

Entrepreneurship and Regional Economic Development. A Spatial Perspective 2004
De Groot, H.L.F., Nijkamp, P. and Stough, R.R. (eds.), Cheltenham, Edgar Elgar.

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The aim of this book is to provide more insight in the importance of spatial factors in guiding the behaviour of the entrepreneur by contributions from a range of spatial economic scholars. The book is composed in the light of the arrival of endogenous growth theory, which places the Schumpeterian-style entrepreneur at the heart of modern theories explaining the causes of differences in economies across the world. The book takes the entrepreneur as a starting point and acknowledges the spatial context in researching the determinants of economic development. The theoretical background is on the crossing of the fields of endogenous growth theory and the new economic geography literature. In this volume entrepreneurs are seen as risk-taking individuals that promote economic development. With this view the main emphasis is on the Schumpeterian entrepreneur where creative destruction is the foundation of economic development. This is combined with the very successful theory of endogenous growth revolution, which unfortunately leaves out the important role spatial factors play in economic development. Endogenous growth theory opens up a wide range of possibilities to investigate innovative behaviour resulting from risk-taking behaviour of individuals as a key driver of economic growth, although in an aspatial manner. New economic geography addresses questions as to why economic activity has a tendency to cluster in space, though sometimes leaving out innovation and economic growth. Combining both theories as a starting point for research creates an edited volume that aptly demonstrates the wealth of research in the area of spatial economics, and in particular the emergence of evolutionary views within this field.

The book is composed of four parts. Part I 'entrepreneurship and economic development' is conceptual in nature. The three chapters in this part reveal how evolutionary and neoclassical theories of economic development have converged and how the Schumpeterian entrepreneur plays a central role in both research traditions. This part sets the stage for the subsequent parts. Part II 'spatial variation in drivers of economic development' and III 'empirical case studies' are more empirical in nature. Part II contains contributions that describe how spatial variation can explain economic growth. The third part is primarily case-study driven. Its chapters reveal by empirical investigations the central role of entrepreneurs in driving economic development. Motivated by empirical insights, Part IV 'theoretical approaches' contains chapters that contribute to new model and theory development. This review of the volume is done in the same order.

Part I

The second chapter (Jeroen van den Bergh) demonstrates the usefulness of an evolutionary approach in investigating entrepreneurship and its impact on economic development. Organisations are here seen as evolving complex systems, meaning that they are neither planned nor perfectly controlled. The author emphasises that a hierarchical view of reality, with interacting layers of individuals and organisations, is the best way to understand the structure of and change in the economy. In this contribution, globalisation, decentralization and informal networks are discussed in the context of evolutionary organisations. It illustrates that in order to understand the structure and dynamics of organisation multidisciplinary research is necessary. The chapter is very explanatory about the usefulness of the evolutionary approach in economics and discussed in depth. Nevertheless, due to the many examples from natural sciences (which are illustrative and useful), where the evolutionary approach originated from, the large number of examples distracts the reader from the main aim of the chapter.

The third chapter (Jack High) explores the influences of entrepreneurship on economic development by means of integrating the theory of entrepreneurship developed by Schumpeter with modern growth accounting. It is shown in this chapter that entrepreneurship pervades nearly every aspect of economic development. A comparison of monetary values of productivity is done to identify the concentration of productivity gains among the various industries. An increase in the concentration of productivity

provides evidence that entrepreneurship is an important source of productivity gains. “Calculating entrepreneurial value in this way not only shows how much each industry adds to value, it also shows how much some industries subtract” (p.59). “The concentration of entrepreneurial gains in a small number of industries leads us to expect that entrepreneurial value added will be concentrated geographically, because firms in the same industry tend to cluster in particular regions” (p.63), explaining why some regions exceeds others in economic performance. This is a very valuable contribution to the volume that adds to the main aim of the editors.

Chapter 4 (Luis Suarez-Villa) provides a conceptual overview of aspects of techno-capitalism “representing an evolution of market capitalism that is rooted in technological invention, innovation and their supporting intangibles” (p. 78) and its new ecology of entrepreneurship. The author explores ways by which techno-capitalism moulds firms and organisations and from this, the emergence of new entrepreneurs. The factors that create a breeding ground for the emergence of techno-capitalism create a need for a new theory of location that can consider that, “the most successful firms in this emerging era are those which become leaders of change rather than mere innovators” (p.84). A truly Schumpeterian approach to entrepreneurship is displayed in this contribution combined with the importance of embeddedness.

The first part of this volume lives up to its promise and reveals the convergence of evolutionary and neoclassical theories of economic development, combined with the importance of the Schumpeterian entrepreneur in both research traditions.

Part II

In the fifth chapter (Philip Cooke and Nick Clifton), small and medium sized enterprises (SMEs) and their impact on economic development are the main issue and discussed in the case of the UK. The authors conclude that currently SMEs make more employment and business turnover available than large firms and public organisations do together. It is shown that collaboration of SMEs (either in business functions or sharing non-confidential knowledge), creates the ability to relatively costlessly overcome barriers caused by small size. Investigated is whether firms that use this so-called ‘social capital’ perform differently from those firms that do not collaborate. The investigation reveals that the most innovative SMEs use social capital quite intensely. “This study of reciprocity, trust and favour exchange in business life complemented the earlier Cooke and Wills (1999) study of social capital, and public innovation programmes encouraging inter-firm networking, by looking at social capital in market-based or private rather than public enterprise support settings” (p.109).

Chapter 6 (Roger Stough, Peter Frank and Gordon Shockley) concentrates on the role of spatial, environmental and structural components of venture capital in regional economic development. The authors explicitly examine the institutionalisation and endogenisation of venture capital at the scale of the functional region. It is shown that institutionalism and endogenisation of venture capital evolved gradually from the twelfth to the eighteenth centuries, and that this evolution accelerated through the nineteenth and twentieth centuries. This is an interesting contribution which is a bit conspicuous in its novelty, because it gives an interpretative history of the institutionalisation of capital on such a long time-period, which even in consideration of its distance from the main thread of the other contributions is worthwhile reading.

Chapter 7 (Robert Stimson and Scott Baum) is the last chapter of the second part of the volume and elaborates on the relationship between differentials in regional socio-economic performance transition from the ‘old’ to the ‘new economy’, and the human capital characteristics in different places. In short, it investigates “the relationship between educational attainment, income and regional development” (p.154). The authors measure community opportunity and vulnerability in a regional performance typology to investigate variations in performance of communities across the national urban system in the relationships between shares of national population and employment. Furthermore, levels of human capital, investment by the public and private sectors in non-residential construction, the ration between income tax generated by households and transfer income benefits received, and scores on a socio-economic advantage / disadvantage index are investigated as well. The results of this

contribution are not very surprising. The conclusion is that the bulk of economic, social and cultural activities are located in larger urban areas and hence it is concluded that higher levels of human capital are found in larger urban areas compared to smaller urban localities.

The contributions in Part II partly explain how spatial variation can explain economic growth. Due to the contribution on venture capital in this section, which feels somewhat like a disruption from the theme, this section is the least coherent of the volume.

Part III

The eighth chapter (Roel Rutten and Frans Boekema) deals with product development and engineering explained by inter-firm collaboration on innovation. Collaboration affords on product development have a spatial dimension as well, “the more codified the knowledge, the less space plays a role and, conversely, the more tacit the knowledge, the more efficient it is for actors to be located at a short distance from each other. Such is the geography of knowledge. Though elegant, the geography of knowledge is also a simplification. In fact, tacit knowledge does take place of long distances, as people travel ... Given that knowledge has become a key resource in our present knowledge economy, companies will be looking for the best knowledge, which is not necessarily the same as the nearest knowledge” (p. 181), which almost seems to revert back to the early days of the Internet when the idea grew that telecommuting would become commonplace and that information would be accessible from anywhere (also discussed in Chapter 12). The authors conclude that they found evidence which offers support for the geography-of-knowledge thesis, where proximity has a positive effect on knowledge creation, but remark that proximity is not a necessity for knowledge creation. In the end, firms and entrepreneurs look for the best, rather than the most proximate, knowledge.

The ninth chapter (Roberta Capello and Alessia Spairani) continues with the role of information and elaborates on the increased attention devoted to the role played by information and communication technology (ICT) on the performance of economic systems. This is discussed from both the national and regional level. The authors’ aspiration is a contribution to literature by highlighting the role played by spatial elements in the development and exploitation of ICT by small firms. “Space is not intended in a geographical-physical sense: in a modern interpretation, it becomes a source of specific knowledge, expertise and know-how, which can also be useful for ICT exploitation” (p.199). Place is seen as the space where spatial and social relationships exists and especially in an urban context. Within in a city, “the development of a common identity and sense of belonging, the ‘socialised’ production of human capital and knowledge of elements that stem from the agglomeration principle, ... prove to be at the heart of the innovative propensity” (p.201). They conclude that socialised and collective processes of accumulating knowledge are subject to lock-in effects when a local system (e.g. a city) is not fed by external knowledge. From an Italian case study is found that spatial interaction with exogenous factors is important for the successful development of economic systems.

The tenth chapter (Philip McCann and Tomokazu Arita), investigates the relationship between clusters and regional development by means of the semiconductor industry in a comparison of those in Europe and Japan. The authors try to find out which factors lead to entrepreneurial activities and innovations in a leading role in the development of new products and services. They emphasise that much of the innovation activities from the entrepreneur depend on his/her educational, social and psychological backgrounds sideways to the institutional and economic environments in which firms compete. Furthermore, firm and innovation are in addition related to the level and type of market information available on the local scale. The different types of institutional framework that create different notions of industrial clusters are discussed and how these influence entrepreneurial and innovative behaviour. The main question is if there are any features of the regional economic system which provide for the requisite flows of information and market entry possibilities necessary for local enterprise and innovation to flourish? The authors conclude “variations in institutional environments could therefore be a possible explanation as to why some regions appear to foster entrepreneurship and innovation while others do not appear to do so to the same extent” (p.237).

Chapter 11 (Marina van Geenhuizen and Danny Soetanto), addresses the conditions that influence the growth of a specific category of high-technology firms (university spin-offs), and the incubation policies concerned with such firms. The authors put forward a theory of firm growth and survival based on evolutionary principles combined with resource-based theory. The results of the investigation point out that the main problem for these spin-offs firms are caused by the level of knowledge (skills) combined with uncertainty in management. This is explained by the fact that students and university staff are not at all trained in the routines that are necessary to start a firm. The policy part is slightly underexposed and stays at a rather abstract level, nevertheless, it gives some handles for parishioners and is by this, a 'lonely' chapter in a mostly rather academic book.

The third part contains four chapters that are based on empirical investigations, which take entrepreneurs' actions as a driver in economic development as their main issue. The contributions are colourful and give a good overview of the empirical work which is contemporary done in this field.

Part IV

Chapter 12 (Hildegunn Kyvik Nordås) builds a theoretical model analysing the market entry and location decisions of entrepreneurs. The model introduces a governance cost function that depends on the distance between the two contractual parties. It is indicated from the model that there exist a wage level above which no potential entrepreneur would set up a designer firm, and a critical distance between the designer firms and the customer, beyond which no designer firm would be established. Even though with the introduction of internet it was expected for a while that society would get footloose; distance does still matter. And the author argues, "the relocation of fabrication to lower-cost emerging markets has worried industrial communities in rich countries, industrial regions in rich countries could specialise in services that embody their industrial technology and experience" (p.271). From the model can be indicated that the reach of designer services firms depends on the wage rate for professional workers, the cost of fabrication and investment in ICT. The model can be used in analysing restructuring following de-industrialisation in wealthy countries. The author concludes from the model applied to a case that firms are more likely to retain in the region when physical or cultural distance to the new location of fabrication is moderate and the production costs in the emerging market are much lower than in the home country.

The following chapter (Rainer Andergasen, Aura Regiani and Peter Nijkamp), creates new insights in the concept of self-organised criticality (SOC) and looks at SOC's possible contribution to understanding the evolution of economic patterns and development at the micro level. Self-organisation can be defined by "the ability by certain equilibrium systems to develop structure and patterns in the absence of control or manipulation by an external agent" (pp.297). SOC is based upon the idea that complex behaviour can develop spontaneously in various many-body systems whose dynamics may vary abruptly and unexpectedly. This concept comes forwards from dynamic systems analysis in which attempts are made to investigate the transition trajectories of evolutionary systems. SOC does not only react to external shocks but also to internal response mechanisms. The SOC approach aims to examine which conditions on the internal dynamics of the system itself lead to significant and structural transformations of the system's behaviour, such that a critical pattern emerges. The authors rightfully conclude "SOC appears to be a useful tool of analysis for micro and meso economic sciences, since it can also capture and explain phenomena like catastrophes and avalanches (either positive or negative), usually considered to be the result of aggregate shocks" (p.309).

The last chapter (Günter Haag and Phillipp Liedl) of this volume investigates the spatial competition of a network of interacting firms. Here a macro model is developed in which new production factors for taking into account technological progress, such as information, knowledge production and knowledge transfer are considered, of course regular production factors such as capital and the labour force are taken into account as well. The model describes nested innovation processes and knowledge exchange of a network of spatially interlinked firms. The authors consider that knowledge production and knowledge transfer processes within and between industries including has a definite spatial context. In line with the previous chapter the role of innovation of new product and processes in the

self-organization of organisational units become the key question of this contribution. It is assumed that regional policies have an important impact on the performance of firms and subsequently the economic development of regions. "The evolution of a network of interlinked firms, belonging to different regions and using different cooperation strategies, leads to a complex development of system trajectories. The system parameter fluctuations or uncertainties in the decision process of the agents determine whether the spatial economy ultimately ends up in a stable attractor, a limit cycle or even a chaotic phase. Due to the inherent non-linearities, a path dependence of the trajectories exists ... The timing of adopting an innovation from other firms has a considerable impact of the development of future market share. If innovations are adopted too early or too late, less market share can be gained compared to the case when the adoption takes place at the optimal time, determined by the current stock of knowledge" (p.342). This model is definitely an important step in explaining complex interlinked activities of a spatial network of firms. As the authors rightfully argue, the model has shortcomings (e.g. focus on only the supply side of the market), but is a good starting point for future research.

The last part of this volume consists of contributions that add to new models and theory development. Especially the last two chapters give novel and interesting insights on the advances that are currently done in the field,

The conclusion drawn by the editors at the end of the introduction is that the various contributions add to our understanding of why some regions grow rapidly while other stagnate. The editors furthermore, correctly argue that through the lack of uniformity in the operationalisation of entrepreneurship and hard (or even impossible) comparisons of empirical studies it is hard to draw general applicable lessons. The lack of uniformity makes one more time clear that a rising need for new micro datasets is present. Lacking appropriate data, it will remain difficult to expose and explain the fundamental microeconomic factors that are behind the complex processes of regional development and clustering. Edited volumes have the danger of putting range above depth, and this collection has unfortunately not been immune from the tendency. There seems to be no real coherent thread running throughout the chapters linking them to the aims of the introduction. Some contributions suit without a doubt the main aim of the volume better than other contributions. Because of this, and the lack of a concluding chapter in the end, causes that the arguments presented do not push forward the case for greater insights into the role of entrepreneurship in spatial economics in general but remains a collection of, however interesting, papers with different viewpoints.