

A Gap-Analysis Model for Identifying Effective Government Support for New Technology-based Firms (NTBFs) in Thailand

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Principal Topic

Over the past two decades successive Thai governments have taken a proactive approach to stimulating R&D activities and technology development in Thai companies. Various Thai governments have established policies and measures for supporting New Technology-based Firms (NTBFs) in the nation's infrastructure. Recent Thai governments have shifted their focus towards developing a robust infrastructure for national innovation systems. The stated intention is to create and convert local knowledge into commercially viable outputs to sustain innovative activity.

Key pioneering work was carried out by the Thailand Development and Research institute (TDRI) in the mid-1990s (TRDI, 1998). This was followed by work which focused on financial supporting initiatives (Turpin et. al. (2002). Yencken and Hindle (2005) added a further useful dimension by setting out a framework for the creation of new technology-based firms (NTBFs). Part of Yencken and Hindle's (2005) framework suggests that governments should audit their holistic infrastructure and work to fill gaps in the whole network of support. Without this viewpoint, efforts may under-perform.

In the current empirical study reported here, the author seeks to develop Yencken and Hindle's (2005) framework in the context of Thailand. Two key concerns are discussed in some depth. Firstly, what policies and measures should the Thai government pursue in order effectively to foster entrepreneurship and innovation? Secondly, how best could the Thai government identify gaps for improving existing policies and measures?

Methodology/Key Propositions

Drawing on studies by Lundstrom and Stevenson (2001), OECD (2003) and Strenberg and Wenneker (2005), the current author has developed an illustrative model for analyzing the overall system for NTBF support in Thailand. The various dimensions proposed by these authors have been integrated into a conceptual framework for focused gap-analysis of government policies.

The methodology in this study follows a step by step process. This includes reviewing current practices internationally, in-depth interviews with practitioners and policy makers in Thailand, and in-depth interviews with Thai government policy makers. Data from the Stock Exchange of Thailand (SET) was used to monitor the dynamics of the capital markets in respect of listed companies with an NTBF profile.

Results and Implications

In the current study the author identified 50 related supporting measures for NTBFs. The government support mechanism is loosely-coupled. Outputs are diverse: many of these measures involve a range of activities with different targets and objectives. Oversight is disparate. Five separate portfolios of government share responsibility for the administration, promotion, delivery and evaluation of this mechanism: the Office of the Prime Minister; the Ministry of Finance; the Ministry of Science and Technology; the Ministry of Industry and the Ministry of Commerce.

A key output of the current research is a gap analysis model showing key processes of government support for NTBFs. This illustrative diagram indicates the overall necessary supporting measures for government interventions in NTBF support and development. This paper describes the benefits of this modeling process with suggestions for further work and research.

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