Introduction to Institutions, Entrepreneurship and Firm Growth: From Sweden to the OECD

Zoltan J. Acs
Charlie Karlsson

Very little is known about (i) how the institutional framework influence entrepreneurship, the formation of new firms and firm growth, (ii) what impacts changes of the institutional framework have on these issues and (iii) the time it takes for changes of the institutional framework in a more growth enhancing direction to have any substantial effect on entrepreneurship and firm growth.

Turning to the influence of institutions on entrepreneurship and firm growth it is first of all clear that there is a need to more clearly define what is really meant by institutions. The concept of institutions, as defined by Douglas North (1978), is a very general concept. For this concept to be really useful in empirical analyses substantial efforts are needed to operationalise the concept. But this is not enough. It is important to realise that institutions are only a limited part of the overall economic milieu within which entrepreneurship may develop. The economic milieu contains not only the institutional framework but also the overall conditions for entrepreneurial activities such as the demand conditions, the supply conditions, the degree of competition in various markets, the infrastructure conditions, the supply of labour and the skill level of the labour force, the entrepreneurial climate, knowledge production and access to knowledge, and so on. Of course, all research on the influence of institutions on entrepreneurship and firm growth must fully acknowledge the influence also of the other parts of the economic milieu. Since entrepreneurship is not only an economic activity but also a social activity it is very important also to study the relationship between formal and informal institutions to better understand how formal institutions might be used to make informal institutions more conducive to entrepreneurial activities (Acs and Audretsch, 2001).

For this reason, Jönköping International Business School, Jönköping University, Sweden, invited internationally well renowned scholars to a workshop with the theme "Institutions, Entrepreneurship and Firm Growth". The workshop was held in January 2000 in Jönköping, Sweden. The workshop was organised by Zoltan J. Acs, Charlie Karlsson and Bo Södersten and sponsored by the Programme on Entrepreneurship and Growth at Jönköping International Business School.

The purpose of the workshop was to provide a state-of-art overview of the role of institutions[1] for entrepreneurship and firm growth in developed market economies in general and in Sweden in particular from both a theoretical and an empirical point of view. The participants in the workshop presented papers dealing with various aspects of the role of institutions for entrepreneurship and firm growth. The discussion at the workshop was focused at stimulating revisions and refinements of each contribution. The first selection of papers dealing with only Sweden appeared in the previous special issue of *Small Business Economics* (2002).

Final version accepted on November 19, 2001

Zolton J. Acs
Merrick School of Business
University of Baltimore
Baltimore, MD 21201-5779
U.S.A.
E-mail: zacs@ubmail.ubalt.edu

Charlie Karlsson
Jönköping International Business School
P.O. Box 1026
S-551 11, Jönköping
Sweden
E-mail: charlie.karlsson@jibs.hj.se

Small Business Economics **19**: 183–187, 2002.

Taken together the papers in that special issue gave many evidences and indications of the role of institutions for entrepreneurship and firm growth. Overall the results in the papers are very much in line with research results reported elsewhere. It appears as if there is a negative correlation between entrepreneurship and the total taxes as a share of GDP, the public spending as a share of GDP, the average corporate tax level, the marginal personal income tax rate, the degree of equality in the income distribution, labour costs, the degree of rigidity in the labour market, the degree of non-participation in higher education, and so on.

The papers appearing in this special issue of *Small Business Economics* are a selection of the papers presented at the workshop that do not deal with Sweden. The issues are all germane from an institutional perspective: wealth, technology intangibles, gender, and business ownership. The first paper by *Acs and Phillips*, "Entrepreneurship and Philanthropy in American Capitalism" takes a broad view of institutions, in the tradition of North, to examine the role of economic prosperity over the very long run. It is widely recognises that much of the success of the American economy in recent years, and historically is due to its entrepreneurial spirit. Individual initiative and creativity, small business and wealth creation are indelible parts of the American spirit. As a result of the recent technological revolution and economic restructuring both the general public, and government officials, are keenly aware of the role of the entrepreneur in job and wealth creation (Hart, 2001).

However, what is less recognised is that there is another crucial institutional component to American economic, political and social stability, which is the role of philanthropy. The authors suggest that what differentiates American capitalism from all other forms of industrial capitalism are its historic focus on both the creation of wealth (entrepreneurship) and the reconstitution of wealth (philanthropy). Philanthropy is part of the implicit social contract that continuously nurtures and revitalises economic prosperity, to build up the great social institutions that have a positive feedback on future economic growth. For example, it was the great social institutions of Stanford University, MIT, Johns Hopkins University, and the University of Chicago, among others, that contributed to the recent American successes. This entrepreneurship-philanthropy nexus has not been fully explored by either economists or the general public. This paper suggests that American philanthropists – especially those who have made their own fortunes – create foundations that, in turn, contribute to greater and more widespread economic prosperity through knowledge creation. If we do not analyse philanthropy we can understand neither how economic development occurred nor what accounts for American economic dominance. These results support earlier findings that there is a negative relationship between the size of the government sector and economic growth, and suggest that there is a positive relationship between the reconstitution of wealth and economic growth in the long run.

The next two papers analyse the role of technological regimes in entrepreneurship. In the first paper, "Technological Regimes and the Growth of Networks," *Fabio Pammolli and Massmo Riccaboni* show how specific technological and relational regimes have shaped the growth of the network of R&D collaborative agreements in pharmaceuticals in the 1990s. Their analysis reveals the existence of a complex set of regimes of firm growth within the network, providing additional evidence supporting prediction that both growth and innovative activities of large and small firms respond, even within a given industry, to considerably different technological and economic factors. Moreover, the paper shows, in the context of a specific industry and by means of a series of preliminary and explorative empirical analysis, that information on the topological properties of a given industrial settings, and on roles/positions of organisations within it, can be used to disentangle some fundamental generative processes underlying observed processes of growth. This result contributes to the old stochastic approach to firm growth, in the direction of building parsimonious and, at the same time, more realistic representations of processes of industrial growth.

The second paper by *Orietta Marsilli*, "Technological Regimes and Sources of Entrepreneurship," examines the technological determinants of entrepreneurial behaviour. By apply a typology of technological regimes, which describes the nature of the technological environ-

ment in which firms operate, this paper examines the sources and obstacles to entrepreneurial entry related to the process of technical change. Two major points are suggested. First, innovation in technologies of high or increasing opportunities is not always associated with entrepreneurial behaviour, but can enhance the competitive advantage of existing firms. Second, opportunities for entrepreneurship are shaped by the nature of knowledge underlying different technologies. These points are illustrated using U.S. patent statistics classified by technical field and sector of firm's principal product activity. Different combinations of sources of technological entry barriers and technological opportunity are identified in science-based technologies, chemical technologies, and core technologies in complex systems, product-engineering technologies and process engineering technologies. The paper argues that such a characterisation of the dynamics of knowledge accumulation is important for interpreting the variety of dynamics of industrial competition.

These two papers show the importance of the relationship between entrepreneurship and technology, and illustrate the variety of factors that contribute too shaping the relationship between technological change and entrepreneurial behaviour. The tools presented here should complement more traditional econometric and analytical techniques to capture the essence of industrial dynamics when systems are far from stable. In this respect this work represents only a first step in the exploration of patterns of industrial competition driven by technological change.

The next paper by *Dennis C. Mueller and Dylan Supina*, "Goodwill Capital," examines the role of intangibles. In the new knowledge-based economy intangibles play an increasingly important role in economic growth. Therefore, increasing our understanding of intangibles is an important area of research. The concept of goodwill or brand capital is commonly employed by analysts in business and marketing to measure the asset value of a company name or a brand name (Kay, 1995). Thus, among accountants as among business analysts, the existence of goodwill capital seems to be taken for granted. That, however, cannot be said for economists. It is generally accepted that both advertising and research and development have the fundamental property of an investment since they can affect the future sales and costs, and hence the profits of a firm. Even though both these kinds of investments can create intangible capital stocks, the authors have not been able to find a parallel treatment of the concept of goodwill capital in the economic literature.

The purpose of their article, therefore, is to begin to fill this void by presenting an analysis of goodwill capital and some estimates of its likely magnitude in a sample of U.S. firms. They define goodwill capital, like the capital arising from R&D and advertising, as a form of intangible asset, albeit one which cannot be readily related to past investments in R&D, advertising, and capital equipment. They compute estimates of goodwill capital by deducting measures of these other three forms of capital from a firm's market value. For many companies, goodwill capital turns out to be the largest of its four capital stocks. Roughly half of the estimates of goodwill capital turn out to be negative. Organisational forms and corporate culture may help explain the large and persistent negative stocks of goodwill capital that appear to exist. Here, however, the institutional culture would appear to be more of one destroying assets then creating them, and the organisational and governance structure may only serve to protect the managers from outside control. While this is not the place to unravel these casual relationships and corporate differences, this paper does point to an important new area of research for economists, the role of institutions and governance in the market valuation of intangibles.

The next two papers return to the themes from the first paper. *Andrew E. Burke, Felix R. FitzRoy and Michael A. Nolan* examine the relationship between wealth and job creation. Their focus on wealth is not on how wealth is used to promote social stability, but how inherited wealth contributes to firm formation. The focus of the paper is concerned with firm capability, the roles of gender, entrepreneurial ability and motivation in self-employment. The data set, which forms the basis of their study, is Britain's National Child Development Study. In their study they examine in addition too access to finance and entrepreneurial ability – perception and exploitation – the importance of business contacts. The ability to exploit profit opportunities is influenced by many

of the same forms of human capital. In general, one would expect an individual with greater business contacts, work experience, education, and knowledge of the market and business practice to be more productive. They also examine the role of non-pecuniary motivation as a determinant of the performance of the self-employed. Their results clearly indicate substantial differences in the factors that affect the capability of male and female entrepreneurs and in turn their performance.

The empirical analysis appears to provide some justification for the idea that high non-pecuniary motivation may improve a business's financial performance. The desire to be one's own boss is found to be a positive and significant determinant of choosing self-employment for both males and females. However, it has contrasting effects on performance. In the case of males, non-pecuniary motivation has a positive impact on the value of the business. Self-employed individuals who preciously declared that importance of them of being their own boss tend, in following their predilection for independence, to also generate extra business value. The effects of the inheritance variable, in the case of males support the existence of a binding liquidity constraint. However, for females, inheritance is statistically insignificant. This is what one would expect if females faced family constraints on expansion thus reducing the relevance of inheritance. These results are important and further increase our understanding of the dynamics of wealth and entrepreneurship.

The last paper, "Economic Development and Business ownership," by *Martin Carree, André van Stel, Roy Thurik and Sander Wennekers*, examines the relationship between entrepreneurship and economic development for a sample of 23 OECD countries in the period 1976–1996. While the importance of entrepreneurship and economic development was alluded to in the first paper, as an accepted fact for the United States, it has not been examined systematically for a large sample of countries previously. This paper examines three issues. First, how is the equilibrium rate of business ownership related to the stage of economic development? Second, what is the speed of convergence towards the equilibrium rate when the rate of business ownership is out-of-equilibrium? Third, to what extent does deviating for the equilibrium rate of business ownership hamper economic growth? Hypotheses concerning all three issues are formulated in the framework of a new two-equation model. The authors find confirmation for the hypothesised economic growth penalty of deviations from the equilibrium rate of business ownership. This is an important finding. Even more important, the speed of adjustment is not high and as we have pointed out in this special issue this is not surprising. The convergence process of the actual business ownership rate towards the equilibrium rate is intrinsically slow because it involves structural changes of the supply side, investments in physical and human capital, as well as cultural and institutional changes.

An important policy implication of their paper is that to induce dynamic entrepreneurial competition requires the fulfilment of two conditions. The first relates to the importance of creative destruction. A dynamic economy requires a high level of innovative activity, which, in turn, requires vigorous entry of new firms, most of that are necessarily small. This causes high degree of turbulence. It is the gross flows of entry and exit, of newly created jobs and jobs destroyed, which are important, not the net changes. Therefore, if one wants to stimulate economic growth, the most important policy objective is not to retard this process of change and displacement but to facilitate it, particularly by encouraging entrepreneurship and free entry and tolerating failure (Acs et al., 1999).

These preliminary results should be interpreted with caution for both theoretical and empirical reasons. Nevertheless, they provide a good starting point for a promising line of future research on the relationship between institutions, entrepreneurship, economic development and public policy.

Note

[1] Some authors use the concept of "social capital" to describe institutional arrangements in an economy.

References

Acs Z. J. and D. B. Audretsch, 2001, 'The Emergence of the Entrepreneurial Society', *Swedish Foundation for Small Business Research*, Stockholm, Sweden.

Acs Z. J., B. Carlsson and C. Karlsson, 1999, 'The Linkages

Among Entrepreneurship, SMEs and the Macroeconomy', in Z. J. Acs, B. Carlsson and C. Karlsson (eds.), *Entrepreneurship, Small & Medium-sized Enterprises and the Macroeconomy*, Cambridge: Cambridge University Press, pp. 3–44.

Hart, D. M., 2001, *The Emergence of Entrepreneurial Policy: Governance, Start-ups, and Growth in the Knowledge Economy*, Kennedy School of Government, Harvard University.

Kay, J., 1995, *Foundations of Corporate Success*, Oxford: The Oxford University Press.

Karlsson, C. and Z. J. Acs (eds.), 2002, 'Introduction to Institutions, Entrepreneurship And Firm Growth (I): The Case of Sweden', *Small Business Economics* **19**(2), 63–67.

North, D., 1978, 'Structure and Performance: The Task of Economic History', *Journal of Economic Literature* **16**, 963–978.