

Estimating project costs with regression and risk analysis

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Project managers use several types of models to develop project bids. But to develop a bid that does not underestimate project cost, project managers need to first understand the possible financial consequences of obtaining and implementing project contracts. This article describes a risk analysis model that project managers can use to estimate the probability distribution of project cost, a model that uses statistical analysis to develop the necessary structures and parameters needed to assemble a competitive project bid. In doing so, it explains the accounting system that the developer of this model—an electro-magnetic control systems manufacturer—uses estimating project cost. It also defines risk analysis, describes three approaches to analyzing risk, and suggests an approach for developing a risk analysis model. It then examines thirty-three projects that the manufacturer completed over three years, discussing the statistical analysis approach the company used to assess risk and estimate project cost.



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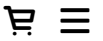
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