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# The role of export-driven entrepreneurship in economic development: A comparison of software exports from India, China, and Taiwan

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## Abstract

In the puzzle of economic development, there is moderate agreement around one issue: that entrepreneurial, export-led development is likely to produce higher economic growth rates than inward-looking development. This paper begins by taking an overall look at the size and competitiveness of the economies of India, China, and Taiwan, with particular reference to the software and the information technology (IT) sectors. It then focuses on the role of software export entrepreneurship in India and Taiwan as exemplars for other sectors and for formulation of government policy. In Taiwan, successful exporters constitute a model deemed worthy for other companies to emulate. In India, whether the booming software sector will prove to be a sufficient exemplar and catalyst for change throughout the economy and government remains an open question. The paper concludes by taking a look at another related export sector—IT-enabled service exports. Throughout the various sections of the paper, government policy implications remain an important backdrop.

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## 1. Introduction

Since the 1960s, various theories, such as the Fisher–Clark, Harrod–Domar, the “Core–Periphery” model, and Rostow’s Stages of Economic Development, have been advanced to explain the puzzle of economic development. Sociological studies have also abounded, examining factors, such as literacy, fertility and gender roles (e.g., Dasgupta and Li [1]). None has proven to be more than a partial explanation of why some nations grow faster than others or why growth rates, even for the same nation, vary significantly over time. In the early 1960s, India, China, and Taiwan were not too far apart in industrial structure, indices of human development, or per capita income. However, by 2001, China’s GDP per capita at US\$913 was almost double of India’s US\$485, while Taiwan’s had reached US\$14,395, virtually that of a lower-rung advanced country—something not predicted by any single theory.

Most scholars now agree that entrepreneurial, export-led development is likely to produce higher economic growth rates than inward-looking development. Total exports per capita for 2001 ranged from a mere US\$43 in India to US\$209 in China and US\$5830 in Taiwan, which exports more than 100 times per person than India; its GDP per capita is 30 times that of India.

Much of China and Taiwan’s growth and almost all of its export drive rest on manufactured products. China’s manufacturing GDP per capita in 2002, at US\$1322, was four times that of India’s US\$381, and it employs more than twice as many people in manufacturing (95 million vs. 45 million).

Recently, however, information technology (IT) and IT-enabled services (alternatively labeled as business process outsourcing [BPO]) have been proposed by Joseph [2] as a bright spot for India’s exports. Arora and Athreye [3] go farther and propose software and IT-related exports as a catalytic spark for overall economic development in India. A demonstration effect, impinging on the rest of India, from successful entrepreneurship and rampant growth in software and IT is thought likely to lead to improvements in public policy, education, and infrastructure, as well as galvanize private investment.

This paper asks why India lags so far behind China in manufactures and in exports but is able to vastly outshine China in the IT sector. It traces the effect of government policies and entrepreneurship on export success. It begins by taking an overall, broad look at economic indicators, such as exports and foreign direct investment (FDI) in India, China, and Taiwan, and then focuses on the role of the IT and IT-related service sectors. An underlying hypothesis of this paper is that thwarted entrepreneurship is one of the principal causes for India’s sluggish performance, compared with other Asian nations. A comparative study of software exporters in India and Taiwan examines entrepreneurial factors leading to export success. In Taiwan’s case, export success in general has led to an export-driven economy. Whether the booming software sector in India will prove to be a sufficient exemplar and catalyst for nationwide change remains an open question. The paper concludes by taking a look at another related export sector—IT-enabled service exports. Throughout the various sections of the paper, government policy implications remain an important backdrop.

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