Contracting institutions and ownership structure in international joint ventures ☆

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ABSTRACT

This paper examines the role of contracting institutions on a multinational firm's optimal ownership strategy. We develop a model in which both a multinational firm and its local joint venture partner can ex post engage in costly rent-seeking actions to increase their ex ante agreed upon revenue share. We show that the host country's level of contract enforcement and level of judicial favoritism affect the parties' incentives to contribute to the international joint venture. The model allows us to identify testable hypotheses relating these institutional features with the performance and optimal ownership structure of international joint ventures.

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1. Introduction

Many multinational enteprises (MNEs) have been struggling to successfully operate in developing countries (Cuervo-Cazurra et al., 2007; Khanna et al., 2005). A main stumbling block is their difficulties to adapt to the unfamiliar institutional environments. Compared to developed countries, both the "contracting institutions", which enable contracts between citizens, and the "property rights institutions", which protect citizens against expropriation, are generally weaker (Acemoglu and Johnson, 2005), thus altering the rules of the game.[1] As a consequence, the strategies that MNEs have successfully adopted at home are not easily transferable to their operations in developing countries.

A sizeable literature in economics and business has investigated how MNEs should adapt their *entry mode choice* to cope with institutional differences. One set of studies suggests that a MNE should form and international joint venture (IJV) with a local firm in developing countries to leverage its local partner's comparative advantage in navigating local institutions (Inkpen and Beamish, 1997; Luo, 2002; Meyer et al., 2009) and to mitigate the risk of government expropriation (Hennart, 1988). Other papers counter that forming an IJV also increases contractual hazards, thus reducing the value of partnering with a local firm (Henisz, 2000; Henisz and Williamson, 1999; Javorcik and Wei, 2009). These studies therefore recommend that MNEs with important intangible assets (e.g., intellectual property) should enter as a wholly-owned subsidiary in markets with underdeveloped contracting institutions.

An issue that has received less attention is whether MNEs should adjust their *contracts* with local partners when operating in developing countries. There are both theoretical and empirical reasons why this could be an important strategic tool to cope with underdeveloped institutions. First, recent theoretical studies show that contracting parties can deal with predictable biases in the judicial system by distorting the form of their contracts (Bond, 2009; Gennaioli, 2013; Gennaioli and Perotti, 2012). Furthermore, a number of empirical papers find that the contractually defined governance structure of an IJV has a distinct impact on its performance in developing countries. This includes Beamish (1985) and Beamish and Choi (2004) who find that IJVs with shared management

[1] North (1990) defines institutions as " the rules of the game in a society or, more formally, [...] the humanly devised constraints that shape human interaction."

arrangements perform better than dominant parent arrangements in many developing countries. Similarly, Steensma and Lyles (2000) show that, unlike in developed countries, an imbalance in ownership between IJV partners reduces the likelihood of a joint venture's survival. Since IJVs continue to make up a substantial proportion of foreign investment in developing countries (Beamish and Lupton, 2009), these findings call for a better understanding of the link between institutions and the form of an IJV contract.

In this paper, we aim to gain new insights into this issue by investigating how contracting institutions affect the optimal ownership structure in IJVs. We focus on two characteristics of contracting institutions: contract enforcement and judicial favoritism. First, *contract enforcement* is lower in countries with weaker judicial systems. Courts in such countries often have limited capabilities of verifying contractual contingencies due to lack of their judges' competencies and due to their need to base their rulings on an underdeveloped body of laws and regulations (Acemoglu et al., 2007; Hay et al., 1996). Furthermore, with courts less accountable for the quality of their judgments, judges often have the power to alter their rulings in line with their own idiosyncratic views (Gennaioli, 2013) or in favor of the party that pays the highest bribe (Bond, 2009; Glaeser and Shleifer, 2002). With contracts less likely to be enforced, contracting parties have a heightened incentive to ex post violate the terms of the original contract, therefore distorting contracting parties' incentives to contribute relationship-specific investments to the IJV. Second, *judicial favoritism* towards local firms is more prevalent in countries with weaker judicial systems. If contract enforcement is weak and cronyism is rampant, courts are prone to systematically favor their own nationals at the expense of foreigners, therefore disproportionately weakening the MNE's incentives to contribute to the IJV (Mui, 1999).

To study the impact of contract enforcement and judicial favoritism on the ownership structure of an IJV, we embed a simple rent-seeking contest in a standard joint venture model. A MNE first (ex ante) signs a linear revenue-sharing contract with a local partner. Then each party contributes specialized inputs to create joint revenue. Finally (ex post), both parties enter a rent-seeking contest where they can take costly private actions to increase their own share of the IJV revenue. A country's institutional environment is reflected in the parties' costs of taking these rent-seeking actions. If the cost of rent-seeking actions is high for both IJV parties, they have a low incentive to violate the stipulations of the original contract. In our model, we thus capture the level of *contract enforcement* with the cost of ex post taking rent-seeking actions. Furthermore, we capture the level of *judicial favoritism* in the host country by assuming that the cost of rent-seeking actions may be larger for the MNE than for its local partner. The higher the cost advantage of the local partner, the larger the court's judicial favoritism towards local firms. While our approach of modeling contracting institutions is stylized, it permits us to analyze the impact of two key characteristics of contracting institutions on the optimal ownership structure in IJVs in a transparent fashion.

The key results of our model are as follows. *Weaker contract enforcement* negatively affects the IJV's performance by inducing both parties to waste resources on rent-seeking activities and by weakening their incentives to contribute inputs to the IJV. Interestingly, we find that parties' incentives to contribute inputs are asymmetrically affected by a change in the degree of contract enforcement. Specifically, weaker contract enforcement disproportionately lowers the incentives of the minority partner in the IJV, i.e. the party that contributes relatively less. Our model finds that is therefore optimal to allocate a larger ownership share to the minority partner, moving the IJV closer to a 50–50 ownership distribution.

This result is in line with the observed clustering around 50–50 equity allocations in many international joint ventures operating in developing countries (Bai et al., 2004; Moskalev and Swensen, 2007). Our theoretical explanation for this phenomenon, however, is fundamentally different from previous studies. The established argument has been

that IJV parties adopt 50–50 ownership to prevent the majority partner from using its control rights to extract rents from the minority partner (Bai et al., 2004; Hauswald and Hege, 2009; Wang and Zhu, 2005). In our model, 50–50 ownership clustering also neutralizes the majority partner's power to expropriate rents from the minority partner, but the source of power is driven by the institutional environment and not by control rights.

Judicial favoritism also distorts incentives asymmetrically, but in a different way. In our model, it allows the local partner to ex post appropriate a portion of the MNE's revenue share, therefore weakening the MNE's incentives to contribute inputs to the IJV while strengthening the incentives of the local partner. This leads to three results. First, to neutralize this incentive distortion in the IJV, we find that it is optimal to allocate a higher ownership share to the MNE. Second, as long as the IJV can successfully increase the MNE's ownership share to the optimal level, judicial favoritism does not reduce the performance of the IJV. Third, the requirement to allocate a higher ownership share to the MNE renders certain types of IJVs unfeasible. Especially for IJVs in which the MNE contributes relatively more, setting up an IJV no longer is a feasible entry strategy.

Our paper relates to several literatures in contract theory and international trade. As already mentioned, from the point of view of contract theory, the closest studies investigate how parties distort their contracts to deal with predictable biases in a country's legal system. It includes the work of Bond (2009) who shows that judicial corruption can refrain contracting parties from employing high-powered contracts. In a similar spirit, Gennaioli (2013) illustrates that potential judicial biases can induce contracting parties to adopt less flexible non-contingent financial contracts. And Gennaioli and Perotti (2012) show that an environment with unequal litigation ability between parties can lead to the adoption of standardized contracts that are contingent on only few, preset pieces of evidence. Our contribution relative to these studies is that we focus on ownership structure as a strategic tool to cope with institutions. Furthermore, we apply our model in a tractable way to the context of IJVs.

Our paper is also related to a trade literature that emphasizes the role of contracting institutions on the organizational form of MNEs. This includes the work of Acemoglu et al. (2007) and Antràs and Helpman (2008). Our approach differs from these papers in the way that contracting institutions are modeled. While these studies proxy the quality of a judicial system with the fraction of tasks that are contractible, we model it with the cost for parties to ex post take rent-seeking actions. Our alternative approach allows us to identify new channels through which contracting institutions affect the optimal organizational form of MNEs.

The rest of the paper is organized as follows. In Section 2, we set up the IJV model. In Section 3, we solve the model in the benchmark environment with perfect contract enforcement. In Sections 4 and 5, we study the effects of contract enforcement and judicial favoritism, respectively, on the performance and ownership structure of the IJV. Section 6 discusses the results of the model and Section 7 concludes.

2. IJV Model

Consider a multinational firm M that sets up an IJV with a local firm D. Let the IJV face an iso-elastic inverse demand function for its output y:[2]

$$p = \lambda^{1-\alpha} y^{-(1-\alpha)}, \tag{1}$$

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[2] It is well established that this inverse demand function can be derived from a setting in which a representative consumer's preferences across varieties has a constant elasticity of substitution: $U = \int_{i \in \Phi} y(i)^{\alpha} di^{\frac{1}{\alpha}}$, where Φ is the set of available varieties.