# THE ROLE OF ACADEMIC BUSINESS INCUBATORS IN THE CREATION OF ACADEMIC ENTREPRENEURSHIP IN THE REGION OF PODLASIE

**Abstract:** The aim of this paper is to present the role that the Academic Business Incubators play in the development of academic entrepreneurship in the region of Podlasie. The author discusses the notion of entrepreneurship, its essence and development directions, as well as fundamental aspects of undertaking business activity under the auspices of the Academic Business Incubators. Also current trends related to the issue of academic entrepreneurship are presented.

Keywords: ABI, academic entrepreneurship, the region of Podlasie

#### 1. Introduction

"Entrepreneurship is a national characteristic of Poles, and Poland is a country of enormous opportunities. Poles win world IT competitions and create the largest business and research projects, work in international research teams, are known for their diligence and creativity. According to a Eurobarometer survey, almost 50% of young Poles intend to create their own company in the next 5 years, which places us among the world leaders in this respect". [12]

The development of modern economy, based to a large extent on knowledge and globalisation, combined with dynamic economic changes, pose new challenges for primary, secondary and higher education, forcing educationalists to seek new forms of cooperation between science and economy. Being receptive to business and building the capacity to release the potential of entrepreneurship among own researchers, students and doctoral students is a very attractive way for the development of higher education institutions. Noteworthy is the activity of career centres and university technology transfer centres, which can serve as breeding ground for entrepreneurship among students and university

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224 ŁUKASZ SIEMIENIUK

graduates. Academic Enterprise Incubators are among institutions on the borderline of business and higher education, and often prove to be the place that nurtures future internationally successful entrepreneurs.

"An Academic Business Incubator is a unit run by a university in order to better utilize the intellectual and technical potential of the institution offering support for business activity in the academic environment or university staff and students who are entrepreneurs." [1]

Business Incubators are entities created at academic centers across the whole country. The idea of ABIs is to ensure perfect conditions for the development of business opportunities. An ABI is a place where the diverse knowledge of university staff and the knowledge of business practitioners can be pooled and shared. The mission of ABIs is to create conditions for the development of innovation and the commercialisation of ideas based on knowledge and new technologies, strengthening the potential of entrepreneurs. The idea of incubators is to provide extensive practical knowledge to undergraduate students and graduates, whose vast theoretical knowledge is difficult to transfer into practice. The purpose of an incubator is to enable them to establish their own business with minimal financial outlays. Participation in incubators provides students with the chance to acquire experience in business practice, exchange ideas and establish business contacts. Academic Business Incubators are among projects which support young entrepreneurs in their efforts to develop their interests and their aspiration to become financially independent. A business incubator is one of the novel ways to boost entrepreneurship and to train would-be business owners in coping with crisis situations. The term 'incubation' refers to the phases of development that a newly created company undergoes.

## 2. The essence of entrepreneurship

According to J. Moczydłowska and I. Pacewicz, entrepreneurship is an inspirational issue of interdisciplinary studies for representatives of many sciences, especially economic and social disciplines: management science, economics, sociology, psychology, philosophy and political science. The interest in entrepreneurship is the answer to the phenomena occurring dynamically in economic practice. One of the most visible manifestations of entrepreneurship in Poland is an increase in the number of private enterprises, which can be observed in the new political conditions created after 1989. The most prevalent among these enterprises are micro and small firms, which contribute to the economic development of the whole country and individual regions, help minimise the rate of unemployment, provide conditions for the realisation of personal aspirations and are a manifestation of the energy of their founders [3, pp. 5-10].

D. Trump, however, claims that an enterprise begins with a vision, without it nothing of significance can arise. Entrepreneurship is not a genetic feature, it can be learned. Trump says that people themselves influence the course of events in their lives, through their own free will, abilities, knowledge and their own strength. These are the qualities that can be developed and then improved in practice [11, pp. 19-21].

As M. Citkowski wrote in his work "Entrepreneurship in the economy of the 21th century", entrepreneurial activities play an important role in the economy. The establishment and development of small and medium-sized companies is a very good method for efficient use of resources in economic processes. They are able to manage particularly well human, natural, or cultural resources occurring in a given location. Small and medium enterprises absorb excess labour, as well as create an entrepreneurial base and offer the possibility of self-employment. Moreover, their importance for the development of the economy is not restricted to a substantial share in the GDP and the total number of employees. It turns out that small entities have a much greater ability to adapt to changing external conditions than large companies.

To conduct business activity not only material resources are necessary, but also professional training, knowledge, as well as initiative and creativity inherent in the mind and will of a human being. Survival cannot be a primary purpose for the entrepreneur, however, changing conditions require them to meet new cha-llenges. While initiative, flexibility, creativity and imagination are also important, it still can turn out that these qualities, material resources and the level of knowledge are of little help when confronted with the objective determinants of entrepreneurship development [3, p. 5].

The essence of entrepreneurship is the real action taken by a man who uses his mental abilities, skills, experience and expertise as well as financial and physical resources, creates added value, considering the principles of efficiency. The first attempts to describe or define the terms "entrepreneur" and "entrepreneurship" can be traced back to 1755. The French economist Jean Babtist Say explains them as follows: "the entrepreneur moves the economic resources from the area of lower to the area of higher productivity and higher yield." [4, p. 30] However, it should be noted that the quoted definition does not explain who the "entrepreneur" is. The nineteenth century brought a debate on the topic, and as a result added some confusion to the defining of the concepts of "entrepreneurship" and "entrepreneur" [4, p. 30]. In the work of R. Cantillon (one of the leading representatives of the classical school), entitled "Essai sur la nature du commerce en general", entrepreneurship was defined as the ability to anticipate and risk taking, while the entrepreneur was a person who has a good knowledge of the particular market and uses it when an opportunity arises which appears because of the imbalance between supply and demand [7, p. 11]. The definition developed on the basis of management science by P. Drucker requires to accept that the entrepreneur always looks for changes, is responsible for them and uses them as an opportunity [4, p. 30]. Entrepreneurship is therefore a basis for the establishment of a company, visible in its effective and efficient management and adaptation to changes in the environment. Profit and development of the enterprise will be the economic expression of entrepreneurship.

In search of the essence of entrepreneurship, research has been conducted, using not only economics, but also psychology as the basis. Psychologists treat entrepreneurship as a part of human personality. The qualities that make up the psyche of an individual are related to such elements of the mentality as temperament and intelligence (mainly genetically determined) and the characteristics acquired in ontogenetic development, i.e. character, personality, motivation for activities, the system of values. Psychological factors determine an individual level of organisational behavior. They are related to such important elements of the structure of the psyche as perceptual processes, abilities and intelligence, temperament, personality and character and the system of values expressed in human motivation [4, p. 35]. In the sphere of professional work, the most important behaviours are determined by the following groups of personality characteristics [9, pp. 7-9]:

- characteristics defining the direction of activity and choice of targets,
   i.e. the sphere of needs of the individual and the sphere of accepted and implemented values;
- characteristics defining the level and efficiency of activity, i.e. the abilities (their type and level) and intelligence;
- characteristics defining the pace, speed, strength and durability of the reaction of the individual to stimuli coming from the environment, i.e. the temperament;
- characteristics defining the compliance of activity of the individual with the moral and social standards, i.e. the character.

The development of entrepreneurial attitude is always very individual, but in economics a few divisions and types of entrepreneurship can be distinguished, for instance external and internal entrepreneurship.

External entrepreneurship is aimed at our surroundings; we deal with it when developing our own project of a commercial nature. Internal entrepreneurship is when we use our qualities and skills for the needs of a company or a team of people we work with.

Types of entrepreneurship [25]:

- Speculative entrepreneurship, i.e. the ability to find great business opportunities (buying, restructuring and sale of a company);
- Innovative entrepreneurship, i.e. the ability to take investment risks (increased production, new range, new services);

- Intellectual entrepreneurship, i.e. the ability to create new ideas, indicating the direction of development (outstripping competition, setting trends).

In business practice, an enterprise is treated interpersonally. The view prevails that it is a system that develops and aims at a set goal, and at the same time it improves itself.

An "enterprise" is a purposeful, self-organizing and self-regulating system. It provides stability and adaptability necessary to survive and develop. It is a complex system with internal organisational structure, open, interacting with the environment through the exchange of employees, tangible property and information. It represents a component of a system of higher level – the regional, national, European, and world economy. It is of dynamic nature and changes over time [8, pp. 16-17].

### 3. Academic entrepreneurship in Poland and abroad

Growing interest in academic entrepreneurship is a pan-European phenomenon. At its core is not only the Lisbon Strategy and its ambitious goal of increasing the economic usefulness of the research and development sector. Of key importance are deep changes in the perception of the functions carried out by universities, the emergence of hard budget constraints and increased academic entrepreneurship – besides the pan-European motivation – also caused by the need to make the best use of the structural funds [10].

In Poland, development centers of academic entrepreneurship are conducted by [10]:

- a) pre-incubators;
- b) incubators:
- c) university centres for technology transfer;
- d) university careers services.

Academic pre-incubators in Poland are divided into four groups [10]:

- ABI Foundation;
- Pre-incubators operating within universities;
- Pre-incubators organized in incubator and technological parks;
- Pre-incubators set up by student organisations.

Pre-incubators operating within universities are mostly university organisational units performing services, training or research activities, whose mission is to promote and support entrepreneurship in the academic environment and focus on incubation.

Incubators operating in technology parks and incubators use the role of the park and incubator environment (favourable business environment), the possibility of acceleration on the basis of park's institutions (preincubator - incubator - park) and access to specialist advice and information services. The support of business in a technological incubator involves mainly [10]:

228 ŁUKASZ SIEMIENIUK

preferential rental rates increasing with the length of stay in the incubator;

- training, counseling and information services;
- contacts and cooperation with scientific institutions;
- assisting in the transformation of technology;
- access to shared technical and service infrastructure;
- access to a variety of local and global business networks.

An incubator is a basic office or working space which a new company can hire on favourable terms. Its value is that new companies can rent space at low cost and, at the stage of design and construction, do not have to deal with the provision of additional services [12, p. 74].

A business incubator is an institution which supports entrepreneurship in the early stage of development, which has facilities including storage space, usually operating on a local scale. The main task of this institution is to stimulate and support new businesses, using local capital, including human capital, providing the infrastructure and necessary instruction. The basic premise of locating businesses in an incubator is to facilitate the formal and organisational issues and financial considerations.

Academic incubators are specific types of incubators as, in principle, they are intended to provide the academic environment with an opportunity to implement their theoretical ideas in a real business context. They create the opportunity and conditions for the verification of knowledge and skills at relatively low costs and under conditions of limited risk [12].

Academic Business Incubators (ABIs) operate in the environment of universities, and their purpose is to support the university environment, students, graduates and academics in starting their own business [6, p. 5]. Among specific tasks of incubators are also education and promotion of entrepreneurship and raising awareness and skills in the commercialisation of scientific ideas and research.

ABIs are the largest academic initiative in recent years, aimed at development of entrepreneurship among young Poles. ABIs operate at the best universities in Poland. The network of ABIs is the largest such institution in the Central-Eastern Europe [15].

The ABI Foundation in Białystok includes two Academic Business Incubators: at the University of Białystok and at the University of Finance and Management [20].

Centres for technology transfer are an organisationally diverse group of not-for-profit advisory, training and information entities, implementing support programmes for technology transfer and commercialisation, and other tasks associated with this process. Their main purpose is to organise a platform of contacts between researchers and industry, to promote university relations with the world of business, giving them legal status in the form of agreements

and contracts, to arrange contacts with SMEs and provide assistance in obtaining new technology and expertise. The Centre for Innovation and Technology Transfer also works at the Białystok University of Technology (since 2001) [5, pp. 30-33].

Białystok also boasts the Białystok Science and Technology Park, which is financed from the city budget.

Obstacles to creation of companies deriving from academia include: imperfect formal and legal solutions, limited access to financial resources and highly qualified managerial staff as well as the lack of proper awareness of the academic community and especially managerial personnel at universities. What is more, this kind of activity is risky, because it is difficult to predict whether the proposed product meets the market demand and whether qualitative and quantitative parameters resulting from developed technology will be maintained [2, p. 11].

In order to stimulate academic entrepreneurship, the Educational Network of Innovative Academic Entrepreneurship (SEIPA) conducts a comprehensive supporting programme and provides a platform for exchange of experience among lecturers and trainers who initiate various educational, training and consultancy projects aimed at nurturing ambitious, innovative entrepreneurship of students and academic personnel of universities. It is addressed to all types of institutions, including non-economic faculties where there is the greatest need to stimulate entrepreneurial activity in the academic environment. The SEIPA programme is co-financed by the Ministry of Science and Higher Education within the "Creator of innovation – supporting innovative academic entrepreneurship." SEIPA engages in international cooperation, especially with European universities in the emerging European Network of Entrepreneurship Lecturers [17].

A special case is academic entrepreneurship supported for many years by the countries of Western Europe, the U.S. and Japan. The policy to support academic entrepreneurship varies greatly, depending on country and continent. In the U.S., the main manifestation of academic entrepreneurship is the direct creation of companies based on knowledge. On the other hand, academic entrepreneurship in Europe is much more broadly defined as the entire spectrum of activities, including: supporting the relationship between science and the economy, preincubation and incubation of companies originating from universities. There are considerable differences between European and American universities as regards involvement in the sale of research results, their commercialisation and the creation of *spin-offs* and *spin-outs* – two of the available forms of implementation of academic entrepreneurship in practice. This results from a lower level of entrepreneurship in Europe and the need to pay attention to a broader range of issues, including the management of relationships between science and the economy or activation of entrepreneurial attitudes.

The above differences confirm the fact that far more attention is paid to the creation of spin-offs based on knowledge in the U.S. (the manifestation of direct activities in the field of academic entrepreneurship) than in Europe, where, apart from setting up spin-off companies, enormous effort is put into hard projects – creating incubators and finance funds, and soft projects – promoting knowledge of entrepreneurship, research in this area, training, etc. Moreover, in Europe, technology transfer plays a much larger role through centres for technology transfer [19].

In the EU, Finland is a good example of a country that applies a policy of supporting the creation of academic enterprises. This is achieved thanks to high investment in R&D (high-tech R&D) and extensive cooperation, both public and private, between institutions related to technology transfer – universities, research institutions, technology centres – and investors (individuals offering capital). Favourable conditions for academic entrepreneurship created by appropriate state policy enabled the emergence of several nanotechnology businesses, such as: KSV Instruments, Nanolab Systems, Genano.

In the U.S., a crucial role in strengthening the connections of scientific research with market needs and increasing the efficiency of implementation activities is played by the Bayh-Dole Act of 1980, which enabled the development of academic entrepreneurship. Technologies developed at the U.S. universities often serve as a basis for new business ventures. This requires seeking entrepreneurs and capital in the market. Usually, the first year is devoted to testing technical feasibility and market potential. Once the validity of the project is confirmed, the company enters the development stage and tries to find other sources of funding. In the U.S. in the years 1980-2003, 4.5 thousand companies were established based on technologies transferred from universities and research institutes, about 60% of which are still functioning in the market. Among such companies are: Genentech (biotechnology), Google (IT) and Intel (IT). It is worth noting that apart from the creation of legal conditions for academic entrepreneurship in the U.S., the significance of tightening the cooperation between academia and industry also receives great attention [18].

# 4. The functioning of Academic Enterprise Incubators, selected issues

Academic Business Incubators are the largest academic initiative aiming at the development of entrepreneurship among young people in the past few years. This project stems from the initiative of the Student Forum of Business Centre Club, where the implementation of this project began in 2004. The ABI project is directed to all persons under the age of thirty. In addition to students and alumni, anyone with an idea for their first business can benefit from the services of Academic Business Incubators.

So far, Academic Business Incubators have achieved the following [27]:

- the network of 34 incubators at universities located throughout Poland;
- the largest network of ABIs in Europe;
- over 250 grants towards establishment of own business;
- to date incubators have released over 2,000 companies to the market;
- currently more than 1,200 companies operate in ABIs;
- the country's largest competition for business plans;
- counselling for more than 4,000 people interested in starting their own business.

A beneficiary of an Academic Business Incubator is provided with the following services [27]:

- company bookkeeping;
- comprehensive legal aid;
- access to office space;
- possibility of obtaining funds for the functioning of the company;
- a number of training courses, improving the efficiency of company management;
- expert care;
- assistance in creating company brand identity;
- promotion of the company on the website www.inkubatory.pl.

Being part of Academic Business Incubators allows one to obtain other types of support, including:

- the right to use the logo of the Academic Business Incubator;
- assistance in promotion and advertising from marketing agencies;
- organisation of business meetings and assistance in finding business partners;
- organisation of conferences and trade fairs to promote ABI companies.

Modern legal solutions allow Academic Business Incubators to have their own legal personality. People who join the Incubators can start their own firm – formally a unit of the organisation, but in fact an independent undertaking. Thanks to this solution, a young entrepreneur can save both time and effort normally associated with establishing a company. Owners of companies belonging to Academic Business Incubators are not registered as individual business entities, and thus have no obligation to pay social security contributions and are not entitled to those aid programmes which are targeted at persons not engaged in business activity for a certain period of time. A person starting a company within ABI also receives a full range of support related to bookkeeping. All accounting documents for each month are issued and verified by the Incubators' staff, and then sent to the Department of Finance and Accounting of ABI in Warsaw to entry. ABI ensures that the documents comply with the current legislation, and that they are accounted for and reported to appropriate authorities in time. All that allows entrepreneurs to focus on testing

232 ŁUKASZ SIEMIENIUK

their business ideas without the risk of making an error in the financial settlements. The functioning of accounting services is designed in such a way that a person running business in ABI can gain detailed and relevant knowledge of the procedures and rules related to the circulation of accounting documents. [16]

Being part of the structures of ABI also increases the credibility of a business person – the Foundation, with a few dozen branches located throughout Poland, transforming undertakings which generate millions of PLN in sales annually, with headquarters in the capital city, acts on behalf of the person on business matters. Operation under the legal personality of the ABI is a key element in ensuring the safety of the entrepreneurs – in the event of a dispute (which are all but rare in business) an ABI participant is not left alone and can count on the support of the Foundation. [16]

It is also worth noting that more and more companies operating in the market are interested in cooperation with Academic Business Incubators, and thus cooperation with the entities operating within ABI. Thanks to the rapid growth of companies working under the auspices of the incubators, large corporations notice young entrepreneurs as a significant group of consumers of their services. The accumulation of over 1,200 entities operating within the ABI Foundation means that young entrepreneurs can count on the benefits of using the services of large companies. For this purpose, a special programme B4B (Benefits4Business) was created.

Under the Academic Business Incubators entrepreneurs can obtain access to services and discounts hitherto reserved only for companies with established market reputation. With an extensive network of incubators located at key Polish universities, business partners willingly enter into cooperation in creating the Benefits4Business package. The objective of the benefit package is to provide a constantly expanding portfolio of discounts and additional benefits for ABI firms. [16]

Currently, the following services and discounts offered by companies supporting young business are available for persons conducting business within the ABI network [27]:

- Orange telephone subscription preferential terms;
- Vision health care convenient access to medical care;
- Ideo web positioning special packages of services;
- WebFlow a system for handling invoices providing innovative billing system;
- DPD Poland courier services special prices for services;
- Dotpay secure online payment access to an innovative payment system;
- Płatności.pl secure online payment access to an innovative payment system;

- Tech Data a wholesale company of IT equipment access to the lowest prices of IT equipment;
- Action a wholesale company of IT equipment;
- Publisher Harvard Business Review Poland complimentary magazine subscription;
- Makro a self-service wholesale company access to the warehouse.

Generally, it can be said that the main aim of Academic Business Incubators is to stimulate young people to establish business of their own and to facilitate the development of new firms. Thanks to a wide range of services and the privileges associated with being part of the foundation, ABIs allow their participants to focus as much as possible on ensuring maximum commercial success and financial rewards. ABI beneficiaries do not have to concern themselves with the technical issues related to business practicalities or with the barriers existing in the market.

# 5. Practical aspects of the creation of academic entrepreneurship in the region of Podlasie by ABI Białystok

The history of Academic Business Incubators in Podlasie dates back to October 2004, when the first incubator was launched at the University of Białystok. In the first year of its existence, eight companies operated within the incubator. In May 2007, the city's second incubator was established at the University of Finance and Management in Białystok. Since July 2008, the two incubators have worked under one name: ABI Białystok. In 2011, a business consultation point of ABI Białystok was opened at the Ełk Branch of the University of Finance and Management in Białystok. In all the branches of ABI Białystok, people who want to start business activity under its auspices are granted access to the entire package of services of Academic Business Incubators. The structure ABI Białystok consists of two main sections:

- financial and accounting department;
- marketing department.

Currently, ABI Białystok comprises 55 companies run by students and young people from the region of Podlasie. Every month, ABI Białystok records a dynamic increase in the number of firms. Companies operating in the Academic Business Incubator are involved in a wide range of activities.

Companies operating under ABI Białystok<sup>2</sup>:

- 4upremium an IT company;
- AIONI an architectural design company;
- AI-tech an IT company;
- Akcesland a company trading in laptop cases;

<sup>&</sup>lt;sup>2</sup> As of 30 January 2012.

- Amberbit an IT company engaged in the creation of websites, portals and software;
- Apevents an organiser of team building events;
- ArtCodes an IT company, engaged in the creation of websites;
- ARTMARK an IT company, engaged in the creation of websites;
- Auto-Alternator an Internet company trading in alternators;
- Biodystrybucja a company trading in biodegradable articles;
- Bototo an IT company, engaged in the creation of websites;
- BXP.pl an IT company, engaged in the creation of websites;
- Centrum Dietetyczne a company providing dietary advice;
- CFCB an organiser of training courses;
- Coolbasket.pl a company trading in electronic accessories;
- CSRmax an organiser of training courses;
- d-boutique a clothes trading company;
- fabrykabarw.com an advertising agency;
- fotomichałowski.com wedding photography;
- GoApps an IT company;
- Hakama.pl an IT company, engaged in the creation of websites;
- Hyperlocal Media Group an interactive agency;
- Import Pol a clothes trading company;
- InCaelis a trading company dealing with equipment such as goniometers;
- Intelligence Dynamics a company which provides information relating to employment;
- juicyCODING an IT company, engaged in the creation of websites;
- Kamer a company providing electronic services
- KD Studio an IT company, engaged in the creation of websites;
- KKIT an IT company, engaged in the creation of websites;
- klik enter a company trading in IT equipment;
- lex partners an organiser of training courses;
- Liberty School a school of English;
- Magicweb.pl an IT company, engaged in the creation of websites;
- Manzano an IT equipment trading company
- Maxi Tech a company trading in household appliances;
- NCC a company trading in consumer electronics;
- Nobo an IT company, engaged in the creation of websites;
- perfect look a trading company dealing with cleansing agents;
  Pisanie online an IT company, engaged in the positioning of websites;
- Pixel Lab an IT company, engaged in the creation of websites;
- podlasie.net an IT company;
- Podlaskie centrum menagerów Laureola an organiser of training courses;

- Pozycjonusz an IT company engaged in the positioning of websites;
- prometheus an organiser of training courses;
- Rainbow a school of English;
- REMONT repair services;
- Restinfo a dining portal;
- SmaczneObrazy.pl a producer of computer graphics art on canvas;
- Smart-Ads an IT company, engaged in the creation of websites;
- Smykownia a trading company dealing on the Internet in toys and accessories for children;
- Spino an interactive agency;
- Szynele an artificial jewellery company;
- Świat dziecka an organiser of special events for children under the care of parents;
- Toparts a marketing agency;
- Tradycyjne jedzenie a traditional food company.

The above projects established by young entrepreneurs from Podlasie demonstrate that although ABI Białystok encompasses firms from a wide range of industry sectors, it is the IT sector that is clearly the most popular. Persons involved in creating websites, portals and positioning acquire customers from all over the country, including foreign customers, for whom they carry out large projects.

#### 6. Conclusion

At present, more and more people who want to start their own business plan to seek assistance from Academic Business Incubators. For a long time, the region of Podlasie has witnessed a growing interest in incubators and the services they offer. Since the establishment of ABI in the region, many companies which currently are successful and very active in the market have made use of the services of the Incubators. Academic Business Incubators set as their main objective the promotion of entrepreneurship among students. Academic knowledge is purely theoretical, and only by its practical application in the world of business can one achieve tangible effects. The owners of companies operating in ABI are able to gain practical knowledge of the market and attain economic success.

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