

VALUE MIGRATION OF COMPLEMENTORS: EVOLUTIONARY BOUNDARY SHIFT
BETWEEN CONTRACT MANUFACTURER AND BRANDED FIRM

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ABSTRACT

With increasing time-to-market pressure and trend of rapidly introduce new products with shorter and shorter life cycle, an effective supply chain to reduce cost and improve service levels has become essential for branded firms to face fierce competition in global market. Outsourcing strategies and IT-based SCM system are critical for those branded firms to create the close or long-term relationship with their vertical-disintegrated partners, contract manufacturers. It is reasonable that the introduction of an IT-based SCM system into a supply chain results in the information transparency for all players and thus leads to “winners take all” in this supply chain. That is, the leader of the supply chain (such as branded firm) will dominate over other partners because complete information and minority transactions enhance its bargaining power. However, in practice, winners do not take all since all players in a supply chain do not change. Moreover, the disadvantaged party (such as contract manufacturer) becomes not only a multi-branded contract manufacturer but also a total solution and service provider. By upgrading their capabilities for collaboration, contract manufacturers gradually become the complementors rather than merely the suppliers of leading branded firms, which leads to the phenomenon of boundary shift between them in a supply chain. This study, therefore, intends to explore the issue of boundary shift between vertical-disintegrated partners.

By exploring a typical case of company D and company Q (we disguise the case provider for confidential reason) in a notebook industry and focusing on the evolution of their interaction, we preliminarily find that the boundary between these two firms evolved in four phases with different contract scheme and will be evolving. The four phases are (1) OEM (Original Equipment Manufacturing) model, (2) ODM (Original Design Manufacturing) model, (3) JDM (Joint Design Manufacturing) model, and (4) IDM (Innovation Design Manufacturing) model. The boundary of these two firms gradually shifts from company D to company Q in the evolution process of these four phases. That is, company Q gradually upgrades his capability from manufacturing, inventory, customer services, integration, specification design, to total solution provider, while company D keeps his marketing with his famous brand but gradually outsource functions to company Q. According to those four phases, we find clearly that companies D and Q continuously change their business models and interactive relationship in every phase. However, the academic understanding of this issue is still a puzzle. Previous studies have imported transaction cost theory and competitive advantage to interpret the issue of

firm boundary (Afuah, 2003; Fine, 1998) but failed to catch the evolutionary aspect of boundary shift. Briefly, Company D and company Q create added-value co-opetition relationship in which company D contracts company Q to carry out some type of action or to take some type of decision in the four phases. For example, to fulfill the requirements from company D for 48-hours delivery for customers, company Q have to improve its integration capability and build solid SCM system. They keep persistently contract-manufacturing relationship without internalization and interact with each other according to incomplete information, core competence, and their response actions in every phase. It is interesting that other parties, customers and competitors, become important roles after phase (3), which leads to a more complex situation to be analyzed. We proposed a synthesis multi-discipline perspective that integrates game theory (Brandenburger & Nalebuff, 2004), transaction cost theory, and competitive advantage (Afuah, 2003; Fine, 1998) to tackle the issue of evolutionary boundary shift. The goal of this study is to draw a tentative theoretical foundation to general theory of collaboration in the domain of technology management.

Keywords: boundary shift, contract manufacturing, technology integration, total solution and service provider, inter-firm collaboration