ABSTRACT

Economic growth, particularly its long-run sustainability, has long been a pivotal point for academic researchers, economists, and policy-makers. Therefore, many attempts have been taken to identify the factors that have an impact on the economic growth in various countries, sectors, and different periods. Financial literature revealed a prospect of joint interdependence between innovation, financial development, and economic growth. This study focuses on the causal nexus between innovation and economic growth, financial development and economic growth, and financial development and innovation. The causal nexus between these three has also been studied. Further, the study focuses on how the change in innovation, financial development, or economic growth of one individual country impacts other countries. The study has been conducted on thirty-four Organization for Economic Co-operation and Development (OECD) member countries namely Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, South Korea, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, Norway, Poland, Portugal, The Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, The United Kingdom, and The United States of America from 1961 to 2018.

The study has used Principal Component Analysis (PCA) to construct the indices for innovation and financial development. The per capita Gross Domestic Product (GDP) has considered the proxy for economic growth. The financial development factors have been classified into three different clusters viz. banking indicators, stock market indicators, and financial stimulators. Indices have been constructed for each cluster as well as the financial development as a whole. The Granger causality test is subsequently applied for studying the causal nexus between innovation and economic growth, financial development and economic growth, and innovation and financial development. Using the Granger causality, the study also finds the impact of one country on other member countries and developed network diagrams for innovation, financial development, and economic growth. The study also developed the regression model using the ordinary least square (OLS) method to find the interrelationship between innovation, financial development, and economic growth.

The empirical study revealed the causal relationship either unidirectional or bidirectional between innovation – economic growth, financial development – economic growth, and financial development – innovation in most of the OECD member countries. The empirical study also shows the strong interrelationship between innovation, financial development, and economic growth. In the case of a few countries, the neutrality effect has been reflected. The study finds that the financially strong countries' innovation, financial development, and economic growth impact more number of other member countries, and comparatively weaker countries got affected by more numbers of member countries. The study indicates that the intensity of causality is country-specific.

Keywords: Innovation, Financial Development, Economic growth, Organization for Economic Co-operation and Development