

## An analysis of challenges in international construction projects - A practitioners' perspective

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### Introduction

The economic and population growth in developing countries is sustaining a high demand for construction of new infrastructure. Large infrastructure construction projects bring together many stakeholders from multiple societies, with diverse norms and beliefs, exposing project managers and site engineers to a wide range of challenges. It is agreed that the performance of project managers is among the top critical factors for project success (Gunhan and Arditi, 2009). However, limited research to date appears to have mapped and classified the common challenges and difficulties encountered in international construction projects from the perspective of practitioners. The objective of this study is to identify the most common difficulties and challenges encountered in international construction projects and classify the factors that cause them. This research analyzes data obtained from 32 interviews conducted in Japan, Hong Kong and Singapore. The identification of the common difficulties and sensitive areas in international construction projects can help construction and engineering companies develop appropriate measures to enhance the capability of their project managers on international assignments.

### Methods

The data was collected via an adapted the critical incident method (Flanagan, 1954); and classified by the qualitative content analysis method (Cavanagh, 1997). Specifically, the data was obtained from 32 face-to-face in-depth interviews in Japan, Hong Kong and Singapore with practitioners working for two multinational general contractors and one consulting firm. We selected multinational companies that received more than 10% of their total revenue from projects outside their home market. The sample of informants was diverse in terms of nationalities, gender, age, professional backgrounds, and years of working experience in international construction projects. In total, informants of ten different nationalities took part in this research and 56% of them have more than 15 years of experience of working in international construction projects and/or multicultural teams. The informants were asked to recall and describe in detail specific past events experienced in international construction projects that were particularly challenging and sensitive nature. The data was iteratively categorized by searching for similarities and patterns across the reported episodes. Furthermore, we counted the number of specific events which were reported in each obtained general category of incidents to identify the most problematic and challenging issues, which require a special attention in international construction projects. The data also include volunteered recommendations and insights of the participants.

### Results and discussion

Based on the qualitative content analysis method, a total of 267 topics were obtained and these were clustered into 81 subcategories and subsequently into 25 categories. The two categories with the largest relative frequency were *Working Differences* with a total of 31 reported themes followed by *Localization – Hybrid System* with 28 categories respectively

**Table 1** Main categories and relative frequency

No.	Category	Relative frequency	No.	Category	Relative frequency
1	Working differences	31	14	Country power	7
2	Localization: Hybrid system	28	15	Conflicts / disputes	6
3	Business strategy	21	16	Technical level	6
4	Seniority and hierarchy / Employment system	21	17	Experience	5
5	Relationships	18	18	Religion	5
6	Communication	17	19	Contract	4
7	Local authorities / government	16	20	Physical distance	3
8	Seminars / workshops / induction	14	21	Technical challenges	3
9	Language	12	22	Technology level	3
10	Expectations	11	23	Client	3
11	Local partners	11	24	Foremen	3
12	International exposure	9	25	Social hierarchy	3
13	Standards / codes / specifications	9			

Topics that were included in the category *Working Differences* include different working hours, different perception and attitude towards work, different practices and ways things are commonly done and the difference in work load and work pace. Similarly, the category labeled as *Localization – Hybrid System* includes problematic situations caused by the adoption of an authoritarian attitude by the company's expatriates towards locals, i.e. by the lack of inclusion of local management practices in the overall project management. The comparison between the categories that emerged by each type of company suggests that some aspects considered as critical, important or challenging in international construction projects vary depending the firm type. For instance, some problems reported as highly challenging and problematic by the general contractors were not necessarily reported as equally critical by the consulting firm. Specifically, 86% of the reported categories are faced by both types of firms, but their criticality differs. There are several categories such as *Standards/ Codes/ Specifications* and *Country Power* which were exclusively reported by informants working for an engineering consulting firm and general contractor respectively.

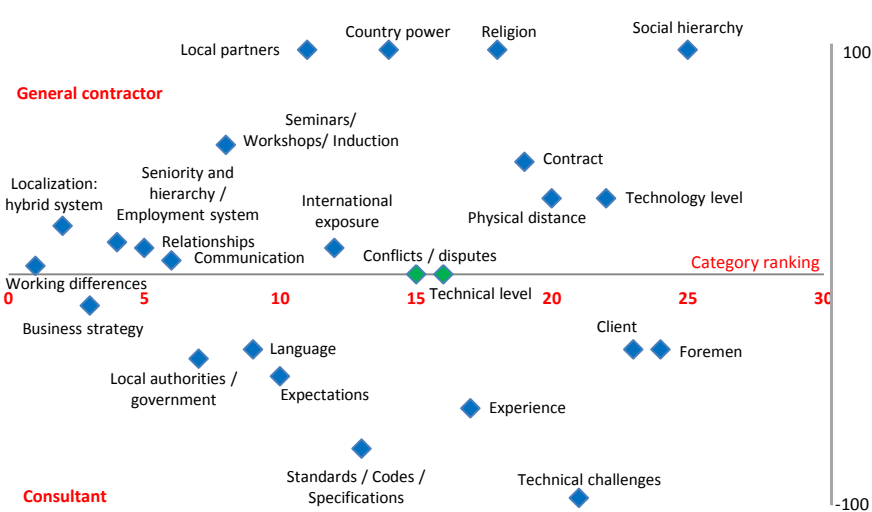


Figure 1 Distribution of categories according to type of firm

Figure 1 illustrates the distribution of the categories according to the type of firm. Categories plotted in the upper quadrant correspond to the ones whose topics were more commonly reported by informants from a general contractor. In a similar way, categories plotted in the lower quadrant correspond to the consulting firm respectively. The x-axis in Figure 1 ranks the categories in terms of their relative frequency; whereas the y-axis lists the exclusivity percentage of a given category. Categories plotted closer to the left and the x-axis like *Working differences* and *Business Strategy* –among others– are the ones that reported a high relative frequency and are also considered as equally important by the general contractor and the engineering consulting firm.

On the other hand, the farther a category is located from the x-axis, the more exclusive this belongs to the stakeholder depending on the quadrant. This allows the identification of the exact categories which are exclusively considered as challenging, problematic or sensitive.

## Conclusions

This paper examined and classified the most challenging areas in international construction projects from the perspective of experienced practitioners. A large majority of the reported challenges, problems and sensitive areas in international construction projects can be attributed to the lack of awareness about the local conditions and the lack of flexibility by the entrant company and a lack of recognition of the positive capabilities of local partners. The surveyed firms may not be investing enough time and effort in training their personnel for managing projects in foreign markets. It is believed that many of the reported problems could be reduced by pre-departure training programs. This study presents an approach to identify areas needing attention; an approach which could be replicated by construction and engineering consulting firms to improve their performance in international projects and their project managers. However, it should be noted that the generalizability of the findings may be limited due to the small sample of the informants. Future work could extend the present findings by a larger questionnaire survey, in which the perceived level of importance of the identified categories could also be validated.

## References

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