

BOOK REVIEWS

Technology, Innovations & Economic Development by Lakhwinder Singh, K.J. Joseph and Daniel K.N. Johnson, Sage Publications 2015, Pages 335, Price : ₹ 995.

The global economy has been transforming at a rapid rate. Technology and innovations played a pivotal role in this process of economic transformation. The nature of technological progress and institutional arrangements effect the direction of economic development. There is increasing interest among economists to examine the creation and dissemination of innovations across farms, firms, regions and over time. The pace of knowledge generation and diffusion, a basic responsibility of the nation state, has fundamentally determined the pace of economic development across countries and over time. Therefore, there has been a close relationship between innovation and the government's innovation policies governed by the national goals and expectations.

Innovation systems in general and R & D in particular is increasingly becoming a global activity with its effects on the developing country participants. Similarly, the strong intellectual property right (IPR) regime being imposed on the developing countries entails an environment significantly different from the ones that was confronted earlier. Hence there is little scope for learning from and then imitating, widespread in the earlier catch-up episodes. Issues pertaining to innovation, technology and economic development have

been at the core of different heuristic paradigms like classical legacies, Schumpeterian paradigm, Arrovian legacy, endogenous growth models to the national innovation systems approach and has had their influence in policy.

This volume brings together essays by leading experts in the fields of innovation, technology and economic development. This volume is distinct in terms of focusing on problems from the perspective of developing countries. The contributions of this volume are classified in three sections.

The first section 'Innovation and Economic Development' has a set of three chapters and addresses the core issues of innovation and economic development. During the recent phase of globalisation and the era of economic reforms, it is pertinent to ask questions regarding how reforms have impacted technological change and economic development. In the chapter on 'Education Reforms, Technological Change and Economic Development', the author highlighted the impact of educational reforms made to meet the growing needs of new technologies for economic development and welfare in developing countries. While reviewing theoretical literature on education and development, he developed a conceptual framework that links skill formation to labour market outcomes and technological progress. The identification of the key elements has been done by examining successful experiences of

countries that have conducted educational and structural reforms.

One of the most pressing problems faced by the humanity is the sustainability of the ongoing economic development process while minimising destruction of the environment. A substantial number of positive efforts have been made under the leadership of the United Nations to tackle this problem. Economic literature on environmental innovations has been growing by leaps and bounds to shed light on the problem of environmental degradation since the last decade of the 20th century. Dan Johnson and Kristina Lybecker, in their chapter 'Eco-Innovation: A Literature Review of the Challenges facing the Development Green Technologies' described and evaluated the literature surrounding the economics of environmental innovations. In the chapter the authors focused on the constraints to successful development, diffusion and financing of eco-innovations.

The capitalist development model based on high rates of economic growth achieved by one of the emerging economic global powers (India) has not benefited the larger section of the Indian population. Policy makers in India accepted this fact and worked to reorient their economic development strategy, coining the term 'inclusive growth / development'. The author in his chapter 'Social Inclusion and Institutional Innovations: Working Towards a Policy – Theoretical Framework' deeply examined the concept of social inclusion to draw the boundaries and rationale for developing the policy framework.

The second section 'Issues in technological Progress and Agriculture Development' comprises two chapters. This section focuses on enhancing our understanding about the functioning of agricultural research, education, and extension and their impacts on agricultural development across countries and over time. Wallace Huffman in his chapter 'Measuring Public Agricultural Research Capital and Its Impact on State Agricultural Productivity in the US' examined the relationship between public agricultural research capital and agricultural productivity across US States. He believes that agricultural innovations and technological progress have been solely dependent on public investment in research.

In the chapter 'Access to Markets and Farm Efficiency: A Study of Bicol Rice Farms over Two Decades'; the author analysed the causes and consequences of transaction costs and dysfunctional markets as well as the determinants of productivity and technical efficiency. The author used an econometric model to examine the impact of the spread of market institutions on the improvements in the productivity and efficiency of rice farmers over a period of two decades.

Industrial development remained the engine of economic growth and structural transformation in developed countries since the Industrial Revolution. In recent times, it has also proved beyond doubt, through the development of newly industrialising countries of East Asia, that industrialisation is a possible pathway to economic prosperity and structural transformation. The last section contains four chapters and strives to address the various

aspects of technology transfer, innovation system and industrial development in the era of globalisation.

In the chapter 'Global Innovation Networks and Industry – University Interaction: A Study of India's ICT Sector', the authors analysed the information and communication technology (ICT) firm's interaction with university / RIs within India and abroad, hoping to shed light on technology transfer mechanisms while following the framework of global innovation networks (GIN). The authors critically examined the existing literature on GIN with the aim to identify research gaps and extended the GIN framework to make it more inclusive, introducing a national innovation system approach. The focus of the chapter 'Globalisation of Industrial R & D in Developing Countries' is on the impact of the ongoing process of globalisation on industrial R & D in developing countries. Having distinguished between multi-nationalisation and globalisation of R & D at the outset, it further distinguishes the globalisation of industrial R & D in developing countries from that of developed countries.

The authors in their chapter 'Technological Capabilities, Employment Growth and Industrial Development: A Quantitative Anatomy of Indian Scenario' analysed the impact of technology on employment generation using descriptive statistics and econometric models. The authors argued that industrial development in developed countries remained a dynamic process responsible for structural transformation of the economy and generated gainful employment opportunities for a

growing workforce. The ninth and final chapter 'Intellectual Property Protection, Innovation and Medicine: Lessons from the Indian Pharmaceutical Industry' examined the impact of the post – TRIPS (Trade – Related Aspects of Intellectual Property Rights) regime on the innovation of the pharmaceutical industry of India. The author reviewed existing literature on the relationship between strong IPRs and innovations.

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Rural Development: Concept and Recent Approaches by Sujit Kumar Paul, Concept Publishing Company Pvt. Ltd 2015, Pages 416, Price : ₹ 1,500.

Rural Development has always been a significant concern in all debates pertaining to sustainable development, especially of developing countries, throughout the world. India, as a developing country is not an exception. Rural development has great importance for a country like India, where majority of the population, around 68.64 per cent (as per 2011 Census) of the people live in rural areas. The process of development has been considered as a guaranteed mechanism of progressive transformation. The term rural development includes a wide range of development initiatives that focus at developing rural areas through creation of all types of assets to ameliorate the condition of the rural people.

Rural development in India is essentially an aspect of planned development launched by the Government of India in terms of succession of programmes and strategies formulated in the Five Year Plans of national