

## **ABSTRACT**

*Cost estimation is an activity that is always done in every construction phase. Preliminary estimate is usually done by project's owner to figure out how much money they will spend. In the preliminary estimate, the detailed data is not available yet. Generally, the available data is architecture drawing only. Therefore, the estimators use structure ratio to calculate structure cost. Structure ratio could be divided into concrete ratio, rebar ratio and formwork ratio. Concrete ratio is a ratio between sums of concrete quantity against building's area. Rebar ratio is a ratio between sums of rebar quantity against sums concrete quantity. Formwork ratio is a ratio between sums of formwork quantity against sums of concrete quantity. Structure ratio is usually determined by practitioners based on experience from similar projects.*

*In this study, analysis for finding out the precise value of structure ratio was done based on some classifications. The data was taken from a contractor company in Indonesia. The data is classified based on type of buildings. Based on the classifications, data was plotted in graphic to determine upper and lower limit of structure ratio.*

*Keywords:* Cost Estimation, Preliminary Estimate, Structure ratio.