Platform adoption in network markets

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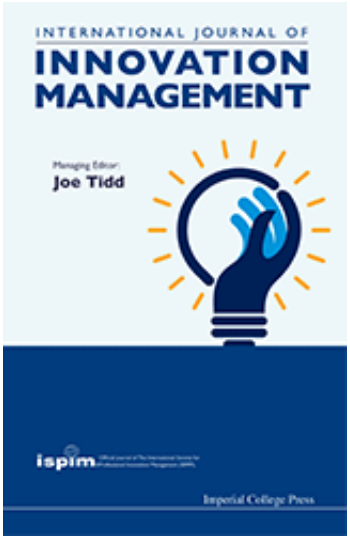

Strategic partnering has become commonplace when introducing innovations to systems markets. In standards battles, network affiliation has been used as a market signal to create confidence in a format's success. This paper's authors thus develop and test a model aimed at finding the right partners to sponsor an innovative technology. The results suggest that company characteristics shape expectations about a system's future value and the likelihood of its survival. Partners that have proven successful in adjacent industries are especially suited to drive diffusion. Attracting big players may therefore be more beneficial than attracting multiple, but minor, firms. Quality clearly beats quantity when selecting new partners.

In closed system markets, the core product (hardware) and complementary goods (software) function together through certain compatibility specifications (e.g. video game consoles). The decision to adopt a particular format often seals a technological lock-in. In such markets, the literature has identified consumer uncertainty as the key barrier to innovation diffusion. Since an innovation's head start can initiate a self-reinforcing distribution process, this uncertainty, and the resulting adoption inertia, need to be overcome quickly after market introduction. This is especially true when two or more incompatible technologies compete for market dominance. Companies that at some point sell more systems than their competitors gain an important advantage, because network effects can amplify an initial lead into an unchallengeable advantage.

Companies have developed strategies to diminish consumer uncertainty and foster swift product adoption, which include pre-announcements, advertising, and the formation of company networks. The latter may be a signal to consumers that the supported format may prevail and eventually gain dominance over its rivals. In practice, teaming up to jointly sponsor a technology has become the rule rather than the exception (see, for instance, the battle between Blu-ray and HD DVD).

Scholars examining technological platforms and the emergence of dominant designs have stressed the role of producer networks. However, with a few exceptions, the importance of producer networks has not been empirically tested. Furthermore, the vast majority of studies in this field are analytical and/or focus on single-case reports. The few extant empirical studies rely on aggregated market data and emphasize the detection of indirect network effects.

We contribute to the literature in several ways. A major contribution is that we investigate the influence that a network of sponsoring companies around a certain technology has on consumer expectations and product

adoption in the context establishing a standard. In doing so, we derive insights into which network characteristics support adoption, and how expectations mediate between network characteristics and choice. We present evidence of which partners to look for when competing in markets with network effects.

Our findings suggest that the market power of the firm networks behind an emerging technology strongly affects its market success. Furthermore, we find that partnering firms' characteristics shape expectations about a format's diffusion and its supply of complementary products. In turn, these expectations have a significant impact on adoption intention. Reputable, trusted firms are likely to foster technology adoption; such firms have been successful in the past and/or in adjacent industries, and platform sponsors can benefit significantly from cooperating with them. Second, while prior research has commonly relied on market data, we integrate network effects in a conceptual model based on consumer perceptions.

More information: The paper can be found in *International Journal of Innovation Management* (*IJIM*) via the following link: www.worldscientific.com/doi/ab … 42/S1363919615500280

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