Chapter XII

Role of ICT in Development Process: A Review of Issues and Prospects in South Asia

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Abstract

Empirical studies that focus on impact of ICT for development usually make a distinction between ICT as a production sector and ICT as an enabler of socioeconomic development. Although the developed countries are reaping very high benefits from the ICT, its diffusion in developing countries has been limited. It is often argued that for developing countries benefits from ICTs are more likely to accrue from consumption rather than production. In the context of the selected five South Asian countries, the ICT penetration is relatively very low, although there have been some success stories in software production sector and IT-enabled service sector in the region. Generally speaking, the author argues that the developing countries need to integrate ICT policies more closely into economic strategies, which can be done by strengthening the links between development and technology agencies via the organizational structure of policy-making bodies.
Introduction

Capacity to use conventional technologies varies from country to country and often tends to be location or industry specific. This limitation has been more prominent in developing countries due to a number of reasons. First, imported technologies may not always be appropriate to their endowments of labor or technical skills, or to their scales of operation. Second, limited scope for diffusion of knowledge and imperfect market competition restrict assimilation of these technologies in these countries. Third, inability to upgrade the technologies they utilize into new technologies to suit in new conditions. Finally, many other circumstantial situations play important role in hindering the transition that may or may not be visible. Technological capabilities (technical, managerial, and institutional) in the industrial sector, therefore, become more often enterprise specific accumulated skills with a tendency for their technical efficiency to lag behind world technological frontiers. As a result, many developing countries may have stayed at, what Lall (1993, p. 20) calls, “low value added end of the industrial spectrum, falling behind world technological frontiers as others forge ahead.”

Over the past two decades or so, the application of new technologies especially, information and communication technology (ICT), has been credited for its positive role in economic growth and development. Although the developed countries are reaping very high benefits from the ICT, its diffusion in developing counties is still very limited. The role of ICT as a means for accelerating development in underdeveloped and developing societies has been lately questioned especially in terms of their social capacity to process and use the growing volume of information for the society as a whole. While assessing the potential development impacts of ICT many pertinent issues are often raised that include (Morales-Gomez & Melesse, 1998, p. 2):

- who benefits and who loses from the introduction of these technologies;
- how can ICT be made useful and meaningful to the developing countries’ poor majority who are struggling to meet their basic needs;
- what are the social and cultural opportunities and risks they present;
- how can developing countries meaningfully adopt these technologies while lessening their undesirable social and cultural consequences?

ICT and Economic Globalization: Emerging Trends

The new technologies such as information and communication technology (ICT), biotechnology, nanotechnology, and so forth, have been contributing to the rapid transformation particularly of the developed societies. The ICT is, however, singled out as the most pervasive technical innovation of the post Second World War era in the sense that it gives rise to a wide range of new products and services, its applications affect almost all sectors of an economy, it generates strong industrial interest as a means for profitability and competitive advantage,
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