

Proactive Avoidance of Contractual Amendments and Cost Claims Based on the Example of a Railway Megaproject

Abstract

It will be ideal for a construction project if works flow smoothly according to the schedule and cost baselines while delivering quality infrastructure. However, in real construction world this happens very rarely. It is hard to find a construction project in which the project would have performed precisely in line with its original schedule of work and anticipated budget. Deviation from the planned time limit, budget and quality is mostly evident in projects with large scope. The project to be studied in this master thesis is one such project.

Contractual amendments could be a very distinctive cause of the cost and time overrun in construction projects. This matter has been revealed by various studies and researches. The megaproject under study, currently being one of the largest project in all Europe is also dealing with a high number of contractual amendments and cost claims (Nachträge und Mehrkostenanzeigen) which by no doubt will cause extra cost and time overrun for the project.

In this master thesis, cost claims, contractual amendments, and their root causes of an ongoing railway project (a sub-project of the megaproject) will be analyzed. Furthermore, the approach for proactive avoidance of contractual amendments and the cost claims will be proposed.

Problem Statement

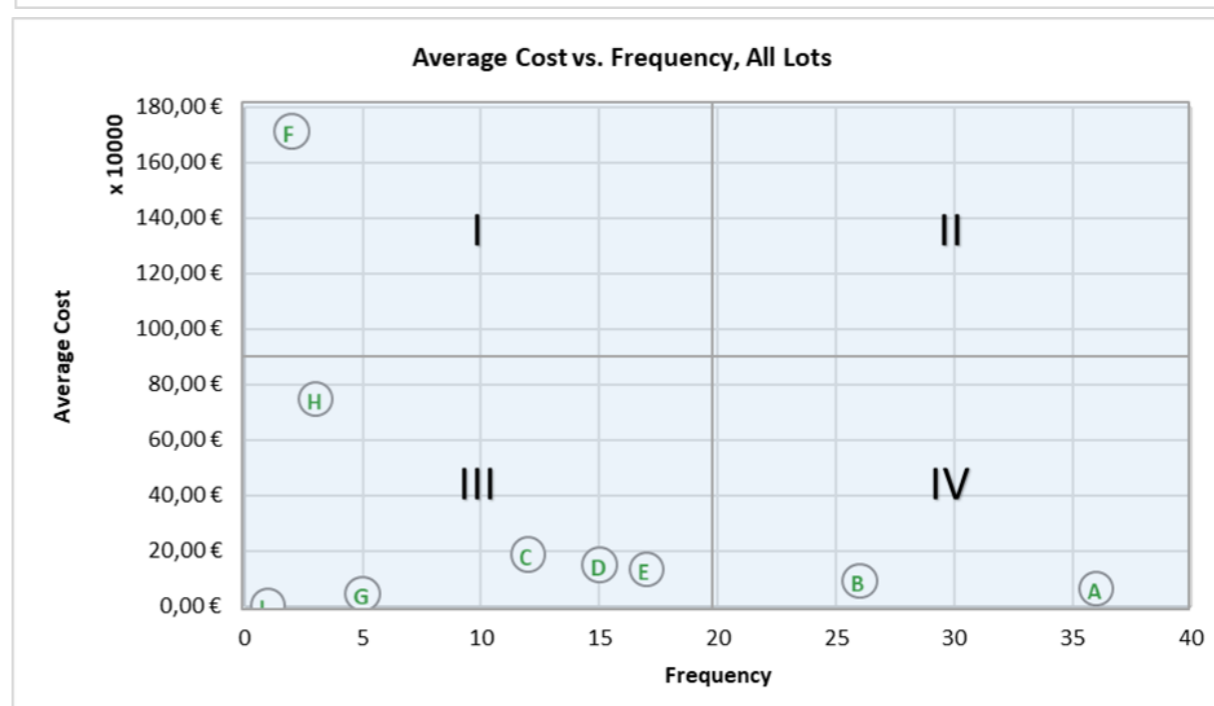
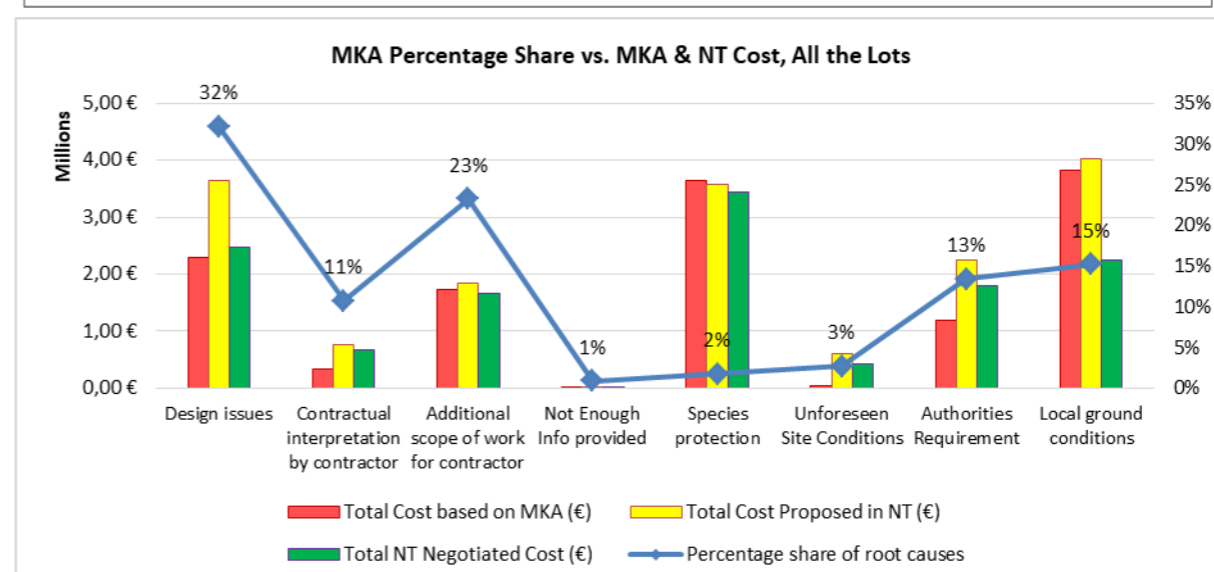
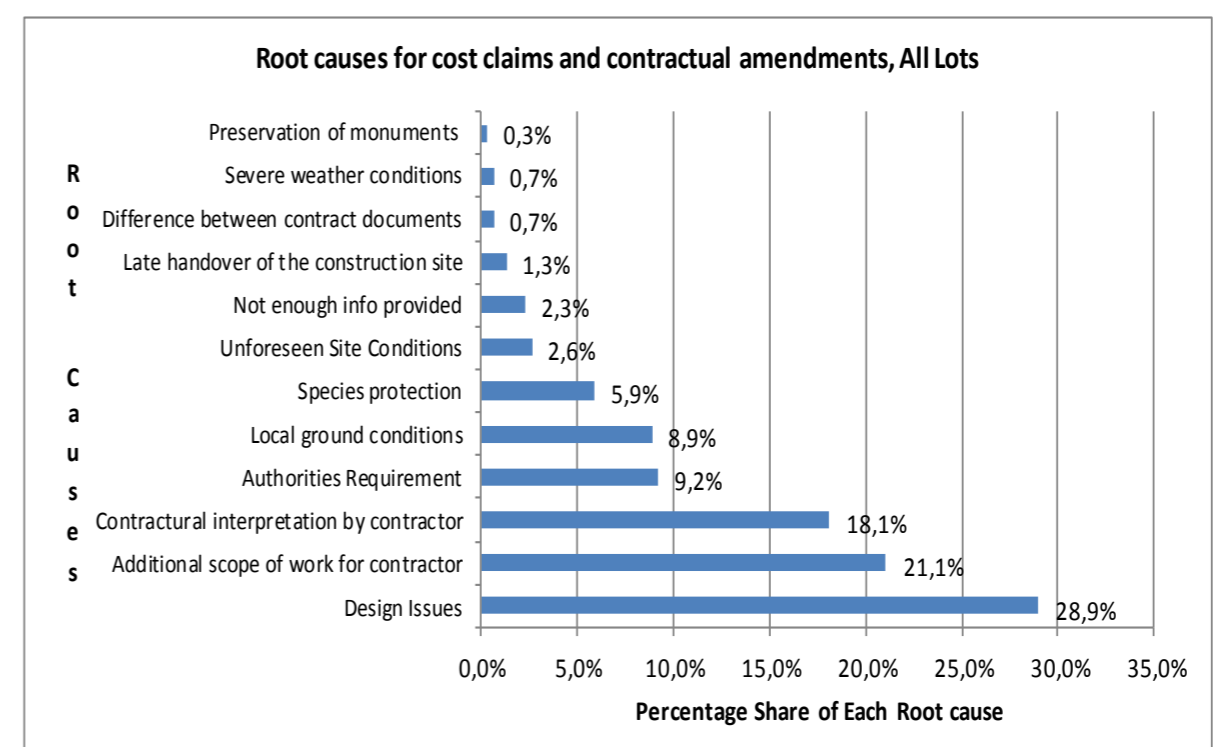
- Analysis of contractual amendments and cost claims to find out their root causes,
- Evaluation of the discovered root causes,
- Establish and evaluation of the use cases of proactive work and proactive tools to avoid the occurrence of the cost claims and contractual amendments,
- Analyze the benefits for the stakeholders including client, contractor or both parties,
- Analyze the contributions to construction site/project.

Methodology

- A case study method is chosen as the research approach for this master thesis.

Findings

- The most significant root causes that occurred very frequently are found to be (1) design issues, (2) additional scope of work for contractor, and (3) contractual interpretation by contractor.
- Species protection is the root cause that has had the highest cost impact on project cost baseline and schedule.
- In order to proactively reduce the number of variation orders and cost claims in large scale projects, it is recommended: to employ design-build project delivery or integrated project delivery method, drafting contract with



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