

Alliances between Firms and Partial Equity Ownership: Theory and Evidence

The incidence and importance of alliances between firms has substantially increased in recent years. Alliances are accompanied by partial equity ownership in many cases. For example, it has been recently announced that Volkswagen AG and Suzuki Motor Corp. form an alliance in which Volkswagen would acquire 19.9% stake in Suzuki. One of the most fundamental objectives of alliances is the transfer of knowledge and technology between partner firms. Knowledge transfer can be facilitated through licensing and contracting in some cases. However, knowledge is often tacit, and in situations where this is the case licensing and contracting can play, at best, limited roles. Instead, equity ownership can play a critical role in facilitating the transfer of tacit knowledge.

The purpose of this research is to analyze alliances and partial equity ownership (PEO) from standpoints of industrial organization theory as well as competition law, undertake a questionnaire survey to about 1700 Japanese firms listed in Tokyo Stock Exchange First section, and explore antitrust implications based on our findings.

PEO arrangements among competitors alter their competitive incentives. The competitive effect of PEO have been previously studied in the theoretical industrial organization literature, in which the levels of PEO are exogenously given. To the best of our knowledge, however, no previous papers have explicitly analyzed the process in which PEO induces knowledge transfer between competing firms. The economic theoretical framework explored in this research (which is based Ghosh and Morita, 2010) fills this important gap in the literature by exploring a model in which the level of PEO is endogenously determined through the link between PEO and knowledge transfer. Focusing on the competitive effect, existing theoretical models of PEO demonstrate that PEO arrangements could decrease welfare by reducing the degree of competition. This result suggests that antitrust authorities should consider the trade-off between enhanced production efficiency and reduced competition in cases of PEO. Our analysis indicates that endogenously determined levels of PEO may increase or decrease welfare, and identifies a range of parameterizations under which PEO increases (or decreases) welfare. We then consider three relevant policy interventions (prohibit PEO, partially permit PEO, or permit PEO) for antitrust authorities, and show that any one of the three can be optimal depending on parameter values.

Cases of PEO in a competitor have gone mostly unchallenged by antitrust agencies. However, antitrust agencies have recently begun to pay increasing attention to the possible antitrust harms of PEO. Also, several scholars in competition law have argued that PEO, even if it is not accompanied by control/influence rights, results in antitrust harms in oligopolistic industries, by reducing quantities and raising prices. Their arguments are consistent with the previous literature on economic theoretical analyses of PEO, in which the level of PEO is exogenously assumed. In contrast, by exploring the link between PEO and knowledge transfer, our analysis yields richer policy implications as outlined above.

Our questionnaire survey has identified knowledge transfer as an important purpose of alliances. Also, it has identified the connection between knowledge transfer and PEO, which is a fundamental element of our economic theoretical analysis. At the same time, our survey also identified several important factors that are not incorporated in our model. One important issue concerns the nature of knowledge. Our survey findings suggest that in many cases knowledge consists of contractible as well as non-contractible components, and hence it would be natural to assume that firms can use contracts for inducing transfer of the former type of knowledge. Such an enrichment of our theoretical framework is left for our future research.