

The Bartlett

School of Construction and Project Management

MSc Construction Economics and Management

Module: BENVG CP1 - Dissertation Outline

Module Leader: John Kelsey

**Demand Analysis and Strategic Analysis of Infrastructure Industry in the Belt
and Road Initiative**

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Declaration of originality

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Date 5 March 2018 Signature Chen Li

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1. Introduction

It is well-known that 'One Belt, One Road (OBOR)' is the name given to the series of outline plans now being promoted by China for international economic cooperation and integration of transportation infrastructures across a vast region (Anon, 2017). By definition, the Belt refers to the Silk Road Economic Belt (seen as the overland linking of western China to Central Asia and Europe); the Road refers to the 21st Century Maritime Silk Road (the sea lanes from China to Southeast Asia and the Middle East). The "One Belt, One Road" summit forum hosted in Beijing in May 2017 marks the commencement of OBOR Phase 2.0 initiative that represents the enhancement of connectivity. Phase 1.0 primarily encapsulate the establishment of network of infrastructure facilities. In Phase 2.0, the deepening of connectivity and international cooperation is expected to China's key agenda for the next few years (Herrero and Alicia, 2017).

1.1 Research Problem and Aims

With the advent of e-commerce, centralisation of manufacturing hubs and globalisation, the demand for international freighting is imperative for international trading. The proposition of OBOR initiative is set to influence the existing landscape for international freighting. For investors and stakeholders to buy in to the OBOR initiative, this paper seeks to investigate the sectoral and regional demand for OBOR, and its corresponding resource allocations and profitability consequential to the strategies set out by the project-based infrastructure enterprises. This paper shall investigate the cost and benefits of OBOR initiative for investors and stakeholders.

Besides, the existing researches have independently analysed enterprises' strategies and statistical analysis of OBOR. This paper aims to evidence a correlation between enterprises' strategies and empirical data through a combination of both qualitative and quantitative analysis.

1.2 Research Content

Firstly, taking infrastructure construction as a starting point, this essay will commence by analyzing the industry distribution and demand distribution of the infrastructure projects in

the OBOR Initiative, by reviewing the OBOR initiative reports. By so doing, this paper defines the phases of the OBOR initiative (e.g. 1.0, 2.0 and 3.0). Consequently, a quantitative approach such as statistical analysis and linear regression model via STATA will be carried out for the identified infrastructure projects implemented during the Phase 1.0 OBOR initiative. Leveraging on the analysis, demand for Phase 2.0 and 3.0 OBOR initiative can be forecasted.

Secondly, literature review will outline the macroeconomics of infrastructure market associated to the OBOR initiative. Whilst investigating the OBOR strategies and long-term objectives, this paper will leverage on academic theories such as Porter's Model (Porter, 1980), SWOT analysis (Moles and Terry, 1997) and transaction cost economics (Coase, 1993).

Then, this paper will adopt qualitative analysis with Shenzhen HT International Logistics Co. Ltd to investigate its competitive strengths and constraints in view of the OBOR initiative.

Finally, the OBOR investment opportunities and potential for the UK enterprises can be ascertained. And the implications and empirical recommendations for project-based enterprises (including small and medium enterprises) will be suggested.

1.3 Research Benefits

From China's perspective, the outcome from Phase 1.0 OBOR initiative consequential of enterprises' strategies will be evaluated. The analysis will enhance the resilience and reliability of strategies deploy for Phase 2.0 OBOR initiative. Thus, for the interest of the British and European infrastructure enterprises, this paper aims to attenuate investment risk and facilitate policy makings.

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

This research combines demand analysis of the infrastructure markets and strategic management for project-based infrastructural enterprises in the OBOR initiative. Hence, the OBOR initiative reports, strategic management literatures and construction economics theories will be reviewed.

Among these literatures, this paper primarily utilized the OBOR initiative reports to statistically analyze the demand distribution and profitability of infrastructure projects implemented during Phase 1.0 OBOR initiative. Most literatures which have based on the evaluation of the OBOR initiative reports are explanatory of the OBOR initiative (Anon, 2017). What is worth mentioning is that Bu (2017) utilized Double-Difference Method (Waldhauser and Ellsworth, 2002) to conduct empirical analysis of China's trade growth effect on the countries along the "Belt". Bu (2017) proposes a long-term equilibrium is established between the infrastructure construction along the "Economic Belt" and the trade growth of both China and Central Asian countries. 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). For example, the establishment of the '16+1' initiative among China and Central & Eastern European countries intensified and expanded economic cooperation across a wide range of topics (Tim, 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). The empirical research by Bruegel scholars has shown that the EU including UK can be an important beneficiary of the OBOR initiative due to a reduction in transportation costs, in view of new rail freight routes from China to Europe (Alicia, 2017). Ultimately, the Eurasian land bridge (part of the OBOR's economic corridors) can also be used to connect to South Korea and Japan (Alicia, 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). From a project-based firm's perspective, the business model is focus on efficiency and cost-minimizing rationales for cooperation. 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*)

The paper is primarily constructed through an interpretative methodology. From the respective reports and literatures, this paper aims to integrate the collective supporting concepts and data with critical analysis. Elaborating the two main research questions in this paper (the demand distribution of infrastructure projects and the strategic implications for project-based enterprises), this paper adopts an intuitive and deductive approach to present the arguments.

Moreover, inductive and deductive reasonings methodologies are mainly utilized in the dissertation. In the first part of quantitative analysis, this paper will statistically analyse the profitability of projects from Phase 1.0 of OBOR initiative. Then, inductively conclude the demand distribution of infrastructure industry. 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.

Besides, with qualitative approach, interviews will be conducted . Primary data collected from Shenzhen HT International Logistics Co. Ltd. will support the arguments in the second part of the strategic analysis. From the theoretical lens, this paper will use Market Power Theory (MPT), Transaction Cost Economics (TCE), Resource-based Theory (RBV) and Potter Model to illustrate the competitive strengths and constraints of project-based organizations in OBOR initiative. Besides, this paper will adopt SWOT quantitative analysis to discuss the future strategy and corresponding contingencies for OBOR's stakeholders.

4 Tentative Dissertation Structure

1)	Introduction
2)	Research Expectations
3)	Literature Review
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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