**DO ENTREPRENEURSHIP AND INNOVATION MATTER FOR ECONOMIC GROWTH?**

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In a current crisis small and medium size enterprises (SMEs) are very vulnerable due to a deep income decline and import problems. Nevertheless some decision makers argue that supporting SMEs means supporting the economy, as they are a major contributor to the economic growth.

The link between entrepreneurship and economic growth has been studied thoroughly by many researchers, both theoretically and empirically. Most entrepreneurship studies rely on one of the following theories: either the neoclassical theory of economic growth, or Schumpeterian theory, or endogenous growth theory, or economic development theory or institutional economic theory [1]. Modern theoretical models link entrepreneurship, innovation and economic growth: [2], [3], [4], [5], [6].

As for innovations, large firms are aimed at super profits ([7]; [2]). The innovation diffusion then leads to increased productivity, which results in economic growth [8]. Some economists ([9]; [10]) also emphasize the importance of knowledge transfers in this process.

Although many empirical works ([6], [11], [12], [13], [14], [15], [16] etc.) confirm the positive impact of entrepreneurship on economic growth, some studies confirm a positive relationship only for a group of countries with high- and middle-income levels, with opportunity entrepreneurship as opposed to the necessity entrepreneurship ([17], [18] [19], [20]). The same goes for the relationship between entrepreneurship and innovation ([21], [22]). In economically developed countries, entrepreneurs are one of the drivers of innovation: are more likely to invest in the development of new products, the development of new, more efficient production methods.

At the same time, many empirical entrepreneurship studies often ignore the problem of endogeneity arising from a bidirectional causal relationship between economic growth and entrepreneurship. Different instrumental variables (IV) or “difference” / “system” GMM or methods based on the evaluation of systems of equations are used to avoid this ([23], [24], [25], [26]).

In order to track the relations between entrepreneurship, innovations and economic growth and avoid endogeneity in our study we're going to use both methods, method of system estimation (evaluating the three equations for economic growth, entrepreneurship, and innovation ***simultaneously***) and method of dynamic panel estimation (“difference” / “system” GMM).

The goal of our paper is to analyze the relationships between entrepreneurship, innovation and economic growth. We use an unbalanced panel data set of 72 countries (predominantly developed countries including 27 OECD countries) in the period from 2001 to 2020. Using 3SLS-GMM (Three Stage Least Squares - Generalized Method of Moments estimator) we estimate a system of three simultaneous equations [27]. Based on the interdependence and interaction between main variables, the simultaneous equation model consists of three equations, with the following general form:

|  |  |
| --- | --- |
|  | (1) |
|  | (2) |
|  | (3) |

where – GDP per capita; – population growth + 5% (for the pace of technology development plus the increase in physical capital); – gross fixed capital formation (% of GDP); – human capital; – ratio of patent applications to population; – Total early-stage Entrepreneurial Activity (GEM data); *knowledgespill* – knowledge spillovers; – research and development expenditure; – unemployment; – share of urban population.

The second part of the research is devoted to the evaluation of dynamic panels.

Results. Empirical evidence shows a strong relationship between the innovation, entrepreneurship and economic growth as follows. Innovation is essential for the economic growth, at the same time increase in per-capita income will stimulate the innovative activity. Higher TEA is associated with lower level of economic development. Entrepreneurship (higher TEA) promotes more innovations. There is an indirect positive influence of entrepreneurship on economic growth (through innovations presumably).

We show the existence of a simultaneous cause and effect relationship between entrepreneurship, innovation and economic growth. So it follows that small and medium size enterprises (SMEs) might be viewed as a driver for economic growth and long-term port-crisis recovery. Thus, state entrepreneurship policy, aimed at SMEs’ and innovative start-ups’ support in fact might result in economic growth.

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