

# Chapter II

## Information Technology and Economic Development in Developing Countries

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### ABSTRACT

*Within the last decades, there was a very high level of increase in information technology production. This production successfully speeds up technological changes in only developed countries. Such a situation results in the use of existing knowledge as input in the production of new knowledge in a monopoly of developed countries. Developing countries are, however, still struggling with their own sociopolitical and/or socioeconomic problems. This process creates a bigger technological gap between developed and developing countries. One of the reasons for this is a lack of physical and human capital in developing countries. This is a common problem in the world and necessary precautions should be taken in a timely manner. This study discusses the problematic issues of information technology creation in both developed and developing countries and suggests some solutions.*

*You may not swim two times in the same river, because every time you go into that river, there will be a different flow of water passing over you. Today's world is different than yesterday's world; and tomorrow's world will be different than that of today as well.*

*Heracleitus*

### INTRODUCTION

There are some changes occurring in the 21<sup>st</sup> century, particularly in the circle that information technologies incorporate, with economic developments in fast pace. As a matter of fact, the concept of change is not novel but is a process that

has existed since the beginning of the world. The real difference between the past and the present is the dimension and the speed of change. For instance, it is a well-known fact that the amount of knowledge that has been produced in the last 20 years is twice the knowledge produced since the early years of the world. Indeed, it is also known that 85% of the scholars on earth are living at present. Thus, the revolutionary developments in knowledge production, its storage, its distribution, and its conversion are the determinants of the era. It worths mentioning here that, while we are analyzing the problem of underdevelopment, we use the terms *knowledge* and *information* in an exchangeable manner, although there are some nuances between them.

Rapid changes and globalization force countries to change their economic structures and the way their developments work. Although the wave of IT-based economic developments of developed countries seems to be leaping to underdeveloped and developing countries to trigger global competition, there are still some concerns. Although IT-based economic development takes place in developed countries in a modern and knowledge-based manner, the same situation does not really happen in underdeveloped and developing countries. Indeed, one can state that the globalization arguments of developed countries with a high level of economic development performance cause pressure on underdeveloped and developing countries, especially in commercial, political, and cultural areas. In this sense, it cannot be accepted ethical and rational to state that globalization increases worldwide competition and improves economic welfare in all countries in order to make national businesses vulnerable and defenseless.

The tremendous increase of knowledge production successfully speeds up technological changes in only developed countries. Such a situation results in the use of existing knowledge as input in the production of new knowledge in a monopoly of developed countries. The concepts of globalization, hence, presently negatively affect

and will remain harmfully affecting underdeveloped and developing countries as they have done in the past.

In the light of aforementioned discussions, the relationship between economic development and information technology will be thoroughly analyzed in this study. The discussions will focus on the following:

- The problems that underdeveloped and developing countries confront due to change and globalization.
- Technology production and transition to a knowledge economy in economic development.
- The differences that economic development causes in underdeveloped and developing countries.
- The utilization of information technologies in economic development.
- Economic development and IT-related regional development policies of developing countries.
- Industrialization policies in underdeveloped and developing countries.
- The importance of human capital for economic development.

The discussions of this study will concentrate on the crucial role of information technology in the economic development of countries, and the relationship between economic development and technological innovations.

## **PROBLEMS DEVELOPING COUNTRIES FACE AND TERMINOLOGY OF UNDERDEVELOPMENT**

Before beginning a formal and detailed analysis, it is worthwhile giving some characteristics of developing countries; they all have the following:

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