

The Bartlett

School of Construction and Project Management

MSc Construction Economics and Management

Module: BENVG CP1 - Dissertation Outline

Module Leader: John Kelsey

**Identify the Indicators that Forecast Construction Market Potential and
Contractors' Entry Modes to the Belt and Road Projects**

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Declaration of originality

I confirm that I have read and understood the guidelines on plagiarism that I understand the meaning of plagiarism and that I may be penalised for submitting work that has been plagiarised.

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I declare that all material presented in the accompanying work is entirely my own work except where explicitly and individually indicated and that all sources used in its preparation and all quotations are clearly cited.

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1. Introduction

Majority of the projects implemented in the Belt and Road 1.0 period were the infrastructure and construction projects. While a large number of them were successful in construction, many construction projects had different kinds of functional failures. For example, Mecca Railway project organized by China Railway Construction Corporation experienced budget and time over-runs. (Herrero and Alicia, 2017).

1.1 Research Problem and Aims

According to the main reasons of the failed projects, most of the current researches show that it they are attributed by three aspects: political, cultural and project managerial problems. However, apart from these three aspects, the author put forward an assumption that the analysis of the investment market, the determination of the corresponding entry mode can be the key factors determining the success of the project, for overseas construction companies or investors. Based on this, this paper put forward the research question: what are the key leading indicators that forecast construction market potential? And, accordingly, what entry modes and business models contractors should have in the Belt and Road projects?

1.2 Research Content

For this research topic, firstly, this paper will commence by summarizing the literatures of current international market potential and entry model theories. From the literature reviews of relevant researches, we open up a new perspective to further the research. By systematically combining the quantitative analysis of construction market potential with the micro-analysis of business entry models as well as business models as a unified and mutually influential compound. Secondly, by collecting the national infrastructure & construction data released by the World Bank in 2014, the important indicators for major infrastructure will be selected and the standard scores model will be established to quantify the level of national infrastructure construction along the Road. By so doing, the paper will classify 64 countries into four types of markets (stars, cash cow, question marks and dogs). Subsequently, this research will use STATA to identify the correlation of key indicators that forecast construction

market potential and contractors' entry models, based on the data collected in two countries in two types of market. Thirdly, after identifying the significant indicators, this dissertation will establish corresponding entry models for the markets defined in the second part. What is worth mentioning is that the economic and organizational theories such as TCE (Transaction Cost Economics), MPT (Market Power Theory), PA (Principal-Agent Theory), VM (Value Management) will be referenced to support the arguments. Finally, this paper will use the 'failed' Mecca Railway project to conduct an empirical study. By defining the functional failure and analyzing whether the project has set up a correct entry model according to its market type, the paper can verify the significance of the outcome based on the above analysis. Then, this paper will provide some suggestions to construction projects in the Belt and Road Initiative; meanwhile, value management will also be suggested in strategic briefing stage to these projects.

1.3 Research Benefits

It is well-known that, for all multinational contractors, political and cultural factors are an inevitable risk. The existence of multiple successful projects shows that the proper execution of project evaluation and project management can largely reduce the risk whilst safeguarding stakeholders' interests. The significance of this research can be concluded into three points: firstly, this research suggests that, in the Belt and Road Initiative, transnational investment contractors must accurately grasp the key indicators that influence construction market potential and facilitate international contractors and investors to accurately select the entry mode as well as business model from a strategic perspective. Secondly, this research will systematically integrate the quantitative analysis of construction market potential with the micro-analysis of business entry models. Thus, it can provide significant information to construction enterprises, such as investors or contractors, to implement projects in the Belt and Road Initiative. Finally, value management will be suggested in the strategic briefing stage as the project management tool for the entire life cycle of project construction.

2 Literature Review *(Prior Research and Relation to Theory)*

The OBOR initiative reports, strategic management literatures and construction economics theories will be reviewed to support this research.

Among these literatures, this paper primarily utilized the OBOR initiative reports to statistically analyse the construction market potential and contractor's entry modes to the Belt and Road Projects. Most literatures which have based on the evaluation of the OBOR initiative reports are explanatory of the OBOR initiative (Anon, 2017). Generally, scholars have considerably acknowledged the positive correlation between infrastructure construction and the economic prosperity. Therefore, the need to increase the infrastructure investment in the "Belt and Road" is regularly researched (Yiwei, 2017).

Moreover, over the last few years, the EU has become an important investment destination for the Chinese enterprises (Alicia, 2017). However, market access is regarded as the most challenging strategic issue for both the EU and UK companies. Furthermore, an index of restrictiveness in Chinese market access compiled by the OECD (Organisation for Economic Cooperation and Development) reflects that the OBOR initiative has reduced restrictions into China's market (Kwok, 2017).

Apart from these reports, this paper will investigate strategic management theories and construction economics theories, such as Transaction Cost Economics (TCE) (Coase, 1993), highlighting the proposition why contractors are more transactional than transformational in the construction industry (Williamson et al., 1993). For the concepts of Market Power Theory (MPT) (Hymer, 1976; Porter, 1980), scholars simply conclude that industry structure related strategies and value-chain related strategies are vital in establishing market's position (Hymer, 1976; Porter, 1980). However, Lynch (2006) suggests that organizational resources such as the skills, management and leadership of the organization are the core sources of sustainable competitive advantage. Thus, with the OBOR initiative, infrastructure firms should combine the accurate analysis of demand market and transformational strategic capability to pursue sustainable development.

3 Proposed Methodology *(Proposed Research Methods and Data Sources)*

These data are primarily collected by econometrics methods. STATA will be used to identify the indicators that forecast construction market potential in the Belt and Road Initiative. Besides, with qualitative approach, interviews will be conducted.

These data are sourced from various databases such as Shanghai Academy Social Sciences, Ministry of Commerce (Republic of China), Department for International Trade (UK), China Foreign Investment and Cooperation Report, etc. In addition, by collecting the national infrastructure & construction data released by the World Bank in 2014, the important indicators for major infrastructure will be selected and the standard scores model will be established to quantify the level of national infrastructure construction along the Road. Besides, with qualitative approach, Primary data collected from business professionals will support the arguments in the strategic analysis.

4 Tentative Dissertation Structure

| | |
|--------|--|
| 1) | Introduction |
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| 3.1) | Background: 'One Belt One Road' Initiative |
| 3.2) | Demand Distribution: Quantitative Studies Based on the Infrastructure Market |
| 3.3) | Strategic Deployment: Qualitative Studies Based on the Project-based Firms |
| 3.4) | Business Strategy: Review of Strategy of Infrastructure Project-based Firms |
| 4) | Research Methodology |
| 4.1) | Quantitative Analysis |
| 4.1.1) | Demand Distribution: Statistical Analysis |
| 4.2) | Qualitative Analysis: |
| 4.2.2) | Strategic Analysis: Interview of an Infrastructure Firm in the OBOR Initiative |
| 5) | Discussion and Results |
| 6) | Implications and Recommendations |
| 7) | Conclusion |
| 8) | References |
| 9) | Appendices |

5 Dissertation Programme

| Start Date | End Date | Task descriptions |
|------------|-----------|--|
| 25/3/2018 | 15/5/2018 | Literature review |
| 16/5/2018 | 16/6/2018 | Collection and analysis of data from databases |

| | | |
|-----------|-----------|---|
| 16/6/2018 | 20/6/2018 | Discussion and finalisation of results of quantitative analysis |
| 21/6/2018 | 24/6/2018 | Conduct the interview with 2 stakeholders in HY firm in China |
| 25/6/2018 | 5/7/2018 | Analysis of data from the interview |
| 6/7/2018 | 20/7/2018 | Complication of the first draft |
| 21/7/2018 | 10/8/2018 | Review and complication of the second draft |
| 11/8/2018 | 28/8/2018 | Review and complication of the third draft |

6 Reference

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