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ICT Opportunities and Challenges for Development in the Arab Region

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8.1 Introduction

The rapid progress in information and communications technology (ICT) and its impacts on the global economy have intensified in recent years, leading to a new economic system that has attracted a great deal of interest. It has also raised debate on the effects of ICT and the economic opportunities and the challenges that the ICT imposes on the world economy, particularly for developing countries.

More recently, the continuous move towards globalisation has made ICT one of the most important factors in achieving success as well as in seeking new markets, improving quality, providing better and faster customer service and bringing the flexibility needed to make changes quickly.

The role and impact of technical changes in economic growth and economic development have received particular interest in the recent literature focusing on economic growth. In particular, many of the recent studies have shed some light on the impact of IT on economic growth, productivity, employment, work organisation, competitiveness and human capital development.

Several studies have highlighted both the opportunities and the challenges that ICT has imposed on the world economy. For instance, some studies have analysed the implications of IT on productivity (cf. Brynjolfsson and Yang 1996; Hitt and Brynjolfsson 1996) and the effect on growth and development (cf. Jorgenson and Stiroh 1995; Mansell and Wehn 1998; Pohjola 2000, 2001). Other studies examined the effect on human capital development and skill upgrading (cf. Acemoglu 1998; Hwang 2000) and workplace organisation (cf. Bresnahan et al. 1999).
On the other hand, several studies discuss the hazards ICT creates for economic development. Most of this literature is based on the idea that technical change is a creative destruction process that creates opportunities for development, while also imposing certain restrictions on development, highlighted, for example, by the negative implications of ICT on employment and the labour market (cf. Aghion and Howitt 1998; Freeman and Soete 1985, 1994, 1997). Some of these studies raised the issue that, as with most other technical change, ICT or IT has a so-called labour-saving or skilled-biased effect through the displacement of unskilled labour that results from either the reduction or elimination of some basic non-skilled jobs.

It has also been hypothesised that ICT could impose adverse effects in the developing world because greater advantages will accrue to the industrialised world from global competitiveness than to the developing world, thus making it hard for the LDCs to compete on the international market. Furthermore, the rapid evolution in ICT will make it harder for the developing countries to bridge the already widening gap between the developed and developing world. ICT, by increasing inequality in income distribution and thus adding to the poverty of the poor, will have adverse results on the status of the poor.

The aim of this chapter is twofold; to analyse the status and the determinants of ICT diffusion in the Arab countries and, to review the potential opportunities and challenges that ICT is expected to create for development in the Arab region.¹ In particular we test the hypothesis that high economic growth and high human capital, schooling and women’s schooling lead to the high use of ICT in the Arab region. The chapter will use the descriptive approach, utilising secondary data.

Section 8.2 reviews the status and properties of ICT diffusion in the Arab region. Section 8.3 examines the determinants of ICT diffusion in the region, while section 8.4 reviews the potential opportunities and challenges that ICT is expected to create for economic development in the Arab region. The summary and conclusions are given in section 8.5.

8.2 The status and properties of ICT in the Arab region

This section discusses the status and properties of ICT diffusion in the limited market of the Arab countries, and regional disparities characterising the diffusion of ICT in the region.