

Title: EXPLORING THE ROLE OF GOVERNMENT IN NOC OPERATIONS UNDER THE SHADOW OF NOC-IOC ALLIANCES.

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Context:

Petroleum is a global industry; it accounts for the largest single component of international trade and is one of the largest industries for cross-border investment (Weiner, 2005)ⁱ. Government intervention in this industry is widespread and competition in a world market for a predominantly homogeneous product necessitates an understanding of the effects of this intervention. While the national oil companies (NOCs) are becoming more efficient and independent, international oil companies (IOCs) continue to be leading oil and gas providers, with generally superior capital backing and a very sophisticated technical knowledge base. The entrance of the consuming NOCs into a field that was previously populated with producing NOCs and IOCs is leveling the playing field which is expected to give rise to an increasing cooperation between the NOCs and IOCs in the areas of exploration, production, and marketing of the reserves and the refined products. But despite a global trend towards the privatization of state assets, host governments are exhibiting resource nationalism and consolidating ownership over these strategically important domestic oil and gas resources, effectively limiting corporate FDIⁱⁱ. While the profit-maximizing dimension of the alliances and joint ventures is straightforward, such transactions also derive economic and political value (non-commercial objectives)ⁱⁱⁱ for the NOCs. The difference between an IOC's profit-maximization objective and a local NOC's non-commercial not only provides the justification for an alliance but also strongly influences the configuration (commercial framework) of such alliances.^{iv}

Research Questions:

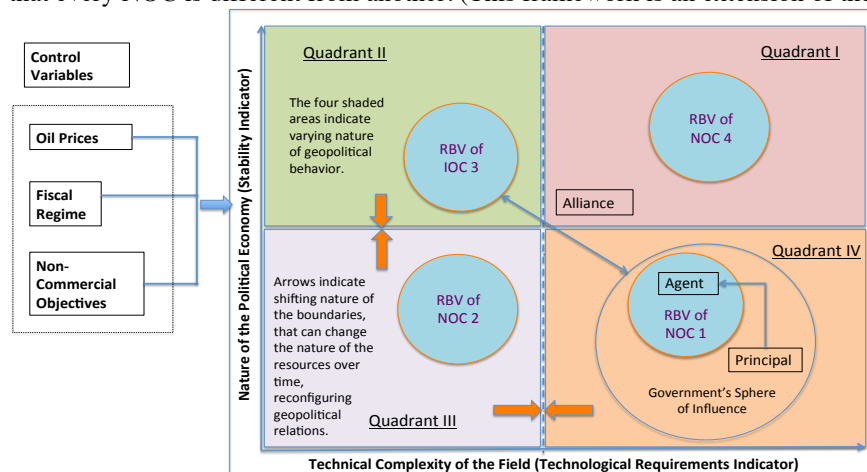
1. How do host country governments influence the resource capability of a NOC?
2. How do the type and the alignment of such resources decide the commercial framework of NOC-IOC alliances?

Structure of the Paper:

The paper is structured in the following manner: Section A provides a background on the evolution of NOC-IOC interactions and what key events have impacted this relationship over time. Section B provides the theoretical foundation of the paper. It then assembles the materials studied into a conceptual framework. Section C concludes my paper with the suggested data and methods, followed by few concluding remarks.

A Note on the Conceptual Framework:

Studies on NOCs have tackled the question of risk versus state capacity for risk, either by treating NOCs as one monolithic entity or by addressing the issue by way of geographical clustering – NOCs from North Africa, Latin America, Russia, Middle east et al. In this study, I contribute to NOC theorizing by pursuing a dual theoretical ambition^v and also by focusing on the fact that every NOC is different from another. (This framework is an extension of the one, Thurber (2010)^{vi} used in his paper.)



I develop a conceptual framework from the standpoint of the political economy (often unique) in which the NOC operates and the geological complexities of its resource endowments. The stability of such political economies along with the geological complexities of the reserves directly affects the state's capacity for capital-intensive hydrocarbon projects thus paving the way for potential IOC alliances. Alliances (and resulting contracts) are embedded deeply within such political economies and the reforms therein contribute significantly to how smoothly international activities are carried out.

a. Shifts on the Axes:

The Y-axis in the framework stands for the stability in a political economy of a country, which can be measured by the political risk in that country. The X-axis in the framework underlines the geological complexities in the framework. Now the two dynamics (shifts caused by moving up/down and to the right/left) coupled with the strategic intent of NOCs will help me narrow

down a few key combinations (of stability and frontier reserves). Based on this, I can understand where should be my focus of data collection meaning which NOCs and IOCs I should consider for this study. (Quadrant IV – Technically Difficult but Significant Portion of Remaining Resources and Low Stability in Political Economy where institutional weakness and a dearth of technical capability will preclude development of a efficient NOC. This will lead to alliances with the IOCs)

b. Commercial Framework of Alliances:

Joint ventures in the upstream hydrocarbon sector differ from other kinds of joint ventures because the profit motivations are insidiously related to a nation's sovereignty, over and above the usual economics of profitability. These ventures are usually contractual and they do not involve the creation of a new entity.^{vii} Three basic contracting models have emerged with different risk-reward profiles.^{viii} This will form a basis into deciding the % share revenue of IOC (the dependent variable)

Contract	Foreign Contractor	Government
Concession	All Risk/All Reward	Reward is a function of Production and Price
Production Sharing Agreement	Exploration Risk/Share in Reward	Share in Reward
Joint Venture Pure Service Agreement	Share in Risk and Reward, but practically no Risk	Share in Risk and Reward, and practically the whole Risk

c. A Note on Control Variables:

- 1. Oil Prices:** The effect of oil prices has been considered in the model in order to understand how governments will guide NOC strategies during times of both high and low prices. (High prices boost government bargaining power and low prices check that.)
- 2. Fiscal Regime:** The effect of fiscal regime has been considered in the model in order to understand how governments affect the investment motives of IOCs that enables the governments to have the highest take while not discouraging potential investors.
- 3. Non-Commercial Objectives:** the effect of non-commercial objectives has been considered in order to understand how the presence of dual motives will influence partnership structure.

Data and Methods:

Since I will use an integrative approach (**for a multilevel model using structural equation modeling**), there will be two independent variables 1) Government Involvement (to signify NOC oddities) 2) NOC Resource Capability (to signify NOC-IOC resource complementarities). The measurement indices are:

Dependent Variable	Component (Measurement Index)
IOC Share in the Alliance	% Take in Revenue
Independent Variables	Component (Measurement Index)
Government Involvement	Percentage Government Ownership of NOC
	Independence of NOC Capital & Budget Processes (Ordinal Ranking)
Resource Capability	Technological Capabilities (R&D Expenses per Employee)
	Political Economy Stability (Country Risk Rating)
Control Variables	Component (Measurement Index)
Oil Price Behavior	Oil Price Expectations, Net Oil Exports as % of GDP
Fiscal Regime	OPEC Membership, Right to Develop a Project
	Concessions, Taxations, Domestic Market Obligations, Depletion Policy
Non Commercial Objectives	Presence of Stabilization Mechanisms - Petroleum Funds, Income Redistribution
	Job Creation Mandates, Local Capacity, Social Infrastructure, Regional Development

Contribution:

In this framework, the NOC-Government relation is analyzed using agency theory and from thereon, the resource-based theory^{ix} is utilized to understand how the type and alignment of NOC resources play a role in the structure of a potential NOC-IOC alliance. This treatment is novel since the analysis of the causality between governance and resource capability, is done by applying two complementary constructs. In addition to this, the conceptual framework also has the capacity to explain incremental changes along a NOC's existing trajectory, with the jump to a new one due to radical changes^x in the assets.

References:

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