

Chapter 6

A Framework to Analyse the Role of Government in Promoting Quality Innovation in Developing Economies: A Case Study

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ABSTRACT

This chapter analyses the role of government in promoting quality innovation in developing economies. The emphasis is on the importance of understanding firms as main actors of innovation that form the central core of the national innovation system framework. The authors discuss the importance of recognising the range and diversity of innovation firm-level actors in the world's developing economies and their broad requirements for systemic support in order to capitalize on existing resources within the economy. Using the Sri Lankan national innovation system as a case study, the authors discuss the limited ability of traditional systemic approaches to account for diverse firm requirements in the innovation process. In order to promote quality innovation in firms, it is important that governments in developing economies where resources are scarce build on existing capabilities in innovation and technology.

DOI: 10.4018/978-1-4666-4769-5.ch006

QUALITY INNOVATION

Innovation as an overarching concept is defined as any improvement on process or product (OECD, 2005) that represents all types of innovations, innovation systems and also actors, not limited to those with research and development (R&D) responsibilities that contribute to innovation. Innovations need not necessarily always be universally new but can be considered new in relation to an entity itself, which could be a firm, a research institute, an industry or a community. Based on the definition of quality that refers to meeting customer requirements, we consider that quality innovation is itself a form of innovation, one that develops a better product with improved characteristics and qualities that satisfy customer requirements, rather than a definition that means simply producing a completely new product (Swann, 1986). The distinctive outcomes of quality innovation are added features, enhanced performances and increased overall quality of an existing product within existing boundaries (Haner, 2002). In differentiating quality innovation from cost innovation, the former has been defined as quality improvements of the product while the latter is understood as an end-product cost reduction (Hart et al. 1997). Quality innovation as a distinctive characteristic or aspect of product innovation has been studied mainly in comparison with cost innovations however, focusing on both quality innovation and cost innovation has positive resource implications for a firms' global competitiveness.

From a Developing Economy Perspective

Quality innovation refers to fulfilling the needs of users of innovation, requires a good fit between innovation investments and those user requirements and involves quality enhancements of the product (Haner 2002; Von Tunzelmann and Acha 2005). Despite the argument that cost innovation is

accompanied by a reduction in quality and quality innovation is accompanied by an increase in cost (Hart et al. 1997), such negative consequences become trivial when the implementation of both cost and quality innovations together, facilitate pragmatic benefits. For developing economies where considerable resource constraints exist, an orientation towards quality innovation can drive the optimum utilisation of available resources to meet customer requirements and at the same time, grow the market through quality innovations, which in turn lead to the technological progress of the whole economy.

The benefits of quality innovation are recognised across industries. While innovation has typically been discussed in high-tech industries, the usefulness and the applicability of quality innovation, even in low-tech industries is equally important. Quality innovation is using advanced technologies to produce better products that can attract high income earners to purchase them and in doing so expand the market (Tunzelmann and Acha, 2005). While accepting that industries in developing economies are typically considered to be mature and low-tech, we also recognise that the diversity of technological competitiveness among firms is significantly higher within industries; this is also true across industries (Nakandala and Turpin, 2013). For mature industries that may be in decline, making different types of the same products for different markets enables them to underpin resurgence in the economy. These mature industries need to produce improved products to capture new customers at different income levels. Innovation strategies based on a recognised need for quality innovation, direct firms towards developing new products as well as different types of the same product, this fulfils the requirements of customers at different income levels. Such strategies usually require access to advanced technologies, local skills and technological capabilities, local innovation capacity and technology transfer to support technological development.

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