# **IRAS-KM**

## Institute for Research and Academic Services-Knowledge Management

The Institute for Research and Academic Services-Knowledge Management (IRAS-KM) has been created to support the IRAS's 5-year Strategic Plan (Strategy1: To develop potential of researchers, faculty members and staff). IRAS is responsible for supporting both internal and external university research. Our past experiences indicate that the most frequently asked questions are related with the sample size and selection techniques. For example; "How large the sample size should be?", "Which sub-area should be considered truly representative of a selected area?", and "How to select respondents for the surveys?" In response to such questions, our working team has created a Sampling Model Package (SMP) which consists of a set of 96 models covering different target populations as well as areas and margins of error. This SMP could be one of the appliances to help researchers/users to find proper sampling model related to their research. The use of SMP is not very complicated, researchers/users only need to select the target area, the target population, and the margin of error and the SMP will automatically choose the suitable model based on the input. Certainly, the SMP has been created for using statistics' principles to ensure that the results are provided with high accuracy and reliability. In order to determine the sample size, we calculate it by estimating a population proportion based on a 95 % confidence interval, margin of error and design effect.

This SMP is applied the population-based provincial administrative data from the year 2015 which the Bangkok Metropolitan Area (BMA) classifies as the Inner City, Urban Fringe, and Suburb, followed by the Department of Deputy BMA criteria. Additionally, the age group classifications are divided into 4 categories based on the National Statistical Office (NSO) guidelines, i.e. 15 years and over, 15-24 years, 25-59 years, and 60 years and over.

The objectives of this sampling model package are as follows:

- 1. To create a proper sampling model that reflects a good representation of the population in each research project.
- 2. To be able to design the sampling model rapidly under the same standard.

### **Model Selection Procedure**

#### **Step 1: Choosing the target area:**

- 1. Bangkok 2. Bangkok-Metropolitan Region 3. Bangkok and Major Cities and 4. Nationwide.
- \*From the area selected in Step 1\*

# **Step 2: Choosing the target population:**

- 1. Aged 15 years and over 2. Aged 15-24 years 3. Aged 25-59 years and 4. Aged 60 years and over.
- \* From the target population selected in Step 2\*

## **Step 3: Choosing the margin of error**

- 3 target areas including Bangkok, Bangkok Metropolitan Region, Bangkok and Major Cities. Choose the margin of error of 0.03 or 0.05.
- Nationwide area, choose the margin of error of 0.02 or 0.03.
  - \* From the margin of error selected in Step 3\*

# **Step 4:selecting the model 1-3. (Based on situation type)**

