

## Can Design Competitions give Value for Money

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### Summary

This paper describes various methods of procurement of bridges and suggests that organised properly design competitions for bridges can give value for money

**Keywords:** procurement; unsuccessful competitions; successful competitions

### 1. Introduction

Over the last three decades a large number of bridges ranging from footbridges to long sea-crossings have been built in many parts of the world. With the increasing ease of electronic communications, travel and knowledge sharing amongst bridge engineers there has been healthy cross-fertilisation of design ideas, some of which have been realized.

Bridge projects are mainly procured by public sector and government agencies and by the very nature of the procurement process the procurement agencies are obliged to demonstrate that value for money is being achieved. Traditionally design of bridges were mainly undertaken by civil and structural engineers and their clients too were civil and structural engineers in the procurement agencies. This resulted in the bridges having traditional forms with national characteristics that mainly addressed the engineering requirements and did not necessarily address the social and visual requirements.

As economic conditions have improved the general public in both developed and developing countries are placing a greater emphasis on the quality of life, which is influenced by the quality of the built environment that they live in and are demanding improvements in the quality of built environment. This awareness has also turned attention to bridges and other civil engineering structures.

Bridges in particular have always had a fascination for mankind and can be visually inspiring. The visual quality of a bridge can therefore now be a predominant factor in selecting the bridge design for a particular site. However procurement agencies as the client still have to use public money in cost-effective manner and quality for them can be:

- Minimum design and construction period
- Delivery on time and within clients budget
- Minimum use of material possibly leading to least capital cost
- Use of durable materials and items at reasonable cost
- Easy to inspect and maintain, low maintenance costs
- Aesthetically pleasing structure
- Exceptional
- Delight



It can be seen that some of the expectations can be contradictory and not all the expectations may be achievable on a single project. Clients have resorted to various forms of procurement methods to achieve all or some of the above expectations. This paper reviews the various procurement methods and makes proposals on how design competitions or design as an important criteria can be used with a particular procurement method to give value for money in terms of achieving aesthetically pleasing bridges at a reasonable cost.