Chapter 20

Lessons Learned from Chilean Model of Innovation and Development

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ABSTRACT
In this chapter, the focus is on the Chilean economy and its development based on the innovation strategies and policies applied in the country in the last 40 years. The country’s performance is compared with others countries in the region and the developed economies. The main lesson learned from the Chilean experience for the small developing countries are that a small economy can use to its benefit, competitive advantages achieved by other countries. In order to do this a country needs an open foreign policy and transparent, safe and fair business policies.

RELEVANCE OF THE THEME
Globalization has changed the competitive field on which countries and companies view national and international markets. Barriers to trade and transportation costs have been reduced considerably since World War Two, while at the same time telecommunication technology developments have made it possible for companies to achieve a broader scope of operations worldwide. Thus, national companies simultaneously face threats from foreign competitors at home and opportunities for reaching wider markets abroad. Companies in developing countries have difficulty competing successfully in this new international environment. In general, these companies lack the resources, the stimulating business environment, the competencies, and competitive advantages, all of which are required if a firm is to be successful in the international arena (Gates & Steane, 2009; Lall, 2000).

From a dynamic perspective, Dunning (1993) suggests the value generating assets of most countries are increasingly taking the form of created—not natural—assets such as human capital, technological capacity, organizational systems,
transport and communications infrastructure, and government policy. Thus, the competitive advantages of nations are based on the ability of their wealth-creating institutions to both organize the use of created assets and to increase the stock of these assets. Firms can use the advantages of multiple diamonds (Porter, 1990), located in different countries based on their value-adding activities (Cartwright, 1993). However, these firms must have the competencies to manage the activities of the value chain located downstream in the market place (Barrett, 2010). It is crucial that those export-dependent and resource-based firms in small economies, where output is much larger than domestic demand, have their value chains integrated downstream in order to get higher value-added products.

Firms in developing countries experience difficulty finding technologies. Even when they import technologies, full utilization of them is often hindered by the lack of tacit knowledge and appropriate skills. The learning process is usually costly, prolonged, risky, unpredictable, and involves important external and co-ordination problems (Lall, 2000). Moving from a low-technology to a high-technology production structure requires a broad and integrated set of policy interventions. This process involves learning, agglomeration, institution-building, and business culture development. Thus, the Chilean long standing effort to upgrade its technological base of production through enhancing innovation processes could shed useful lights to many small developing economies relying mainly on natural resources for their development.

**CHILEAN ECONOMIC BACKGROUND**

Since the Great Depression the early 1930s, Chilean economic policies have adopted a development strategy named import-substitution industrialization (ISI). ISI is based on restricting imports of manufactured products and state-financed domestic industries. The main goal of this strategy was originally to reach higher economic growth while reducing significant reliance on Copper exports (represented 75% of the total export value). In 1973, a very deep institutional and economic crisis ended the ISI strategy. An economic reform began when a team of economists initiated structural reforms that eliminated government interventions, liberalized markets, privatized and deregulated industries, altered the structure of the public sector, liberalized the capital market and the capital account, and opened the economy to foreign trade (Montecinos, 1995).

Economic experts concluded the major reason behind the crisis had been the state control of the economy, which have generated an inefficient productive structure. The reforms aimed to stabilize public budget and stimulate growth by eliminating government interventions. However, the reforms failed to solve Chile’s economic problems despite expectations, so the country was highly affected by a serious crisis. In 1982, Chile’s Gross Domestic Product (GDP) shrank by 14%; in 1983, the financial system collapsed and unemployment exceeded 30% of the workforce (Negoita & Black, 2012). Chilean policymakers recognized market failures and acknowledged the need for some state interventions. However, they suggested only modification of the reforms – not a return to the ISI agenda.

The new policy favored state efforts aimed at stimulating entrepreneurship, raising the technological level of existing industries, and export promotion with minimal direct intervention into company affairs. During the 1990s, an expansive set of policies were enacted, leaving a distinct imprint on Chile’s developmental trajectory. It was only during this period, dominated politically by the center-left alliance known as the “Concertación”, when a fully mature Developmental Network System (DNS) was established and implemented (Negoita & Block, 2012). The reforms matured over the time, and Chile’s