



SKMM

CATI Centre

SKMM's Computer Assisted Telephone Interview Centre has been instrumental in making available key C&M statistics beyond the basics since 2004. Koay Hock Eng takes us behind the scenes.

Before 2004, all statistics pertaining to C&M, be it cellular mobile penetration rate or Internet penetration rate, were based on administrative records of the service providers. As service providers maintain only the barest of records, it is to be expected that indicators derived from these records were limited to the very basic national penetration rate and subscriber numbers. This is especially so in cellular mobile when prepaid mobile was at that point of time still unregistered. This was also the case in prepaid dialup Internet. Another weakness in relying on administrative records stems from multiple subscriptions to different or the same service providers by the same consumer leading to double counting. Needless to say, it is well-nigh impossible to even surmise at gender specific or urban and rural penetration rates.

As part of its regulatory functions, SKMM is obligated to monitor industry performance and report to the Minister of Energy, Water and Communications at the end of each financial year. Such reporting would undoubtedly include a statement of the state of play in each industry. But the industry has grown beyond the basics and for meaningful reporting, basic penetration rates at national level will no

longer suffice. This is especially critical considering that SKMM oversees the equitable access to C&M across all social strata of society. Thus a need was felt for statistics and indicators beyond what is available from administrative records. Apart from this, SKMM has, from its inception, served as the authoritative public source of industry statistics in Malaysia; and public demands for data have also moved beyond basics. For these two reasons, SKMM had to embark on a proactive stance to collect data, particularly socio-economic data, directly from demand side to fill an increasing need; a need that cannot be filled by administrative records. In other words, SKMM had to start conducting its own surveys.

The need to do surveys was entrusted to the Research and Planning Division which is also the division responsible for knowledge resource and publications of SKMM. Within this division, the Statistics & Knowledge Resource Department was the department coordinating statistical activities and this function was subsequently expanded to include the conduct of surveys.

The method of choice for the conduct of surveys, taking SKMM's resources into consideration is the Computer Assisted Telephone Interview (CATI). This raised some concerns when it was first suggested, considering that the

household penetration rate of fixed lines at that time was only around 52 percent, that of mobile cellular around 57 percent while that of Internet was only 11 percent. These concerns would be real if one were to do a conventional household survey as the low household penetration rate will not enable SKMM to reach a representative sample of households. However SKMM was not about to do a household survey. All it wanted was to reach out to households that had a fixed line (as opposed to all households) or individuals that had a hand phone (as opposed to all individuals) in order to collect socio-economic data as well as usage data from these groups. Estimates made from such surveys can then be combined with population estimates of relevant demographic segments to yield very specific penetration rates. For example, the number of female hand phone users can be estimated from a CATI survey covering all hand phone users. Relate this to the number of females in the population at the same reference date and that would yield female mobile cellular penetration rate! The Internet households could also be reached, as at that point of time. Internet access was 99 percent dialup or ADSL. Both require a fixed line and that brings them within the reach of SKMM CATI Centre.

Advantages and disadvantages of CATI

Using CATI to conduct surveys has many advantages. Telephone interviews are a very cost efficient means for collecting data. It is a lot faster to contact people over the phone. Interviewers need only be at the CATI centre meaning a lot of travelling time is cut because the interviewers would be able to move on to the next respondent almost immediately after finishing with one. Face to face interviews will cost far more and take up much travelling time.

Telephone surveys are also safer from all angles. The people being interviewed need not worry about opening their doors to strangers purportedly conducting a survey; interviewers too face less unpleasantness such as having doors slammed in their faces or having to contend with dogs! All interviews are carried out over the phone in the air-conditioned comfort of SKMM CATI Centre.

With the use of a CATI system, data can also be captured directly, going straight into secondary storage in the server or master PC. There is no need for data to be keyed in, in a separate exercise. In fact, when interviewers are on a CATI system, and provided it is a very simple survey that requires minimal data cleaning, the results can be available minutes after completing the last interview.

Skilled CATI interviewers can often elicit longer or more complete answers than people will give on their own through mail surveys for instance. Interviewers can also probe and seek clarification for unclear responses.

Telephone surveys do have disadvantages too. For example, many telemarketers have given legitimate research a bad name by claiming to be doing research when they start a sales call. Consequently, many people are reluctant to participate in telephone interviews.



Another problem is the growing number of households where both spouses work. This may mean that no suitable respondent is at home during the day. This limits calling time to, say, from 7 pm to 9 pm; not quite the ideal time as families would be settling down to dinner or watching prime time TV.

Phone surveys, of course, will also not work in cases where respondents are required to see or try new products such as new mobile phones.

Understanding a CATI system

A CATI centre goes beyond phones and people. CATI technology uses computers to automate the key activities of telephone interviewing. However, before this can happen the paper questionnaire will have to be scripted so that the system can read, understand and implement the logic behind the questionnaire.

A good CATI system can control the survey questionnaire that an interviewer will use. Interview questions are recalled in a predetermined sequence and displayed for each interviewer on a computer monitor. Interviewers read the questions to respondents and click in or enter answers provided by respondents. Most CATI systems can handle skips and pipe answers to one question into the text of



Training for CATI interviewers

another related question. For example, if based on an earlier answer, a question is to be skipped, the system will cause that particular question to be skipped taking it out of the hands of the interviewer. This improves internal consistency. Thus the system is intelligent enough to guide the interviewer through the questionnaire following the logical route set by the answers given by the respondent.

But interviewing is just a part of the CATI automation process. A good CATI system will also handle the administrative and telephony functions associated with surveys, such as sample management, productivity reporting, interviewer monitoring and rating, watch functions and voice capture. Phone calls and callbacks can be scheduled and an administrator can virtually decide what each interviewer will do for the day.

Arising from these functionalities, CATI centre administrators have at their finger tips accurate up to date reports on all aspects related to the smooth conduct of surveys.

SKMM CATI Centre

SKMM CATI Centre was approved in January 2004 and became operational in July the same year from Wisma SunwayMas, Shah Alam. It is a 20 seat CATI Centre powered by NIPO CATI Solution of Amsterdam and was established at a cost of RM 250,000. The first survey to roll out of SKMM CATI Centre was the SKMM Hand Phone Users Survey 2004 at a cost of RM 50,000. Considering the myriad penetration rates useful for tracking and monitoring as well as the trends in hand phone usage that it made available, the SKMM Hand Phone Users Survey 2004 fully justified its cost.

Since then, SKMM CATI Centre has not looked back; it has been playing a central role, gathering valuable data to meet the many needs of SKMM and other users.

Earlier this year SKMM CATI Centre moved to Wisma Pahlawan in Kuala Lumpur. The new centre was opened by the Chairman of SKMM on 19 April 2008.

SKMM CATI Centre combines state of the art technology and well trained personnel. SKMM CATI Centre utilizes a mixture of full time and part time staff. Full time staff include supervisors and administrators. These persons

are given extensive training on the finer workings of the CATI solution. They are fully knowledgeable about creation and conduct of surveys. Regular training helps them keep abreast

The actual interviewers are part-timers drawn from a pool of about 20 when SKMM CATI Centre first started. Over the years and after several recruitment drives and surveys the pool has now grown to around 60 trained interviewers. Most of them hold the SPM (equivalent to O-Levels) but increasingly, many have degrees under their belts. These interviewers receive extensive training. The training is split into three areas. They will first receive a full briefing on SKMM and its role in the industry. This is to ensure that they can answer questions on the organisation from respondents wanting to know who is behind the survey.

The interviewers will then undergo subject matter training for each survey, so that they understand fully the subject matter of that particular survey. They will know issues on the subject so that they understand the purpose and the intent of the survey. They will then be taken question by question through the questionnaire. Each term used is explained to them so that they can in turn explain to the respondents if required.

The most important training portion is the final one where they are trained on telephony and interviewing skills. Using an in-house manual, these interviewers are transformed into professionals trained to conduct surveys, minimizing refusals and maximizing completes. This entails sticking to a script, yet sounding conversational enough to evoke cooperativeness, probing and handling difficult respondents and dealing with just about any situation over



Chairman observing interview



Hand Phone Users Survey reports



Household Use of the Internet Survey reports

Users of CATI Data

International Users
International Telecommunications Union (ITU)
United Nations Conference on Trade and Development (UNCTAD)
United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
International Trade Missions / Embassies / High Commissions
Local Users
Economic Planning Unit
Ministry of Finance
Ministry of Energy, Water and Communications
Ministry of Science, Technology and Innovation
Prime Minister's Department
National Statistics Department
The Malaysian Cabinet
Parliament
Bank Negara Malaysia
Ministry of International Trade and Industry
Malaysia Industrial Development Authority (MIDA)
Multimedia Development Corporation (MDec)
Association of the Computer and Multimedia Industry of Malaysia (PIKOM)
State governments
Researchers
Universities

a phone line. Training is complemented by mock sessions to further hone their skills.

When the SKMM launches a survey, the best interviewers from this pool are contacted and invited to take part in the survey. A refresher course is mandatory prior to beginning work. Their performance in each survey is monitored and evaluated. SKMM maintains very high standards in this area and interviewers who do not make the grade are dropped from its pool.

Every year SKMM CATI Centre carries out regularly scheduled surveys. Among the surveys held annually are the Hand Phone Users Survey and the Household Use of the Internet Survey. Respondents are chosen using a technique called Random Digit Dial (RDD). This technique yields a statistically representative sample from the target population. The surveys are designed to reveal the latest usage patterns as well as more specific penetration rates in mobile cellular and household Internet access respectively. Survey findings are normally published in the form of survey reports.

Many bodies, locally and internationally use the data compiled through the SKMM CATI surveys.

The SKMM CATI Centre has received widespread interest and it regularly receives delegations from bodies wanting to know more about its operations. Among others, the Universiti Islam Antarabangsa Malaysia and the Department of Statistics, Malaysia have paid visits. The centre has also received delegations from afar such as from Botswana and Brunei Darussalam. [.my](mailto:hekoay@cmc.gov.my)

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