Bundled Transaction of the Intellectual Property: An Explanation for the Choice of Organizational Form in the IT Standard Setting Environment
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ABSTRACT
I develop an intellectual property (IP) transaction model to explain the choice of governance form in a specific IT standard-setting environment. The model proposes that the nature of the IT standard affects the organizational form but is mediated by the transaction costs involved. This model is tested using the survey methodology. The data is collected from the key informants involved in developing IT standards, and working in different organizational forms.

The model treats IT standards as made up of bundles of essential IP that are complementary, protected and distributed amongst multiple different entities. For example, IEEE802.11 standard is made up of about 100 essential patents, owned by 91 different entities in 7 different countries. To specify an implementable IT standard requires permission of each of these IP owners. This makes transaction of IP, as a bundle, a necessary ingredient for the IT standard-setting.

The thesis identifies three different types of the transaction costs. Due to information asymmetry, legal protection, and complementarities, there are search, coordination, and opportunism costs. These costs are influenced by the nature of the IT standard like, complexity, industrial and geographical span, substitutability, status of the IP holder, and the contributors IP holding pattern. It is further proposed that different governance forms handle these costs differently and the choice of the governance form will depend on the forms ability to best mitigate these costs.