

ABSTRACT

Cost estimation is an activity for estimating costs, resources and risks in order to start and complete a project. Generally, at initial stage, most estimation data is not complete. Therefore, to estimate the quantity of structure we often uses structure ratio. The structure ratio in this research is the ratio of concrete, the ratio of iron and the multiplication between the ratio of concrete with the ratio of iron. Analysis conducted to look for similarity in structure ratio between building functions, the influence of the number of floors to the value of structure ratio, similarity of ratios between consultants, find the intervals and average structure ratios, find the effect of earthquake regulations on rising structure ratios and find regression equation for structure ratio. From the analysis results, it is found that the average structure ratios between buildings and between consultants are same. The number of floors affects the value of the iron ratio and multiplication between the ratio of concrete to the ratio of iron. Based on the analysis using the confidence interval estimate, the lower, upper and average limits of the concrete ratio, iron ratio, and multiplication between the ratio of concrete to iron ratio in ≤ 2012 and > 2012 . Changes in earthquake regulations affect the value of the structure ratio, the increase of concrete ratio reaches 8.8%, the iron ratio reaches 19,2% and the multiplication between the ratio of concrete and iron reaches 27,9%. In this research, there is no regression equation was obtained for the concrete ratio, the iron ratio and the multiplication between the ratio of concrete to iron ratio.

Keywords : cost estimation, structure ratio.