1. Introduction

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INTRODUCING RENT XXII IN COVILHÃ

This volume represents a selection of best papers from the 137 presented at the RENT XXII Conference held at the University of Beira Interior in Covilhã, Portugal, 20–21 November 2008. As such, it provides a window on contemporary European research in the field of entrepreneurship and small business. Although varied in terms of the topics covered, all of the selected papers contribute in some way to the overall conference theme of ‘Entrepreneurship as an engine of regional development’.

The venue for the 2008 conference was particularly appropriate for this theme, in view of the key role being played by entrepreneurship in the development of this part of Portugal. In fact, entrepreneurship has been a strategic driver for creating employment, increasing income, facilitating the adjustment to economic change and supporting competitiveness at the local level. Nevertheless, in order to foster entrepreneurship at the regional level, there is a need to strengthen the role played by entrepreneurial universities, especially, in terms of entrepreneurship education oriented towards innovation and endogenous growth. The aim is to develop the entrepreneurial orientation (EO) of undergraduate and graduate students, and of university staff.

In this sense, the institutional hardware at the regional level needs to be redesigned to reflect both traditional and emerging production and service activities. The aim should be to identify groups of innovative firms associated with activities geographically concentrated around entrepreneurial universities, acting as a driving force of innovation and regional development. These activities should be the foundation for redesigning regional systems of innovation based on extended institutional networks oriented towards cooperation between public and private sector institutions.
INTRODUCING THE CHAPTERS

It is increasingly recognized that higher education institutions are a potentially important vehicle for stimulating and facilitating entrepreneurial activity at a regional level. At the same time, there is considerable variation between universities in the extent to which this potential is fulfilled. In this context, Chapter 2 by Mario Geissler, Steffen Jahn and Peter Haefner focuses on the internal organizational factors, which can affect the extent to which an institution is able to achieve its potential economic development role. In contributing to the literature on so-called ‘entrepreneurial universities’, the concept of entrepreneurial climate is introduced, as part of a framework for linking various organizational conditions with university members’ perceptions of entrepreneurship. From their review of existing literature on academic entrepreneurship, the authors note a tendency for previous studies to focus on intangible influences, such as incentive and reward systems for staff, which they use as justification for focusing instead on less tangible factors that may influence a university’s entrepreneurial climate.

The empirical investigation is based on staff and student survey data from three German universities. The results are analysed using partial least squares structural equation modelling to test the proposition that specific tools and events significantly contribute to a university’s entrepreneurial climate. The results show important differences in the perception of staff and students. Whereas qualification programmes were the most important influences shaping the entrepreneurial climate for students, they were rated least important by faculty members, who stressed instead the influence of role models. The introduction of the concept of entrepreneurial climate and its empirical application represent a valuable addition to the literature on entrepreneurial universities, as well as having important potential implications for policy makers interested in increasing the contribution of universities to regional development.

University spin-offs are one of the mechanisms for universities to act as agents for knowledge and technology transfer, providing a focus for Chapter 3. Based on recent empirical evidence from Catalonia, the study by Pablo Migliorini, Christian Serarols and Andrea Bikfalvi focuses on spin-offs from so-called ‘non-elite’ universities, drawing on resource-based theory, institutional theory and stage-based models of venture development. The study employs a multiple case study, qualitative methodology, applied to 11 spin-off companies from two universities in the region. Key thresholds are identified in the development of these ventures, related to opportunity recognition, entrepreneurial commitment, establishing credibility and sustainability. The necessary resources and institutional factors
influencing how entrepreneurs can overcome these critical junctures are also identified. For budding academic entrepreneurs and policy makers alike, the study demonstrates how having a breakthrough technological innovation is not enough to secure business success. The background of founders, their social capital, market knowledge and management experience are all important factors contributing to the successful development of their businesses.

Another way of stimulating high value added entrepreneurship and innovation is through programmes designed to encourage knowledge and technology transfer. In this context, Chapter 4 by Verena Eckl and Dirk Engel focuses on Germany’s Industrial Collective Programme (ICR), which supports pre-competitive research. Pre-competitive research refers to knowledge creation at research institutes and knowledge transfer to industry, rather than the commercialization of new ideas. Within the ICR programme, industrial research associations initiate publicly funded research projects, which are carried out by non-profit oriented research institutes. Each project is monitored by several firms in a board of project observers.

The study aims to fill a gap in the evidence base concerning the extent of knowledge transfer from science to industry through publicly funded programmes. Introduced in the 1950s, the ICR programme aims to support knowledge transfer to small and medium-sized enterprises (SMEs) in particular. The central research question focuses on comparing SMEs with large enterprises as recipients of scientific knowledge, based on their propensity to use ICR results. Survey data of participants and non-participants in the ICR programme are analysed using binary probit techniques. Semi-structured interviews were also undertaken with representatives of industrial research associations. The findings show that affiliation to industrial research associations was the most common factor influencing firms’ absorption of ICR results; although linkages to university research institutes were an important secondary influence. In terms of firm size, the results of the multivariate analysis suggested that the propensity to use ICR results do not differ significantly between large-firm and SME participants. In interpreting the findings, the authors recognize that collaboration between SMEs and large enterprises is likely to influence any simplistic large-firm–SME comparisons of the use of research results.

One of the features of entrepreneurship in most countries is the lower rate of involvement in business ownership of women compared with men. As a consequence, a common response of policy makers is to support training programmes for women interested in entering entrepreneurship. In this context, in Chapter 5 Janice Byrne and Alain Fayolle offer some new perspectives by critically addressing the case for gender-based small
business training programmes. Drawing on both feminist theory and the entrepreneurship education literature, the authors apply a teaching model framework. This incorporates programme objectives and goals, target audiences, evaluation and assessment, course content and pedagogy, which are used to examine women’s entrepreneurship training. A central tenet of the chapter is that an ontological interrogation of conceptions of women’s entrepreneurship training highlights a variety of (often implicit) feminist assumptions.

If entrepreneurship training for women is intended to rectify the imbalance in entrepreneurial activity between the sexes, the authors argue there is an inherent assumption of what the problem is, which is interpreted differently through the lenses of liberal feminists, social feminists and social constructionist feminists. As a result, there are three different ways of conceptualizing women’s entrepreneurship training through feminist eyes. Training may be a way of circumventing obstacles and discrimination (liberal feminist view), or a way of addressing women’s unique entrepreneurial abilities (social feminist view), or it may be of questionable value, since it may further reinforce women’s subordination (social constructionist feminist view). This is a thought-provoking chapter, which places entrepreneurship research into the wider context of feminist and education theory.

The increasing interdependence of regional and national economies is recognized in two chapters on internationalization in SMEs. In Chapter 6, Niina Nummela, Sami Saarenketo, Eriikka Paavilainen-Mäntymäki and Kaisu Puumalainen focus on the role of knowledge and experience in the internationalization of knowledge-intensive firms. The aim is to empirically examine whether and how prior experience influences the internationalization trajectory of knowledge-intensive firms. Three main propositions are derived from the extant literature related to the positive impact on a firm’s internationalization: first, prior international work experience in the entrepreneurial team; secondly, prior entrepreneurship experience; and thirdly, having someone in the team with international education. A web-based questionnaire was used to gather data from SMEs in the technology-driven information and communications technology (ICT) sector in Finland. Analysis included the use of logistic regression, with internationalization as the dependent variable.

The results show some notable differences in orientation towards internationalization between habitual and novice entrepreneurial firms, although somewhat surprisingly, novice entrepreneurial firms had a stronger international growth orientation than their habitual counterparts. Prior experience did not seem to have much influence on the speed and intensity of internationalization, but international work experience and education was associated with a tendency to follow a born global or
internationalization strategy, rather than remaining focused on the home market. The overall conclusion was that the findings highlight the importance of previous entrepreneurial start-up experience (that is, habitual entrepreneurial firms) with respect to internationalization, not in isolation but in the context of other experience factors, such as international work experience and education.

Chapter 7 is also concerned with the internationalization of SMEs, although with a different emphasis. The research undertaken by Christos Kalantaridis and Ivaylo Vassilev focuses on networks of firms and inter-firm relationships, exploring the nature of backward and forward linkages established by what they describe as globally integrated small firms. The analysis uses insight from transaction cost economics and the global commodity chain literature to interpret the results. Empirical analysis is based on interviews with 775 senior managers in five European countries: the UK, Greece, Poland, Estonia and Bulgaria. Large firms were included in the study as well as SMEs, enabling comparative analysis to be undertaken across the firm size range. Hierarchical cluster analysis was used to explore the nature of relationships between firms of different sizes.

The chapter demonstrates that there is a small minority of small firms that are capable of engaging in global production and distribution networks, with broadly similar types of relationships to those involving medium and large-scale enterprises. The differences are greatest where small firms are managing both forward and backward linkages and/or supply relationships involving a number of suppliers. As well as questioning over-simplified firm-size based generalizations about barriers to internationalization, the chapter also questions widely held views concerning the role of power asymmetry in small firms’ international linkages. It is suggested that globally integrated small firms may sometimes occupy positions of power derived from their position in the supply chain and/or proximity to rich markets. Overall, the chapter offers some new perspectives on small firm internationalization, which justify further investigation.

It is increasingly recognized that business exits have an important potential role in entrepreneurial economies, by enabling resources (including human capital) to flow from less to more productive uses. At the same time, the empirical evidence base of entrepreneurial exit processes is limited, not least because of the difficulties involved in identifying and gathering data from former entrepreneurs. In this context, Chapter 8 by Satu Aaltonen, Robert Blackburn and Jarna Heinonen focuses on the perspectives of owner managers who have exited from a business, drawing on empirical evidence from Finland and the UK. It explores different exit situations, the reasons for exiting and the effect of the exit experience on entrepreneurs’ future intentions with respect to entrepreneurship. Data
were collected from entrepreneurs who had exited a business through a combination of postal and telephone survey methods. Analysis was based on a combination of bivariate and multivariate methods. Hierarchical logistic regression was used to explore the factors associated with entrepreneurs’ exit experience.

The results showed that the largest group of respondents (43 per cent) reported good exit experiences, despite negative reasons for exit. The second largest group (35 per cent) reported good exit experiences and positive exit reasons. The third group (16 per cent) exited mainly due to a lack of financial rewards or health reasons; and a further 5 per cent were discouraged by the exit experience, despite positive exit reasons (for example, retirement or another job opportunity). The first two groups in the classification may use what they had learned in future entrepreneurial activity, whereas the latter two groups are unlikely to re-enter entrepreneurship. Overall, the study found a statistically significant relationship between entrepreneurs’ perceived learning outcomes and exit experience. Most entrepreneurs exiting a business reported experiencing some learning, which supports the view that business exits should not necessarily be considered as failure.

For many years, the experience of Italy’s industrial districts and SME networks have attracted the attention of policy makers throughout the world, interested in re-creating their dynamism in other regions. However, in recent times there is evidence that these districts are facing difficulties in adapting to increasing global competition. In this context, in Chapter 9, Emilio Esposito, Pietro Evangelista, Vincenzo Lauro and Mario Raffa report on an exploratory study of the virtualization potential of SME networks, which could provide a mechanism for successful adaptation. The chapter has two main aims: first, to identify alternative virtual enterprise models in the existing literature; and secondly, to undertake field analysis focused on a network of SMEs.

A variety of virtual enterprise models are identified, with two extremes: the hierarchical and holarchical virtual enterprise models. In the case of the hierarchical model, a leader company (generally a large firm) allocates the manufacturing tasks among partners, coordinating the entire network of firms and managing the knowledge and information flows. This company also acts as product integrator, as it is responsible for the final product/service and relationship with the customer. In contrast, the holarchical virtual enterprise model has no hierarchical coordination unit; self-organization is the main coordination mechanism. This approach appears particularly suitable for SMEs, although knowledge and information flows need to be integrated. As a consequence, the success of this type of model depends on all partners cooperating as a single unit.
The empirical analysis analysed a network of East Naples high-technology enterprises (ENES). A questionnaire survey was used to assess the extent to which there is evidence of the network evolving towards the virtual enterprise model, in which the development of collaborative projects is the main objective of partnership. The results show that the most frequent forms of relationships between firms involve sharing new product development programmes and exchange of technical information. It is also shown that the most important information that firms are willing to share concerns linkages with institutions and funding opportunities. The East Naples high-technology enterprise system is characterized by a set of temporary peer relationships oriented towards specific projects in which collaborative relationships are continuously formed and re-formed. On this basis, the authors suggest the region may be considered a potential pool of virtual enterprises, based on a hybrid of the hierarchical and holarchical types identified above.

Interrelationships between firms are also the focus of Chapter 10, although in this case the focus is on strategic alliances, and specifically on the implications that involvement in learning through inter-organizational alliances has on a firm’s entrepreneurship. Ana Maria Bojica, María del Mar Fuentes Fuentes and Matilde Ruiz Arroyo are concerned with how knowledge acquisition through a strategic alliance influences a firm’s level of entrepreneurship and how this interacts with the knowledge-based resources of the firm. The research is grounded in the Austrian School’s theory about the role of knowledge in the entrepreneurial process and the implications of a relational perspective for organizational entrepreneurship.

Three hypotheses were drawn from existing literature concerned with relationships between the acquisition of knowledge through inter-firm alliances, the firm’s knowledge-based resources and the level of organizational entrepreneurship. The hypotheses are tested on a sample of new-technology based SMEs in Spain. The proposed relationships are investigated using linear hierarchical regression, with organizational entrepreneurship as the dependent variable. The results show that prior knowledge and acquisition of knowledge through strategic alliances have a positive influence on organizational entrepreneurship. However, the results indicate that for firms with a greater base of prior knowledge, using a deliberately exploratory strategy for knowledge acquisition through strategic alliances may have negative repercussions on the firm’s level of entrepreneurship in the short term. The smaller the base of prior knowledge, the more advisable it is to use an exploratory strategy of alliances to attract the resources needed in the entrepreneurial process.

The chapter shows first that both prior knowledge and the acquisition of new knowledge through an alliance influence organizational
entrepreneurship positively; secondly, a negative moderating effect of knowledge acquisition on the relationship between the firm’s knowledge base and organizational entrepreneurship; and thirdly, the important role of the context of the firm and specifically its relationship with peers. The results are of potential interest to policy makers where strategic alliances could be seen as a potential knowledge transfer mechanism for a region’s SMEs.

One of the challenges faced by newly created ventures is to establish legitimacy with various stakeholders. In this context, Chapter 11 is concerned with the impact of legitimacy building signals on access to resources. The study, by Cristina Díaz Garcia and Juan Jiménez Moreno, aims to find out if business owners can procure more resources by sending signals of legitimacy to their environment through their personal characteristics and social capital. Institutional theory and social network theory is used as an interpretative frame of reference. Three hypotheses are tested with respect to favourable access to critical resources. The first relates to human capital (education level, experience, time devoted to the firm), the second to business owners with specific social capital (structural, cognitive and relational dimensions) and the third, to the moderating role of gender.

The empirical data were drawn from a survey of firms in knowledge-intensive industries, with less than 50 employees and founded in or after 2002. Analysis showed some differences between the indicators of legitimacy building signals for men and women business owners. Access to resources was significantly predicted by business owners’ age and educational level. However, devoting more hours to the business per week is negatively related to a favourable perception of access to external resources. With respect to social capital, those with more problems in meeting business people outside their inner circle, and those with less durability in their relationships with their key contacts have a less favourable perception of their access to resources. The authors suggest that policy makers should encourage and facilitate networking in order to allow business owners to gain wider access to business people who can provide valuable resources and information for them. For women entrepreneurs who might suffer some legitimacy problems due to their tendency to start business at a younger age than men, networking can help to build a bridge between agency and structure.

The concept of EO has been attracting increasing attention in the entrepreneurship literature, which is reflected in the next two chapters. In Chapter 12, Tatiana Iakovleva applies the concept in the context of the Russian Federation, where private entrepreneurship is a relatively recent phenomenon. Entrepreneurial orientation incorporates innovativeness, risk-taking and proactive action, such as opportunity seeking. A key
focus of the chapter is the relationship between resources and entrepreneurial orientation. Hypotheses are tested in relation to two main research questions: first, do firms with unique resources report superior EO and, secondly, do firms controlled by entrepreneurs citing high levels of self-efficacy report superior EO?

Survey evidence was gathered from a sample of 466 managers of small enterprises (SE) in St Petersburg in 2004. Analysis was based on entrepreneurial orientation as the dependent variable (with nine measures) and firm resources (financial capital, organizational capital and social capital) and self-efficacy (in relation to opportunity competence, risk competence and financial competence) as the independent variables, with three control variables (industrial sector, markets and the role of respondents in the firm). Ordinary least squares regression was used to test the specified hypotheses. Analysis showed that firm resources are associated with almost 11 per cent of the variance in EO; and self-efficacy variables together explain about 18 per cent of the variance. The author discusses various reasons why the results are weaker than expected, including the possible role of context-specific factors.

Chapter 13 by Jorunn Grande is also concerned with the role of entrepreneurial orientation (EO) and firm-specific resources; in this case in relation to business performance. The study aims to fill a gap in the existing literature by focusing on microenterprises and on a specific industrial context. Two key research questions are examined: first, how does the EO pattern differ between firms in an agricultural and a non-agricultural firm context? Secondly, what is the relationship between EO, firm-specific resources and performance in the two firm contexts? A series of specific hypotheses are tested in relation to each of these, based on a sample of Norwegian firms participating in a regional innovation programme offered by Innovation Norway, which is a governmental agency aiming to enhance innovation in Norwegian trade and industry through networks, competence and funding.

Data were collected using a combination of a mail questionnaire and telephone interviews with the businesses’ manager or owner. The study has a longitudinal element since 306 firms were surveyed in 2003 and 2006. A multiple performance measure for 2006 was used as the dependent variable with 2003 resource variables entered into the model as independents. Firm size and performance in 2003 were entered as control variables. Analysis of the mean and variance for the two groups indicates a significant difference in EO level between the two firm contexts. In terms of the relationship between EO, resources and performance, the regression results indicate that both agricultural and non-agricultural microenterprises are likely to receive higher returns for their entrepreneurial efforts. Interestingly, the
study shows that agricultural firms, traditionally restricted in their opportunities by operating in heavily regulated markets and mature industry status and traditions, get even more benefits from engaging in entrepreneurial activities compared to their counterparts in other business sectors. This suggests that the benefits from possessing unique competence might depend on a firm’s context. Overall, the results suggest that policy makers and business owners should pay attention to the importance of entrepreneurial efforts and skills in order to increase the potential for value creation in micro-size firms.

The final chapter, by Heiko Bergmann and Daniel Baumgartner, is concerned with the nature of entrepreneurship in urban and rural contexts. The chapter compares attitudes towards entrepreneurship of individuals, seeks to identify differences in the factors influencing business start-ups and compares new firm characteristics in urban and rural Switzerland. The main source of data used to investigate urban–rural differences in attitudes towards entrepreneurship, and the factors influencing it, is the adult population survey of the GEM project for the years 2005 and 2007. Swiss statistics of company demographics are used to investigate differences in new firm characteristics.

Overall, the results show that the urban–rural differences identified in attitudes towards entrepreneurship, and the reasons given for engaging in entrepreneurial activities, are less than might have been expected. However, differences are identified in the determinants of entrepreneurial activity. While the results for urban areas are in line with the results of other studies on regional entrepreneurship, start-ups in rural areas appear to be launched independently of the entrepreneurs’ previous entrepreneurial experience. Differences are also observed in the characteristics of new businesses created, particularly with regard to the use of new technologies, which is considerably higher in urban start-ups compared with those in rural areas. As the authors point out, the fact that the urban–rural differences are less clear-cut than in some other studies may be in part a reflection of the context in Switzerland. Switzerland is only a small country with a well-developed infrastructure, which means that urban–rural differences in accessibility may be fewer than in other larger countries. Nevertheless, a number of differences in the entrepreneurial process are observed.

CONCLUDING REMARKS

The selection of papers included in this volume gives a flavour of the themes and approaches featuring in contemporary entrepreneurship research in Europe. The collection reflects the methodological diversity
that is typical of European research, as well as heterogeneity in terms of topics studied. Despite the fact that RENT is a scientific rather than a policy oriented conference, all papers include in this volume have potential implications for policy makers.

Policy-relevant topics covered include: features of entrepreneurial universities; the characteristics of successful spinout companies from non-elite universities; the nature and extent of SME involvement in technology transfer from publicly funded programmes; the rationale for women-only entrepreneurship training programmes; the role of learning and experience in the internationalization strategies of SMEs; the nature and extent of involvement of small firms in globally integrated production and distribution networks; the experience of entrepreneurs involved in business exits; the potential of virtualization as an adaptation mechanism for industrial districts; strategic alliances as a source of knowledge for SMEs; the effect of legitimacy building signals on access to resources for young firms; the role of entrepreneurial orientation in business performance, in different contexts; and urban–rural differences in entrepreneurial processes.

As an applied field of study, it is important that academic researchers maintain a dialogue with policy makers and practitioners. Organizations such as the European Council for Small Business and Entrepreneurship (ECSB), and the International Council for Small Business (ICSB), its global equivalent, provide a forum in which such dialogue can take place.