



Chapter 2

Measuring Central Tendency



Central tendency can be measured in several ways:

- 1 Arithmetic mean
- 2 Median
- 3 Mode
- 4 Arithmetic mean
- 5 Harmonic mean
- 6 Midrange value





Measurement of central tendency generally divides data into two methods:

1. Non-frequency-distributed data.
2. Frequency-distributed data.

1 Arithmetic mean

The arithmetic mean is the most commonly used measure of central tendency. It is suitable for data that are evenly distributed or whose values do not vary much.

The arithmetic mean is calculated by adding all the values of the data together and dividing by the total amount of data.

The arithmetic mean is calculated from the data obtained from the sample using symbols.and the arithmetic mean calculated from data obtained from the population using the symbol.....The calculation of the arithmetic mean can be done as follows.



Properties of the arithmetic mean

1 The arithmetic mean has only one value from each set of data.

2 If a constant value is added or subtracted from every data, the arithmetic mean will increase or decrease according to that constant value.

3 If a constant value is multiplied or divided from every data, the arithmetic mean will increase or decrease according to that constant value.

4 The sum of each data subtracted from the arithmetic mean has a value of 0.

5 Each piece of information is different from the constant value A.

3 Mode

is the data value with the highest frequency or the most number of repetitions in a data set. There may be only one mode, more than 1 value, or none at all. Use the symbol MO.

4 The geometric

mean is the value obtained by finding the Nth root of the product of n numbers of data using the symbol GM.

5 Harmonic

mean is the ratio between the total amount of data and the global sum of the individual data, such as the segment distance with time, using the symbol HM.

6 The midrange

is the average of the highest and lowest values of the data, using the symbol MF.



Measuring the central tendency of data

1 The arithmetic mean is a constant value that is obtained by adding all the data together and dividing by the total amount of data.

2 The median is a value located in the middle of ordered data that divides the quantity or frequency of the set of data into 2 equal parts.

3 The mode is the value of the data with the highest frequency in that data set.

4 The geometric mean is the value obtained by finding the square root of the product of a number of data.

5 Harmonic mean is the ratio between the total amount of data and the reciprocal sum of the individual data.

6 The center of the range is the average of the highest and lowest values of the data.

Thank you

