

Chapter 4

Leveraging Technology for Sustainable Economic Growth: Advancing the SDGs Through Innovation

Ananya Pandey

 <https://orcid.org/0000-0002-2419-6314>

Christ University, India

Jipson Joseph

 <https://orcid.org/0009-0005-1795-5051>

Christ University, India

Manshu Goyal

 <https://orcid.org/0009-0006-9377-2369>

Independent Researcher, India

ABSTRACT

Raising long-term competitiveness of national economies is an important requirement with the broad use of digital technologies. In addition to offering the possibility of economic restructuring, information and communication technologies open up new avenues for all citizens to access a range of services, such as first-rate health-care and education. As a result, these developments promote inclusive growth and significantly aid in the achievement of the UN Sustainable Development Goals (SDGs). Significant economic changes that raise living standards and boost global competitiveness can be sparked by the promise of digital transformation within a framework of sustainable development. Keeping in view the above, the chapter

DOI: 10.4018/979-8-3693-8477-0.ch004

thoroughly examines practical and theoretical frameworks pertaining to the application of sustainable development, as well as an assessment of the possibilities for using digital technologies to promote sustainable competitiveness. The relationship between digital inclusion and its long-term effects on global economic development is also analyzed.

INTRODUCTION

In the continuous pursuit of world development, the nexus of environmental sustainability and technology constitutes a crucial frontier. Climate change, pollution, and resource depletion are just a few of the environmental issues that have become more urgent in recent years. With its creative ways to slow down environmental damage and foster long-term resilience, technology has become a ray of hope as humanity struggles with the effects of unsustainable habits. Meeting the needs of the current generation without sacrificing the capacity of future generations to meet their own needs is the fundamental goal of sustainable development (WCED, 1987). In this regard, technology has a dual function, acting as a force for advancement and a catalyst for change. In the present scenario, innovation and sustainability are core elements of almost all firms. Even though the definition of sustainable development was first proposed in the 1980s, environmental issues and climate change have made it even more crucial to alter how one manufactures and uses new things. Many nations around the world have social and economic challenges in addition to environmental issues. Using knowledge to develop new technologies that address the above-mentioned issues is one approach to overcoming such obstacles. In both domestic and foreign markets, innovation is crucial (Siriram, 2022). It contributes to economic progress while offering innovative answers to pressing issues. Through the development of new goods, services, and sectors, innovation broadens marketplaces. Also, considering the effects of the digital revolution, advancements in telecommunications and information technology (IT) have not only revolutionized preexisting industries but also given rise to completely new ones like finance, social media, and e-commerce (Radicic & Petković, 2023). These emerging sectors increase economic diversification, create jobs, and attract investment, all of which make nations more resilient to shocks from around the world.

In light of the above perspective, this chapter explores the role of technology for promoting sustainable development and economic growth. Parallely, it also explores the advancements of Sustainable Development Goals (SDGs) with the emerging innovations and rapid advancement in technology.

22 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/leveraging-technology-for-sustainable-economic-growth/374922

Related Content

Research on VRP Model Optimization of Cold Chain Logistics Under Low-Carbon Constraints

Ruixue Maand Qiang Zhu (2024). *International Journal of Information Technology and Web Engineering* (pp. 1-14).

www.irma-international.org/article/research-on-vrp-model-optimization-of-cold-chain-logistics-under-low-carbon-constraints/335036

Exploring the Three- Path Mediation Model: A Study of Customer Perceived Value, Customer Satisfaction Service Quality and Behavioral Intention Relationship

Manish Kumar Yadav, Alok Kumar Raiand Medha Srivastava (2016). *Web-Based Services: Concepts, Methodologies, Tools, and Applications* (pp. 1328-1349).

www.irma-international.org/chapter/exploring-the-three--path-mediation-model/140854

Cryptocurrency Brings New Meaning to Purchase Power and Bridges the Wealth Gap: A Closer Look at Bitcoin

Fabienne T. Cadet (2023). *Blockchain Applications in Cryptocurrency for Technological Evolution* (pp. 108-117).

www.irma-international.org/chapter/cryptocurrency-brings-new-meaning-to-purchase-power-and-bridges-the-wealth-gap/315969

Feature Selection for Web Page Classification

K. Selvakuberan, M. Indra Deviand R. Rajaram (2010). *Web Technologies: Concepts, Methodologies, Tools, and Applications* (pp. 1462-1477).

www.irma-international.org/chapter/feature-selection-web-page-classification/37698

Multi-Agent Based Dynamic E-Learning Environment

Saleh AlZahrani, Aladdin Ayeshand Hussein Zedan (2009). *International Journal of Information Technology and Web Engineering* (pp. 61-77).

www.irma-international.org/article/multi-agent-based-dynamic-learning/4035