant and to realise its vision, mission and objectives as well as fulfilling the expectations and increasing needs of its stakeholders and users.

REFERENCES

Department of Statistics Malaysia (2009), 60 years Generating National Statistics

Department of Statistics Malaysia (2010), Strategic Plan 2010 -2014

Marco Segone & Nicolas Pron (2008), United Nations Statistical Commission and Economic commission for Europe Conference of European Statisticians, The Role of Statistics in Evidence-Based Policy Making

Malaysia, Third Industrial Master Plan (IMP3) 2006-2020

Pemandu Website, www.pemandu.gov.my/GTP

Pemandu Website, etp.pemandu.gov.my

Government Transformation Program Annual Report 2010, Prime Minister's Department, Malaysia

Tenth Malaysia Plan 2011-2015, The Economic Planning Unit, Prime Minister's Department, 2010

Economic Transformation Program Annual Report 2011, Prime Minister's Department, Malaysia

NATIONAL KEY RESULT AREA (NKRA)

The GTP is supported by the National Key Result Areas or NKRAs and Ministerial Key Result Areas or MKRAs.

The NKRAs are deemed as priority areas for the nation – areas that require quick and big wins to address the urgent demands of the rakyat (Peoples). The NKRAs were determined based on public feedback collected via various innovative channels.

The NKRAs are:

- Reducing Crime (led by the Minister of Home Affairs)

- Fighting Corruption (led by the Minister in the PM's Department, in charge of Law)

- Improving Student Outcomes (led by the Minister of Education)

- Raising Living Standards of Low-Income Households (led by the Minister of Women, Family and Community Development)

- Improving Rural Basic Infrastructure (led by the Minister of Rural and Regional Development)

- Improving Urban Public Transport (led by the Minister of Transport).

- Addressing Cost of Living (led by Deputy Prime Minister)

6 Strategic Reform Initiatives

On 5 July 2011, the Malaysian Government announced six Strategic Reform Initiatives (SRIs), the second critical component of the Economic Transformation Programme (ETP) in addition to the 12 National Key Economic Areas (NKEAs), to boost Malaysia's global competitiveness. The ETP was conceptualised with two key thrusts of focus, through the 12 NKEAs and competitiveness, to be delivered by the SRIs.

Six SRIs:

1. Competition, Standards and Liberalisation
2. Public Finance
3. Public Service Delivery
4. Narrowing Disparity
5. Government's Role in Business
6. Human Capital Development

12 NKEAs:

1. Oil, Gas and Energy
2. Palm Oil & Rubber
3. Financial Services
4. Tourism
5. Business Services
6. Electrical and Electronics
7. Wholesale and Retai
8. Education
9. Healthcare
10. Communications Content and Infrastructure
11. Agriculture
12. Greater Kuala Lumpur/Klang Valley.

The NKEAs were selected because they are significant engines of future growth and their expected contribution to GNI in 2020 will help Malaysia achieve high-income status. In addition to the 11 industry sectors, Greater Kuala Lumpur/Klang valley was selected as an NKEA through a separate process. Kuala Lumpur currently accounts for about one third of Malaysia's GDP. Cities are significant drivers of growth, and a thriving Kuala Lumpur is vitally important to the health and performance of the overall economy. The portfolio of NKEA sectors will evolve over times, depending on the performance of various sectors in the economy. There will be a rigorous process to remove slow-growing sectors from the NKEA portfolio as well as to identify emerging drivers of growth that may be added.