

Entrepreneurship, Innovation and Startups

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Abstract

In the past decades, we have made significant advances in understanding the relationship between entrepreneurship, growth, and knowledge. In the same way, deeper insights were gained into how knowledge, entrepreneurship and innovation are related. There is no comprehensive understanding of the interaction of these variables, which include knowledge, innovation and entrepreneurship. It is not possible to fully grasp these intersecting and complex forces if we do not have a model that relates the origins of micro- and macroeconomic growth. This paper's main goal is to illuminate recent progress in our understanding the forces behind the creation of new knowledge, the diffusion of that knowledge and its commercialization via innovation and the role played by the entrepreneur during the growth process. This survey concludes with the policy implications of new research findings. The design of regulations affecting knowledge production, ownership and entry barriers are important. Also, the impact on labor mobility, financial markets (inefficient), and labour mobility is also significant. All of them have implications for efficient knowledge diffusion through entry. Incentives that encourage knowledge creation must be coupled with mechanisms for converting it into useful and societal needs.

Introduction

In the past decades, we have made significant advances in understanding the relationship between entrepreneurship, growth, and knowledge. In the same way, deeper insights were gained into how knowledge, entrepreneurship and innovation are related. There is no comprehensive understanding of the interaction of these variables, which include knowledge, innovation and entrepreneurship, as well as growth. The knowledge-innovation-entrepreneurship-growth nexus is intricate and influenced by forces that are likely to simultaneously affect all variables, at least partially, while others can be expected to have a unidirectional impact or affect only a few of these variables. It is too simplistic to understand the complex interplay between these forces. (Thurik, 2023)

Entrepreneurship drives innovation, job growth and productivity. Start-ups that are innovative bring in new ideas to the market. They can also tap into existing knowledge, but they may not have been commercialised. The allocation process is a key part of the economic system. Evidence also exists that there is a positive relationship between business exits and entry rates and the growth of productivity in an economy. According to new OECD data, the majority of jobs created are in small and medium-sized businesses (SMEs) that are under five years old. In the non-financial sector, young firms younger than five years have only accounted for 20% of employment in the past decade. However, they have created nearly 50% of new jobs.

Start-ups face many obstacles in their growth, such as regulatory hurdles, administrative burdens or lack of skills. This can be particularly difficult for new innovative firms, due to the uncertainty surrounding market conditions and technology. In the regulatory environment, incumbents are protected by complex regulatory processes (such as a complicated business license and permit system). A complex system of business permits and licenses, as well as an inefficient bankruptcy law, can be major obstacles to entry into the market, experimentation, and eventual exit. Information asymmetries and a lack of collateral or track record can limit new entrepreneurs' ability to obtain external funding in the early stage of their business. In many cases, lack of managerial skills is a barrier for entrepreneurs who want to combine their context-specific, cumulative knowledge with outside sources and pathways to market. Due to the spillovers of knowledge that occur in the entrepreneur world, some entrepreneurs do not reap the full benefits of their creation. Social returns may be greater than private returns. It may result in underinvestment. This market failure and the institutional barriers make it a good case to support entrepreneurship. (Wang, 2022)

Those who are against encouraging more people to be entrepreneurs also caution the public. Public policies, such as those aimed at entrepreneurs generally and tax incentives for them in particular, are argued to reward people who already have the intention of becoming entrepreneurs. They also tend to create micro-enterprises that do not intend growth. Ineffective spending will be the result if entrepreneurship policies are limited in their impact and have little additionality. The policy evaluation literature, on the other hand, points out positive outcomes for firm performance and employment creation when specific business support initiatives are implemented to address market and institution failures. These include training and technical support, credit access, and innovation support.

Literature review

A series of articles by Aghion et al. examined innovative activities within technologically-leading industries compared with other industries. These studies have produced a number of intriguing results. The induced effect of entry on the innovation and productivity of incumbent firms is shown to vary across industries. What is the impact of firm entry on innovation and productivity in existing firms? It was demonstrated in the previous contributions that incumbents who are more established industries increased their innovation activities to avoid the adverse effects of the competition due to innovative entry. This mechanism is referred to by the authors as "escape from entry through innovation". The authors refer to this mechanism as "escape entry effect through innovation". (Bessonova, 2019)

Aghion et al extend the analysis to include foreign companies, i.e. foreign direct investments. In the case of technologically advanced industries, a similar dynamic is observed to encourage incumbents to intensify their innovation efforts in response to foreign entry or threat thereof. The opposite occurs in the case of laggards industries. Successful innovation prevents entry. It discourages innovation in laggard industries, since the entry of newcomers reduces expected returns from innovative activities. This is called the "discouragement effect". (Amable, 2016)

In this way, the entry of foreign or domestic firms tends to improve inputs and out-puts. This can lead to knowledge spillovers that affect incentives for innovation among existing companies. The

dynamics of structural adjustments will vary between different industries. To reap the benefits from a structural change within or between different industries, it is necessary to have different policies for each industry. (Chalmers, 2021)

Nelson and Winter's evolutionary framework addresses questions such as the origin of innovation, how innovations are selected, and how they are transmitted from one period to another. Nelson and Winter claim that the answer is routines with gene-like (inheritance properties) combined with a mutation ability. Routines drive evolution, and we suggest that different forms of innovation can be achieved by exploiting the opportunities associated with specific knowledge regimes in the context of a particular industry. The large incumbent companies are then modeled to be investors in R&D, and knowledge creation efforts. This is referred to as a routineized technological regime. The same firms then use these to their advantage, with the influence of exogenous stochastic variables on the choice of the winners (innovations and increased productivity). Winter calls these entrepreneurial technological regimes. (Teece, 2020)

Acs et al. argue that the exploitation and use of knowledge is dependent on a broad range of institutions, laws, and regulations or, to use their term, the knowledge filter of an economy. Knowledge filter refers to the difference between newly acquired knowledge and commercialized or economic knowledge. The knowledge filter is thicker the greater the difference between commercialized knowledge (new knowledge) and economic knowledge. Arrow pointed out that knowledge is different from other production factors. Arrow emphasized that the expected value of a new idea can be highly unpredictable and has much more variance than traditional production factors. Arrow stressed that there are many uncertainties when it comes to innovation. These include whether or not the product is feasible, whether it can be manufactured, and if enough demand will materialize for it. (Uzunca, 2020)

Sutter shows that entrepreneurial activity is clustered spatially and there are unobservable latent sources of variation that vary by region. These factors have a significant impact on the entrepreneurial behavior. The growth in regional high-tech production as a percentage of total regional output, the per capita income, and the private employment rate were all important economic structural variables that determined regional entrepreneurship. This suggests a path-dependent relationship in high technology. Sutter concludes, using recent advances in spatial econometrics, that knowledge and entrepreneurial activity positively affect regional total factor product. Distance from the frontiers of technology seems to be a minor or non-existent factor in determining the total factor productivity. The discovery and exploitation opportunities are linked to individuals as well as places. (André, 2023)

A recent study conducted by Djankov and colleagues, which examined the effective tax rates in 85 countries for 2004 and compared them to a standard firm, found a negative effect on both investments and entrepreneurial activity (both from incumbents and direct foreign investments). According to a recent study by Djankov et al, examining effective corporate taxes in 85 countries in 2004 for a standardized firm, ten percent increases in tax reduce aggregate investments in relation to the GDP by 2 percent. Tax increases are also associated negatively with economic growth, but positively with the growth of informal sectors. A statistically significant finding is that the corporate debt (lower stability) of companies is higher in countries where corporate taxes are higher. Debt financing is more common than equity funding. (Djankov, 2020)

Entrepreneurship –Definition, measure and origin

Why do people engage in uncertain, risky ventures? In the earlier literature on entrepreneurship, there are many different explanations for why people become entrepreneurs. However, institutions always play a major role in explaining the scope of entrepreneurial activity. These alleged explanations for entrepreneurship include a mixture of economic reasons, attributes that characterize entrepreneurs and forces associated with culture and path dependence. They are sometimes classified by the level of aggregate, beginning at macro and moving down to factors related to industries, microeconomic incentive structures, and cognitive capabilities of individuals. A supply-and-demand taxonomy can be used to present similar forces that trigger entrepreneurship. This section will provide a brief overview of the main explanations for entrepreneurial activity, focusing on the empirical evidence regarding the role institutions play and the access to information. This section also addresses the peculiarities of the production and definition of knowledge.

Significant conditions and instruments

The goal of start-up policies and innovative entrepreneurship is to improve the business climate for future entrepreneurs, young and nascent ones. They also provide direct support and services. Three categories can be identified:

They include policies that promote entrepreneurship (e.g. Awareness-raising campaigns and award programmes, entrepreneurship events. Entrepreneurship education. From primary education to higher education (including vocational training and educational programs), information on how to start a business, and guidance and support for the process of creating a new company. Mentoring and coaching are available, for example through the incubation of businesses. Indirectly, this also includes employment protection laws and how they affect the choice of career between salaried employment and self employment (i.e. The opportunity costs of entrepreneurship).

Antitrust laws, business regulations (e.g. Antitrust laws, business regulation (e.g. The amount of taxation that is favourable to new businesses (e.g. Tax treatment for young/small businesses and large/established firms is different.

If you want to know whether R&D tax breaks penalise young firms with low taxable income, then check the following: public procurement (e.g. If R&D tax incentives do not punish young companies with low taxable income, public procurement is an important factor. Public procurement (e.g. Capital gains are taxed at a lower rate, and there is also specialized business advice. Lastly, the start-up policy increasingly targets certain segments of society, on the basis that the entrepreneurial potential of some populations, such as youth, women or immigrants is greater than that of others, or some individuals are more inclined to create companies of value. The three categories of targeted entrepreneurship tend to be combined.

Most often, entrepreneurship education is delivered by ad hoc local initiatives. Some countries are now introducing it formally in their curricula. Finland was a leader in the field by incorporating entrepreneurship into the curriculum of both primary and secondary school. Spain, on the other hand, passed the Organic Law for the Improvement of the Quality of Education, in 2014. This law

prioritizes entrepreneurship and initiative as one of the core competencies to be taught in primary and secondary education. Israel's MAOF Small Business Centres were launched in 2013, with an estimated budget of NIS 195,000,000 (USD 48 million). The centres are attempting to standardise, rationalise and streamline the government-sponsored business advisory services.

Current trends and policies

In the OECD region, there is a trend towards reducing fees and requiring less capital to start a company and expand. The licensing process has also been simplified. A law that came into effect in Chile in May 2013 allows for the establishment of an enterprise in one day with minimal paperwork and zero costs. The 2014 National Plan for Production Diversification in Peru aims to improve the climate for investment by ensuring that regulations are more appropriate and administrative procedures simplified with the public sector. Reforms to bankruptcy regulations have been implemented in several countries. They aim at improving the efficiency of bankruptcy proceedings and giving honest entrepreneurs a second opportunity. Some of these reforms include a reduction in discharge time (i.e. The time taken between the liquidation of the debt and its formal cancellation is reduced, reducing the administrative burden on the entrepreneurs during bankruptcy proceedings. In Austria, for example, the discharge is automatic upon payment of the agreed-upon quota in the insolvency proceedings. For a new business to grow and succeed, accessing financing at an early stage is essential. In most OECD nations, the corporate income tax (CIT), regardless of size and age of the business or its incorporation status, is a statutory rate. Twelve OECD nations have CIT rates for small businesses, that apply to SME earnings below a threshold. Based on the differences between the small business CIT rate and standard CIT, Canada, Hungary France, and Korea have the most generous rates. Some countries made taxation easier for small businesses by simplifying tax compliance. EasySME, an application developed in Denmark for small businesses, allows them to get a financial overview and comply more easily with the tax laws.

Some countries are more focused. Different types of financial assistance are offered to young or new firms that have a technology base.

- The Netherlands provides funding for risky but innovative projects, which do not fall under its other programmes.
- Peru implemented in 2014 a programme to fund start-ups. The program aims to create an environment for new businesses by providing seed funding for innovative ideas. Turkey is in the final stage of the Individual Entrepreneurship Programme, which aims to promote technological and academic entrepreneurialism and increase the survival rates of new technology-based firms.

A targeted approach to non-technological innovations is rare. In 2014, France launched its "A New Deal for Innovation" plan, which provides entrepreneurs with financial assistance for maturing non-technological innovations and facilitating market entry. Innovation financing can be provided by new institutional investors, sovereign wealth funds and other sources. Internet crowdfunding is a new way to finance small businesses. New legislation in the United States has increased attention

on this phenomenon both there and abroad. The use of crowdfunding as a source of complementary funding is growing rapidly (OECD 2014b). Despite its youth, more than 700 platforms exist worldwide. Crowdfunding is not only a source of research funding and seeds, but also enables citizens to engage with science.

OECD member countries offer small business accelerator programs to help innovative, growth-oriented firms. The main focus of business accelerators is to tackle at the same time some of the biggest challenges facing high-growth companies, including the enhancement of managerial skills, the creation of professional networks and equity financing. The Vigo Accelerator program in Finland supports the formation of a network of teams of business accelerators who raise their own money and take an equity stake in new ventures. The majority of public funds go to coordination, but other agencies in the public sector, such as Tekes and Finnvera are dedicated to accelerating applications from Vigo-backed companies for funding innovation. Since the global economic recession of 2008, programmes to support entrepreneurship that are targeted at specific populations have become more important. In December 2013, Greece launched a program budgeted at USD 32,5 million PPP in order to help young unemployed individuals create innovative businesses. This scheme offers funding and business training for this group based also on the innovation level of their proposals. Canada launched the Action Plan for Women Entrepreneurs in 2015. The Action Plan includes measures that foster networking, promote mentorship, increase access to international markets via trade missions, and provide financing through USD 574,000,000 PPP (CAD \$700,000,000) over a 3-year period by the Business Development Bank of Canada.

Empirical explanation

Literature suggests that the institution setting within which the agents work is the source of the economic development, the dynamism and the changes. Institutions are responsible for the effectiveness and efficiency of individual action, even though the needs that drive it may be driven by individuals. At a high level, formal or informal institutions are always responsible for the type and extent of entrepreneurial activity. The institutions are also present at every level of the economic activity: macroeconomics, industrial policy, knowledge generation, attitudes, and incentives. Literature suggests that the institution setting within which an agent operates is the source of the economic development and dynamism. Institutions are responsible for the effectiveness and efficiency of individual action, even though the needs that drive it may be driven by individuals. At a high level, formal or informal institutions are always responsible for the type and extent of entrepreneurial activity. The institutions are also present at every level of the economic activity: macroeconomic policies, industrial policy, knowledge creation and attitudes.

Conclusion

The ability of a society to grow in wealth and well-being over the course of time is largely dependent on its capacity to create, use and disseminate knowledge. Before the more significant step of evolution, there were discontinuous or lumpy augmentations in knowledge and technological progress. After knowledge reached a new level, economic growth periods characterized by market experimentation, uncertainty, wealth redistribution, and new industries and structures were

created. The pattern is similar to the development of the second and first industrial revolutions in the 19th century, as well as the current "third" digital revolution. Although there's a widespread assumption in economics that microlevel processes are crucial to the dissemination of knowledge and growth, this is not supported by a rigorous theoretical framework or empirical analysis. Knowledge, entrepreneurship and innovation are all interconnected but they're treated separately or as if they were a random process or constant. The literature that attempts to integrate these economic concepts in a coherent framework has only emerged over the past 10-15 years.

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