

Innovations and Technological Development on Economic Growth through National Innovation System: Global South versus Global North

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Innovations and technological development have been identified as the key factors of successful economic growth. Most developed nations worldwide have achieved their economic transformation through a knowledge-driven economy. If any country is capable of innovations and technology, it can self-sustain. The best example is the rapid economic growth in East Asian countries, which was built on significant technological advances. The newly industrialized countries in East Asia, namely South Korea, Taiwan, and Singapore have achieved rapid industrial and technological development through the effectiveness of their National Innovation System (NIS). An NIS plays a significant role in uplifting the country's economy, whereas Sri Lanka pays relatively less attention to NIS, technology, and innovations. The main objective of this study was to identify the factors hindering the development of an NIS. While investigating the NIS interrelated dimensions such as patent applications, expenditure on research and development (R&D), and high-tech exports. As the methodology, the study first conducted a comparative analysis with selected East Asian countries including Sri Lanka. Furthermore, using the quantitative methodology, depending on secondary data, relying on the data period from 2000-2021, the study conducted a pooled Ordinary Least Square, panel fixed effect, and random effect estimation for 20 global north countries and 22 global south countries. The model used innovations, and growth-related variables, namely, the number of patent applications, trademarks, industrial designs, and R&D. Key findings revealed that many countries of the global south failed to reach knowledge-based development because most of them did not have proper NIS. They lack technology, innovations, and knowledge, especially in high-tech industries. Instead of technological innovation-based industries, those countries still have mostly labour-intensive industries. In the case of Sri Lanka, it showed a remarkably low incidence of patent applications, trademarks, industrial designs, and R&D expenditure on high-tech exports.

Keywords: Economic growth, Global North, Global South, National innovation system (NIS)

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