1. Introduction: entrepreneurship, growth and economic development

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INTRODUCING RENT XXIII

The Research in Entrepreneurship and Small Business (RENT) conference is an annual international event, organized by the European Council for Small Business (ECSB) in collaboration with the European Institute for Advanced Studies in Management (EIASM). It represents one of the most significant international meetings of researchers in the field of entrepreneurship. This book comprises a selection of ten of the best papers from the 148 accepted for presentation at RENT XXIII, held in Corvinus University Budapest, Hungary in November 2009. The overarching theme of the 2009 conference was the title ‘Entrepreneurial growth of the firm’ and the papers selected for inclusion in this volume cover a range of topics related to the broad theme of entrepreneurship, growth and economic development. Entrepreneurship is a key source of dynamism in the European economy, enabling it to adjust to structural changes, converting challenges into opportunities. Both the causes and consequences of entrepreneurship are matters of extensive scientific debate as well as of great potential policy significance. The entrepreneur is a key change agent in a market economy, promoting the efficient use of resources and introducing new products, processes and organizational structures. A high level of entrepreneurial activity contributes to economic growth, innovative activities, competition, job creation and local development. The selection of papers included in this volume demonstrates the role of entrepreneurship in relation to growth and economic development in a variety of different contexts.

In recent decades, the world economy has seen a radical transformation of the factors that determine the competitiveness of countries. Indeed economic integration, globalization, rapid technological change and more recently the economic crisis have changed the traditional patterns of
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competitiveness. The new competitive model is now based in the knowledge economy, which represents a means of introducing continuous innovation through the creation of new ventures.

The contribution of entrepreneurship to economic competitiveness is related to its impact on productivity, which in turn is affected by the process of competition between firms’ innovation. The process involves an increase in the supply of better products and services at lower prices to society.

The evidence shows that some new firms are dynamic, making an important contribution to economic development in three ways: first, as a channel to convert innovative ideas into market opportunities; secondly, by stimulating competitiveness by increasing productivity; and thirdly through the supply of new jobs. Alongside its contribution to economic competitiveness, the European Union regards entrepreneurship as a contributor to social inclusion and to reducing unemployment.

INTRODUCING THE CHAPTERS

The idea that entrepreneurship is the engine that stimulates economic growth, employment and competitiveness in global markets is supported by various research evidence. However, measuring firm success, performance and growth is a complex task and a potential source of frustration. In this context, Chapter 2, by Niklas Kiviluoto, Malin Brännback and Alan Carsrud, reviews existing literature in order to understand better how growth, performance and profitability are measured at the firm level, in what contexts, and what the differences are between the three concepts. They review empirical articles published between 1981 and 2009 in five top-tier journals, three specializing in the field of entrepreneurship (Entrepreneurship: Theory & Practice, Journal of Business Venturing, Journal of Small Business Management); and two general business and management journals (Strategic Management Journal and Academy of Management Journal).

The selection of articles was made by searching articles with the key words ‘growth and profitability’ or ‘growth and performance’ from the Harzing database ‘Publish or Perish’. A final sample of 118 empirical articles was chosen for the review. Then articles were read and relevant data was extracted from the articles with respect to the dependent variables, independent variables and control variables, final sample size and firm characteristics, industry type, growth measures, performance measures and the growth–performance relationship. The results show a fragmented field of research where little consensus seems to exist in determining what
performance is. The three most common dependent variables are growth (49.2 per cent), performance (44.9 per cent) and profitability (17.8 per cent). In a total of 49 studies (41.5 per cent) where only one performance measure is used, more than 53 per cent assess a firm’s performance solely based on sales growth.

Based on the findings from this study, the authors argue that growth and performance *are essentially the same*. Most studies concerned with performance actually refer to growth, and more specifically to sales growth. Surprisingly, perhaps, this is often the only measure used when assessing a firm’s performance. However, from a broader perspective, the answer is that growth and performance are not the same. Performance is most commonly seen as firm success, and assessing a firm’s success solely based on growth only tells part of the story.

Chapter 3 also focuses on growth at the individual business level, where the role of entrepreneurial ventures in job generation is emphasized. Entrepreneurial IT services firms (EISFs) are chosen to develop and test a typology of growth strategies. This exploratory study by Olivier Witmeur and Alain Fayolle is concerned with the business-to-business activities of this type of firm for two reasons. First, EISFs face three traditional growth options that are not mutually exclusive: gaining more customers in the same market with the same or deepening provision of services; extending to new territories (internationalization) and/or developing a new service offering (diversification). Secondly, their strategic challenge is augmented by a possible evolution from a service- to a software-business model. The study builds a typology of strategic configurations for EISFs, with a description of individual growth stages, as suggested in stage models specific for hi-tech ventures.

The research employs a multiple case study, qualitative methodology, applied to four Belgian EISFs. For each of these firms, a single open-ended interview (for a minimum of one hour) was conducted with the founder/manager, and secondary corporate data (annual report, press releases, and so on) were also analysed, in order to identify both major events and strategy changes.

Analysis of the four case studies led to four propositions. First, ‘willingness to grow’ is more often associated with moves towards product configurations. Secondly, service configurations are driven by ‘market acceptance’ while early product configurations need ‘investor acceptance’ because of the existence of a prototyping stage before reaching the market. Thirdly, organizational structuring does not appear to be relevant at the outset for both service and product configurations, but is critical during later stages. Fourthly, although strategic planning is only relevant in the later stage for firms adopting service configurations, it is more constantly
The lack of a well-developed venture capital market has long been viewed as a major barrier to the emergence and growth of New Technology Based Firms (NTBFs). In this context, Chapter 4 by Teresa Hogan and Elaine Hutson analyse the relationships between the key events in the start-up phase of NTBFs in venture capital-backed and non-venture capital-backed firms in the software sector. In particular, the study analyses the impact of product lead times and the availability of finance from consulting activities on the financing patterns of both cohorts at start-up.

Software is the dynamo of the Information Communication Technology (ICT) sector as it provides the code that enables hardware products to function. Low barriers to entry have provided the opportunity for NTBF formation in the software sector. Using various sources, a database of all software product firms in Ireland was compiled for this study. Having extracted a sample of 257 independent software product firms, a postal survey was administered to the company founders. In terms of responses, 110 provided information on the timing and sequencing of key events in the formation process. The number of venture capital-backed and non-venture capital-backed firms in the study is similar.

The findings show that overall product lead times in the software product sector are relatively short, with firms typically developing their first prototypes within a year of formation. In addition the evidence suggests that product lead times are not significantly longer in venture capital-backed than non-venture capital-backed firms in the sector. This is an important finding as it suggests that product lead times may not have the same impact on funding in software firms as in the case of firms in other sectors. Second, although product lead times in venture capital and non-venture capital-backed software product firms are not significantly different, the analysis reveals fundamental differences in the funding of prototype development within the two subgroups. The non-venture capital-backed cohort relies largely on internal funding for product development, whilst the venture capital-backed firms are more likely to access external funding prior to completing the process. Third, revenue from
consulting is an important source of funding for prototype development in both venture capital-backed and non-venture capital-backed firms. Short product lead times facilitate a self-funding strategy which is enabled by a 'soft start' business model whereby consulting revenues are employed to fund prototype development, limiting the need for external sources of funding. The evidence confirms that while some firms can self-finance the product development process, fewer firms can fund prototype development solely from external sources of financing.

It is increasingly recognized that entrepreneurship education is a key factor influencing the entrepreneurial orientation of a population and thus ultimately the role of entrepreneurship in economic development. At the same time, there are different approaches to stimulating entrepreneurship through education at different stages of human development. Chapter 5, by Jan Lepoutre, Wouter Van den Berghe, Olivier Tilleul and Hans Crijns, assesses whether entrepreneurship education programmes have an effect on the entrepreneurial intent, creativity and attitude towards entrepreneurship among secondary school pupils. Their literature review suggested that entrepreneurship education programmes have a significant positive impact on various proxies for entrepreneurship, including entrepreneurial intentions, the desirability and feasibility of entrepreneurial ventures, and various competencies that are associated with entrepreneurship.

The empirical study was conducted among pupils that participated in 21 entrepreneurship education programmes, implemented in the Flemish part of Belgium. The authors asked programme coordinators to submit a survey to the pupils after the programme was finished. After data cleaning, 2160 responses were retained and the results analysed using various multivariate statistical packages. The results confirmed that entrepreneurial intentions change significantly as a result of entrepreneurship education programmes. The data reinforce the notion that entrepreneurship programmes also have a significant effect on the self-perceived feasibility to start up a company. Furthermore, the study also found confirmation of the impact of entrepreneurship education programmes on the perceived desirability of starting a business. As entrepreneurship is increasingly recognized as an important vehicle for economic and social prosperity in our societies, entrepreneurship education programmes in secondary schools offer a means of influencing entrepreneurial attitudes and competencies among pupils at a young age. This research demonstrates that not only are such programmes effective, but also that their effect depends on the intensity and experience of the programme itself and how it is evaluated by the pupils.

New business start-ups increase innovation as well as the level of competition, and also create employment, thereby contributing to national
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and regional economic development. In Chapter 6, Kenta Ikeuchi and Hiroyuki Okamuro investigate the impact of regional human capital structure on the start-up ratio, using Japanese data at the prefecture level. Differentiating between independent start-ups and new subsidiaries of existing firms, they compare the effects of regional human capital structure on entry across different industry sectors. With regard to labour force structure, their literature review reveals numerous studies focusing on the effects of the qualitative and quantitative composition of the regional labour force, as well as the impact of the employment situation on the start-up ratio. The qualitative composition denotes the endowment of a highly educated or skilled labour force, while the quantitative composition is mainly measured by the age structure of the labour force. Based on data describing the regional workforce and stock of establishments from 47 Japanese prefectures over four observation periods, the study estimates the impact of various regional factors on the entry rate of independent start-ups and new subsidiaries for each industry sector. The authors employ SUR regression, which assumes correlation between the error terms of two regression models, because variables affecting the entries of both independent businesses and subsidiaries might be omitted.

The estimation results show considerable differences in the impact of regional factors between independent start-ups and subsidiaries as well as among different industries. First, the ratio of college graduates is negatively correlated with independent start-ups, but positively with the entry of subsidiaries. Second, the ratio of professional and technical workers positively affects independent start-ups but not the entry of subsidiaries. Third, the relationships between regional human capital structure and the entry of independent start-ups and new subsidiaries are different across industries. The results suggest that regional policies to activate business start-ups should recognize the differences between encouraging local entrepreneurship and attracting new subsidiaries. These differences may vary, even within the service sector, according to technological intensity or innovativeness.

Increasing cross-border cooperation between firms in border regions may be viewed as a form of internationalization, as well as a potential stimulus to economic development in typically disadvantaged peripheral regions. In this context, Chapter 7, by David Smallbone, Mirela Xheneti and Friederike Welter, investigates cross-border cooperation between enterprises as a form of international entrepreneurship, using empirical data from two contrasting regions: Florina, which is a Greek region with a ‘hard’, external EU border with the Former Yugoslav Republic of Macedonia (FYROM); and Görlitz, which is a German region with a ‘soft’ internal EU border with Poland.
The international entrepreneurship literature incorporates a number of specific approaches, including the resource-based approach, the network approach and the strategic choice approach. The study assesses the extent to which existing theories are appropriate to explain cross-border cooperation between enterprises. This is explored empirically by examining entrepreneurs’ rationale for entering the cross-border region, their motivations for taking such a decision, their subsequent experience and the ways they interact with both the domestic and international environment. A semi-structured schedule was used as a basis for the interviews in order to gather data from the cross-border firms, which were mainly qualitative in nature.

As by definition border regions are at the periphery of their countries, the evidence shows that cross-border cooperation with foreign enterprises may offer firms a means of compensating for their peripherality. The evidence also demonstrates how the nature, extent and direction of cross-border entrepreneurial activity is affected by the respective development levels on the two sides of the border. This affects both market opportunities on the demand side and (indirectly) the capacity of firms to take advantage of them on the supply side. The empirical data also point to the role of network links as resources for cross-border cooperation to develop and a basis for the type of trust-based relationships to evolve that can be so important in facilitating effective inter-enterprise cooperation. In terms of the relevance of theories of internationalization, the analyses demonstrate a need for eclecticism, providing evidence to support several theoretical perspectives. Of particular relevance are the incremental, resource-based and network approaches, with aspects of a strategic choice perspective helpful in conceptualizing the drivers.

The identification of variables in regions with high and low entrepreneurship potential is an important aspect in the formulation of policy recommendations to foster entrepreneurial activity at the regional level. In this context, Chapter 8, by Katharina Becker, Franz Kronthaler and Kerstin Wagner, examines the conditions for new venture creation in Swiss regions, including the resources, structural characteristics and abilities of regions to generate new firms.

Theoretical and empirical literature on entrepreneurship suggests there are numerous factors which can impact on start-up activities. These include those influencing the demand and supply sides for entrepreneurship as well as urbanization and localization effects. The demand side for entrepreneurship refers to the opportunities to create a venture, influenced by the market demand for new goods and services. The supply side deals with the endogenous potential of the regional population to create new firms. This includes factors such as the size and structure of the
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population, employment structure, age structure, human capital and share of immigrants. Urbanization and localization economies both belong to the broader concept of agglomeration economies, in which firms are said to benefit from spatial concentration, leading to advantages associated with market size, spillovers, synergies and labour market effects.

The study aims to cluster regions according to their entrepreneurial potential at the spatial level of 106 Swiss MS (mobilité spatiale) regions, in order to compare regions according to their structural potential for new venture creation and to identify the strengths and weaknesses of regions with regard to their entrepreneurial activity. Cluster analysis is used to identify 10 clusters with different entrepreneurial potential. Based on factors established in the literature, it was suggested that each regional cluster was distinctive with regard to its potential for venture creation. With these results it is possible to discuss different strategies for fostering entrepreneurial activity for the respective regions. The results provide a means of benchmarking regions, in the sense that regions can compare their specific characteristics with other regions and clusters. Furthermore, the results can assist decision-makers to evaluate projects to establish whether or not they are in line with regional policy strategy.

The existence of a competitive and innovative SME sector is an important element for enhancing entrepreneurial activity and providing the necessary dynamism for economic growth. In this context, Chapter 9 is concerned with the development of a theoretical model of competitiveness and its application to the SME sector in Hungary. The study, by László Szerb and József Ulbert, develops a conceptual model containing 21 individual variables and seven pillars to determine and examine the competitiveness of small businesses. The resource-based view (RBV) and Dennis Miller’s configuration theory serve as a basis for constructing the seven-pillar model of competitiveness.

While most competitiveness research focuses on identifying the key factors of competitiveness, Szerb and Ulbert view competitiveness from a system perspective, showing how the different elements of competitiveness can be recognized and combined by applying a unique methodology called the penalty for bottleneck (PFB). The PFB argument is based on the theories of constraint and weakest link. Bottlenecks are defined as the lowest value factor out of the seven pillars of competitiveness. Each pillar value is related to the weakest pillar, and penalized for differences. The calculation of the competitiveness points of individual firms is a distinctive approach in competitiveness research.

A survey of Hungarian SMEs involving 695 Hungarian businesses is used to present the empirical applicability of the conceptual model and the PFB methodology. The results show that innovation is typically the
weakest aspect in the businesses surveyed, followed by networking and human resources. The implication is that public policy-makers should aim to improve the competitiveness of Hungarian SMEs by paying more attention to improving these aspects. The cluster analysis shows great differences between the seven groups of businesses in terms of competitiveness, with each cluster representing a dominant competitive strategy of Hungarian SMEs.

Chapter 10, by David Finn and Colm O’Gorman, is concerned with how innovation leads to the emergence of new industries and, in particular, with the processes by which individuals create commercially successful innovations. The authors emphasize how new knowledge-based innovations are important, not just to individual firms, but also to regional and national economies. The research approach starts with an empirical description of the radio frequency identification (RFID) industry. In collecting data they focused on two potential generative mechanisms. First, the emergence of the industry is described in terms of the evolution of RFID technology, and more particularly, the evolution of a syringe-implantable identification transponder. Second, they describe the industry in terms of the evolution of entrepreneurial firms that were involved in developing and exploiting RFID technology. Their findings have important implications for the study of the emergence of new organizations in contexts characterized by technological uncertainty; by the absence of established market mechanisms; and by the absence of institutional support for emerging organizational forms. Such contexts are important, as many policy-makers seek to stimulate economic growth through investment in science, which they expect will lead to the ‘birth’ of new industries. The authors argue that a core generative process in the emergence of a new industry is knowledge spillover. In their study, the discovery, evaluation and exploitation of opportunities by individuals was the result of knowledge spillovers that resulted from extensive social interactions.

The managerial implications of this research are that entrepreneurs in knowledge-driven industries need to think differently about the mechanisms which lead to knowledge spillover and the challenges of managing people and business relationships in an emerging industry. For public policy practitioners several aspects of this research offer hope to regions that lag in terms of knowledge creation through investments by government and large firms in scientific research.

The final chapter, by Christoph Streb and Vishal Gupta, has a different purpose from the other chapters, as it focuses on research methodology. It presents new methodological approaches for the study of process-intensive, context-rich, temporally oriented entrepreneurial phenomena. The study provides a summary of the radical subjectivist paradigm with
regard to research methodology issues, based on a review of publications in six top entrepreneurship journals, in order to identify those using a qualitative approach, which is usually associated with a more subjectivist paradigm. The authors seek to discover the extent to which a radical subjectivist approach is represented in the current literature. By introducing a hermeneutical research approach, they offer suggestions for qualitative approaches to entrepreneurship research that takes the unique multilevel nature of entrepreneurial phenomena into account and is consistent with the radical Austrian paradigm’s subjectivist ontological and epistemological assumptions.

Hermeneutics is a linguistic methodology that focuses on questions of how people interpret and understand texts. Hermeneutics suggests that the various participants in a conversation jointly produce the understanding and meaning of a text. It recognizes the existence of several different worldviews (or vantage points), which can differ to a greater or lesser degree from one another. Thus, the understanding of entrepreneurship is mutually constructed in conversations between entrepreneurs, lay people, media, commentators, and any other social participants who choose to join this conversation.

Three additional issues deserve mention. First, a hermeneutic understanding of any text involves relating unique instances and occurrences found in this text to ideas and concepts that apply to multiple situations. Secondly, hermeneutics recognizes that preconceptions, assumptions and prejudices are inherent in any understanding of a text. Thirdly, hermeneutics encourages one to be suspicious of any text and to ‘dig beneath’ the surface to unveil and retrieve those meanings that often lie hidden.

This chapter analyses publications in six leading entrepreneurship research journals between 2000 and 2008 with regard to their methodological orientations and relevance to the emerging disequilibrium paradigm according to Ludwig Lachmann. The key findings of this chapter suggest that Lachmann’s work represents a fundamental shift in entrepreneurship research: from the objectively anchored economic paradigms of Joseph Schumpeter and Israel Kirzner to a thoroughly subjectivist paradigm based on the radical subjectivist notion of subjective ontology and epistemology. Not surprisingly, such a radical paradigm shift indicates new methodological directions, encouraging process-related, multi-level and historical research. Significantly, however, they find that appropriate methodological rigour is often lacking. This chapter thus proposes hermeneutics as an exemplary approach that could address these deficiencies via narrative and pattern-matching strategies, while rejecting variance-theoretic models.