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DEVELOPING ASIAN INNOVATION SCOREBOARD: MEASURING NATIONAL INNOVATION CAPACITY FOR UNDERDEVELOPED COUNTRIES

Abstract:

The importance of innovation has been highlighted for the past decades. A number of studies regarding economic growth and innovation have emphasized R&D activities and innovation capacity for one nation's economic growth. Accordingly, major advanced countries established policies by conducting a comprehensive evaluation on the quantitative and qualitative capacity of their S&T innovation. Various approaches and index systems, such as OECD Science, Technology and Industry (STI) Scoreboard for OECD countries, Nordic Innovation Monitor (NIM) for Northern European countries, Composite S&T Innovation Index (COSTII) for South Korea, among others, are used to evaluate the innovation capacity of a country or a region. Despite the Asian region has many issues to address in order to achieve sustained economic growth, enhanced S&T competitiveness, and improved technological innovation, there has not been a good regional-level evaluation for Asia. Because major international innovation evaluation frameworks are centered on the advanced countries in Europe and North America, they cannot accurately reflect the characteristics of Asian countries (of course, underdeveloped countries), which are on the different economic development stage and have different innovation capacity.

The research is to develop an indicator system that reflects the characteristics of Asia, which is named Asian Innovation Scoreboard (AIS). Generally, most of Asian countries are underdeveloped. Therefore, its application could be applied to developing indicator systems that measure innovation capacity of underdeveloped countries. We defined the concept of an innovation scoreboard in consideration of Asian characteristics, developed a preliminary innovation indicator system. And then, we applied the Analytic Network Process (ANP) methodology to examine factors related to the model and indicator system. Finally, we evaluated our indicator system by applying a framework that is developed to evaluate an indicator system by Jung (2013). AIS consist of 43 indicators that represent overall area of innovation capacity.

Keywords:

Asian Innovation Scoreboard, Innovation Capacity, Innovation Indicator, Evaluation, Innovation Policy

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