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ENTREPRENEURIAL UNIVERSITY – FROM IDEAS TO REALITY

Summary

The aim of this study is to formulate and highlight the thesis on reasonability and capability of applying such attitudes and pursuing such activities in the practical operation of institutions of higher education that reflect the idea of the entrepreneurial university which has become prominent nowadays. The idea is described in brief and its present status is indicated here. The authors are seeking conditions for the practical implementation of this idea. They formulate four attributes of the entrepreneurial university, naming them economic, market, innovative and managerial orientations. They point to specific criteria of identifying each of the orientations. They present the general assessment of entrepreneurship of Polish institutions of higher education. Their conclusions highlight the most topical conditions for implementing the idea of entrepreneurial university, such as: building the economic strength and market position of the university, developing relations with the socioeconomic environment, internationalisation and innovativeness. The authors give support to the idea of the entrepreneurial university but – by examining the Polish reality – they notice the need for actions in the sphere of law, which regulates the university's capabilities to act, and point to the need for entrepreneurship-oriented transformations of lawyers and university management staff's awareness.

Key words: academic entrepreneurship, entrepreneurial university, entrepreneurial attributes.

1. Introduction

The aim of this study is to formulate and highlight the thesis on reasonability and capability of applying such attitudes and pursuing such activities in the practical operation of institutions of higher education that reflect the idea of the entrepreneurial university which has become prominent nowadays. We present a collection of our assessments and reflections based on active observation of the issues in question relying on: literature review, own empirical research on entrepreneurship of universities, experience gained while participating in processes involved in managing a Polish institution of higher education, and contacts within the academia.

We are deeply convinced that it is worth paying attention to such academic entrepreneurship that regards the university as a whole, as a separate entity and a market

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player, as well as to the university's management, funding, marketing and development processes. This approach is based on a modern attitude to institutions of higher education, the essence of which is expanding the university model applicable to date, that is one relying on the superior role of education and scientific research, by the element of entrepreneurship defined as active efficiency- and market-oriented actions of the institution of higher education. The entrepreneurial university is also called the third generation university, the idea of which is to tie the university to its social, including business, environment in a tight and comprehensive manner.

2. The idea behind the entrepreneurial university

The idea of the entrepreneurial university occurred in Europe relatively recently, that is at the end of the 20th century. It was outlined in the famous work by B. R. Clark *Creating Entrepreneurial Universities: Organisational Pathways of Transition* [Clark, 1998]. The point of departure was the need for evolution of the European university culture, transition from the traditional culture, where the sense of the university's operation is knowledge creation and transfer in the course of the teaching and scientific work, to the entrepreneurial culture, which is closer to the present day demands. Clark formulated five elementary principles for organisational changes in universities: the strengthened steering core, the extended development periphery, the diversified funding base, the stimulated academic heartland, and the integrated entrepreneurial culture.

Later works by this author [Clark, 2004], and in particular by H. Etzkowitz [2013], present two theses. One provides for a perceivable spread and popularisation of the very idea of the entrepreneurial university among the academia. The other thesis highlights the enlarged approach to academic entrepreneurship, which consists in the university's entrepreneurship manifesting itself in its impact on the regional socioeconomic environment, including establishment of and support for enterprises, alongside respect for management, financial, market principles, including commercialisation of scientific achievements. It is worth invoking the triple helix model here, as it permits description of interactions between three spheres: university – industry – government [Etzkowitz, Leydesdorff, 1999]. According to this model, universities defined also as “human capital suppliers”, “repositories of entrepreneurship” and “sources of innovative thought” are a significant driver of the knowledge economy growth. In the Polish literature, the triple helix concept is known also under the name “a strategic triangle” [Kukliński, 2003, pp. 55-61]. A separate thread in the idea behind the entrepreneurial university is the significance and place of innovation as a factor determining the position of universities in their relations with the environment and as part of the triple helix [Etzkowitz, 2004].

Nowadays, the idea of the entrepreneurial university is still at the stage of creation and popularisation, and at the same time it is gaining in popularity and interest among numerous researchers. An example is a series of European conferences dedicated to academic entrepreneurship; these are the so-called FINPIN conferences, initiated in Finland (2006 Universities Entrepreneurship Incubating Processes; 2008 Promoting

Entrepreneurship by Universities; 2010 Innovation and Entrepreneurship in Universities), and later held in other countries (2012 Munster, Germany – Entrepreneurial Universities; 2014 Madrid, Spain – Good Practice Event on Entrepreneurial Universities).

Admittedly, the idea of the entrepreneurial university faces resistance on the part of some members of the academia, which is illustrated by Etzkowitz [2000], and opponents perceive this idea as a threat to the traditional university model, which gives prominence to values such as: community of scholars, tradition, liberty, striving for truth, education of the society. Yet – with all due respect to those values – the contemporary considerations and their high changeability encourage more and more researchers to formulate a new university model, including to determine conditions of shifting from the idea to its particular application; a handbook was even written on the subject [*Handbook of the Entrepreneurial University*, 2015].

3. Contemporary challenges posed to universities

Traditional roles of universities: education and scientific research, are still applicable and no one wants to change them. However, the conditions in which the roles are performed are changing.

Contradictory trends are noticeable with respect to education. On the one hand, the phenomenon of popularising education and developing its forms is visible in Europe. Numerous new institutions of higher education are being established, the idea of life-long learning is developing, university education for the elderly is in operation (these are “universities of the third age” in Poland). Universities are an important part of the knowledge society system, or in other words – the knowledge-based economy. On the other hand, demographic trends that restrict inflow of university candidates are emerging. Mass education is often in conflict with education quality, which reduces capabilities of elite universities, which produce leaders. These are not positive trends for universities, yet they need to be treated as a challenge, as a call for changes to adapt universities to the trends.

The today’s scientific world is becoming more and more specialised, increasingly narrower scientific specialties, which require in-depth knowledge and scientific penetration, are emerging. This refers to exact sciences in particular, but also to medicine, informatics, and even social sciences. The economy is becoming more and more dominated by information technologies, it needs graduates of the new generation, different than those who graduated even a few years ago. The emergent question is whether universities can rise also to this challenge.

University funding has still been a topical issue. In Europe, despite various funding models, financial aid from state budgets is the prevailing form. Reducing the share of state subsidies would benefit the budgets and the universities, at the same time supporting independence of the latter. The phenomenon of such a reduction is actually in progress, assuming various forms. The examples provided by Clark concern restructuring the sources of university funding under the influence of model changes. In the five examined universities, the share of direct state subsidies decreased at:

Warwick (the UK) from 69 to 38 per cent, Twente (the Netherlands) from 93 to 76 per cent, and Strathclyde (the UK) from 75 to 45 per cent (during the period 1970-95); Chalmers University of Technology in Gothenburg (Sweden) from 67 to 55 per cent in the period 1980-95, and Joensuu (Finland) from 96 to 66 per cent. At those universities, the share of other streams increased: subsidies from research councils and agencies, donations, royalties from licences, student fees, income from contracts, etc. [Clark, 1998]. The trend demonstrated here was noticed some years ago, but the today's experiences confirm it, which is visible in the report of The Economist *The whole world is going to university* (of 28 March 2015).

Universities cannot be indifferent to market challenges. The supranational educational market is forming and developing, education and scientific research are becoming an object of market turnover. There are still many countries which ensure free education to their citizens; it is even stipulated in the Polish Constitution. In spite of that, commercialised forms of university activities are also developing there. Knowledge is becoming a product, whether it is in the form of education or transfer of innovative solutions. This means that universities must assume the role of market entities to a large extent, which requires changes not only in the philosophy of their operation but also application of certain solutions in management, marketing, finance, development policy.

4. Attributes of the entrepreneurial university

Hence, the need to become more familiar with the issue of university entrepreneurship, to formulate criteria for its assessment, research and formation methods. We present here four entrepreneurship attributes of the university [Olearnik, 2013].

It is assumed that an entrepreneurial institution of higher education is one which demonstrates each of the four presented attributes in its determined goals and rules of action as well as in the practice of its operation and development. The degree (intensity) of a given entrepreneurship attribute may be different, it may change, which provides bases for assessments and conclusions with respect to entrepreneurship of a given university and its distance to the models adopted as standards.

The first attribute is the **economic orientation**, or in the strict sense – the economic and financial orientation. It is reflected in assuming economic efficiency as one of the major goals of the activities pursued by the institution of higher education. While the system based exclusively on central budgeting of the university assumed spending the funds allocated for a given period as the only economic efficiency criterion pursuant to laws, the attribute of economic orientation presented here brings the following categories to the forefront: revenue, costs, financial results. These categories and the accompanying indicators should be crucial components in planning, monitoring, reviewing and assessing before, during and after closing a given settlement period.

Economic and commercial orientations need to be differentiated here. The former is manifested also in the cost policy of the university spending budget funds, since (planned, incurred, restructured, etc.) costs are a strictly economic category. This means that universities relying on funding from public resources also can or even should be

characterised by the economic orientation. On the contrary, the commercial orientation refers only to activities consisting in service provision against payment, and the basic criterion is sales economic effectiveness and efficiency. This means that any commercial activity has a full economic dimension, while the economic orientation is considerably broader than the commercial approach.

The second entrepreneurship attribute of institutions of higher education is the **market orientation**. This means that the market or, more specifically, the market mechanism is adopted as a significant criterion for current and developmental decisions. There are three markets that are essential for the institution of higher education: the labour market – as the ultimate place of employment and a collection of requirements for graduates, but also as a source of staff acquisition; the educational service market – as a space for inevitable competition with other entities, with the competition taking place on three major planes: offers, prices and the brand (reputation) of the university; the scientific research and innovative product market – as a place for seeking addressees of and partners for the scientific research conducted by institutions of higher education. University activities on each of the three markets mean the need for bilateral communication, market research and monitoring, as well as broadly defined marketing actions. Many institutions of higher education have marketing units within their structures, yet their actions are frequently limited e.g. to promotion, as a result of which they are unable to perform multilateral functions building the university's market position.

The third attribute is the **innovative orientation**, as there is no entrepreneurship without innovativeness. Institutions of higher education are a peculiar mixture of approaches. On the one hand, the university is a natural habitat for canons of knowledge: traditional, permanent, universal, transferred to next generations of students. The space for innovations is smaller here, unless it is a dynamic developing field of knowledge. On the other hand, the institution of higher education is a community of personages with highest qualifications and therefore there is no better place to expect creativity and innovativeness than that. We believe that the university needs to be comprehensively innovative, where comprehensiveness means creating innovations in multiple areas: knowledge creation and transfer, scientific investigations, formation of relations with the environment, management of all processes at the university.

The fourth entrepreneurship attribute is the **managerial orientation**. It involves the necessity to develop such university management systems where, apart from the academic approach (based on characteristics such as: the social mission of the university, traditional principles, independence of investigations, academic community), the managerial approach exists relying on business rules and modern management methods and techniques applied in enterprises. These two approaches must create the university management practice jointly – none of them can be either excluded or strongly dominant.

Among the entrepreneurship attributes presented above, the following characteristics of institutions of higher education need to be sought: assumptions, goals, rules of action, attitudes of people and university authorities, internal laws, organisations, achievements, good practices, and other manifestations of the presence or shortage of entrepreneurship in the university's operation.

5. Specific characteristics of the entrepreneurial orientation of the university

Certain characteristics of the institution of higher education can be ascribed to each of the four entrepreneurship attributes described above. The occurrence of such characteristics can be treated as a manifestation of the entrepreneurial orientation of a given institution of higher education, with a proper distance to the qualitative and often subjective nature of such assessments. Sets of characteristics typical of a given orientation are presented below [*Przedsiębiorcza uczelnia...*, 2009].

1. The economic orientation as an entrepreneurship attribute is fulfilled when the university demonstrates the following characteristics:
 - The university's mission or other essential documents encompass the declarative orientation towards achieving economic efficiency.
 - There are efficiency-oriented goals and/or actions in the strategy of the institution of higher education.
 - Sources of funding the ongoing activities and development of the university are diversified.
 - The institution of higher education discloses a positive economic result in its annual financial statements.
 - The balance sheet value of the university's assets demonstrates an increasing trend.
2. The market orientation as an entrepreneurship attribute is fulfilled when the university demonstrates the following characteristics:
 - The institution of higher education investigates and monitors the further path of its graduates.
 - The institution of higher education maintains relations with employers (councils, conventions, the university's presence in professional organisations, lectures by managers and specialists regarding the economic practice).
 - University curricula are flexible and allow for changeable conditions on the labour market, and new majors are established under the influence of labour market trends.
 - The institution of higher education seeks or has partners in the area of economic practice in carrying out its scientific research.
 - The university perfectly knows the competitive environment and monitors it on an ongoing basis.
 - The institution of higher education uses marketing tools for creating and sharing its offer as well as for building relations with entities within the environment.
3. The innovative orientation as an entrepreneurship attribute is fulfilled when the university demonstrates the following characteristics:
 - The institution of higher education is active in creating new undertakings and syllabi.

- The institution of higher education organises individualised (ordered) teaching projects – for a given recipient, normally a business one.
 - The university prepares and/or implements investment projects on a large scale: purchasing real properties, constructing new or expanding the existing buildings, upgrading equipment.
 - The institution of higher education ensures a high quality and development with respect to technical support for teaching and scientific research.
 - There is the advantage of the university's internationalisation, in particular development of international contacts and growth in the number of foreign partners.
4. The managerial orientation as an entrepreneurship attribute is fulfilled when the university demonstrates the following characteristics:
- There is an efficient finance management system in the institution of higher education: acquiring sources of funding, planning and analysing revenue, costs and results, cooperating with financial institutions, acquiring external funding.
 - The institution of higher education pursues systemic marketing activities: marketing planning, market research, operations in promotion and public relations, and a marketing unit operates within the university's structure.
 - There is a system that motivates staff to innovative and efficiency-oriented actions in place.
 - A quality assurance system functions in the university.
 - The institution of higher education has a modern internal and external communication system.

6. Entrepreneurship of Polish universities

Polish institutions of higher education of the present day do not display entrepreneurial characteristics to a satisfying degree. This is probably an effect of the fact that, as recently as 25 years ago, the entire field of Polish higher education was a non-profit area, where universities operated as a component of the system of public services funded from the state budget in whole, and categories such as economic calculation, market and marketing, modern management, entrepreneurship were completely unfamiliar to universities. The 1990s brought commercialisation of a part of the higher education sector in Poland. Simultaneously, the need for market reorientation and a considerably deeper economic reflection occurred in institutions of higher education. The issue of university entrepreneurship understood as the formula of its activities subordinate to economic goals and market situation based on innovativeness and development aspirations became topical. Scarce scientific research [*Przedsiębiorcza uczelnia...*, 2009; *Przedsiębiorczość akademicka...*, 2009; *Uniwersytet trzeciej generacji...*, 2013] on university entrepreneurship attempted to explain its considerations, regularities and trends, provide scientific support for activities pursued by institutions of higher education. However, despite the scientific explorations and the resulting recommendations, entrepreneurship of universities in

Poland has still been an unfulfilled idea, a vision which does not assume the form of practical solutions and particular attitudes and achievements, and which does not get close to being popularised.

When observing the operation of Polish institutions of higher education from the angle of entrepreneurship canons, it needs to be stated that they are normally oriented “inwards”, where the following issues are among ones that are significant for them: the teaching process, academic promotions, material base, new majors, number of students, while neglecting external relations, in particular with three segments: graduates, competitive environment and business environment [*Przedsiębiorcza uczelnia...*, 2009].

Universities seek relations with their graduates too slowly and to an insufficient extent. We are pointing to universities’ engagement in investigating and monitoring the further path of their graduates as one of important criteria of their entrepreneurship. A relation with graduates always strengthens the university’s position; a strong relation with the best graduates can be a source of significant strength for the institution of higher education [Nowaczyk, Sobolewski, 2011; Krajewska-Smardz, 2012].

Maintaining relations with employers is one of the weakest points of Polish institutions of higher education although it should be treated as extending relations between the university and the labour market. In broad terms, employers are understood here as entities of the economy, administration, public life, which are interested in university graduates, the process of their education, preparation for a job.

A handicap of Polish institutions of higher education is restricted and undiversified sources of funding. There are two types of universities that operate in parallel in the Polish higher education system. One is public universities, which are called so due to their sources of funding – public funds, which come from the state budget and are allocated by the government, are definitely the dominant source of funding for the institutions of higher education, and supervision over such universities is exercised by the state through a competent minister. Such universities – given the number of students in 2014 – constitute 75% of Polish higher education [*Szkoły wyższe i ich finanse...*, 2015, p. 57]. The other type is private universities, which have been established in Poland since the beginning of the 1990s and are funded mainly from student fees with an insignificant share of subsidies granted by the state budget (for the purpose of student scholarships, scientific research for the best universities). The differences between the two types of universities in terms of entrepreneurial orientation need to be noticed. The orientation is definitely more visible in private institutions of higher education, which have been operating according to market rules and economic efficiency criteria from the very beginning.

7. Conclusions

The entrepreneurial university should be interested in building its good position in the academia as well as on the educational and scientific market. At the same time, the university – apart from striving for achievement of the social mission – should build its economic strength by using the resources held and external considerations.

An important characteristic of the entrepreneurial university is the proper system of its relations with the socioeconomic environment. The university's environment includes: individuals, groups of people, other universities, social institutions, administrative institutions, and market entities having various relations with the institution of higher education. An important part of the university's environment is its beneficiaries, that is individuals and entities interested in diverse benefits brought to them by good operation of the university. It is necessary to identify individual entities within this environment, to form the desired relations between the institution of higher education and such entities, to maintain and develop the relations – all for the purpose of creating the position of the university as an active and important member of various environments, and as a market entity.

A characteristic of the entrepreneurial orientation of universities is internationalisation [Pluta-Olearnik, 2012]. For large universities with a long tradition, it is a natural advantage. However, for institutions of higher education in the countries of the so-called new European Union or developing countries it is a fundamental criterion. Internationalisation of the university is perceived there as its developing capability of cooperation with entities from other countries. The measure of success is achievements such as: the number of international contracts concluded, the number of students and staff participating in the international exchange, the amount of funds allocated for undertakings from this area, the number of visiting fellows and foreign students, the number of international conferences organised.

A significant advantage of the entrepreneurial university is broadly defined innovativeness. It is a separate area which requires analyses and explanations. Questions about criteria for the university's innovativeness should be answered, assessment and comparison systems should be developed, self-assessment with this respect should be enabled to universities, and directions of actions for this entrepreneurship attribute should be identified. We wish to strongly emphasise here the need for innovativeness among individuals, teams and whole universities, to oppose to the views claiming that the university is strong only through tradition and already accumulated knowledge, to highlight the great significance of innovativeness in the context of entrepreneurship and development opportunities for universities.

Researchers and propagators of the idea of the entrepreneurial university invoked in this paper represent the global perspective, relying mainly on American and British experiences. We share their opinions, give support to the idea of third generation universities. However, we look at the issue from the position of Poland as a country where the economy, social processes, educational systems, including universities, have still been undergoing major transformations. On the one hand, we notice the continuing discussion signalling a slow approval to the idea [Kozłowski, 2001; Gorzelak, 2009; *Przedsiębiorcza uczelnia...*, 2009; *Uniwersytet trzeciej generacji...*, 2013], which needs to be considered success of its creators. On the other hand, our research shows that it will be neither easy nor quick to implement this idea and popularise it in the operating practice of Polish universities. Polish institutions of higher education are changing but the scale of the changes towards the entrepreneurial university model is insufficient. The changes need to be intensified in two directions. One is the reform of the centrally codified law,

which is an extremely strong determinant in Poland, and at times also a restriction to the activities pursued by institutions of higher education. The other direction is transformations in the consciousness and attitudes of the university's employees and management staff, liberation from the patterns formed over many years, bold exit from the "ivory tower" towards a modern entrepreneurial university that is open to the external environment.

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