# **Glossary**

## 1. Population Mean

Population mean collects the data and sum all the values in the population and divide the sum by the number of elements in the population.

#### 2. Standard Error

The standard error is the standard deviation of the sampling distribution of a statistic.[1] The term may also be used to refer to an estimate of that standard deviation, derived from a particular sample used to compute the estimate.

#### 3. Estimator

An estimator is a rule for calculating an estimate of a given quantity based on observed data: thus the rule and its result (the estimate) are distinguished.

# 4. Systematic Sampling

Systematic sampling is a technique which has a nice feature of selecting a whole sample with just one random start. A sampling technique in which first unit is selected with a help of random numbers and the others get selected automatically according to some predesigned pattern is known as systematic random sampling.

## 5. Variance

The variance is a measure of how far a set of numbers is spread out. It is one of several descriptors of a probability distribution, describing how far the numbers lie from the mean (expected value).

#### 6. Random Number

A random number is a number chosen as if by chance from some specified distribution such that selection of a large set of these numbers reproduces the underlying distribution.

#### 7. **Probability**

Probability is ordinarily used to describe an attitude of mind towards some proposition of whose truth is not certain.

#### 8. Summation

Summation is the operation of adding a sequence of numbers; the result is their sum or total.

#### 9. Sigma

Sigma is denoted as:  $\sigma$ . Lower case sigma ( $\sigma$ ) is used for the standard deviation of a population or probability distribution in statistics.

#### 10. **Rho**

The characters  $\rho$  are also used outside its Greek alphabetical context in science and mathematics. In statistics to represent Spearman's rank correlation coefficient, commonly known as Spearman's rho.

# 11. Population

A population is all the organisms that both belong to the same group or species and live in the same geographical area.

#### 12. Standard Deviation

Standard deviation (represented by the symbol  $\sigma$ ) shows how much variation or "dispersion" exists from the average (mean, or expected value). A low standard deviation indicates that the data points tend to be very close to the mean, whereas high standard deviation indicates that the data points are spread out over a large range of values.

#### 13. Coefficient

A coefficient is a multiplicative factor in some term of an expression (or of a series); it is usually a number, but in any case does not involve any variables of the expression.

#### 14. Numerator

The top part of the fraction is known as numerator.

## 15. Expected Value

The expected value of a random variable is the weighted average of all possible values that this random variable can take on.