

# Joint UNCTAD – ITU – UNESCAP Regional Workshop on Information Society Measurements in Asia-Pacific

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## Statistics @ MCMC

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*"No, son, MCMC does not only stand for  
Markov chain Monte Carlo"*

### **1 The Malaysian Communications and Multimedia Commission in a nutshell**

The Malaysian Communications and Multimedia Commission (MCMC) is the national regulator for communications and multimedia in Malaysia. It was established by two acts of parliament viz Malaysian Communications and Multimedia Commission Act 1998 (MCMCA 1998) which set up the Commission and the Communications and Multimedia Act 1998 (CMA 1998) which spells out the regulatory and licensing framework on a convergence platform.

The MCMC is obligated to monitor industry performance and report to the Minister of Energy, Water and Communications at the end of each financial year. Timely and relevant data was necessary to fulfill the said reporting role.

Information about the MCMC is available at <http://www.mcmc.gov.my>

### **2 The Statistical & Knowledge Resource Department of the MCMC**

The Statistical & Knowledge Resource Department is in charge of statistical activities from collection to dissemination. It looks into 3 areas namely Primary data, Secondary data and Methodology. It is staffed by three statisticians and headed by a manager.

Primary Data



The MCMC has a modest primary data capability in the form of a 20 seat CATI Centre powered by Nipo software (<http://www.niposoftware.com>). Apart from that it also gathers primary data through the Web using Web survey software by Perseus. (<http://www.perseus-asia.com> )



The main surveys done by MCMC include the annual Household Use of the Internet survey, the annual Hand Phone Users Survey (already in its third edition), and the annual Licensees Survey.

Other surveys that are planned include a survey on business use of ICT as well as surveys that look into community access. The latter may require a ground approach.

Dissemination of primary data collected in surveys is done through a series called *Statistical Briefs* (ISSN:1823-2523)

Secondary data

The MCMC draws heavily on the licensees in the compilation of secondary data from administrative records. The data are collected on a monthly basis and published on a quarterly basis according to an advance release calendar. The flagship publication is *Communications and Multimedia; Selected Facts and Figures* (ISSN: 1675-6223)

The MCMC is currently drafting Record Keeping Rules under section 268 of the Communications and Multimedia Act 1998 to enrich the spectrum of data provided by licensees to the regulator

### **3 Quality, standards and capacity building**

#### Methodology

The MCMC is very mindful about statistical methodologies used and has developed standards appropriately. As a statutory agency it is concerned that the surveys that it conduct or the market research that it buys must be on a scientific basis and that documentation of those surveys must be done according to some accepted standard. It also embraces the Fundamental Principles of Official Statistics.

#### Statisticians

The MCMC has also embarked on capacity building of its statisticians. Just this May, it engaged the services of Dr T.J. Rao, visiting professor of the Indian Statistical Institute in Kolkata to train its statisticians in survey sampling.

The statisticians at MCMC also trained in statistical forecasting to meet increasing demands for projections..

Their diet includes scripting in relation to the CATI solution that its CATI centre supports as well as programming skills required to create and publish web questionnaires.

#### Interviewers

Interviewers at MCMC's CATI Centre are handpicked. Most of them have at least the SPM (O – levels) but mature candidates without the SPM are also given an opportunity. Given the nature of the job, the candidate must first come across well on the phone. That is why all candidates for the job are required to enquire by phone. An initial assessment is made. Qualities looked for at this stage include a pleasant voice, good diction, self-confidence and politeness. Interviewers at MCMC's CATI Centre are properly trained. Prior to the commencement of each survey, the interviewers are provided intensive training on the organisation, subject matter, questionnaire and telephony skills.



### The organisation

The interviewers are briefed on the functions of the MCMC so that they may be able to answer simple queries from respondents wishing to know more about the organisation. More difficult queries are referred to their supervisors who are statisticians with the MCMC.

### The subject matter

Interviewers are trained on the subject matter of the survey. For example in the case of a survey on hand phone users, interviewers will be given a roundup of the industry including some basic facts and figures.

### The questionnaire

The interviewers are taken question by question through the questionnaire and each term used is explained to them so that they can in turn explain to respondents if required. Our trainers assume zero knowledge in all surveys, even a hand phone users survey although practically all of our interviewers are hand phone users themselves; and should be able to understand the common terms used. Skips and branches in the questionnaire and the logic behind these are also explained. Interviewers are expected to familiarize themselves with all questions in particular those that need careful probing and those that needed cross-checking with answers given to earlier questions.

### Telephony skills

The MCMC uses an in-house training manual for telephone interviewing skills. This manual teaches the do's and don'ts of telephone interviewing including conversational skills, probing skills and telephone etiquette. It also imparts skills on handling difficult respondents. Once training in all four areas has been



completed, mock runs are conducted to enable the interviewers to familiarize themselves with the CATI system.

The performance of the interviewers are reviewed. Those that do not meet MCMC's stringent standards are dropped while those who do are invited to become part time interviewers. The MCMC maintains a database of all good interviewers and draws from this pool when it launches a survey. Interviewers taken on in this manner may be required to undergo a refresher course to reacquaint themselves with the required basic skills.

#### **4 Harmonization of survey questions**

The questions included in MCMC's surveys took specific data needs of the regulator and other local users into consideration. In other words, there was no deliberate attempt to harmonise with other survey takers although some of these questions would also coincide with those collected elsewhere.

In 2005, the MCMC joined the Asia Pacific Internet Research Alliance (APIRA) and as such will fulfill its obligations to incorporate questions agreed upon in its 2006 Household Use of the Internet Survey. It will also take this opportunity to incorporate questions agreed upon by the Partnership on Measuring ICT for Development.

#### **5 MCMC approach to indicators**

Indicators in household ICT normally relate a certain measurement to a hundred inhabitants or a hundred households. An example would be the Internet penetration rate by gender. When viewed in this context then the logical thing to do to derive these indicators would be to do a household survey and make the necessary estimates from that survey. The CATI surveys conducted cannot do that as a true household survey by CATI would require a very high fixed line penetration rate in the households. Australia for example has a very high 97 % household penetration rate in 2003. In contrast Malaysia has only 49.2 % at end of first quarter 2006.

MCMC surveys collect descriptive statistics about its target population viz households with Internet access or individuals with hand phones. The MCMC sees the derivation of indicators as a separate exercise which brings together 2 pieces of secondary data; one, from its surveys and another, demographic estimates from the NSO. To illustrate, the number of household Internet users of the feminine gender can be estimated from the Household Use of the Internet survey and current estimates of the total number of females in the population of

the country can be obtained from the NSO. Dividing the first by the second will yield an estimate of the Internet penetration rate for females.

## **6 Users of statistics**

The users of statistics that MCMC collects and compiles can be divided into two groups; domestic and international.

Domestic users include:

Internal

Policy formulation purposes within MCMC

Industry players

Parliament

Central Government and Central Planning Agencies

Ministry of Energy, Water and Communications  
Ministry of Science, Technology and Innovation  
Ministry of Finance

Department of Statistics, Malaysia

Economic Planning Unit, Prime Minister's Department

Bank Negara Malaysia (Central Bank of Malaysia)

Malaysian Industry Development Authority

Multimedia Development Corporation

State and local authorities

State Economic Planning Units  
State Resource Centres

Consultants

Local press

Researchers and students

International users include:

ITU  
APT

Foreign trade missions

Foreign research agencies

AsiaComm  
Internet Data Services

## **7 Lessons learned and the challenges ahead**

### Data collection

Response rates to MCMC CATI surveys have consistently been in excess of 70 %.

A challenge faced at least in terms of household Internet usage statistics, is that as other Internet access modes grow in prominence, the users that the MCMC can reach through its CATI centre as a proportion of the target population will diminish. As such, findings will become less useful since its scope will be limited to access through dialup and ADSL. At the same time, the MCMC is also mindful that ICT statistics does not start and end with household Internet usage.

Community access is gaining attention and will continue to gain attention and this is the next challenge that the MCMC will have to come to grips with. It has been envisaged that a team of interviewers to make observations on the ground or to canvass data on a face to face basis may be necessary.

### Dissemination

Efforts need to be heightened in dissemination to make users more informed about the nature of statistics collected in MCMC CATI surveys. There has been misconception that the MCMC CATI surveys are household surveys even though the MCMC has always tried to distinguish its surveys from household surveys. As mentioned elsewhere in this paper, a household survey by CATI would require a very high household telephone penetration rate. In the case of the MCMC CATI surveys, the target population is not the population of households but rather the subscriber base, be it hand phone, fixed line or Internet access. The estimates from the MCMC surveys are then used in conjunction with demographic statistics to derive indicators in a separate exercise.

## **8 Conclusion**

A need for good and timely statistics and indicators has always been felt by the MCMC. This was the main motivating factor that prompted it to embark on a primary data capability in 2004. Since then it has completed three cycles of the Hand Phone Users Survey (2004, 2005 and 2006) and a maiden Household Use of the Internet Survey in 2005. Although these surveys have been successful in filling data gaps, much remains to be done in terms of reviewing and maintaining statistical standards and quality assurance.

The Statistical and Knowledge Resources Department of the MCMC has much to learn and benefit from harmonization of survey concepts and data items across jurisdictions. Mutual exchanges could also be useful such as the visits by the telecommunications regulators from Botswana and Brunei to the MCMC CATI Centre in 2005.

### **Malaysian Communications and Multimedia Commission**

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