

Radical innovation through internal corporate venturing: Degussa's commercialization of nanomaterials

Elicia Maine

Segal Graduate School of Business, Simon Fraser University, 500 Granville Street, Vancouver, BC, Canada V6C 1W6. emaine@sfu.ca

Internal corporate venturing enables radical innovation within established firms in mature markets. Without effectively designed and managed internal corporate ventures, the organizational constraints of established firms will strongly favour incremental innovation over radical innovation. This paper investigates the evolution of a successful internal corporate venture within a large, incumbent chemical firm, now known as Evonik Degussa, to reveal the challenges, organizational design, and management strategies of their commercialization of radical nanomaterials technology. The commercialization of nanomaterials technology is of great interest to incumbent materials and chemical firms and to independent ventures, but the radical, generic, and capital intensive nature of nanomaterials technology requires organizational and managerial innovation. This case study demonstrates a model to enable growth through radical innovation in nanomaterials, while taking advantage of an incumbent firm's capabilities and complementary assets. Organizational strategies include incubation from a risk-averse culture, relatively long timelines for evaluation, and a high-level steering committee. Managerial strategies focus on product development, risk reduction, and active risk management.

1. Introduction

Corporate venturing, the term applied to all investments by an existing firm into a new venture, is used by established firms to stimulate growth and to increase exposure to the potential opportunities generated by radical innovations (Zahra, 1991; Block and MacMillan, 1993; Covin and Miles, 2007). Corporate venturing allows insulation from the organizational constraints within established firms in mature markets, which strongly favour incremental innovation over radical innovation. Established firms tend to allocate internal research and development (R&D) resources in a risk-averse fashion, avoiding innovations that over-

turn their technology or production capabilities. For technology firms in mature markets, the predominant objective for corporate venturing is to overcome this known limitation, in order to pursue the strategic renewal and growth of the firm (Miles and Covin, 2002; Chesbrough, 2003).

Corporate venturing can occur within or outside of the firm, and is referred to as internal or external corporate venturing accordingly (Rind, 1981; Miles and Covin, 2002). Internal corporate venturing carries the highest risks as well as the greatest potential rewards. Although there is a substantial literature on corporate venturing, there is little research elucidating contextual factors which encourage or discourage the use