

Chapter Two

Introduction to Sample Survey

What is sample survey?

A Survey is any activity that collects information in an organized and methodical manner about characteristics of interest from **some or all units** of a population using well-defined concepts, methods and procedures, and compiles such information into a useful **summary form**.

A sample survey: is defined as the collection of data from a proportion or **sample** of the population of interest.

- ✓ Generally, when we talk about a survey, we are referring to **a sample survey**. The results from a sample survey are used to make population estimates.
- ✓ As a sample survey only selects a proportion of the population of interest the advantages and disadvantages of this methods are different to those of a **census**.

The Steps of a Survey are:

- Formulation of the Statement of Objectives;
- Selection of a Survey frame;
- Determination of the sample design;
- Questionnaire design;
- Data collection;
- Data capture and coding;
- Editing and imputation;
- Estimation;
- Data analysis;
- Data dissemination;
- Documentation.

ADVANTAGES AND DISADVANTAGES OF A SAMPLE SURVEY

Advantages

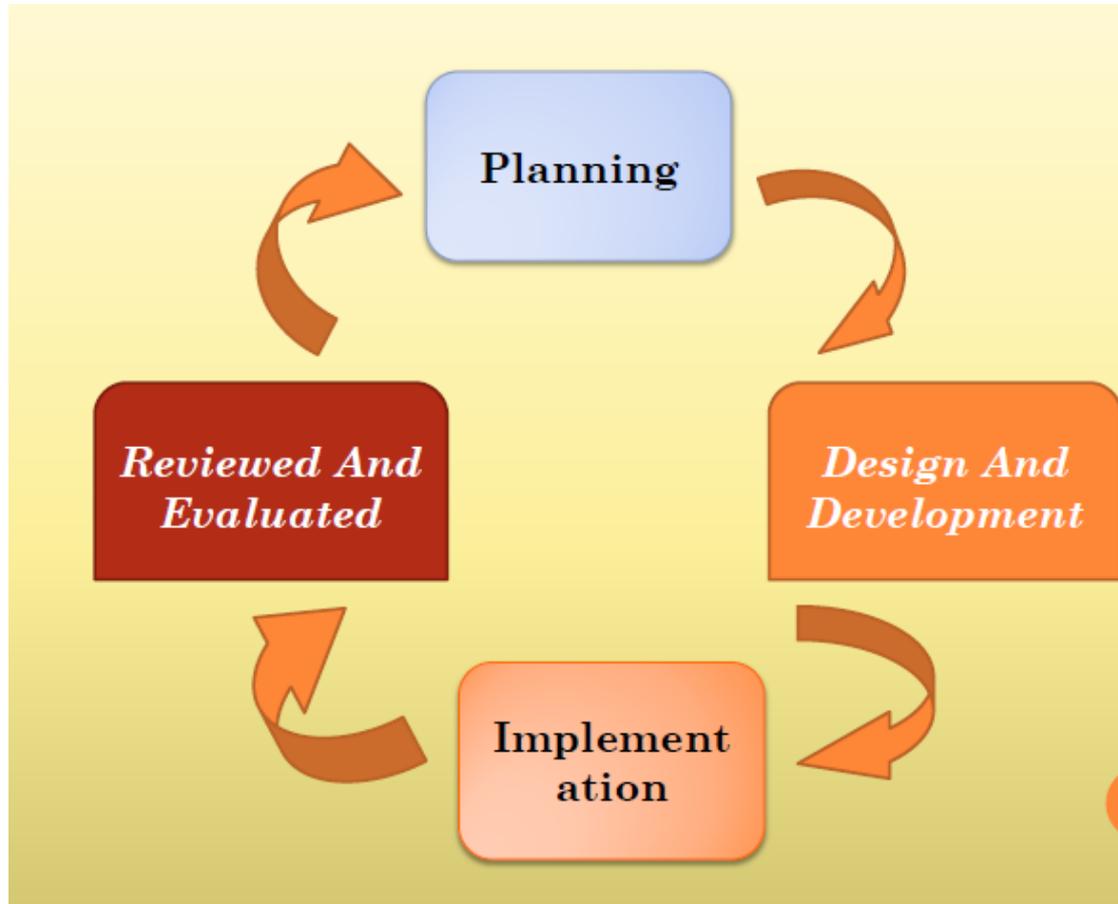
- Only a proportion of the population is selected therefore **costs** will be lower than in a census and data collection should be quicker.
- There is a lower **overall burden** (on the population, not the individual) as only a proportion of the population takes part.
- As sample surveys deal with smaller numbers of respondents than a census, results can be published in a **more timely**

Disadvantages

- As data will be only be obtained from a proportion of the population, the researcher cannot be certain that population estimates will be representative of the entire population. The sampling method used is important here. (**no accuracy**)
- The periodic nature of some sample surveys means that respondents can potentially stay in a sample for a long time. This may increase burden over time compared to running a one-off sample survey or an infrequent census.

Implementation of a Survey can be described as a life cycle with four phases.

- ❖ The first phase is planning during which the survey objectives, methodology, budget and schedule of activities are established.
- ❖ The next phase is the design and development of the survey steps.
- ❖ The third phase is the implementation of the survey steps. During implementation, quality is measured and monitored in order to ensure that the processes are working as planned.
- ❖ Finally, the survey steps are reviewed and evaluated.



For Sample surveys we tend to have much more choice.

I. One-off sample surveys;

- One-off or Cross-sectional sample surveys are used to take a *snapshot* of a proportion of the population at one point in time.
- They are commonly used during government election campaigns to establish public opinion towards the political parties.
- Cross-sectional means that these surveys target different members of the population in an effort to make the survey as representative as possible, this depends though on the sampling method.

II. Serial sample surveys

There are two types of serial sample surveys:

- Repeated cross-sectional sample surveys; and
- Longitudinal sample surveys.

Repeated cross-sectional sample surveys

□ These occur where a survey is conducted at **regular intervals** (for example, every month) and a **new sample** is taken each time. These surveys help to provide a ‘moving picture’ of the population.

Examples of repeated cross-sectional surveys include the:

- General Household Survey (GHS);
- Expenditure and Food Survey (EFS); and
- Consumer Price Index (CPI)

Longitudinal Sample Surveys

- Longitudinal sample surveys collect data from the **same sample** of respondents at intervals of time.

There are two types of longitudinal sample surveys, they are:

1. Panel Surveys; and
2. Cohort Studies.

➤ **Panel surveys:** recruit a *single representative sample*, a **panel**, from the population and collect data from them at regular intervals of time over a long period.

Where panel members die or become unobtainable, their children may be added to the panel.

- **Cohort Studies:** A cohort study is a form of longitudinal study used commonly in **medicine** and **social science**.
- A cohort differs from a panel in that instead of a representative sample being chosen a *group of units* are selected that share a common characteristic or experience within a defined time period.
 - Members of the cohort are **tracked throughout time** and information on them is gathered and recorded.

Advantages and Disadvantages of Longitudinal Surveys Over Cross-sectional Surveys

Advantage

- It represents the cross-sectional of development stages of an individual child.
- Prediction can be made for a subject.
- Real development may be studied by this method.
- This method is less difficult in sampling and statistical technique in comparison to cross sectional method.
- It can be used for the clinical purpose for a particular pupil.

Disadvantage

- It is not helpful in providing the norms for every day activities.
- Uniform sampling criteria, as employed in cross-sectional studies, cannot be set up and applied for longitudinal data,
- It is time consuming.