Variance and Standard Deviation are two basic measures of dispersion in statistics that help in determining the extent of scatter of data points. Variance is a measure of the extent of the variability of the individual values in a set of data from the mean of the set. It is obtained by finding the arithmetic mean of the sum of the squares of the deviation of each observation from the mean. where N is the number of data points, is each of the individual data points and μ is the mean of the data set.

Standard Deviation on the other hand is the square root of variance. It is in the same units as the data which makes it easier to interpret as compared to other measures of dispersion. The formulas change slightly by being divided by N-1 instead of N so as to correct for the sample size bias. Variance is useful for the assessment of the dispersion, but because it is expressed in squared terms, the standard deviation is more useful since it is expressed in terms of the units of the data points.