

# **1. ENTREPRENEURSHIP RESEARCH AND DEVELOPMENT IN ESTONIA: UNIVERSITY PERSPECTIVES**

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The editors of the current book represent two leading entrepreneurship research centers of Estonia – the faculties of economics and business administration of the country’s largest seats of learning, the University of Tartu and Tallinn University of Technology. Joining their efforts, the staff of the two institutions contributed the articles to the present collection, providing an account of the development of entrepreneurship in Estonia. Not only the situation up to now, but also future trends in four domains: policies, practices, education, and research are covered.

The main purpose of this introductory chapter is to start a discussion about how entrepreneurship is conceptualized in Estonia and thereby bridge some gaps in the body of the book. The present chapter falls into two parts. In the first part, we present the principles guiding the selection of articles for this book and give a brief overview of the latter’s structure. The second part gives a bird’s eye view of entrepreneurial development and the future perspectives of entrepreneurship research and development in

Estonian universities, particularly in the University of Tartu and Tallinn University of Technology.

Starting collecting data on entrepreneurship studies in Estonia, the editors of the book announced a call for papers, addressing the researchers and professors of the faculties of economics and business administration of the two largest Estonian universities. We expected articles that would concentrate on two large areas – entrepreneurship and the relevant context of Estonia. Because the term “entrepreneurship” is often conceptualized quite differently, we specified it for the book and potential authors, using the definition suggested by Fry, 1993; Wickham, 2004; Kao, Kao and Kao, 2002. According to them, the term “entrepreneurship” denotes the following:

- Starting and developing business innovatively;
- Style or type of management, incl. SME management;
- Any creative and/or innovative activity increasing value for society.

It was especially emphasized by the editors that the terms *economy* and *business* are not synonymous with the word “*entrepreneurship*”, even though mass media sometimes fails to distinguish between them.

The structure of the book roughly follows the order of the topics as given by the title. Some papers are rather single-domain-oriented, for instance, Chapters 11 and 12 (the authors being Karotom and Päril). The rest of the authors have predominantly chosen a multi-domain approach to entrepreneurship. The first two topics of the book – policies and practice – are the focus of the following articles:

- Estonian SMEs in the context of EU accession – Chapter 2 by Smallbone and Venesaar.
- Activity regulation of sole traders – dimensions of economy and legislation as main components of entrepreneurship policy – Chapter 3 by Teder and Kirsipuu.

- The organizational mechanism of leverage as a success factor of global entrepreneurial management of knowledge-based businesses and the related R&D-policy problems for small countries and SMEs – Chapter 4 by Mets.
- Entrepreneurial aspects in internationalization – Chapter 5 by Roolaht and Chapter 6 by Vissak.
- De-internationalization of enterprises – Chapter 7 by Reiljan.
- Less attention is paid to one of the most important functions of entrepreneurship – innovation, but fortunately the gap is filled to some degree by Ukrainski in her analysis of wood sector – Chapter 8.
- Organizational, behavioral and international business–culture dimensions in entrepreneurial management (Chapter 9 by Varblane, Männik and Hannula; Chapter 10 by Vadi, Lõhmus and Kask).
- Aspects of labor organization and usage of accounting information – Chapter 11 by Karotom and Chapter 12 by Pärl.

Quite well are represented the topics of the third domain – aspects of entrepreneurship education in university and life-long learning – Chapter 13 by Kolbre, Piliste and Venesaar. The authors compare the attitudes to entrepreneurship among students and in society as a whole.

The fourth domain, a general overview of entrepreneurship research since the end of the 1980s is presented in Chapter 14 by Venesaar and in Chapter 15 by Andrijevska. Both papers demonstrate that previous research has focused on:

- SMEs and their environment;
- The support system for SMEs, incl. financing and advice;
- Internationalization of SMEs.

The areas covered by the research of the last five years are mostly related to the state-level entrepreneurship support and economic development aspects, i.e. entrepreneurial policy topics. A good overview of the studies can be found in the Appendix to Chapter

15. The list of 41 studies in it shows that the distribution of the research methods used by the studies is the following: 24% of the entrepreneurship studies were statistical data or questionnaire-based surveys, 34% used interviews, 19% qualitative methods, 8% case-studies and 14% other research methods. A world review of top-level research suggests that surveys have the highest frequency in entrepreneurship research – 64%, being followed by case-studies – 16%, and interviews – 12% (McDonald, Gan and Anderson, 2004). Does the proportional difference in the application of survey as a method refer to shortcomings in the entrepreneurship research in Estonia? This is a question for further studies. It seems that the statements by which Urve Venesaar characterized the situation in Chapter 14: “Entrepreneurship studies have been conducted with the support of external financing” and “their direct impact on entrepreneurship policy has been weak” are well fit to conclude the book and its overview.

However, it would be incorrect to finish the introduction on a negative note without throwing light at further perspectives and the potential role of universities in Estonian entrepreneurship research and development. One of the challenges for university and society collaboration is serving the concept of entrepreneurial university. The second part of the introduction therefore briefly describes the new developments towards entrepreneurial university in Tartu and entrepreneurship initiatives at the Tallinn University of Technology.

Entrepreneurship research and development in a small state like Estonia should proceed in close collaboration with its largest universities, especially as far as strategy building and moving towards knowledge-based economy and society are concerned. For universities this means that they have to give up their ivory tower attitudes and become generators of economic wealth in society.

The entrepreneurial paradigm of a university in the triple helix of University-Industry-Government relations has become the con-

cept leading to in-depth understanding of the innovation processes in knowledge economy (Etzkowitz *et al.*, 2000).

It can be reported with satisfaction that some milestones on the way to becoming entrepreneurial have been passed by the University of Tartu:

- The Tartu University Institute of Technology was established in June 2001 with the main mission to create a basis for high-tech economy in Estonia through the R&D activities;
- The Faculty of Economics and Business Administration started a Master's Program in "Entrepreneurship and Technology Management" in 2002;
- As a result of the economics faculty's initiative in 2003, the University of Tartu established the interdisciplinary Centre for Entrepreneurship in Spring 2005.

The above-mentioned Centre for Entrepreneurship has as its main targets:

1. Development of entrepreneurship and innovation education in the university curriculum.
2. Development of entrepreneurship research.
3. Shaping of entrepreneurial attitudes in university members and students.
4. Fostering enterprise spirit at the university as an institution, and following entrepreneurial patterns in its relationships with society.

Pursuit of these goals means continuing the already started processes of establishing networks for entrepreneurial knowledge transfer and participating in them. Examples of activities in this field at the University of Tartu in the last four-year period involve:

1. Collaboration with international university partners and business experts from Zernike Group, Netherlands, in teaching the master students in the program "Entrepreneurship and technology management".
2. International events such as seminars and symposiums on different topics of technological knowledge transfer, also ex-

change of university scientists and business practitioners for the purposes of commercialization of university research results.

3. Participation in different national and international networks and development of collaborative projects: the national SPINNO program, the EU Marie Curie program of knowledge transfer, the EU INTERREG IIIC project Baltic Entrepreneurship Partners – BEPART together with 13 institutions of higher education, etc.
4. Entering new research fields and participating in international research projects in the framework of the LEED Program (Local Economic and Employment Development) of the OECD, “Knowledge-Based Entrepreneurship: Innovation, Networks and Systems” of EC, etc.

Establishing new goals also means developing new knowledge and new fields of entrepreneurship research not covered by the current book. The basis for new knowledge creation is researchers adopting an interdisciplinary approach, knowing the logic not only of SMEs and business in general, but also possessing the content and context of knowledge-based business and society. It also means having the necessary skills to participate in and lead these processes both in business and society. Good preconditions for the birth of new research fields are created by the master’s program graduates in entrepreneurship and technology management.

The future of university development lies in the integration of entrepreneurship research, new business creation and consultations with practice-oriented teaching, i.e. creation of entrepreneurship laboratory/laboratories. In this meaning the university, on the one hand, will itself become a laboratory, a space for new spin-off companies with new technology ideas, and on the other, an active partner in the entrepreneurial network regionally and globally.

Tallinn University of Technology (TUT), whose mission is to provide educational, research and innovation services in the fields

of engineering and entrepreneurship which are internationally competitive and significant for Estonia's sustained development realizes the factors contributing to entrepreneurship development in its teaching process as follows:

- Compulsory courses in entrepreneurship and business administration for students of engineering;
- Teaching courses related to starting up and development of business for students enrolled in business administration programs;
- Training courses in entrepreneurship.

In 1991, the curriculum of Business Administration updated according to the requirements of economic environment, was developed for bachelor and master-level students. In addition to these, in 1996 an MBA program was developed for people with practical work experience. Special programs supporting the development of entrepreneurship are run, apart from the School of Economics and Business Administration, by the Faculty of Mechanical Engineering (Industrial Engineering and Management); the Faculty of Information Technology (Information Technology for Business), and by the TUT Kuressaare College (Entrepreneurship).

To ensure the international competitiveness of both the whole Estonian society and the academic staff, to support economic independence and to ensure the supply of resources required for development, Tallinn University of Technology is now managing change by having adopted the so-called model of entrepreneurial university. The most important projects from the perspective of developing entrepreneurship are:

- The SPINNO Programme, launched by TUT in cooperation with the Enterprise Estonia, the main objectives of which are to notably increase the business knowledge of the academic staff, to develop a system of offering knowledge-based services, to enhance the protection and commercialization of intellectual property, and to develop and support the entrepreneurial activities of its academic staff.

- The Tallinn Technology Park Development Foundation. In the long term, TUT is planning to set up an international-level technology centre in Tallinn – the so-called Technopolis that would be based on TUT as an educational and competence centre, the Technology Park, and social infrastructure such as sports facilities, student campus, the housing estate for the academic staff, etc.

Being open to international cooperation, TUT participates in several EU programs, is involved in international research and development agreements, and has received over a hundred individual research grants from different foundations and organizations.

The School of Economics and Business Administration<sup>1</sup> (SEBA) at Tallinn University of Technology is a national centre of education, research and development in the field of economics and business. Its objective is to assure reproduction of academic competence and to engage in international educational and scientific collaboration in economics and in the areas that relate modern technology with economics<sup>2</sup>.

The Department of Business Administration of the School of Economics and Business Administration, including the Chair of Entrepreneurship and the Centre for Economic Research, play an important role in entrepreneurship education and research.

The School of Economics and Business Administration has long-term experience in entrepreneurship and SME research based on its national as well as international research programs. Its research and development activities are arranged through departments and the Center for Economic Research, established in 2005. The latter's predecessor, the Estonian Institute of Economics at Tallinn University of Technology participated in a number of international research projects (e.g., EU Phare ACE Program, Ecos-

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<sup>1</sup> A successor of the Faculty of Economics and Business Administration since 2005.

<sup>2</sup> <http://majandus.ttu.ee/>

Overture) being one of the few institutions that started with research in the sphere of entrepreneurship and small businesses in the early transition period and representing Estonia actively in international research projects. The main issues have been related to the analysis of survival and growth of enterprises and their support needs, the evaluation of factors of business environment influencing the development of the private sector and assessment of the impact of public policy on the regional and entrepreneurship development.

Today, SEBA is participating in a number of national and international networks and projects aiming at the development of entrepreneurship, entrepreneurial education and innovation, e.g. the EU INTERREG IIIC project “Baltic Entrepreneurship Partners (BEPART); EU 6<sup>th</sup> Framework Programme projects: Manufacturing Visions – Integrating Diverse perspectives into Pan-European Foresight (ManVis); The Moving Frontier: The Changing Geography of Production in Labor-Intensive Industries (MOVE); etc.

Currently, SEBA is actively seeking new teaching programs and methods in order to further the entrepreneurship education provided to students of both economic and technical specialities. New approaches are planned for the development of adult training programs. SEBA is also open to new challenges of entrepreneurship research and research on knowledge-based developments in society.

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