Chapter 93 Innovation, Macroeconomic Effects, and Environmental Degradation: The Case of Mediterranean Countries

Ayfer Gedikli https://orcid.org/0000-0002-7128-1976 İstanbul Medeniyet University, Turkey

Mehmet Rıza Derindağ Istanbul Gelişim University, Turkey

ABSTRACT

All over the world, rising population, diminishing natural resources, and the necessity of sustainable growth pointed out the importance of innovation. In the growth strategies, the ability to innovate, as knowledge capital, is one of the most important determinants of sustainable development for all developing countries as their aim is to generate added value, higher development, and a sustainable environment. The aim of this study is to present the importance of innovation for sustainable growth performance in the 13 Mediterranean countries. In the chapter, the role of innovation in macroeconomic performance and sustainable environment in the aforementioned countries will be analyzed. This chapter not only provides an analysis of the relationship between the innovation, macroeconomic factors, and environmental degradation but also policy suggestions to put forth to have more innovative technologies, sustainable growth performance, and environment conservation.

INTRODUCTION

As the most important target of all developing countries, economic growth is dependent on many factors such as the level of saving, increases in the stock of productive inputs, and technical improvements. By providing new technologies, alternative solutions to chronic problems such as health or environmental

DOI: 10.4018/978-1-6684-7460-0.ch093

degradation, innovation contributes to increase productivity, creates new jobs, improve global competitiveness, and improve quality of living standards and helps sustainability both in consumption and production as well as the environment (Neffati, 2018:3483).

In recent years, the rising population, diminishing natural resources, and the necessity of sustainable growth indicated the need for innovation. In the long term growth strategies, the ability to innovate, as knowledge capital, will be one of the most important determinants of sustainable development for all developing countries (LeBel, 2008:334-335). Farhadi and Ismail (2011) found significant positive impacts of information and communication technologies on economic growth for newly industrialized countries in Asia for the 1990-2007 period. This finding implies that in order to accelerate their economic growth performance, emerging countries need to initiate specific policies to facilitate investment in innovation.

Similar to the rest of the world, innovation has a great impact on economic growth in the Mediterranean region, too. In the 1990s and 2000s, the Mediterranean countries showed slower economic growth than other middle-income countries. While the annual average per capita growth rate was 2.7% in the 2000-2009 period in these countries, all middle-income countries' average was 5% (Countinho, 2012:1-2). Below, in Table-1, annual growth rates of the Mediterranean countries are shown for the 2009-2018 period. In most of the countries, the negative impact of the Global Financial Crisis can be seen in the first half of the 2010s. Turkey is exceptional for that period as it showed a remarkable growth performance. Furthermore, in the second half of the 2010s, unsatisfactory macroeconomic performance of the Mediterranean countries brought low growth rates, weak production, and higher unemployment rates. The relatively poor growth and employment performance of these countries can be linked to their poor business environment, lack of productivity, lack of investments for infrastructure and technological transfers.

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Turkey	-4.7	8.4	11.1	4.8	8.5	5.1	6	3.1	7.4	2.8
France	-2.8	1.9	2.1	0.3	0.5	0.9	1.1	1	2.2	1.7
Italy	-5.2	1.7	0.7	-2.9	-1.8	0	0.7	1.3	1.7	0.7
Spain	-3.7	0.1	-0.8	-2.9	-1.4	1.3	3.8	3	2.9	2.3
Greece	-4.3	-5.4	-9.1	-7.3	-3.2	0.7	-0.4	-0.1	1.5	1.9
Cyprus	-2	2	0.4	-3.4	-6.5	-1.8	3.3	6.7	4.3	4
Albania	3.3	3.7	2.5	1.4	1	1.7	2.2	3.3	3.8	4.1
Bosnia	-3	0.7	0.9	-0.7	2.3	1.1	3	3.1	2.1	3.6
Croatia	-7.3	-1.5	-0.3	-2.2	-0.5	-0.1	2.4	3.4	3.1	2.6
Algeria	1.6	3.6	2.9	3.4	2.8	3.8	3.7	3.2	1.3	1.4
Tunisia	3	3.5	-1.9	3.9	2.8	2.9	1.1	1.2	1.8	2.4
Egypt	4.6	5.1	1.7	2.2	2.1	2.9	4.3	4.3	4.1	5.3
Israel	0.9	5.6	4.7	2.2	4.1	3.7	2.2	3.9	3.5	3.4

Table 1. Growth Rate (% annual) of the Mediterranean Countries

Source: World Bank Data (2019)

23 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/innovation-macroeconomic-effects-andenvironmental-degradation/310919

Related Content

Tourist Attraction Perception of Jharkhand Cuisine: A Study on Tourists Visiting Jharkhand

Viveka Nand Sharmaand Arvind Hans (2022). International Journal of Circular Economy and Waste Management (pp. 1-10).

www.irma-international.org/article/tourist-attraction-perception-of-jharkhand-cuisine/306215

Promoting Agricultural Productivity and Inclusive Growth in Uganda

William Amone, Dick Nuwamanya Kamugangaand Godswill Makombe (2019). *Socio-Economic Development: Concepts, Methodologies, Tools, and Applications (pp. 1528-1541).* www.irma-international.org/chapter/promoting-agricultural-productivity-and-inclusive-growth-in-uganda/215798

Sustainable Logistics Systems: A Conceptual Paper

Zhang Yu (2021). *International Journal of Circular Economy and Waste Management (pp. 41-48).* www.irma-international.org/article/sustainable-logistics-systems/281612

Unemployment Persistence, Risks of Skill Obsolescence, and Impacts on the Knowledge Economy in Arab Countries

Amale Achebouneand Ahmed Driouchi (2014). *Knowledge-Based Economic Policy Development in the Arab World (pp. 273-291).*

www.irma-international.org/chapter/unemployment-persistence-risks-of-skill-obsolescence-and-impacts-on-theknowledge-economy-in-arab-countries/97792

On-Board Wide Broad Bandwidth Switching Linear and Planar Antenna Arrays for Industrial Use in an Era of Industrial Revolution

Atteeq Razzak, Tehseen Rahimand Azeem Razzak (2022). *International Journal of Circular Economy and Waste Management (pp. 1-11).*

www.irma-international.org/article/on-board-wide-broad-bandwidth-switching-linear-and-planar-antenna-arrays-forindustrial-use-in-an-era-of-industrial-revolution/306210