

**Title:** Verification of Machinery Salvage Value Function.

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**Abstract:** Salvage value or resale value is one of the cost components of machinery replacement models. Some replacement models exclude salvage value in the build-up of cost. Yet it is the value that is adversely affected by deterioration. Various mathematical formulas for machinery salvage value have been formulated. The formula for salvage value presented by Lake and Muhlemann is of interest. It is presented in an exponential form. The suitability of this function to our industrial environment has to be justified bearing in mind that some assets have little or no secondhand value. To ensure a balanced investigation, efforts are made to obtain salvage values for motor grader, representing large scale industrial environment and photocopier, representing small and medium scale industrial environment. It is difficult to obtain salvage values because records are hardly kept for such values. However, two sets of salvage values are obtained for each of the machines. One set is for the calibration of the salvage value function by Lake and Muhlemann while the other is for comparison between the measured and predicted salvage values. This paper therefore sets out to investigate and verify the suitability of salvage value function formulated by Lake and Muhlemann to our industrial environment. It is hoped that the investigation will lead to a better understanding of the salvage value function for proper application in our industrial environment.

**Keywords:** Salvage value, replacement models, verification.