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**DESIGNING METHODS FOR RAPID DATA COLLECTION AT A LOW
COST**

Contributed Paper

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I. Introduction

1. In recent years, there has been a substantial increase in the number of new surveys conducted by the Israel Central Bureau of Statistics. This increase is due to Israel's membership in the OECD, as well as to growing demands by government ministries. Some of the surveys commissioned by government ministries are one-time projects, and others are current surveys.
2. The most prominent characteristic of these surveys is that they need to be conducted within a short time after the date they are commissioned, and are subject to rigid budgetary constraints.
3. The question that concerned us was how to successfully conduct a large volume of new surveys using computer-assisted personal interviewing (CAPI), computer-assisted telephone interviewing (CATI), and other data collection methods within a short time while remaining within a strict budget. This question arose because the ICBS has almost always developed specific systems for each survey, and the process of developing these systems involves a considerable amount of time and money. In addition, every survey requires specific staff members.
4. The aim of this document is to present the steps that have been taken by the ICBS in order to conduct surveys rapidly, while maintaining a strict budget and reducing expenses.

II. Supplementary Surveys and Generic Systems

A. Main operational elements and factors that affect costs

5. The following are basic operational elements of every survey:
 - (a) A sampling system – defining the survey population and drawing the sample;
 - (b) A questionnaire - developing a computerized questionnaire;

- (c) A system for managing the fieldwork operation at various levels (interviewer, coordinator, and supervisor), including edit-check.
 - (d) Data transmission (in CAPI surveys).
 - (e) Personnel – interviewers and coordinators
 - (f) Data entry systems (for paper questionnaires).
6. There are two main factors that affect the cost of the survey and duration of survey planning:
- (a) Development of computerized data collection systems (the questionnaire, and the field work management system);
 - (b) Personnel – interviewers and coordinators

Another factor that affects costs is the survey population or the firms (businesses) included in the survey, which will be discussed later.

B. The Proposed Solution

7. In light of the factors that affect the cost of the survey and the duration of survey planning, the following solution is:
- (a) To conduct a supplementary survey based on an existing survey;
 - (b) To develop computerized generic systems.
8. A **supplementary survey** is a survey based on the existing platform of another survey. The idea is to take as many elements as possible from an existing survey and apply them in a new survey. This means:
- (a) Using the same sample.
 - (b) Using the same interviewers and coordinators. There is no need for additional personnel, but it does involve an investment on the part of existing personnel.
 - (c) Using the same management system as in the field work.
 - (d) Integrating generic systems (see explanation below).
 - (e) Reducing the response burden.
9. The main expense involved in developing a new survey is the cost of adding a new questionnaire to an existing survey. The ICBS has conducted several supplementary surveys like this using both the CATI and CAPI methods.
10. Examples:
- (a) The financial literacy survey: This was a supplementary survey based on a current survey conducted by the ICBS (the Social Survey). The CAPI method was used in this survey. When interviews with the participants sampled in the social survey were completed, they were given a printed questionnaire which they filled out themselves. As soon as they finished filling out that questionnaire, the interviewer collected it. In this case, the survey was based on the same sampling frame, with the same interviewers and coordinators. There was no need to draw a new sample of participants, and management system was the same as the one used in the Social

Survey. The interviewers did not have to obtain demographic data, because the participants had already provided that information in the Social Survey. The methodology of this survey required a printed, self-administered questionnaire. However, a computerized questionnaire could easily have been added.

- (b) Over the past year, the ICBS has switched to a monthly Labour Force Survey (until 2011, the Labour Force Survey was conducted on a quarterly basis). In the process of developing the monthly Labour Force Survey, each stage of CATI was defined in advance. This made it possible to conduct a supplementary survey, similar to the type of survey described earlier.
 - (c) The Consumer Confidence Survey is conducted on the basis of CATI. The survey is based on the [platform of participants sampled] [sample of participants used] in the Social Survey. Where is the evidence of savings in this survey? The savings is in two main areas:
 - The survey was based on the same sample as the one used in the Social Survey. Hence, there is no need to draw a new sample.
 - The demographic data obtained in the Social Survey were used in this survey.
 - Participants were contacted by telephone at the numbers collected in the field interviews.
 - A generic system was used to collect the data (see explanation below).
 - (d) The Health Survey: The ICBS has used the CATI method for data collection in the Health Survey, which is a supplementary survey conducted on a quarterly basis. The methods used in this survey were similar to the methods described above, although a computerized system was not developed. Therefore, the interviewers had to add the supplementary information on paper. As mentioned, we are currently working on developing a computerized system so that the interviewers will not have to use paper.
11. A generic survey is a one for which templates have been developed for questionnaires that can be adapted to many surveys – including personal and telephone interviews. The generic survey consists of several components:
- (a) A questionnaire
 - (b) A system for supervising work in the field (at several levels)
 - (c) Sending data in the CAPI
 - (d) A system for entry of data from the generic questionnaires for surveys that have to be conducted using a printed questionnaire.
12. In the process of designing the generic survey, the following goals were set:
- (a) To reduce the time involved in designing a new survey;
 - (b) To combine data collection methods (CATI, Internet, and CAPI);
 - (c) To achieve uniformity in conducting surveys by establishing standard activities and processes for conducting the surveys. This also makes it easier for the interviews, because it enables them to use similar systems.
 - (d) To save time in developing the survey by using software components again. That is, building an appropriate technological infrastructure for several data collection methods.
13. This is the fastest and most economical method, but its main limitation relates to designing complex questionnaires. The system is suitable for a simple questionnaire with a small data flow.
14. However, in order to develop complex questionnaires, regular and familiar methods should still be used in generic surveys. The generic method is appropriate for projects in which a main

current survey serves as a basis for several smaller surveys, and in which data collection is based on a combination of telephone and personal interviews. This method can be used in almost all of the business surveys conducted by the ICBS.

15. **Data transmission** is used in CAPI surveys. It has been applied in all of the surveys conducted by the ICBS, and has been assimilated in the entire system. The advantage of this method is that it is standardized, and it can be used by all interviewers – particularly those who use the same laptop computer to conduct several interviews.
16. **Data entry** from a printed generic questionnaire is still an unresolved issue, because of the changing flow within the questionnaire. It has to be flexible enough to be adjusted to the respondent's answer.

III. Summary

17. Supplementary and generic survey methods are effective tools for cutting costs and significantly reducing the time involved in planning surveys. In certain surveys (mainly in supplementary surveys), these tools also alleviate the response burden for the survey population. Supplementary surveys are always based on a main current survey such as the Social Survey, the Labour Force Survey, and the Rolling Census. However, it should be noted that both the supplementary and generic methods are appropriate for relatively small surveys. Supplementary surveys depend mainly on the length of the questionnaire or the duration of the interview. In generic surveys, there are limitations with respect to the questionnaires. That is, generic surveys are appropriate for simple questionnaires that do not have a large data flow, because these surveys are constructed on the basis of templates, where response options to each question can be entered into the template. The data flow has not been fully developed, but can be implemented in the future.