Managing large-scale construction projects to avoid cost overruns

January 15 2021, by Matt Weingarden

Researchers from University of Stavanger, University of Melbourne, and University of Wisconsin-Madison published a new paper in the *Journal of Marketing* that examines how major projects undertaken by temporary organizations can be better managed so that cost overruns are minimized.

The study forthcoming in the *Journal of Marketing* is titled "Mobilizing the Temporary Organization: The Governance Roles of Selection and Pricing" and is authored by Elham Ghazimatin, Erik Mooi, and Jan Heide.

When consumers return to the skies again, they may do so in Boeing's 787 Dreamliner. But the project, or "temporary organization," created to make this plane a reality ran much over-budget and created significant dissatisfaction among Boeing's customers. Such cost overruns are a common outcome of major engineering and construction projects. In fact, studies show that nine out of ten have significant cost overruns, with overruns above 100 percent quite common. The implications of cost overruns go beyond financial metrics and can include reputational damage, litigation, and future overreliance on rigid and formalized relationship features.

Managing suppliers and subcontractors, who can run into the hundreds in major projects, is an enormously difficult task. It necessitates considerable coordination and monitoring in a context where parties often have not worked together, they lack shared procedures or rules,

and there is a great need to get up to speed quickly. As one of Boeing's engineers put it, "The importance of thorough planning, accounting for all interdependencies, cannot be overestimated."

Through studying 429 completed construction projects, the researchers find that supplier selection and pricing format decisions that reflect key characteristics of the project, such as the size of the project, duration, and type of customer, are best at reducing a significant part of the cost overruns observed. They conduct "what-if" analyses to show that the reductions in costs can be substantial. Ghazimatin adds that "We also show that the benefits from getting selection right outweigh those that result from getting pricing right, suggesting that selection should be, relatively speaking, a higher strategic priority for a firm. "

This study is particularly useful to managers who wish to minimize cost overruns in projects. Pricing and selection decisions, which are typically fixed at the start of a project, are predictive of cost overruns that can only be observed after a project is completed, typically after many months or years. The pricing and selection aspects studied—fixed vs. variable pricing and selection on price vs. ability—were proposed by industry representatives and thus have direct managerial relevance. Results also show that simple managerial heuristics, such as only relying on price-based selection or deploying fixed pricing, are unlikely to be effective at minimizing cost overruns.

More information: Elham Ghazimatin et al, EXPRESS: Mobilizing the Temporary Organization: The Governance Roles of Selection and Pricing, *Journal of Marketing* (2020). DOI: 10.1177/0022242920982545

Provided by American Marketing Association