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## Rankings in Students' decision-making process in Poland – implications for university management

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**Abstract.** Universities become increasingly complex and varied market players. Commercialization of education market changes their current position while forcing to redefine the orientation from traditional academic values towards business models. Building a market advantage enforces the necessity to undertake actions that are directed at consumer-related values. It is the consumer who, on the one hand, becomes a key stakeholder of activities performed by universities, and on the other one, a partner. As a result, university transforms in an ecosystem of mutual multidimensional relations between its employees and students. It evolves while seeking subsequent factors of success and unique values. Its position in rankings becomes a reflection of the effectiveness of undertaken strategies and actions determining future decisions of its consumers – students. The paper is of empirical-theoretical nature and its aim is to identify the role of rankings in students' decision-making processes with a particular focus on the conditions for managerial processes implemented by universities. The discussion is based on the relevant literature and the empirical studies' results.

**Keywords:** higher education management, university rankings, consumers, decision-making process.

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## 1. INTRODUCTION

University is an institution of more than 900-hundred-year old history which is identified by the supporters of tradition as the temple of knowledge or 'the ivory tower' where knowledge is an autotelic value (Barry, Chandler, Clark, 2001). For centuries its aim was to determine social order in line with the principles of reason and current values. Even though it was regarded as hermetic, traditional culture, where not everything was comprehensible and clear, it still gave hope that eventually it would be (Noga & Pauluk, 2014).

Yet, the university in classical terms ceased to perform its functions.. It is now generally accepted that universities are an important instrument in facilitation of contemporary knowledge-based economy. Since much knowledge is developed within universities and government research establishments, they are seen as important catalysts of regional economic and social development, through the spin-off of new, innovative enterprises that add value through knowledge creation (Guerrero-Cano, Kirby, Urbano, 2006). As a consequence, the university evolves towards the concept of entrepreneurial university and socially responsible university while moving away from the concept of 'universitas'. The university explicitly transforms from being a scientific institution into becoming an enterprise, and traditional university values are partially replaced by market rules (Czerepaniak-Walczak, 2013). This situation requires a new approach to the functions that the university plays in the education process, and greater than before orientation towards needs and expectations of various groups of stakeholders, especially students-consumers. Consumer-focused orientation becomes an indicator of efficiency of implemented market strategy and a source of new challenges to university management determined by eclecticism, in which everybody is right depending on surrounding conditions and a network of meanings. Entrepreneurial universities redefine the traditional roles of a university in the community as a knowledge creator through basic and applied research, technology and knowledge transfer agent, innovator, and supporter of economic development (Sultan, 2017).

Although a key function of university is still to educate students and to conduct scientific studies, they increasingly develop a character of business activity. A key role in that process belongs to the strategy of building a competitive advantage based on understanding of evolving market needs, flexibility, pro-activity and adaptability towards observed changes. A stimulator of such processes are domestic and international rankings of universities indicating academic prestige, innovativeness or reputation in employers' opinion. They influence individual decisions of future students concerning a choice of university and a field as well as approaches and preferences towards the contemporary education process. It enforces reinterpretation of university behaviour from the perspective of changes in their social and economic orientation in the context of realized educational functions.

The aim of the paper is to identify the role of rankings in students' decision-making processes with a particular focus on the conditions for conducting managerial processes by universities. Part One describes the main challenges concerning university management including the role of rankings in that process. The authors will present the key directions of the evolution of contemporary models of universities which belong to the picture of increasing competition within the education sector. The subsequent part presents the results of preliminary studies in the discussed area and conducted analyzes are the starting point for further studies and reflections on the role of rankings in university management in terms of observed market processes. The study was conducted by means of a direct survey on the sample of 1891 students of the 1st year of full-time and extramural studies of the 1st and 2nd cycle as well as postgraduate studies.

The level of awareness and range of using rankings while choosing a university in Poland in the context of a broadly understood international market should be much higher. However, it requires a wide spectrum of changes on both national level (e.g., legislation, research funding) as well as on the level of individual universities, especially in part of building their market position based on the criteria of international rankings.

## 2. UNIVERSITY MANAGEMENT

Universities across the world in the early twenty-first century find themselves in a paradoxical position. Never before in human history have they been so numerous or so important, yet never before have they suffered from such a disabling lack of confidence and loss of identity (Collini, 2012). Consequently, they are facing higher levels of uncertainty and complexity in their environment as well as greater entrepreneurial pressures from within (NCEE, 2013).

For centuries universities have been working in a relatively predictable environment. However, changes that have been introduced for several decades have considerably increased the level of uncertainty, in which players in education market must work along with risks of their decisions. Increasingly complex, mutually linked and unpredictable environment enforces the necessity of meeting new requirements that are in opposition to broadly understood universalism, just like in case of enterprises. While referring to neo-evolutionary theory it is necessary to identify such factors that will have a crucial impact on survival of the species – universities from the point of view of their capacities to adjust to new environmental conditions. Complexity and dynamics of observed economic, technological or socio-cultural processes leads to a need for self-organization and evolution of universities based on reinterpretation of current paradigms connected with their educational function. In order to survive they must develop defense, adaptation and assimilation mechanisms that are deeply based on the vision of the future, on the one hand, and pragmatism towards possibilities of meeting requirements of the environment on the other one. So, species – universities must change in order to stay in the market game while multiplying their own potential. The centuries-old tradition clashes with the predestination of the future leading to the situation in which the observed transformation is fundamental in many areas of university management.

In classical terms universities were primarily based on theoretical education and authority of employed scientists. Due to an increasing role of higher education, growth of educational aspirations or requirements and expectations towards a course of education processes and their quality as well as due to an increase in a number of players in educational market, growing commercialization of research (knowledge transfer) or a level of using technologies (e.g. blended learning, e-learning, Massive Open Online Courses – MOOCs), the context of university management changes.

The academic evolution arises from the confluence of the internal development of higher education institutions and external influences on academic structures associated with the emergence of 'knowledge-based' innovation. The objective is to enable universities to play a creative role in economic and social development from an independent perspective while still being responsive to government and industry priorities (Etzkowitz, 2016). As a result, universities are increasingly pressured to respond to external imperatives and demands, while, at the same time, they are expected to enhance their efficiency. This is leading to the local adoption of key, structural and cultural features associated with the model or global script of the entrepreneurial university (Pinheiro, 2016). Entrepreneurship is not a subject or a discipline, but a practice or a way of thinking that can increase the impact of innovation (Thorp, Goldstein, 2010; Saulius et al., 2020). Many European countries have introduced reforms and policy initiatives to encourage and improve university technology and knowledge transfer. Following these trends, a number of universities have transformed themselves from a traditional research university to an entrepreneurial university (Mihajlovic, Ljubenović, Čolić & Milosavljević, 2016). It means the transition that challenges universities as

institutions beyond the first mission (education) and second mission (research) (Foss, Gibson, 2015). Entrepreneurial universities need to become entrepreneurial organizations; their members need to become potential entrepreneurs. As a consequence, the outcomes of an entrepreneurial university are linked with its missions; teaching, research, and entrepreneurial activities (Guerro & Urbano, 2010). Its structure is flexible and changes towards the observed market needs.

Education will then, lead to omni-channel model as in today's connected world, consumers expect to have anything they want available at their fingertips. Students expect to be able to learn on-demand, getting the skills and knowledge they need in that moment, to be able to apply it as soon as possible (<https://www.forbes.com/sites/anantagarwal/2019/01/02/three-education-trends-that-will-revolutionize-the-workplace-in-2019/#3c406a8f6363>). The entrepreneurial university must prepare the youth for effectiveness and impact at an individual level, a university must provide personal knowledge (skills, taste for risk, leadership, innovation), a country level, a regional level and a global level, eventually, the university must prepare and help students tackle the world's problems (<https://www.innovationiseverywhere.com/building-entrepreneurial-university-global-entrepreneurship-summit>). The challenge is for universities to review what they do and how and the effects on the enhancement or inhibition of the development of entrepreneurial capacities that will underpin innovation capacity (Hannon, 2013). Thanks to that the university can become more flexible, innovative and creative towards surrounding changes. It continuously evolves through concentration on emerged opportunities and appropriate reorientation of own objectives and strategies.

Marketisation of higher education accompanying the development of a market economy having expressed, among others, the 'imitation' of management models specific to the enterprise sector, an adaptation of the market terminology, changing roles of students and the importance of their satisfaction cause still a lot of controversy (Hall, 2018). It results from the fact that market approach in case of universities can mean that what used to be perceived as public good now becomes a kind of product/service whose quality is evaluated and its market advantage depends on its decision and behaviour.

Therefore, the university aspiration for neo-evolutionary reproduction in a symbolic sense understood as increase of its meaning, strengthening of power and influence, requires taking into account rankings that reflect its prestige and reputation. They are aggregated summary of selected university achievements enabling to compare them according to set criteria of scientific or didactic activity evaluation. It allows to compare universities and countries while taking into consideration long-standing trends in terms of changes in a relative position in the ranking (Sulkowski, 2018). Although advancement in rankings is a recognizable measure of success, arbitrary selection of criteria can limit objectivity of evaluation and position of players acting in various scientific disciplines, not fully reflecting their level of competitiveness in the market of educational services. They do not provide objective results, yet, they enable easy, quick and relatively quantifiable comparison of universities, determination of strategic objectives for universities and the whole national systems of science and higher education. In such terms, rankings can become a key element in the process of building a university market advantage.

### **3. RANKINGS AND UNIVERSITY MERGERS**

International rankings originate from the United States, where a specific 'ranking culture' has developed in many areas of social and economic life (Melcer, 2011). The advantage of university rankings is the possibility of comparing not only universities themselves but also countries as well as tracking long-term trends in changing relative positions in the ranking. The disadvantage is the arbitrary selection of criteria for the methodology, which determines the appreciation of one type of improvement and the undervaluation of others. For example, most recognizable rankings highly value spectacular scientific achievements (e.g.

Nobel prizes), as well as measurements of publications and citations, due to the development of scientometric methodology. It is much more difficult to assess the educational value, which can be described with the help of variables such as the quality of education, employability and the added value of education that are difficult to capture and measure.

The Shanghai ranking (ARWU) was created for measuring the distance between the world leaders and Chinese universities. Quite soon, however, it turned out that it is a useful tool for measuring the scientific achievements of universities around the world. Like every scientometric method, the Academic Ranking of World Universities has its limitations, which means the need to supplement the ranking with other types of university assessment. The methodology used by the ARWU favors the appreciation of the accumulation of scientific output and spectacular scientific achievements, which leads to the strengthening of the tendency to create relatively large universities (Salmi, 2016). In recent decades many governments have decided to stimulate the consolidation in the higher education sector, not only rationalize education networks and improve the quality of science and management, but also to improve the visibility of the country and universities around the world. The promotion in the ranking is a recognizable and logical measure of success not only for university managers, but also for national public policy makers (Münch, Schäfer, 2014). The fact that the instrumental criterion for measuring the quality of science and education, related to the visibility of the university and the country in the rankings, has become so important, is symptomatic of the Internet era. Rankings critics note that they have sometimes become more important than the organic development and growth of the university (Lynch, 2015). As a consequence, they can even lead to irrational, destructive mergers that can destroy the university's potential instead of strengthening it.

In the report on university rankings the European University Association distinguishes several types of rankings (Rauhvargers, 2013). The following can be indicated among the popular rankings focused on the creation of league lists (Bucla-Casal, 2007): Academic Ranking of World Universities (ARWU) - Shanghai Ranking Consultancy (<http://www.shanghairanking.com/ARWU2003.html>), World's Best Universities Ranking - US News & World (<https://www.usnews.com>), THE World University Ranking - Times Higher Education (<http://worldtop20.org/global-education-report-2016>), U-Multirank (<http://www.umultirank.org>). Another ranking criterion concerns the strict positioning of universities according to the intensity, quality and scope of scientific research: Leiden Ranking - Leiden University (<http://www.leidenranking.com>), Assessment of University-Based Research - European Commission ([https://ec.europa.eu/research/science-society/document\\_library/pdf\\_06/assessing-europe-university-based-research\\_en](https://ec.europa.eu/research/science-society/document_library/pdf_06/assessing-europe-university-based-research_en)), CHE University Ranking - Centre for Higher Education Development/die Zeit (<https://ranking.zeit.de/che/en/>), Performance Rankings of Scientific Papers for World Universities - Taiwan Higher Education Accreditation and Evaluation Council (<http://nturanking.lis.ntu.edu.tw/>), U-Map - CHEPS, European Multidimensional University Ranking System (U-Multirank). The Webometrics ranking is based on the measurement of citations in Google Scholar (<http://www.webometrics.info/en>).

T. Erkkilä believes that global rankings are a transnational, multidimensional discourse with different national variants. Rankings are a strong mechanism of convergence of public policy towards the science and higher education sector, which has multiple consequences in the form of: deep stratification of university types, and at the same time homogenization of the ways of university management and the commercialization of scientific and educational activities (Erkkilä, 2014). However, the rankings will survive and probably will even gain in importance. They do not provide objective results, but allow for easy, quick and measurable comparison of universities, setting strategic goals for universities and entire national systems of science and higher education. In many countries, the position in global rankings depends increasingly on raising funds for research, attracting better students and more prominent researchers. Therefore, regardless of justified criticism, rankings are likely to influence public policy more and will foster consolidation in the sector of higher education institutions (Rauhvargers, 2013). According to the researchers of the critical

trend, behind the facade of scientific, axiologically neutral classification systems, there is a method of strengthening the hegemony of the model of an elite Anglo-Saxon university. It leads to the stimulation of stratification in the education and science system as well as the development of American cultural imperialism (Ordorika & Lloyd, 2015). As a consequence, we are threatened with a return to the practice of 'educational reproduction' in elite higher schools described by P. Bourdieu and J.C. Passeron (Passeron & Bourdieu, 1970). The dominance of rankings is also a discursive and postmodernist phenomenon, reminiscent of the Foucaultian phenomenon of knowledge-power and power over discourse (Foucault, 1980; Revel, 2002). Promoted marketing reference frames, such as international university rankings, are often treated as facts. In fact, these are only interpretations and social constructs that are considered objective. However, in the social perception, the position of the university in the ranking is more and more identified with didactic or scientific excellence. The management of meaning (sensemaking) can also lead to the identification of a university merger with the improvement process (Aula & Tienari, 2011). As universities evolve and implement strategies for the broadening range of academic entrepreneurship, they also need to develop mechanisms to assess whether such strategies have been successful (Siegel & Wright, 2015). Rankings can become this mechanism for shaping public policy towards the science and education sector, which drives commercialization, introduces a culture of control and destroys traditional university cultures (Kehm, 2014).

#### **4. RANKINGS AS A RESPONSE TO CHALLENGES OF UNIVERSITY MANAGERIAL PROCESSES IN THE LIGHT OF OWN STUDIES**

The main objective of the study was to assess the role of rankings in students-clients' decision-making process as one of the most important groups of stakeholders affecting the university's market position and its managerial processes. Particular attention was paid:

- to identify sources from which students get information about universities and fields of study;
- to determine a level of knowledge about various rankings available in the Polish and international market;
- to identify a level of significance of rankings of universities and courses in students' decision-making process.

Additionally, more determinants, other than rankings, affecting a choice of university and a field of study were identified and quantified. The study was conducted in the period from mid-November 2017 to mid-March 2018 among students of the 1st year of full-time and extramural studies of the 1<sup>st</sup> and 2<sup>nd</sup> cycle as well as post-graduate studies.

The sampling was purposeful:

- students of the 1st year of studies, so the people who made a choice in the analysed period last year
- the selected fields of studies were the ones that require a relatively high score in secondary school certificate and every year attract a big number of potential students;

As a result, the study comprised the students of such fields as: Management, Finance and Accounting, Economics, Logistics, Law, Administration, Biology, Biotechnology along with Marketing, Business Analytics, Pedagogy, Human Resources Management, Entrepreneurship and Innovation Management, Public Management. The study also included post-graduate students such as MBA at the University of Łódź and the Jagiellonian University.

The study was conducted among the students of the following universities:

- the University of Łódź
- the Jagiellonian University

- University of Social Sciences in Łódź
- University of Social Sciences in Warsaw
- University of Social Sciences in Świdnica

The study was conducted by means of a direct questionnaire and there were two conditions that influenced this choice:

- the character of sample (its large size, dispersion – various fields, cycles of studies);
- relatively low costs of conducted research.

The survey instrument was a questionnaire that consisted of twenty four questions where eight were demographic questions (explanatory (independent) variables). They concerned: gender, age, place of permanent residence, year, mode and course of current studies, the university as well as:

- in case of the 1<sup>st</sup> cycle students – a type of finished secondary school (general secondary school, technical secondary school, private school, public school);
- in case of the 2<sup>nd</sup> cycle students and post-graduate studies – completed field of the 1<sup>st</sup> cycle study, the university and the final result in diploma.

A total of 1891 students were surveyed and from that group 1845 correctly filled questionnaires were qualified for further analysis. Slightly above 66 percent of respondents were women and 34 percent were men. Such a layout of responses corresponds with the structure of Polish students by gender (GUS data – academic year 2016/2017) (GUS, 2017). Among respondents the dominant group were people below 25, who accounted for almost  $\frac{3}{4}$  of the surveyed and people between 25 and 34 (nearly 16 percent). Respondents were registered for permanent residency in towns of above 30 thousand inhabitants (almost 41 percent) such as: Łódź, Warszawa or Kraków as well as in towns of below 5 thousand residents (almost 37 percent) which were so-called satellite towns of big urban agglomerations. The surveyed mostly studied in a full-time mode, the 1<sup>st</sup> year of the 1<sup>st</sup> cycle studies.

Every third respondent used rankings while making a decision about a choice of university and/or a field of study. Conducted statistical analysis indicated that a crucial factor here is respondents' age along with a subsequent level of education. Primarily, it was assumed that the role of both factors will increase in a decision-making process based on available rankings. It was presumed that the older respondents, the more conscious they are of their expectations towards education process as well as more demanding towards university and better oriented at a choice of the one that will guarantee a high quality of education. As a result, there was an initial assumption that they will place more attention to rankings as a medium of objective information about the academic potential and prestige of individual universities than in case of students beginning their first studies at the age of below 25. However, it turned out that in both cases exactly the opposite situation was observed:

- the significance of rankings in the process of choosing a university decreased together with the respondents' age,
- students studying at the 2<sup>nd</sup> cycle of studies showed lower inclination to use rankings while choosing a university.

It can be assumed that it results from the fact that together with age the choice of university is more determined by respondents' own experiences and knowledge than information included in rankings. Similar tendencies can be a basis for observed preferences of students of the 2<sup>nd</sup> cycle studies. Undoubtedly, what also plays a role here is a respondent's individual situation connected with their place of work, financial, family situation and attachment to a given school (well-known rules, teachers, infrastructure, etc.). The similar research in the field also finds these features essential for the students' preferences, including their future work choice (Swadźba & Horáková Hirschler, 2019; Sulkowski et al., 2020). The authors do not

exclude the fact that in the analyzed decision-making processes some latent variables that were not directly measured appeared additionally.

At the same time, full-time students much more frequently look at rankings than extramural students. Yet, variables as: gender, place of permanent residence did not have any significant impact on respondents' decisions concerning using rankings in the process of choosing a university. Generally, in respondents' opinion rankings were confirmation that:

- *'a given university is the best choice'*,
- *'completed studies will enable to be more competitive in labour market'*,
- *'selected studies will be attractive'*,
- *'a level – quality of studies is higher than at other universities'*.

Respondents also claimed that rankings are necessary as thanks to them a potential student *'has a chance to study according to their interests, aspirations and possibilities'*, *'it is not the mere fact of completion of university studies but the university prestige is what matters'*.

However, opponents expressed an opinion that *'rankings and realities and transferred knowledge are not consistent in practice'*, *'no ranking can reflect the actual status as every university is different'*, moreover, *'it is hard to determine precise criteria that would guarantee an objective analysis'*.

The ranking that was the most often selected was the Ranking of Universities – by Perspectives that was indicated by slightly over 76 percent of respondents. 15.4 percent indicated the Ranking of Universities by US News & World Report. The other reports such as: Academic Ranking of World Universities (ARWU), Ranking Times Higher Education, Ranking by Financial Times or the Ranking Web or Webometrics played only a marginal role in respondents' opinion. It can be related to the fact that while choosing players of the Polish educational market, respondents generally more often use reports and rankings directly connected than looking for information about individual universities in the European or global market. *'I want to study in Poland, so I am interested in in-depth comparison of universities in Poland'*, *'foreign universities operate in different reality'*, *'I don't believe that such rankings are relevant at the global level'*.

Interestingly, the fact that students use available rankings in their choices does not mean that the range of their importance in that process is vast in respondents' opinion. The surveyed gave them an average note of 3.53. The analysis of the layout of responses in the scale indicated that respondents usually chose a note of 3 or 4, rejecting extremely negative and positive notes. On the one hand, it can result from a lack of conviction about the objectivity of rankings and treating them in a decision-making process only as a supplementary source of information, but it can also be connected with a general tendency to average given notes. Undoubtedly, that aspect will be a topic of further studies in subsequent research cycles.

Knowledge of information included in rankings would enable respondents to choose an attractive programme of studies, which was indicated by almost 62 percent. For every second respondent it created a chance to find an interesting and well-paid job after completion of studies, whereas for 40 percent it enabled to minimize a risk of making a wrong decision and 1/3 claimed that thanks to it they can find a university that provides real knowledge and competencies. Such criteria were usually indicated by respondents of above 34, studying in extramural mode at the 1st year of the 2nd cycle studies, which is probably related to their professional activity and labour market requirements. Respondents also mentioned such benefits as better preparation for employers' expectations or studying at universities offering attractive and extensive systems of internships and work placement. The important aspects are also: *'possibilities that a university creates for a student both, during studies and after their completion'*, *'modernity and a level of cooperation with other players operating in a given market, confirming flexibility of university and its adjustment to realities'*. According to the surveyed it is necessary to include the following information in rankings:

- *'a number of students who completed studies as compared to a number of students who started studies'*,

- *'prestigious achievements of students and graduates'*,
- *'a number of graduates who find a job in their specialization'*,
- *'achievements of academic workers – competitions, awards as it confirms their knowledge'*,
- *'a number of publications of academic workers in prestigious trade journals'*,
- *'it is also worth considering a ratio of a number of lecturers per one student'*.

Interestingly, up to 19 percent of respondents declared that rankings enable them to find a university and/or a field that are easy to be admitted to and that are not very demanding. That group comprised mostly men at the age of 25 studying at the 1st year of the 1st cycle studies in a full-time programme, which may result from their lack of a clear vision of their future and an idea of professional career.

For almost 27 percent of the surveyed rankings are a reliable source of information about university. Every tenth respondent expressed an opposite opinion, whereas at the same time up to 63 percent of respondents were not able to make an unequivocal decision in that issue. The statistical analysis indicated that the evaluation of reliability of university rankings is higher in case of women than men, and additionally, it increases together with respondent's age. However, in case of such factors as: a mode of studies, a year of studies the statistical analysis did not show any significant impact on given responses. It is worth noting that in case of respondents studying at post-graduate programmes, including MBA, there was the same number of supporters and the undecided in their view on the level of university rankings reliability, whereas in case of full-time M.A. students, there was the biggest number of people who found rankings not very reliable. Yet, interestingly, in spite of the fact that the statistical analysis did not show any influence of the size of locality, in which a respondent was registered on the layout of their responses, the slightest disproportion between supporters and opponents of rankings' reliability evaluation was in the case of towns between 15 to 30 thousand residents. From equality indicators test of the structure it is also apparent that in this group of respondents there was significant predominance of people who perceive university rankings as reliable as compared to the opponents of this view.

The main source of information on the basis of which rankings should be compiled are, in respondents' opinion, mostly information from current university students (68.7 percent of people using rankings), their graduates (54 percent) and employers (40 percent). These three categories are crucial groups of stakeholders, as they enable to evaluate a given university both, from a point of view of realized education process and its accompanying elements that create an added value of that process (students and graduates) but also its quality and a level of adjustment to real market requirements (employers). 1/5 of respondents would also consider opinions of lecturers employed at a given university, the same number of respondents would consider information transferred directly by individual universities. The surveyed found it necessary to take into consideration the evaluation of national institutions responsible for the level and development of higher education: one in four respondents indicated the Ministry of Science and Higher Education, one in ten took into account an opinion of the State Accreditation Committee. At the same time, 14 percent believed that the evaluation of external organizations taking into account scientific and research achievements of universities is essential.

Among the most important information that potential students look for in rankings were primarily knowledge and experience of staff (58 percent of respondents) as well as reliability and university prestige (almost 55 percent of respondents). It was assumed that both factors are of crucial importance for the process of education and social prestige of obtained diploma. However, almost 40 percent of the surveyed believed that rankings should take into account a level of university flexibility and openness to real students' needs. One in three respondents would also take applied teaching methods into consideration, and one in four current and future preferences of employers. For 1/5 of the surveyed an important thing was also information about a possibility to continue studies in a given area at the 2nd cycle studies, with reference to

available majors and specializations as well as available post-graduate studies. Respondents also indicated such factors as: conducted scientific research, including implemented projects and research grants, classes conducted by teachers from abroad, a number of publications of lecturers in prestigious magazines as well as available infrastructure determining conditions of education (e.g. a building, laboratories, equipment in classes and lecture halls, software) technical infrastructure (e.g. availability of parking spaces for students, copy centers, Wi-Fi zones) and social issues (availability of dormitories, scholarships, etc.).

Slightly above 40 percent of all respondents claimed that the role of university rankings will be of bigger importance than today in a decision-making process of graduates of secondary schools and students, whereas in a group of people who already use them, such a response was declared by almost 57 percent. Nearly 11 percent of the surveyed expressed a different opinion, and unfortunately, every second respondent was not able to make an explicit assessment in that area.

Conducted statistical analysis showed that gender of respondents, a mode and year of studies did not influence respondents' opinions in the discussed area. However, together with age, the growth was observed in the proportion of responses of those who are convinced that in the future the role of university rankings in a decision-making process will increase. Additionally, chi-square statistics indicated a crucial impact of that factor on collected responses. Similar conclusions were obtained in case of the analysis of distribution of responses depending on a size of locality, in which a respondent was registered permanently – chi-square statistics also indicated a significant impact between variables.

*'The role of rankings will increase in the coming years since a diminishing number of students as compared to the previous years will force a bigger fight for a student among universities', 'the development of technology will also increase access of potential students to specific information about universities and possibilities of analyzing them'. 'A key point in that aspect will also be a ratio of labour market and employers – a role of rankings will grow if employers prefer graduates of universities from the top of the ranking' because 'people become more and more ambitious and want to choose the best available solutions, including the range of their education'. Yet, 'real rankings will begin when state universities lose their leader position in the market of educational services', and 'the rankings themselves will be based on reliable and authoritative indicators'.*

## 5. CONCLUSION

Education used to be considered a public good, provided by nonprofit organizations that were unexposed to market pressure and had clear societal missions. Now, education is becoming a global service delivered by quasi-companies in an ever-more complex and competitive knowledge marketplace. To cope with these challenges, higher education institutions need an appropriate strategy (Pucciarelli, Kaplan, 2016), taking into consideration expectations of various groups of stakeholders including students – consumers, in particular. The flow of global change has given a clear signal to the universities to be ready and adapt to the change of the flow to continue to compete and achieve excellence. Generally, today's competition is determined by the ability to meet customers and stakeholders demands. These claims involve high quality services and products, beliefs, technological changes, economics, politics and social. This goes beyond the expectations of customers by predicting their wishes in the future (Norliah et al., 2018), implementation of new learning management models (Changwong et al., 2018; Sułkowski et al., 2019). Consequently, future universities will thus face many challenges – some will be new; others may be the same but with a changed urgency. The survival of universities will depend on how they respond to changing environments – complex, unpredictable ones like the current one where globalization and not isolationism, international rather than domestic trade, and competitive markets instead of economic regulation characterize the scene. Entrepreneurial thinking and behavior may be skills that are indispensable for navigating such environments. Flexibility, adaptability, strong leadership, and above all, an encouraging environment supportive of entrepreneurial processes will be essential for the future university (Faoylle et al., 2019; Draskovic et al.,

2019), especially those which provide their activity facing the challenges for human capital support in higher education (Bilan et al., 2020; Dzimińska et al., 2020). It requires an understanding of observed processes and continuous improvements with respect to systems within which universities evolve. Rankings may prove useful in that process as they are part of the neoliberal agenda in science aiming at increasing the competitive allocation of funds among universities (Munch, Schafer, 2014). Increasingly, in many countries a position in global rankings affects obtaining funds for research, attracting better students, employees and researchers along with cooperation in science with players of domestic and international market. The level of awareness and range of using rankings while choosing a university in Poland in the context of a broadly understood international market should be much higher. However, it requires a wide spectrum of changes both, on a national level (e.g. legislation, research funding) as well as on the level of individual universities, especially in the process of building their market position based on criteria of international rankings.

Conducted studies were of preliminary nature and allowed to identify the main dependencies and areas of influencing students' decisions concerning a choice of university by rankings, which should be meaningful for university management. They are the basis for further deepened studies and analyzes that will cover various players in international market with reference to their specific disciplines. It will enable to prepare a model including cognitive, affective and behavioral level of impact of rankings on a change in university market behaviour and their evolution towards socially responsible models of management, with particular focus on their consumer-centered orientation. The 'capitalization of knowledge' is at the heart of the entrepreneurial academic mission, linking universities to users of knowledge more tightly and establishing the university as an economic actor in its own right (Etzkowitz, 2017).

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