

Multistage stratified method was used to sample the population. This method is appropriate as eleven countries were used to represent the four sub-regions of Africa to represent Africa. Within the sampling countries all farms within the district were randomly chosen for sampling to represent the country. This covers a nice sampling to represent Africa, and the country to generalise as a whole. There is no bias as each sample were randomly selected from the district to perform the survey.

The two key questions that can be studied based from the data provided is as follow:

1. Do farms, do livestock and crop farming?
2. Possibility to predict required labour based on farm size.

I will perform statistical analysis on 'Possibility to predict required labour based on farm size'.

My null hypotheses will be, 'Not possible to predict labour required based on farm size'. The alternate hypotheses will be 'possible to predict labour required based on farm size'. A linear regression will be used to test the hypotheses. This is used because it assumes that the hiring of additional labour will be a linear relationship to the size of the farm. It has two variables, with farm size being the independent and additional labour being dependent. The significant will be determined by checking if there was a linear relationship between the two variables.

The result can be interpreted by the slope of the regression line between the two variables. If there was no slope it means the null hypotheses passed. Thus, meaning that it is not possible to predict the labour required based on farm size. In the event that there was a slope the null hypotheses fails and that the alternative must take true. Thus, meaning that the predication of possible labour required could be based on farm size. It also answers the key question of possibility of predicting labour based on farm size.

Since the research question was a keyword 'possibility', it means a more in-depth analysis could be done with another variable included in the sample to predict the labour required based on farm size. Thus, raising another key question.