Answer on Question #63866 – Math – Statistics and Probability

Question

The variation of incomes of executives is to be compared with the variation of incomes of unskilled employees. For a sample of executives, mean = Ksh 500,000 and standard deviation = Ksh 50,000.

For a sample of unskilled employees, the mean = Ksh 12,000 and the standard deviation = Ksh 2000.

Is the variation among the executives greater than the variation among the unskilled employees? Justify you answer.

Solution

We need to calculate the coefficient of variation of incomes of executives and unskilled employees.

The coefficient of variation for incomes of executives is

$$CV_1 = \frac{s_1}{\bar{x}_1} = \frac{50{,}000}{500{,}000} = 0.1.$$

The coefficient of variation for incomes of unskilled employees is

$$CV_2 = \frac{s_2}{\bar{x}_2} = \frac{2{,}000}{12{,}000} = \frac{1}{6} \approx 0.167.$$

$$CV_2 > CV_1.$$

Therefore, the variation among the executives is less than the variation among the unskilled employees.

Answer: No.