Index Numbers

Presented By:
Jeevitha G S
Shruthi N
Asst. Professor,
Dept. of Commerce
JSS College of Arts & Commrce, Gundlupet

Meaning

- The value of money does not remain constant over time. It rises or falls and is inversely related to the changes in the price level. A rise in the price level means a fall in the value of money and a fall in the price level means a rise in the value of money. Thus, changes in the value of money are reflected by the changes in the general level of prices over a period of time. Changes in the general level of prices can be measured by a statistical device known as ‘index number.’
- Index number is a technique of measuring changes in a variable or group of variables with respect to time, geographical location or other characteristics. There can be various types of index numbers, but, in the present context, we are concerned with price index numbers, which measures changes in the general price level (or in the value of money) over a period of time.

Features of Index Numbers:

- Index numbers are a special type of average. Whereas mean, median and mode measure the absolute changes and are used to compare only those series which are expressed in the same units, the technique of index numbers is used to measure the relative changes in the level of a phenomenon where the measurement of absolute change is not possible and the series are expressed in different types of items.
- Index numbers are meant to study the changes in the effects of such factors which cannot be measured directly. For example, the general price level is an imaginary concept and is not capable of direct measurement. But, through the technique of index numbers, it is possible to have an idea of relative changes in the general level of prices by measuring relative changes in the price level of different commodities.

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- The technique of index numbers measures changes in one variable or group of related variables. For example, one variable can be the price of wheat, and group of variables can be the price of sugar, the price of milk and the price of rice.
- The technique of index numbers is used to compare the levels of a phenomenon on a certain date with its level on some previous date (e.g., the price level in 1980 as compared to that in 1960 taken as the base year) or the levels of a phenomenon at different places on the same date (e.g., the price level in India in 1980 in comparison with that in other countries in 1980).

Steps or Problems in the Construction of Price Index Numbers:

- Selection of Base Year
- Selection of Commodities
- Collection of Prices
- Selection of Average
- Selection of Weights
- Purpose of Index Numbers
- Selection of Method

Types of Index Numbers

- Price Index
- Quantity Index
- Value Index

Limitations of Index Numbers:

Index number technique itself has certain limitations which have greatly reduced its usefulness:

- Because of the various practical difficulties involved in their computation, the index numbers are never cent per cent correct.
- There are no all-purpose index numbers. The index numbers prepared for one purpose cannot be used for another purpose. For example, the cost-of-living index numbers of factory workers cannot be used to measure changes in the value of money of the middle income group.
- Index numbers cannot be reliably used to make international comparisons. Different countries include different items with different qualities and use different base years in constructing index numbers.
- Index numbers measure only average change and indicate only broad trends. They do not provide accurate information.
- While preparing index numbers, quality of items is not considered. It may be possible that a general rise in the index is due to an improvement in the quality of a product and not because of a rise in its price.

Thank you