

ABSTRACT

Innovation is an outcome of various elements which not only include the financial resources but also the human capital, infrastructure, well-developed markets, institutions and most importantly the entrepreneurship capital. Entrepreneurship capital deals with entrepreneurial behaviour which reflects not only the risk bearing and risk sharing attitudes but also the capacity to undertake innovation activities. Schumpeterian fundamentalism supports the argument that innovation is a dynamic process and novelties are initiated through economic agents namely the entrepreneurs; vis-à-vis a strong institutional environment is required to facilitate the innovation process. Institutions play an important role in formalizing entrepreneurial behaviour that is crucial for a country's innovation. Therefore, the present study undertakes macro-level empirical analysis on determining the impact of entrepreneurial behaviour and institutional trust on country's innovation. Institutional trust is measured through two proxy variables i.e., property rights index and State fragility index.

A comparison is made among three groups of countries - i.e., factor-driven, efficiency-driven and innovation-driven economies. Panel data econometric techniques are applied to undertake empirical analysis, using macro-level data covering a time period of seven years (2010-2016). The total number of countries included for this analysis is fifty-five. The empirical analysis is done by focusing on dynamic heterogeneous panel data modelling. Henceforth, GMM (Generalized Method of Moments) estimation technique is applied. It is observed that entrepreneurial attitudes and entrepreneurial activities play an important role in determining innovation but the impact varies with level of economic development. Dummy variables are incorporated in the analysis to examine the differential impact of explanatory variables on innovation among factor-driven, efficiency-driven, and innovation-driven economies.

In case of factor-driven economies, perceived opportunities (PO) could contribute significantly towards innovation, but high risk of perceived failure discourages entrepreneurs to undertake innovative ventures even though there seems to exist good opportunities. On the other hand, entrepreneurs are not deterred by high fear of failure (FFR) in innovation-driven economies. The impact of total early-stage entrepreneurs (TEA) is positive in innovation-driven economies but negative in case of factor-driven

economies. This means that TEA is highly competitive in advanced economies and poor countries cannot benefit from TEA in the same way as highly developed countries. However, no significant relationship is found in efficiency-driven economies. This means that efficiency-driven economies have not completely transitioned from imitation to innovation. The study also supports the empirical findings by tracing out graphical analysis on the relationship of entrepreneurial behaviour and institutional variables with innovation indicator. In case of entrepreneurial attitudes, an inverted-U shaped relationship is observed between fear of failure rate and national innovation whereas perceived opportunities illustrate a wave-like association. Entrepreneurial activities that are categorized into total early-stage entrepreneurial activities (TEA) and established business ownership (EBO) show a U-shaped relationship with innovation.

The study also finds that institutional trust helps in confidence building of the prospective entrepreneurs who are attracted by perceived opportunities. Innovation is highly suppressed in countries that face serious market distortions and inefficiencies caused by lack of institutional trust. This is observed in the case of factor-driven economies which have weaker property rights and policy ineffectiveness as indicated by low value of property rights index (PR) and high value of State fragility index (SFI), respectively. On the other hand, innovation-driven economies have strong property rights and effective policy implementation that help building the confidence of prospective entrepreneurs who are attracted by perceived opportunities. Therefore, perceived opportunities have a significant impact only in innovation-driven economies. This means that it is not inevitable that opportunities necessarily trigger innovation and must be aided by strong institutional environment.

The second part of the analysis aims to determine whether cross-country spatial effects of innovation capabilities results into global convergence clubs. For this purpose, spatial econometric modelling is applied on a panel of three groups of countries covering a time period from 2007 to 2017. These groups include European Union (EU), Asia-Pacific Economic Cooperation (APEC) and South and Western Asia (SWA). The study adopts general-to-specific approach to select the best fit model for spatial association. The relationship is examined after controlling for total export share with neighbouring countries, R&D expenditures, entrepreneurship level and ICT goods import. The analysis provides strong evidence on the existence of international

diffusion of innovation capabilities among member countries of EU and APEC, but such relationship does not hold true for SWA countries. It is concluded that spillover benefits occur only if a country is in proximity with high innovation performance country with greater economic integration and higher trade share among themselves.