

以動態能力觀點探討產學研發合作行為

A Study of Industry-university Collaborative Behavior from the Perspective of Dynamic Capability

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摘要：產學合作是國家創新系統的重要環結，對於科技資源有限的台灣，更須重視產學合作關係。近年開放式創新概念的興起，產學研發合作成爲企業從外部取得科技資源的重要發展策略。然而，產學研發合作的成效仍被普遍認爲尙存改善空間，故本研究主要目的在於建構一個解釋台灣產學研發合作能力模式，期使藉由合作能力的建立，促成產學研發合作的行爲。本研究主要採取兩階段方法，首先以問卷調查方法探討何種企業特徵具有較高產學研發合作的傾向，其次以企業深度訪談方法探討爲何具備這些特徵的企業具有較高傾向進行產學研發合作。本研究結果顯示科技企業、規模較大企業、研發能量較大企業有較高傾向進行產學研發合作，而其主要原因在於這類型企業較有機會具備辨識環境需求能力、建立社群網絡關係能力、吸收學界資源能力、溝通協調能力，亦即當企業具足此四項能力時，企業在面對動態環境變化下，較傾向採取產學研發合作加以因應，將學界資源轉化爲企業競爭優勢。本研究結果在學理上提供一個解釋企業產學研發合作行爲的途徑，在實務上本研究所建構的四項能力，則可提供企業建立產學研發合作管理制度的參考依據，使企業可以有效應用學界資源。

關鍵詞：產學合作、研發合作、合作行爲、動態能力

Abstract: Industry-university collaborations are regarded as a key component for developing a national innovation system. Taiwan, which has limited resources, should place more emphasis on

fostering such collaborations. This has also become a critical strategy for companies to obtain technology resources externally with the emergence of open innovation concepts. However, it is believed there is further scope for improving the effectiveness of industry-university collaboration. This study aims to construct a model that explains the capabilities of industry-university collaboration on research and development (R&D) in Taiwan. Firms can facilitate the process of collaboration through the construction of collaborative capabilities. The research process was undertaken in two stages. First, a survey questionnaire was used to explore firms' characteristics that determine their motivation toward industry-university collaboration on R&D. In addition, in-depth interviews were conducted to illustrate the reasons for undertaking collaborations. The findings show that firms with high technology, that are large in size, and have high demand in terms of R&D capacity are more willing to enter into such collaborations on R&D. These firms are also inclined to have four types of abilities: the ability to identify environmental demand, to form social networks, to absorb academic resources, and to communicate and coordinate effectively. Endowed with these four capabilities, these firms are shown to have high motivation to undertake industry-university collaborations on R&D in order to deal with dynamic changes in the environment. Collaborations are also considered beneficial for transforming academic resources into competitive corporate advantages. The research findings have contributed to extending the theoretical foundation of collaborative capabilities between industries and universities as well as providing explanations for their behaviors. In terms of business implications, the four capabilities identified can serve as guidelines for firms to manage their industry-university collaborations on R&D and to use academic resources in an effective manner.

Keywords: Industry-university Collaboration, R&D Collaboration, Collaborative Behavior, Dynamic Capability

1. 前言

企業面對競爭激烈且變化快速的環境，不斷創新成為知識經濟時代產業競爭的基本要件，且為企業競爭優勢的關鍵。創新科技為企業帶來嶄新的產品或服務，並且創造出新的價值。對於企業創新科技取得之管道，除了自行研發外，對外尋求資源已逐漸成為必要的策略，因而促使企業採取研發外包的發展策略。此外，開放式創新概念的興起，更增加企業從外部取得科技資源的作法，而其技術取得對象朝向學界發展趨勢。產學研發合作於是成為學界與業界在研發上重要的銜接橋樑。藉由產學合作，將學界在紮實基礎下所研發出具有前瞻性的科技及知識應