The Incentives of Patent-ownership Fragmentation of Standard-setting Organizations: Theory and Empirical Evidence*

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Abstract
The design of many technology products is based on standards that require the use of complementary patents. This paper studies standard-setting process in the presence of competition between standards. We show that standard-setting organizations can have incentives to soften competition through fragmenting patent ownership. Nevertheless, the degree of patent-ownership fragmentation is lessened when competition becomes more intense. Network effects in standard adoption and the level of compatibility among standards can also affect the incentives to fragment patent ownership. Empirically we find a positive relationship between the extent to which an SSO is oriented to technology developers and the degree of fragmentation in patent ownership, which is consistent with the theoretical predictions.

Keywords and phrases: Standard-setting Organization, Standard Competition, Standard-essential Patent, Patent-ownership fragmentation

JEL classification codes: D2; L4; L13; L15; O3

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