

Olivia Iulia Nastase

Higher Education Institution Rankings and their impact on decision making

Helsinki Metropolia University of Applied Sciences

Bachelor of Business Administration

International Business and Logistics

Thesis

29.04.2015

Author(s) Title Number of Pages Date	Olivia Iulia Nastase Higher education institution rankings and their impact on decision making 57 29 April 2015
Degree	Bachelor of Business Administration
Degree Programme	International Business and Logistics
Specialisation option	International Business and Logistics
Instructor(s)	Michael Keaney, Head of International Degree Programs, Senior Lecturer
<p>University rankings are a worldwide phenomenon which, despite their novelty and complexity, have shaped higher education over the past twelve years and are continuing to do so. The purpose of this research is to find out how rankings, either national or global, are influencing decision making in higher education institutions and what their impacts are on the stakeholders involved, included but not limited to current and former students, university leaders, investors, local governments and enterprises.</p> <p>Rankings are seen as tools for institutional marketing and performance assessment on one hand, and as mechanisms of public accountability on the other. Either as a direct or indirect response to them, the most evident changes in higher education have been the increased focus on research over teaching in the fields of science and technology, on institutional and faculty prestige and distinctions, and the content of learning shifting towards multidisciplinary and cultural diversity. Despite the criticisms regarding ranking methodologies and data analysis, their influence only seems to become more pronounced and, as result, the traditional goals of higher educations are making way to concepts of consumerism, branding, and privatization.</p> <p>However, the research shows that, in order to create highly skilled graduates which will become active participants in their communities, higher education institutions need to be offered the autonomy necessary to achieve their goals to the best of their abilities, with as little unnecessary intrusion as possible.</p>	
Keywords	Rankings, higher education institutions, decision making, stakeholder, Times Higher Education, Academic Ranking of World Universities, U-Multirank, goal of higher education.

Contents

1	Introduction	3
2	Literature review	5
2.1	International views on Rankings	5
2.2	Rankings and reactivity	10
3	The Concept of Higher Education Institutions	13
3.1	Learning	15
3.2	The ultimate goals of higher education institutions	18
4	Stakeholder analysis	20
4.1	Is the consumer model appropriate?	20
4.2	Groups of stakeholders	21
5	Ranking systems	25
5.1	Academic Ranking of World Universities	27
5.2	Times Higher Education Rankings	28
5.3	U-Multirank	30
5.4	Rankings impacts on stakeholders	31
5.5	Methodological issues	34
6	Implications and applications	38
6.1	How are universities influenced by rankings?	38
6.2	Is learning affected?	44
6.3	Stakeholder responses to rankings	47
7	Conclusion	50
8	References	53

Table of Figures

Figure 1. Organization Types of Major International Rankings	19
Figure 2. Indicators and Weights for ARWU	25
Figure 3. U-Multirank Comparison of Finnish HEIs in the Field of Business	29
Figure 4. Research Indicators in National Rankings	41
Table 1. Indicators and weights for THE WUR	27

1 Introduction

The theme of this research is a result of the author's interest in higher education and her Bachelor's studies in the field of international business. The decision was made when the author realized that, not only were institutions of higher education morphing into large scale business models, but that a large part of their branding and marketing activities were influenced by international rankings. This report is of interest to anyone concerned with the concept of university rankings and how higher education and its stakeholders are shifting their decision making as a direct and indirect result of them.

Rankings are defined as listings created by non-profit organizations or business and they compare institutions of higher education based on different combinations of indicators such as annual graduation rates, research in excellence, level of internationalization, education outputs, and many others. Due to their complex methodologies and abundance, the report will mainly take into account those rankings which appeared most substantial in the reviewed literature and online search engines, namely the Times Higher Education Ranking, the Academic Ranking of World Universities, and U-Multirank, which are all described in more detail in Chapter 5. The term "higher education institution" is used throughout the report, as it encompasses polytechnics, vocational schools, universities of applied sciences, and is not just limited to traditional universities. Although there is a lack of a universal standard for rankings, this phenomenon has gained so much importance that in some cases, governments are more concerned with how their higher education is seen globally, rather than looking at other aspects that are more urgent. The report will establish that there are clear connections between the indicators taken into account by rankings and the changes made by institutions, even though, at a closer look, those indicators are often not real proxies for institutional quality.

Higher education's ultimate goal has been identified as the creation and the dissemination of knowledge through teaching and learning, which means that the consumer model promoted by rankings is not appropriate in this sphere, neither for students nor for universities (Fortino 2006).

This goal has been influenced by league tables often in indirect ways, and we witness changes in the content being taught in universities, the amount of research production,

and a shift from the traditional learning characterized by local individualism towards a culturally and diverse style.

The main groups of stakeholders identified were students, higher education institutions and their staff members, local governments, investors, and others, whereas the most discussed decision making actions have been taken in the areas of higher education focus and missions, student selectivity, departmental restructuring, funding, internationalization levels, and knowledge production.

2 Literature review

The literature reviewed for this thesis includes newspaper articles, blogs, as well as official reports. The focus is put on the later ones, as the works in question have been drafted by organizations such as the OECD (The Organization for Economic Co-operation and Development) and UNESCO (The United Nations Educational, Scientific and Cultural Organization), which both enjoy a high global reputation and advocate for international collaboration and finding answers to common problems.

2.1 International views on Rankings

The vast majority of institutions worldwide have expressed the intention to become the best in various fields of excellence. In many of these cases, the changes are made in a wide area of focus and they are not bound by any ranking system in particular. Other institutions have specific goals in mind that could improve their ranking positions, such as improving graduation rates, facilities, student retention rates, or the number of international awards received by faculty members, depending on the case.

Even though this can lead to the improvement of certain weak areas, there were cases in which Higher Education Institutions (HEIs) lost their position in rankings instead of advancing because they disregarded more vital aspects of their organization. Such is the case of the Berea College in the USA that changed its classification from a Comprehensive II to a Baccalaureate Institution (which was a more competitive category) only to decline in the following national ranking which, in turn, forced the HEI to return to its original regional status (IHEP 2009:5).

Furthermore, rankings have multiple effects on resource allocation and fundraising, such as compensations being offered to faculty members in order to raise a HEI's position in rankings, funding being diverted from certain high priority areas, and alumni donations becoming more encouraged (Scott 2013: 124). In regards to the effects of rankings on staffing and organization, the biggest changes seem to be represented by the increasing number of offices dealing with recruiting international students and the administrators being appointed or dismissed as a direct consequence of their role in the institution's ranking performance. A pertinent example of this is the dismissal of the senior

administrator of the Hobart and William Smith College after he made a reporting error which placed the college lower than expected in the U.S. News rankings (IHEP 2009: 6).

And finally, admissions are highly influenced by rankings, especially in the USA where selectivity is considered a key ranking indicator. According to the report conducted by the Institute for Higher Education policy (IHEP) shows that HEIs have started to decrease their acceptance rates in order to maintain a stable student-staff ratio and are decreasing the number of need-based aid (in the favor of merit based aid) which threatens student diversity and multicultural access. (IHEP 2009: 21).

To put its higher education system in context, Australia is now one of the top student importing countries in the world, with the Commonwealth government funding the majority of its HEIs (IHEP 2009: 9). It is perhaps for these reasons that Australian HEIs are seeking the external recognition of rankings, which can be used to lobby for additional funds among many others.

The impact of rankings on Australian HEIs is mostly seen in matters of strategic thinking, curriculum, and academic practices. This has resulted in the institutions directing their attention towards performance and quality, peer assessment, partner identification, and research outputs, more so than in revising their own curriculums. As further reports will show, we witness a general shift in the internal allocation of duties towards rewarding and supporting high-productivity researchers, at the expense of publications on topics with less peer-reviews. Concerns for the future of the Australian higher education started showing as more and more native students are moving abroad, although some HEIs found a solution in the foreign postgraduate recruitment.

The background of Germany's history with rankings is quite similar to Australia's case. The German HEIs have especially been pressured by the Initiative for Excellence (introduced in 2005 by the German Federal Ministry of Education and Research and the German Research Foundation) whose scope is to create a German version of the American Ivy League of universities.

The IHEP report underlines the fact that, above all, German HEIs are using rankings as a competitive intelligence tool. Obtaining accreditation is now a priority for disciplines such as business, and identifying internal benchmarks has become an important mission for weaker departments that are being offered funds for improving (IHEP 2009: 15). Research outputs in high-end journals and institutional referencing are also highly affected by rankings which, as a general rule, are seen as a sign of progress.

In the case of Japan, the higher education system predominantly consists of private universities, with just a few public institutions. Japan has a long history of paying great attention to university rankings, dating back to the end of the 1970's when the brand name of a graduate's HEI became a decisive factor for a career promotion for the youth (Akiyoshi Yonezawa 2013: 172)¹. This is believed to be attributed to the fact that a university's position in a global ranking demonstrates its research performance in the fields of natural sciences, engineering, Japanese culture and business (which can attract further investments), and can also influence a student's choice of university (which is essential in student recruitment).

If until recently Japanese HEIs have been sustained by domestic resources in both research funds and tuitions, the shrinking Japanese market and the increase in global competition have led to a change in attitudes towards both local and international rankings (IHEP 2009: 19). As top private HEIs have set modest tuitions in order to compete with the national ones, their ability to improve the quality of their education is limited by the fact that they need to exhibit a stable financial condition in the face of their investors. Both public and private HEIs are now faced with the need of attracting external investment from the business and industrial sectors in order to sustain their educational and research activities.

¹ Yonezawa is one of the authors that contributed to UNESCO's comprehensive report "Rankings and Accountability in Higher Education –Uses and Misuses" published in 2013. As UNESCO tends to be a neutral intermediary of data, this series focuses on substantial and controversial issues in global higher education, without advocating for any ranking in particular. Among many others, this particular report is trying to answer questions related to the importance of rankings for stakeholders, their usefulness, their limitations and alternatives.

Rankings have a big influence on Japanese higher education also at a national policy level and the chance of a HEI's ranking position is often used as a political tool for budgetary cuts and investments. At the same time, existing rankings are broadly believed insufficient for assessing the complex activities of modern Japanese HEIs.

When the IHEP report was published, the impact of rankings on the Canadian higher education was very much reduced due to the general nation spread distrust in ranking methodologies and the small rate of foreign students (as compared to the previous cases). Higher education leaders have been searching for alternatives to rankings that focus on offering clear and unbiased information to prospective students and the public. A few Canadian faculty members expressed a belief that rankings have an impact on the institution's attractiveness for potential students and staff, however, there is little data to sustain their views (IHEP 2009:24).

With approximately 2300 HEIs in the present as opposed to 700 in the early 1990's, the African system is believed to be one of the fastest growing ones in the world, with respect to enrollment numbers. It is believed that two main indicators can usually describe a HEI's quality in the African context: the age of the institution (e.g. University of Nairobi dating to 1956 should be better in quality than Kenyatta University, founded in 1965), and the employers' perception of the quality of graduates. (Okebukola 2013: 142).

Although the success of African HEI in global rankings is still highly envisioned across the continent, the lower than expected positions so far have led to the creation of local rankings such as the African Quality Rating Mechanism (AQRM) (Okebukola 2013: 147), that take into account the specific context and challenges of higher education in the area. The impact of rankings on African HEIs can already be seen in some places on the continent. In Nigeria, between 2003 and 2006, approximately 84% of parents were guided in selecting courses mentioned by regional rankings (National Universities Commission or NUC) published in newspapers, 69% of HEI leaders made references to their position in rankings in the annual reports or public speeches, and 76% labor employers took national and international rankings into account when short listing applicants for interviews (Okebukola 2013: 151).

Despite its recent developments, Africa still has a lot of ground to cover in order to be fully acknowledged by global rankings, especially in the research and publications areas. For this to happen, huge investments need to be made in research laboratories, in fostering collaborations with foreign researchers, and in publishing in internationally recognized academic journals.

In 2005, Malaysia's only two universities present in the QS-THE ranking had slipped almost 100 places from the previous year which provoked a nation-wide shock. The discovery that Malaysian students of Indian and Chinese descent had previously been classified as international, stood as a general reminder that the ranking methodologies have limitations and can present erroneous information (Hapsah 2013: 188).

As the financial cost of competing in global rankings is too high for Malaysia's national budgets, the nation has adopted the increasingly popular idea of creating a world class higher education system (instead of only supporting individual institutions) in order to keep up with the demand of prospective students. Suffice to say, rankings have driven Malaysia to be more competitive and improve their weaknesses.

As good leadership is believed to be the key in improving the performance of universities, candidates for senior higher education management positions are now being screened and instructed through additional courses. Specific universities were selected and offered additional funding in order to achieve a set of key performance indicators which will increase citations in high impact journals and attract good international students and faculty (Hapsah 2013: 189). In this regard, the National University of Malaysia has instituted a mentoring system, organized regular paper-writing workshops, and is offering financial and career advancements (on a monthly basis monitoring system) in order to boost citations.

Malaysian leaders are strong believers in the fact that many important factors such as the promotion of social harmony, sustainable regional development, poverty eradication, and many others are not taken into account by global rankings which should judge HEIs by how best they fulfill their purpose and justify the public funding. Such is that of Latin America where it is believed that rankings are excluding the focus on the humanistic and

societal missions of HEIs. Universities with a 500 year tradition that have played a pivotal role in the creation of state institutions such as the Mexican juridical system and the ministry of health, are now feeling the pressure to improve their standings in the rankings fight for prestige which is both expensive and heavily science research oriented (Ordorika & Lloyd 2013: 222)

Regardless of their nature and location, HEIs tend to respond to rankings in a similar fashion, especially by heavily investing in areas which directly relate to ranking indicators, such as research. Although many stakeholders view rankings as a weight of an institution's quality, the accuracy of their methodologies is often debated. It seems that the quality insurance decisions made by HEIs have had, to some degree, a positive impact on learning and teaching practices, as well academic programs. The main negative effects have been mainly impacting curriculums, fund allocations and students, as graduation requirements are lowered in order to attain improved graduation rates.

2.2 Rankings and reactivity

"Rankings and Reactivity: How Public Measures recreate social Worlds" by Espeland and Sauder was published in 2007 by the American Journal of Sociology. Recognized as the oldest academic journal in this field in the U.S.A (established in 1895), it is now published twice a month by the University of Chicago Press. As the title implies, the core focus of this work is based on the concept of reactivity in relation to HEI rankings, implicitly the ones analyzing law schools in the United States, and the effects of this phenomenon on institutional decision making in real life cases.

Reactivity is defined as a methodological problem in sociology, based on the idea that individuals tend to change their natural behavior when they are being measured or evaluated. Highly debated amongst researchers and experimentalists, the concept of reactivity is considered a form of reflexivity which is applicable to various fields of study that deal with evaluation and measurement (Espeland & Sauder 2007: 6).

The methodology of the journal report is based on information gathered from 163 interviews with various law school staff and from U.S. News (USN) rankings which have been analyzing law schools yearly since 1990. The USN ranking focuses on four main

categories: faculty resources, placement, selectivity and reputation. The report clearly shows that these are the areas in which decision making in law schools is mostly influenced.

The authors of this journal have identified two main consequences of rankings that are forms of reactivity itself: self-fulfilling prophecies and commensuration. The concept of self-fulfilling prophecy was defined as "A false definition of the situation evoking a new behavior which makes the originally false definition of the situation true" (Marton 1968). This applies to rankings in various forms, such as: it magnifies the differences between university tiers, derives attention from prospective students and alumni towards the highest ones and, in the case of the USN, it encourages external law practitioners to provide data based on previous results (and thus simplify their work which requires a high level of motivation and deep analysis of current figures).

Commensuration is the second form of reactivity and it is defined as "The transformation of qualities into quantities that share a metric, a process that is fundamental to measurement." (Espeland & Sauder 2007: 16). Just like the concept of self-fulfilling prophecies, commensuration has a few effects on how we interpret rankings. Whereas presenting facts in a condensed, straightforward manner is one of the basic features of rankings per se, they often tend to oversimplify information and making it appear as more robust and authoritative. Despite these statements being true, the power of oversimplified data lately has been shrinking in the public's eye as it became clearer that rankings are focusing on quantity over quality and that their methodologies are often, if not always, more or less unclear (Espeland & Sauder 2007: 18).

In addition, commensuration both unites (through clustering HEIs under the same category and limiting the differences between them) and distinguishes (by placing each HEI in a distinct interval between schools and thus comparing its current position to previous years) the objects that it evaluates. Commensuration also endorses stakeholders to reflect on the true meaning of ranking results, which of course is a subjective matter and influences them in different ways.

The three main effects of reactivity are identified. First and foremost is the reallocation of resources. In an attempt to maximize their ranking positions, institutions are channeling financial resources into activities or departments that previously did not enjoy

much attention, in particular advertisement and scholarships. A valid example of this is the investment in marketing. Annual spending on brochures has ranged in some cases from tens of thousands to over a million US dollars and they have been distributed to every possible stakeholder of an institution. Some argue that these brochures have little effect on one's standing in rankings and that the same resources could be better spent on supporting students or supply an institution's library (Espeland & Sauder 2007: 19).

The second effect of reactivity lies in redefining work and policies, particularly in administrative jobs such as career services, admissions and dean offices. University career services personnel (as presented in the universities ranked by USN) have spent more time on tracking the job status of former students and admission offices are now preferring employees with quantitative skills for these purposes, over those with field experience (Espeland & Sauder 2007: 27).

And last but not least, we see a close connection between reactivity and gaming strategies. Gaming is considered an illegitimate response to rankings as, so far, it has led to reporting of false numbers (or omitting the negative ones) and twitching the ones affecting the institution's overall image (such as median scores for the Law School Admission Tests, reducing the size of full-time programs in favors of the night time ones in order to improve the student-faculty ratio, and so forth) (Espeland & Sauder 2007: 31). Therefore, one could conclude that American law schools are morphing in order to better fit the criteria that rankings are taking into account, be it in a monetary sense or an operational one. By extrapolation, it is safe to assume that they are not the only isolated case and that this phenomenon is found in HEIs worldwide. This statement will be sustained by further arguments throughout this research.

3 The Concept of Higher Education Institutions

The transformations through which HEIs have gone and are going through (either as a direct result of rankings or not) have certainly been noticed, approved and criticized by experts and outsiders alike. So much so that the belief that universities are moving away too far from their original purposes is echoing worldwide. It is crucial then to understand what these purposes were and if HEIs are indeed morphing into something else.

Although records show that universities have existed under different structures and titles for as far back as the 10th century, these institutions have been in a constant struggle of defining their purpose. Generally, it is believed that the University of Bologna in Italy (founded in 1088) was the first university in the world which adopted a guild like structure (Wonderlist: 2015), when in fact, the universities of Al-Karouine (Fes, Morocco) and Al-Azhar (Egypt) were founded in the 9th and 10th century respectively (Collegestats: 2015). Both of them started off as centres of spiritual and educational enlightenment. The University of Nizamiyya located in present Iran followed soon after and, according to the Near East tradition in higher education, focused on Arabic literature and documenting history. Under similar patterns, monastic lessons were considered to be the only true form of education in the Asian context, operating for the sake of individuals seeking nirvana (or spiritual enlightenment) rather than for the sake of the society as modern universities do.

Regardless of this long history, the term "*university*" does not have a universal definition up to this point, perhaps due to their complexity and diversity in disciplines offered, fields of research, and audiences across the globe, to name just a few.

Cambridge defines the term as "A college or collection of colleges at which people study for a degree" (Cambridge Dictionaries: 2015), and, similarly, Oxford presents it as "A high level educational institution in which students study for degrees and academic research is done" (Oxford Dictionaries: 2015).

In the Western world, a university is understood as an accredited institution of higher education which offers at least three disciplines of study, with the main purpose of creating and perpetuating productive communities. The word "research" has been purposely excluded above as it does not serve as a basic function in most institutions (e.g. universities of applied sciences such as the German *fachhochschule* or the in Finnish *ammattikorkeakoulu*).

During the Enlightenment period, it was believed that scholars should be free and encouraged to pursue the true meaning of their studies, even if this often meant wandering from teacher to teacher or campus to campus. The purpose of their education was thus to gather knowledge from different sources and, at the same time, to challenge the last word on a subject (Denman 2005:12). This was clearly long before the days of acquiring a diploma for the simple reason of bettering one's employment prospects (through colossal tuition fees in some cases).

Later on, throughout the Industrial Revolution (c.1760-1840), the liberalisation of free trade and the belief that knowledge spread could ensure a more prosperous nation, led to a shift from elite to mass education rights. At that time, universities tried to advance societies at large from their agricultural status to the industrial one, thus giving rise to the modern research university.

In the modern world, universities and other higher education institutions alike are constantly reinventing themselves in order to react to demanding social necessities, governments, and a myriad of stakeholder groups.

Due to a fast moving global world with an increase in population, universities everywhere have realized they have to find new ways of providing education while conserving their own resources. They are now competition driven, bidding to educate the best suited students not only at a local level, but at an international one. This increased competition has led to a trend towards various models of admissions based on meritocracy which, in turn, seem to result in power struggles, knowledge based social class stratifications, and conflicting standards.

In order to raise their economic profiles, both public and private types of institutions have become business and customer-oriented, replacing the traditional internal collegial decision making to a more corporate management style. Whereas private universities are funded mainly through student tuitions, public ones are driven by knowledge commercialization (such as R&D and service offering), in some cases more for financial gain than for the pure sake of expertise advancements.

As Brian D. Denman explains in his OECD report "The university of the 21st century is likely to cater to a "user-pays" type student" (Denman 2005: 21).

Whereas universities have taken these steps as means of self-preservation, they have started to fail in circulating higher education for the sake of spreading knowledge, which was the main ground on which universities were initially build.

The threat of degree delivery becoming more distance oriented (e.g. online learning, distance learning, etc.) adds to the need of universities to act more like corporations. According to university rankings expert Ellen Hazelkorn, it is feared that this focus will turn universities into "an island without social responsibility" (Denman 2005:19).

3.1 Learning

In discussing the creation and perpetuation of productive communities, one must remember the pivotal role that the process of learning plays within them.

Just like the concept of universities, "*learning*" is a complex and often misunderstood term, as it is believed to be a process stemming from both student and teacher (thus, already two different views). Generally, learning is assumed to represent the action of acquiring new or modifying existing knowledge, understanding, behaviour, emotions, both abstract and concrete. From kindergarten to university, the purpose of education is to foster learning in order for students to apply meaningful knowledge and skills to everyday situations.

Powerful global drivers coupled with a concern that formal education has become insufficient for survival, have led to the rise of the concept known as "21st century competencies" which focuses on flexibility, the ability to make creative connections, deep understanding in various fields, team-working skills, and others of the sort (Dumont, Istance, Benavides 2010: 13). This stands in contrast with the "routine expertise" - or the ability to quickly and correctly complete school tasks without really understanding their purpose/ their relation to the outside world- used in the traditional educational system.

An important part of these current competencies is the idea of lifelong learning which implies that one's education does not stop with a university degree but, rather, continues throughout one's lifespan in a myriad of diverse informal environments as well (Marginson & Simons 2009: 13). The school provides the foundations on which lifelong learning habitats are built upon.

And it can be seen that this stands true as coping with issues of sustainability, food shortage, ageing populations, etc., require learning values and attitudes throughout our lives, on top of fundamental knowledge; partly due to this, more information is available and free to use for the masses, in more fields that we could have possibly imagined before. This almost instant access to infinite information is being regarded as a proof of mankind's incredible evolution, the pinnacle of the Homo sapiens. Although knowledge has certainly made life easier, a surplus of information does not necessarily equal to a higher standard of living; it can just as well imply that humankind requires more information in order to solve ever more complex global issues.

In this context, understanding the process of learning and creating more effective learning environments have become an interest for many scholars. Although contested by other experts in the field, many of their findings are starting to reaffirm existent notions. First of all, it is believed that effective learning is best achieved through social and cultural interactions and that it is not a purely individual activity that is still practiced in many primary and secondary institutions (Dumont, Istance, Benavides 2010: 15). This does not exclude the individual knowledge development altogether, however, it stresses on the idea that learning is a process distributed between students, teachers, the available technologies and resources, and other parties involved in this environment . Proof of this can be witnessed in the results of the education systems which focus more on group work and interactions than unaccompanied learning and are considered some of the best in the world, such as Finland.

Secondly, learning is cumulative and, at the same time, individually different. Being cumulative implies that students are usually developing new skills and knowledge from the perspective of their existing capabilities, which can predict future competence in a subject even better than intellect can. This is a positive side of learning as it eases the whole process in itself and it fosters the skill of correlating pieces of information, as well as a negative side since so much of what one learns depends on previous convictions and beliefs.

Strongly related to this is the fact that the process of learning and its outcomes vary among students, depending on their personal abilities, their learning styles, their interest, motivation, emotions and so forth. A high pressure is thus put upon educators

(who are responsible for general student skills, knowledge and learning strategies) to provide students not only with an adequate amount of knowledge but also with one of proper quality as, currently, one's required expertise is multi-faceted. Hence, the quality of knowledge is assumed by modern cognitive scientists to be just as important as its quantity, lying in our abilities to analyse abstract concepts, learn strategies, and find answers to complex and dynamic problems.

Although teachers have a crucial role in the quality of instruction received by students, the view on scholars simply being "consumers of facts" (Lanier 2007) has shifted towards the idea that learning requires them to be mentally engaged. Learning remains an internally conscious process, regardless of the amount of external instruction and guidance; it is more important for students to know how to rationalize and seek information by themselves rather than to be offered facts which cannot be forced upon them.

Last but not least, student motivation maximization seems to be a key factor in creating more effective learning environments (among many others) (Dumont, Istance, Benavides 2010: 95). In this sense, educational institutions - be the primary schools, high schools, universities, etc., are responsible for ensuring a meaningful experience for their students by providing learning content which is relevant for the outside life, understanding their interests and goals (as well as improving on their weaknesses), and clarifying their lessons' goals.

It is imperative for educational institutions across the globe to comprehend these realities and to focus their missions and strategies around them, especially at the higher level as that is the final stage of specialization for students before entering the labour market. As implied by the term itself, lifelong learning does not end at the stage of higher education but these institutions are an essential pillar for future learning. That, along with today's global complexity, is why HEIs should not be regarded just as means of boosting economies but also seen for their role in fostering innovations, social engagement, democratic participation and, perhaps most importantly, advocating for higher standards of living.

3.2 The ultimate goals of higher education institutions

After following the evolution path of HEIs from their foundation to the present day and discussing the process of learning as their main tool, it is essential to answer the question "*What are the main goals of HEIs?*"

As previously mentioned, universities have been created and have served diverse purposes and, perhaps due to the collision of archaic values, no consensus on their purpose exists up to today. Despite the discrepancy between their traditional ethical purposes (that are still valued by many institutions today) and current functional nature all HEIs are contributing to society in one way or the other.

Although their contributions are multiple, two main ones are standing out. First, HEIs are producing graduates who, through the competences gained in specific fields, are able to influence social life in a direct way, both in the present and the future. Second, HEIs promote social mobility by engaging in research, offering counselling to external stakeholders, and organizing exhibitions who can benefit everyone, especially our successors and less educated individuals. (Fortino 2006).

Thus, HEIs should exist to create, advance and disseminate knowledge through teaching and learning and, in doing so, to impact societies and individuals alike. If for a long time in the past the accent has been put on industrializing the economy, individual skills such as communication and critical thinking are what is needed in today's society. These skills are required in order to solve our world's complex problems, universities making it possible for more students to fully participate in society.

Many academics believe that an increased number of individuals being exposed to higher education will lower quality standards and turn HEIs into private businesses rather than public institutions. This stands true especially for those institutions struggling for resources and/or that have transformed into mass diploma producers for commercial purposes. This is also one reason why the best paying fields such as technology and science have become the most attractive degrees for students, as their main focus has become seeking improved financial situations rather than gaining knowledge in a field of interest.

However, this can be prevented/controlled if the institutions of higher education worldwide would focus on the production of knowledge (for the sake of advancement, not commercialization), the continuation of research and development in key areas of importance, and in fostering in students the significance of collective advancement, not just the individual one. Universities are the institutions with the highest influence and resources available to improve social mobility and integrity.

First, it is my belief that the primary business of higher education is—and should be—the **creation of prepared minds**. I entirely agree with Dr. Derek Bok, President of Harvard University, that there is a danger of commercializing higher education when we ask colleges and universities to turn their attention to commercial development of their inventions. (Fortino 2006).

4 Stakeholder analysis

4.1 Is the consumer model appropriate?

Consumers represent the final users of a service or commodity, either as an individual or an organization. Even though higher education came at a price in the past as well, less individuals were required to possess it in order to sustain themselves. With the increasing tuition fees and even their introduction in some HEIs that previously offered free education, students adopting the consumer attitude seems like the logic reaction. As their liabilities are increasing in an unstable economy, they are demanding a certain level of educational service and a solid return on investment.

The fact that we are all experienced consumers from an early stage is now a reality and it has led to a tip of the balance of power in the favour of students. And although more are enrolling into universities in countries such as the UK (The Guardian: 2014) despite the high tuition fees, HEIs are still struggling to sustain themselves financially while maintaining their prestige as institutions. Nevertheless, higher education needs to distance itself from the idea of consumerism and preserve the right kind of culture and attitude around it if it does not desire to become just another privatized business, especially since it is one of the last (if not the last) public institution of free debate and the age of personalized consumerism is upon us.

Apart from the fact that in some cases it is almost impossible for students to find out the degree of quality they will receive from their institutions, in many cases they are also expected to take responsibility for their learning and personal development. This stands true as long as they are still being engaged in meaningful learning by their teachers and are not just being instructed on their reading list.

In order for the society to understand why higher education is playing such a high role within it, teachers have the duty to share their knowledge and make it available to all of those interested. Teachers, students, rankings houses, and other stakeholders alike require open dialogues in order to understand each other's' roles and responsibilities.

Higher education has no doubt gone through radical changes ever since the 20th century. Whereas adopting business-like characteristics is not a negative or illogic step in itself, HEIs should not aim to change their principles and objectives for the sake of

fitting into the commercial world. The same applies for rankings houses. Although the major international ranking houses are a mixture of private commercial organizations, governmental agencies, or public institutions (therefore representing very different interests), their work should be addressed to all of those stakeholders wanting to base their decisions on precise and simplified data. Unfortunately, this is not always the case as commercial organizations, although more independent in decision making, are pursuing financial goals and the governmental institutions are looking to advance the profiles of their countries or regions.

Ranking	Compiler/publisher	Organization type
Academic Ranking of World Universities	Shanghai Ranking Consultancy	Commercial
QS World University Rankings	QS Quacquarelli Symonds Ltd	Commercial
Professional Ranking of Global Higher Education Institutions	Mines ParisTech	Institution
Ranking Web of World Universities	Webometrics	State research institute
Performance Ranking of Scientific Papers of World Universities	Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT)	Government
<i>Times Higher Education</i> World University Rankings	Times Higher Education and Thomson Reuters	Commercial/Media
High Impact Universities	(Affiliated with) University of Western Australia	Institution
U-Multirank	CHERPA Alliance/European Commission	Government

Figure 1. Organization types of major international rankings (Sowter 2009: 66)

Either public or privately-owned, HEIs' mission is to propagate and strengthen knowledge and values in order for scholars to apply them in the society, in one way or the other. Therefore, the consumer model is not entirely appropriate in the world of higher education, particularly because there is a discrepancy between what ranking compilers and HEIs are offering and what stakeholders need. As the main group of stakeholders, students are interested in simplified information and choice validation from the former, and in meaningful, engaging learning experiences from the latter, not in purchasing second-hand knowledge.

4.2 Groups of stakeholders

Ranking compilers are perhaps the easiest stakeholders to identify. Either public or privately owned, this group depends on the others the most as, without funding or credibility, their existence is pointless. Initially created in house through opinion surveys and interviews with higher education leaders and administrators, rankings are now

employing external firms that are able to gather most of the information required from publicly open sources and, thus, not depend entirely on HEIs. Considering that they have become opinion leaders in more than 40 countries (IHEP 2009:1) the resources needed in their work, and that their methodologies are being constantly scrutinized, ranking houses have a tremendous responsibility to meet and even exceed the needs of their users. Therefore, capital, qualified human resources and cooperative partners (as no ranking can be fully constructed without assistance from the institutions being evaluated) can be identified as the main needs of all ranking houses. Their missions range from the desire to provide truthful knowledge to promoting certain institutions or regions (e.g. the U-Multirank is supported by the European Commission and, as a result, it contains much more European universities as compared to other rankings) or becoming the best in their ranking division.

Leaders of higher education institutions are also a primary group of stakeholders. With the emergence of rankings they have been analysed to the last minuscule detail, their liabilities increasing exponentially. The effects of rankings are present everywhere, whether a university supports or condemns them. Apart from overall prestige, their yearly positions can affect departments, external funding, admittance rates, and quality of employees among many others.

Despite the privatization of many universities, the propagation on knowledge and social values remains the main mission of higher education worldwide, whether it comes in the form of simply educating students, conducting research and development or offering massive open online courses (MOOC). As moulding young minds for the outside world is so crucial for the functioning of any society, institutions of higher educations will always desire their work to be recognized and supported by the state. And, whereas every HEI is promoting local/national perspectives and values before international ones, one cannot disregard that it will do so while trying to preserve its internal ideologies and beliefs.

Although governments are often claiming to use rankings simply as guiding tools and not as building blocks for their reforms, we are witnessing an increased number of actions with high impact on education. Due to the expansion of universities, the struggles for finances, and the convoluted aspects of globalization, governments are pressured to prioritize helping those institutions that need their aid the most. Rankings are useful in offering them a view on the strengths and weaknesses of their nation's higher education

as a whole. Most governments tend to use this view in one of two ways: either to create a world institution by sustaining the elite HEIs leading in top international rankings (the Neo-liberal model as presented by Hazelkorn 2013: 86), or a so called “world-class” system of higher education, by concentrating resources in as many institutions showing potential as possible, regardless of their scope or mission.

Their choice will not only impact the institutions at hand but it will reflect on the entire national higher education in terms of funding, policies, and strategies, both in the present and the future. The wrong decision can stir a country’s entire economy, resulting in a market of unskilled or relocating workforce, stagnating developments, and losing external alliances (among others).

When thinking about the term “student”, a recently high school graduate undergoing their bachelor’s degree in a local or, at worst, national university comes in most people’s minds. If that was true in the past, this group of stakeholders now includes foreign students, incoming and outgoing students, graduates, students completing their Master’s and/or PhD’s, among others. This is, without a doubt, the most heterogeneous faction from all those described in this section. Their primary requirement is of course theoretical and practical knowledge accumulation in order to specialize in a field in which they can later on work and financially sustain themselves (Fortino 2006) ; their needs across that path are very diverse though, depending on a student’s goals, nationality, environment, social background and so forth.

Whereas most newly graduates are lacking working experience required by employers in an already increased competitions for highly rewarding positions, personal branding becomes the key of success. Alongside with developing distinctive skills and knowing how to market them, students are keen on graduating from a top-ranked HEI which could spring them considerably in front of their competition. (Ordorika & Lloyd 2009: 217).

In the group of investors we can include anyone who is directly or indirectly investing capital or quantifiable resources in higher education institutions, such as: local governments, privately owned companies, alumni students, natural or legal persons, non-profit organizations (local and/or foreign), and financial institutions amongst others.

Their reason(s) for supporting certain institutions are very different and rankings have definitely played a big role in attracting investors towards well performing ones. Despite their motives, investors' main goal is the strong performance of the HEIs they are supporting in relation to their local and, more presently, international competitors in the field. As long as an institution is performing as or better than expected, investors will know that their funds have been put to good use; however, any drop in rankings can draw them away, even if the HEI's real performance may have remained the same.

Lastly, other HEIs and rankings stakeholders include local businesses (such as student housing firms), financial institutions, partner universities, student families, and public institutions. The lingering effect of rankings can especially be witnessed in the partnerships between different institutions and the student exchange opportunities created thereafter. Countries such as India have announced that bilateral programmes will be agreed only with universities amongst the top 500 either in the Academic Ranking of World Universities (ARWU) or Times Higher Education Rankings (THE) international rankings and, in Brazil, approximately 100,000 scholarships were offered to students going to study abroad in 2011, in institutions that are well performing in the Quacquarelli Symonds and THE rankings (Rauhvargers 2013: 23).

5 Ranking systems

According to a report conducted by UNESCO, the practice of rankings dates back to the beginning of the 20th century when the study "Where we get our best men" which presented the background of influential and successful British men was published in England. After being replicated in different parts of the world under various designs, rankings have only gained global wide recognition in 2003 when the first edition of the Academic Ranking of World Universities (ARWU) was released by the Shanghai Jiao Tong University, followed by the Times Higher Education-QS World University Rankings (now known as THE) one year later (Marope & Wells 2013: 7).

The interest in comparisons is not isolated to the case of higher education institutions. Rankings have evolved in an era in which almost everything is being classified: from the restaurants and hotels that are given from one to five stars at the micro level, to the world countries which are classified in tiers at the macro level. The human mind seems to be compelled by the simplicity of classifying information into hierarchical lists. Just as yardsticks, rankings are used to measure complex, dynamic and multi-faceted institutions and present the results to the public in a simple manner.

Rankings are listings created by governments, academics, newspapers, magazines, and websites, which compare universities and other institutions of higher education (such as universities of applied sciences, vocational schools, or polytechnics) by various combinations of distinct indicators such as research excellence, graduation rates, student/faculty ratio, education outputs and so forth. Depending on the case, a ranking can evaluate the institutions within a single country, the entire region/ continent or worldwide, either holistically or across departments, programs and/or schools.

Considering their abundance and complexity, the following sections of this report will only take into account those ranking systems that appeared most substantial in the reviewed literature and online search engines, focusing on the most prominent ones.

Perhaps best known for its past collaboration with Times Higher Education, the British enterprise Quacquarelli Symonds has been developing the QS World University Rankings since 2010. Approximately 600 universities in the world are analysed on a series of variables such as academic and employer reputation, citations per faculty, international

faculty and students, and faculty-student ratio, in order to present them as “The multi-faceted organizations that they are and to provide a global comparison of their success against the notional mission of remaining or becoming world-class” (QS: 2015). Besides this, QS is also releasing an annual ranking by subject which examines the effectiveness of institutions in narrower subject disciplines (engineering and technology, natural sciences, arts and humanities, social sciences and management), and QS World University Rankings Asia/Latin America which tier institutions by reflecting the climates of the countries involved (Quacquarelli Symonds 2015).

Subsequently, the Webometrics Ranking of World Universities has been published since 2004 by the Cybermetrics Lab (CCHS) which is a research group attached to the High Council for Scientific Research in Spain (Consejo Superior de Investigación Científica). Updated every January and July, Webometrics classifies more than 4000 universities across the globe or, as their official website states “All the universities of the world, not only a few hundred institutions from the developed world” (Webometrics: 2015), on the basis of the size and scale of their web presence. Web indicators such as size, visibility, and amount of rich files found², are used as proxies in the assessment of the HEIs’ global performance, in terms of activities, outputs and their impacts. In other words, the ranking’s main objective is not to evaluate websites on matters of usability or design. Webometrics claims to measure the ways in which institutions engage in the community, their political influence, and the amount of informal scholarly communication (not just formal publications such as journals), as data gathered from statistics and bibliometrics (used by competing ranking houses) are improper ways to present the full breadth of a HEI’s profile. However true, it can be argued that weighing the size and quality of a university’s internet presence can be in the detriment of developing countries with lower internet connectivity and expertise (Hazelkorn 2013: 78), which makes Webometrics no less subjective than the other rankings mentioned.

To put rankings in a global context, there are more than 20,000 higher education institutions in the world today, with more than 3.3 million students studying abroad (Sowter, 2013: 56). Considering that the most popular rankings compiled by ARWU and

² Understood as the number of relevant academic publications in different file formats (such as Adobe Acrobat, PostScript, Microsoft Word and PowerPoint) recovered from four search engines: Google, Yahoo!, Live Search and Exalead (UNESCO 2013: 153).

THE are analysing the top 500 institutions in the world, one can conclude that only approximately 0.25% of the world universities are covered by rankings. Furthermore, the best 200 ranked institutions have a few things in common: they are most often over 200 year old, employing around 2,500 members of faculty, educating approximately 25,000 students at a time and operating with an annual budget of two billion Euros, excluding endowments (Hazelkorn 2013: 77). This means that the world's elite institutions are left to compete against each other year after year, whereas smaller, younger ones may not be taken into account even though they might as well be focusing on appropriate university functions such as teaching, social responsibility, and research.

5.1 Academic Ranking of World Universities

ARWU started off as a tool for benchmarking Chinese universities against American ones in order to "Ascertain the global standing of top Chinese universities in the world higher education system" (Liu 2013: 25) and has since become one of the most influential, international rankings. The rankings are published and copyrighted by the ShanghaiRanking Consultancy which is an independent organization on higher education information with no legal obligations to any governments or HEIs (Shanghai Ranking: 2015). Perhaps due to its cultural background, ARWU is heavily research-based, with the indicators for citations and papers published weighing more than the quality of education, as showcased in Figure 2.

Criteria	Indicator	Code	Weight
Quality of education	Alumni of an institution winning Nobel Prizes and Fields Medals	Alumni	10%
Quality of faculty	Staff of an institution winning Nobel Prizes and Fields Medals	Award	20%
	Highly cited researchers in 21 broad subject categories	HiCi	20%
Research output	Papers published in <i>Nature</i> and <i>Science</i> *	N&S	20%
	Papers indexed in Science Citation Index-expanded and Social Science Citation Index	PUB	20%
Per capita performance	Per capita academic performance of an institution	PCP	10%
Total			100%

Figure 2. Indicators and weights for ARWU (Liu 2013: 26)

Around 500 universities are analysed by this ranking annually, the top usually being occupied by well-renowned institutions with a history longer than 50 years and predominantly from English-speaking countries as that is where the largest concentration

of research and Nobel laureates can be found. The gap between this group of elites and the other universities present in ARWU is considerable and, as a result, two additional rankings have been developed -ARWU FIELD and ARWU SUBJECT, both of which are meant to narrow their focus on specific divisions rather than whole institutions. The former takes into account Natural Sciences and Mathematics, Engineering/Technology and Computer Sciences, Agriculture and Life Sciences, Clinical Medicine and Pharmacy, and Social Sciences, whereas the latter considers Computer Sciences, Economics/Business, Chemistry, and Physics (Liu 2013: 27).

5.2 Times Higher Education Rankings

Between 2004 and 2009, the Times Higher Education (British publication) were ranking 200 international universities based on five performance indicators (staff-student ratio, research quality based on citations, academic reputation, and two measures of internationalisation) and publishing them in an annual book form. After realizing that their methodologies were already becoming obsolete, THE ended their partnership with Quacquarelli Symonds (QS) in 2009 and outsourced Thomson Reuters as their data collecting partner. Two year later, the first version of the THE World University Rankings was released with the purpose of painting a holistic picture of institutions' quality which was mainly measured by research excellence and teaching capacity (Times Higher Education 2015).

The disciplines taken into consideration are arts and humanities; health; engineering and technologies; life, physical, and social sciences, which are all analysed through 13 indicators and then ranked in the order of their performance. These indicators are grouped into five areas as presented in the table below.

Table 1. Indicators and weights for THE WUR

Criteria	Indicators	Weight
Teaching	Learning environment	30%
Research	Volume, income, and reputation	30%
Citations	Research influence	30%
Industry income	Innovation	2.5%
International outlook	Staff, students, and research	7.5%

The ranking is based on the surveys answered by the universities themselves, excluding the ones that do not teach undergraduates, that focus on just one narrow subject, and that have a research output under 200 articles per year (with a few exceptions for the fields of engineering and arts) (Times Higher Education 2015).

Apart from the World University Rankings, THE also produces the "World Reputation Ranking" and the "100 under 50". The former is based on the same disciplines as the World University Rankings and follows the same indicators, in the hope of providing the "definitive list of the top 100 most powerful global university brands", using the "world's largest invitation-only academic opinion survey" (Times Higher Education 2015); institutions are ranked by their overall reputation in research and teaching, with a ratio of 2:1. The latter is a top of 100 universities that are under 50 years old, based on the same indicators as the previous ones, with small calibrations.

Despite their methodological complexity (as compared to the ARWU ranking for example), the rankings created by the THE are also being criticized for a number of reasons which will be described in the following section. Unlike in ARWU, the arts and humanities tend to play a bigger role in both the World Reputation Rankings and the World University Rankings with the potential of even further improvements in the future. (Times Higher education 2015). However, the league tables are still dominated by large universities located in developed countries, with a British predominance (Oxford, Cambridge and the Imperial college of London are in the THE top 20). Marginson implies that "In entering the rankings game the ultimate purpose of the *Times* was to sell publications and data though a secondary purpose might be inferred from the manner

of the exercise, to elevate the global position of British universities” (Marginson 2009: 9). There is no presence from other institutions of higher education such as polytechnics or universities of applied sciences.

5.3 U-Multirank

U-Multirank is a renewed version of a feasibility study conducted in 2011 by the European Commission which wanted to prove the possibility of creating a multidimensional online ranking of Higher Education Institutions (Vught & Ziegele 2013: 258). The first ranking was published in 2014 with funding from the European Union, being led by representatives of the Center for Higher Education Policy Studies (a research institute based in the Netherlands), the Centre for Higher Education in Germany and with support from the academic publisher Elsevier, European universities (Leiden University and Catholic University Leuven), as well as different foundations and software companies.

The ranking is quite unique in its field, mostly because it has a user-driven approach which allows visitors to narrow down their search by selecting the performance indicators which are most important to them. Users can thus create comparisons between institutions operating in the field they are looking to specialize in, narrowing their search to the size of the HEIs, how involved they are in research, and whether they are focusing on regional or international development. Readymade rankings are offered for those curious to see which institutions are performing the best in different areas and, in a different section, the profiles of individual institutions can be monitored.

Furthermore, unlike its competitors, U-Multirank’s results are based on data gathered from diverse sources, including: surveys of more than 60,000 students from approximately 74 countries, data supplied by the institutions themselves, and information found in bibliometric and patent databases. Around 850 HEI’s, 1000 faculties, and 5000 study programmes are analysed each year on criteria of regional engagement, international orientation, learning, research, and knowledge transfer (U-Multirank:2015).

U-Multirank is evaluating both comprehensive (or broad) institutions and specialized ones in fields such as business, physics, electrical and mechanical engineering, thus including a wide range of HEIs, including universities of applied sciences and

polytechnics. Research is once again taken into account, although perhaps in a smaller amount as in the previous cases, and it is seen as “expected to make a crucial contribution to the innovation and growth strategies of nations around the globe” (Vught & Ziegele 2013: 258)

Below can be seen a customized U-Multirank search which, for this report’s purpose, is comparing the institutions of higher education in Finland (offering bachelor, master, and Doctorate levels of study), in the subject area of business, with the indicator of graduated students set to “high”.³

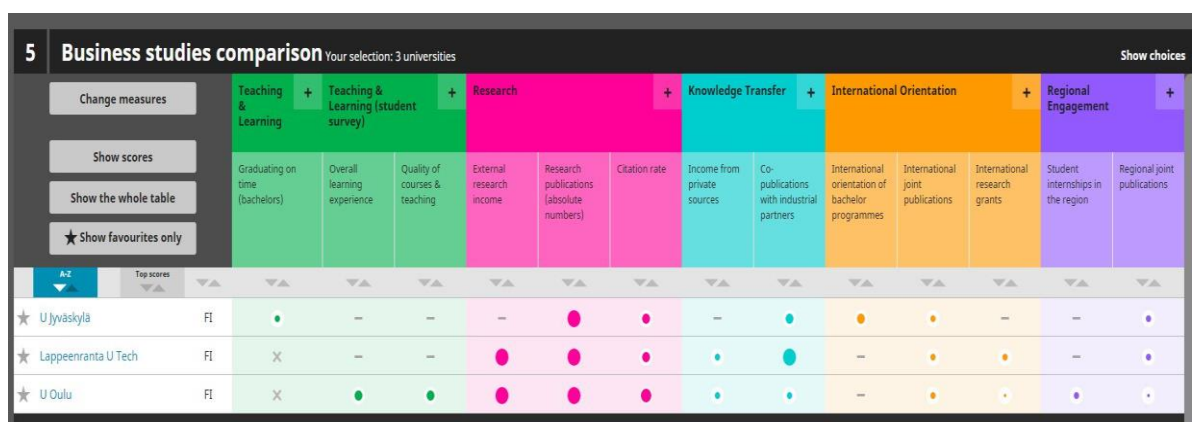


Figure 3. U-Multirank comparison of Finnish HEIs in the field of business

5.4 Rankings impacts on stakeholders

Since the impact of rankings on HEIs is the most important and clear to see in practice, the topic will be thoroughly discussed in the following chapter. This section focuses on the other groups of stakeholders whose main needs and goals were previously discussed.

Over the years it became clear that institutions of higher education and governments across the world have felt encouraged to become more like what rankings measure, which in turn reinforces the legitimacy of these measures (Espeland & Sauder 2007: 15). As far as governments are concerned, rankings seem to have driven many of them to rethink their core national values as competitiveness is associated with national pride.

³ More information regarding the design and methodology of the U-Multirank can be found at http://ec.europa.eu/education/library/study/2011/multirank_en.pdf

An example in this sense is the Japanese state which has granted private corporation status to some of their national universities in order to transform the way in which they are governed and managed. This action was a quid pro quo as the universities in question were offered autonomy in exchange for their increased efforts in becoming more competitive, at a national and international level (IHEP 2009: 18).

A country's overall performance both in national or international universities rankings often stimulates national debates and, as a result, governments get a simplified view of the strengths and weaknesses influencing their positions. Through a focused analysis of these key factors determining success or failure, governments can create positive policy changes such as supporting students with diverse backgrounds and fostering collaborations with overseas institutions. Unfortunately, this is not always the case; it is often that nation leaders use rankings as a justification for supporting world-class institutions at the expense of those which, despite their low rankings, might have other beneficial impacts on the nation as a whole. This can be seen in the amounts of endowments received by the highest-ranked institutions in the USA. In 2014, the institutions with the largest funds were Harvard University with \$35, 8 million (its position in the THE ranking that year was 12) (, Yale University with \$ 23, 9 million (position in the THE was 11), and Stanford University with \$ 21, 4 million (position in the THE was 4) (National Association of College and University Business Officers and Common fund Institute: 2015).

The global effects of rankings can also be witnessed in terms of citizenships. In the Netherlands, in order to be eligible for the status of "highly skilled migrant", applicants must possess either a Masters/Doctorate degree from a Dutch institution, or one from a non-Dutch institution ranked in the top 150 in either the THE, ARWU, or QS. Similarly, in Denmark, receiving a green card is ranking dependent. Out of a score of total 100 points for the education level of applicants, up to 15 may be awarded according to the ranking position of the applicant's home institution. (Rauhvargers 2013: 23)

Rankings are generally seen in a positive light by prospective students as they are shortening the time and effort which would be required by gathering and analysing the results by themselves, especially since many universities are reluctant to sharing certain key figures with the public. A multitude of choices are available and, depending on what

they are interested in or what they value, students can either choose a university because of its total national performance or due to the reputation of a particular department or academic speciality.

The phenomenon of internationalisation has resulted in an increasing number of scholarships locally and abroad, and has been an incentive to form international cooperation such as multidisciplinary research teams. More facilities for international students have been created, such as teaching assistant tutoring systems and volunteer reception services, although it is yet to be determined if this is a direct cause of rankings or not. (Rauvargers 2013: 25).

Negative effects of rankings can also be observed. With the rankings' emphasis now being turned from admissions rates to successful graduation rates (as determined by the appropriate timeframes), certain students are being affected, particularly those belonging to disadvantaged groups; this includes but is not limited to individuals from low socio-economic backgrounds, ethnic minorities, and mature students whose living conditions may disturb their normal study patterns. In consequence, institutions are forced to lower the numbers for such applicants, discontinue night time programmes and to have stricter rules towards open enrolment policies.

Limited funding has also led to increases in tuition fees which, despite being the logical solution, further affect student accessibility and affordability. Therefore, nations (especially developing ones) end up lacking employees with the necessary skills needed on the job market.

Regarding investors and other stakeholders, a high position in rankings also attracts external investments and pushes institutions to search for new sources of finance, especially in the case of privately owned HEIs which mostly operate with capital raised from tuition fees. Thus, once again, most funds are directed towards elite institutions which already have large assets and that have the power and prestige to attract new investors (IHEP 2009: 2). In some cases, the amount of external endowments matters less than a university's ability to attract and retain investors. The ranking conducted by the US News for example, takes into account the origin of donations (particularly from alumni students) with disregard to the amounts themselves.

In addition, the funding for some HEIs that are performing under expectations has annually decreased and the limited resources are affecting faculty numbers, class sizes,

and overall academic programs. Due to low wages and very few job possibilities locally, faculty members are relocating, in the hope of finding better options abroad, specifically in areas that value foreign teachers (such as Japan and certain countries in Africa) (IHEP 2009:23).

Teachers seem to be influenced not just by the shrinking possibilities but also by the pressure that is being put on them by their institution's leadership and local governments. The ones involved in research are now pushed to publish more material while increasing its quality and also performing the rest of their job requirements. Meanwhile, in institutions less focused on research, teachers are dealing with revised and ever changing curricula and an expectation of teaching excellence. Thus, their inputs increase whereas their rewards (financially and job security wise) are decreasing.

5.5 Methodological issues

There are certain tendencies replicating in the main ranking methodologies that have not yet been fully addressed by neither existing, nor emerging ones.

As previously stated, one of the main trends in this sense is the inability of rankings to cover most of the world's institutions (less than 1%), thus limiting themselves to a group of elite universities. In practice, this translates to the fact that rankings are taking into consideration indicators such as an institution's number of Nobel laureates, citations per research paper, or amount of reports published in *Nature* or *Science*, which are both some of the most prominent scientific journals in the English-speaking world.

Another tendency is to neglect certain areas of expertise, namely social sciences, arts and humanities, in favour of those that are more present in databases, such as medicine, engineering, or natural sciences. This is a result of the fact that rankings are based on indicators that are measuring citation impact by the number of articles present in intensively cited journals which are usually concentrated on the latter fields mentioned. These indicators are not taking into account the fact that the output in the fields of arts, humanities and social sciences is mostly tangible, concentrating on books, or expressed in languages other than English (Ordorika & Lloyd 2014: 222).

For example, ARWU-FIELD awards 25% of their final score to the percentage of papers published in the top 20% of journals in the fields of science, engineering, life and agriculture, medicine, and social sciences; the same applies for ARWU-Subject for the

fields of mathematics, physics, chemistry, computer sciences, economics and business. Another 25% is provided for the papers indexed in the Science Citation Index-Expanded, a collection of the world's leading scientific and technical journals created by Thomson Reuters (which is also the partner of the THE ranking house). Out of 8680 journals included in this index, 87% of them are published in English (Thomson Reuters: 2015).

Similarly, focusing only on peer-reviewed articles in particular journals is the same as assuming that journal quality is equivalent to article quality; in fact, a source can be cited due its erroneous information rather than its breakthrough. This also means that new research fields, interdisciplinary research or ideas that challenge the traditional dogmas are less likely to be published in high-impact journals (Hazelkorn 2013: 83).

The choices of indicators used to measure different aspects of higher education are decided by the promoters of each ranking system and, thus, are highly subjective. Indicators are usually acting as proxies for the real object being measured due to the lack of internationally meaningful and available data. The student-faculty ratio becomes the equivalent of educational quality (for the THE, QS, and U-Multirank), an institution's budget is seen as an indicator of infrastructure quality, and student entry levels represent institutional selectivity (THE: 2015). A low student-faculty ratio is preferred since smaller groups are believed to stimulate superior teachings and thus create the optimum learning environment. However, students are more interested in the entire learning environment as a whole, including seminars, laboratories, tutorials, etc., rather than by just how many teachers are available for them.

It can be argued that, just as quantity is not equal to quality, neither do these indicators measure how well students are learning in a university, how satisfactory the level of teaching is, or if HEIs are fulfilling their missions and contributing to society.

Indicators are analysed by rankings individually while in fact, most of them have a dynamic cause and effect relationship to other factors. Thus, private and renowned universities will have (in most cases) an infinitely better student-faculty ratio and more disposable budget than a newer, larger institution will. And since large institutions and countries have the advantages of age, budget and size and rankings are highly based on socio-economic factors, global results are often similar from one year to the other.

These are the final numbers that policy-makers, the media, university leaders, and governments are basing their decisions upon.

Although graduation rates have started to become more valued by international rankings, university admission rates are still considered by some national league tables (such as the *US News and World Report Best College Rankings*), especially in the USA where the annual competition for a study place is so fierce. No significant relationship between effective teaching practices and admissions selectivity (Hazelkorn 2013: 79) was found, yet a connection between admission rates and ranking positions is clear. California Institute of Technology has dropped its acceptance rate from 17.5% in 2007-2008 to 11% in 2013-2014 in order to keep its strong ranking position (number 1 in THE since 2011), and, similarly, Cambridge University lowered its rate from 24% to 20% between the same years. (Acceptance Rate: 2015). By only looking at total enrolment, institutions lose their incentives to help their students graduate and yet, only considering student graduation discourages open-enrolment policies and pressure universities to lower their graduation standards.

Another methodological point in question are the levels of expenditure and an institution's resources considered as proxies of the learning environment. Many HEIs are competing on the basis of the capital invested in infrastructure such as dormitories, sport halls, or leisure facilities. It is not clear what impact these developments have on the overall quality of students' learning experience as there is no data to quantify how much these facilities are being utilized. Besides this, some institutions have switched to libraries in electronic format, to sharing resources with neighboring/partner universities, or offering online courses due to decreases in funding and scarce resources. The online platform Coursera offers students from all over the globe massive open online courses (MOOCs) from respectable institutions, approximately 6 of them being private institutions and 14 being public ones (Coursera:2015).

Thus, simply analyzing a HEI's annual budget ignores the question of value and efficiency over cost.

Furthermore, student employability is seen as a reflection of educational quality when, it is in fact a result of wider economic factors such as national recessions, seasonal fluctuations, inflation rates, and so forth. As previously represented by Figure 3, one of

U-Multirank's indicator of regional engagement is the percentage of student internships in the region which for example gives an automatic advantage to the universities of applied sciences in Finland over theoretical universities, as the first group has a mandatory 5 months student job placement as part of their curricula.

What is most important to note is that many stakeholders are failing to take into account that rankings are comparing private, publicly funded, and for profit HEIs at the same levels, whereas it is clear that these are all operating differently and are serving a wide range of students. Comparing institutions or even departments across national contexts in order to measure quality (which is what rankings are claiming to do) in a fair manner seems to be an almost impossible task.

6 Implications and applications

6.1 How are universities influenced by rankings?

The previous chapters have discussed the multiple effects of rankings on higher education institutions and their stakeholders as presented in the sources reviewed by the writer. Even if previous sources prove valid, it is crucial for any researcher to question them and find their own cases in real life in order to draw objective conclusions. Thus, the following section will compare different institutions and nations in terms of mission, admission rates, changes in departments, exchange student numbers, infrastructure, funding, and staff members, based on the information retrieved from their official websites and other online sources.

For the purpose of comparing possible changes from year to year, the researcher has reviewed institutions on the basis of: their location (Europe and North America), size, purpose, their stability or instability in global rankings, and publicly available data. Comparing very similar institutions in any of those indicators would have led to almost identical and biased results.

Even if the majority of global HEIs would admit that their main mission is to breed and enhance the production of knowledge, the term “world-class university” has rapidly replaced it, appearing in mission statements, government policies, media, and higher education discussions as a long-term goal. This ideal appears to go back to 2006 when the Pontifical Catholic University of Chile (Spanish: Pontificia Universidad Católica de Chile) set its goal to become a world-class institution by its 150th anniversary in 2038 (IHEP 2009: 6) and, two years later, the University of Oxford expressed a similar wish in its five years strategic plan (University of Oxford Gazette 2008: 556).

In order to achieve the world-class status, universities draw up short-term goals which tend to reflect their local strengths and weaknesses. For countries from outside the Anglosphere, the focus has been on creating strong institutional brands and publishing research in English in order to gain international traction. Such is the case of Japan which, despite being technology advanced, has lacked in internationalization; in order to address this, the country’s aims have been on improving teaching quality, increasing the numbers of courses in English and the student-staff ratios, further developing its science and technological disciplines, and recruiting gifted students and faculty members. In the English-speaking world and Europe, the foundation of graduate schools and research

institutes, as well a general institutional restructuring have been the priority. However important decisions these may be, most of this activity does tend to be in the favor of hard sciences as they can be best quantified and presented internationally. Hazelkorn presents her belief in relation to the grounded fear that research is quickly replacing teaching and the production of knowledge as the following "Research matters more now, not more than teaching necessarily but it matters more right now at this point in time" (Hazelkorn, 2009:5).

Some institutions with a long history and reputation such as the University of Oxford are so conscious about their goals and missions that they refuse being imposed quotas (either in research production or student numbers) by their governments, despite being research intensive, stating that " Underlying this section seems to be an assumption that research can be planned and managed at a national level [...] Research in higher education cannot be treated as if it were part of a command economy." (Oxford Gazette 2003). In addition, when searching "university mission" on online search engines such as Google and Exalead, we witness a prevalence of results from North American and British universities which have documented their missions and strategic plans throughout the years (whereas for European and Asian HEIs we only have access to their present goals).

When comparing an institution's goals and missions between 2010 and 2015, a few differences can be noticed overall. However, one must keep in mind that, just as in the case of rankings, even small changes that might not seem to amount for much, can be seen as proxies of certain indicators. The most pertinent example is the University of Oxford. The institution had the same general goals between 2003 and 2013 which included: widening student participation and fair access, leading the world in research and education, and recruiting the best members of faculty. More specific aims in the university' 2013-2018 strategic plan that were not previously mentioned, were related to the focus on networking, communication, and interdisciplinarity, the contribution to the cultural, social and economic life of the Oxfordshire region (previously only the Oxford city was mentioned), and the firm desire of recruiting the best national and international students through a process based on achievements and potential. Considering that the university has been in the top 5 THE world rankings for the past

four years and on the 10th position in ARWU since 2010, it is unclear if these changes are a result of today's global necessities or of rankings themselves.

Regarding admission rates, universities with a relatively steady position in the global rankings over the course of the past five years seem to have little changes in their student admission rates. This is the case for the University of Oxford, Stanford, Caltech, Cambridge, and ETH Zurich which were all large institutions, established over 100 years ago and are either research or engineering/technology based. For smaller, younger universities, annual ranking positions appear to be correlated to student admission rates, as is the case of Florida Institute of Technology (founded in 1958).

Introduced in the THE world rankings only in 2012 when its position was 226-250, the HEI plunged to the 197th spot the following year and its amount of undergraduate students raised from 2978 to 3257 (Florida Institute of Technology: 2013). Similarly, Aalto University which occupied the 401-500 position in ARWU in 2010 when the university was founded and was not mentioned again until 2014, went from a number of 16,057 to over 18,500 undergraduate students (Aalto 2014). And lastly, despite raising from its 44th position in Webometrics in 2011 to the 27th in 2014, the University of Southern California lowered its admission rate from 24,3% to 19,8% (Acceptance Rate 2014) during the same years. While there is no definitive proof that HEIs are changing their admission policies as a direct response to rankings, there is a correlation between the two, with different institutional responses. Therefore, improvements in ranking positions attract more potential students and universities choose either to welcome them or to lower their admission rates in order to maintain their exclusivity and proper student-staff ratios.

The idea that rankings are leading to negative changes in HEIs at an organizational level has been repeatedly mentioned in the sources reviewed. For instance, certain universities in Germany have reorganized small departments by merging them with larger ones, in order to enhance their efficiency and visibility, not only internally but also across borders. Advertising outside the country seems to be a recent theme for the institutions seeking to attract partnerships, funding or foreign students for master's and PhD level degrees and this is mainly realized through the expansion of public affairs and international offices, as well as an increase in marketing techniques employed (IHEP

2009: 16) Many fear that such developments are brought at the expense of some departments which, despite not being of high importance in an institution's overall image, might be essential for student development.

Further investigation shows that positive changes also take place in HEIs around the world where investments in departments and infrastructure have persisted in spite of the 2008 global economic recession. From the cases reviewed, in the USA, most financing has been diverted to the fields of medicine and health (approximately \$110 million for Stanford since 2010) (Stanford 2015), sports (\$58 million), informatics and technologies, whereas European institutions have focused on digital media (€5 million for Aalto University in 2010) (Aalto 2010: 65), nano-technology, engineering and molecular health technologies.

It is worth observing that although rankings may play a role in these developments, it is most likely a secondary one as the creation of new departments and facilities in public institutions mostly depends on what is considered important to the local and global economy and on the wishes of investors in the case of private institutions.

Endowments and compensations for administrative and faculty members are being offered as incentives for developing strategies meant to raise a HEI's position in rankings. A prime example of this is the vice chancellor of the Macquarie University in Australia who was promised a contract bonus of \$70,250 in 2007, in the event of the institution's raise in rankings. That year however, the university in question dropped from the 82nd spot to the 68th place to 186 in the THE Supplement which had been conducted in an unpredictable manner (Alexander & Noonan, 2009). In 2001, the National Universities Commission (NUC) in Africa initiated the first steps towards the creation a national ranking in order to offer a clear standing of its universities to different stakeholders, advise institutions on what should be strengthened, and to identify centers of excellence that could enjoy more funding.

Moreover, the rankings that are taking into account faculty salaries may sway institutions towards increasing compensations and recruiting higher quality staff. Whereas this movement is not negative in itself, it often results in funding being diverted from other areas of high priority and heavy reliance on non-tenure track faculty which is more cost effective.

A relation between ranking positions and funding was observed in the case of Stanford University - for which endowments (which can take the form of money or property) rose from \$13,9 billion in 2010 (Stanford 2010: 62) to \$21,4 billion in 2014- as well as in that of ETH Zurich - a rise from 1359 million Swiss Francs to 1512 between the same years. Thus funding is a tool used by the universities that want to preserve or even surpass their annual position in rankings. The interconnection between the two can also be noticed in the changes in staff numbers, with the most notable case being ETH Zurich which on the course of the past five years has increased its total number of staff from 9809 (ETH Zurich 2010: 45) to 10478, followed closely by Stanford University - 1475 to 2043.

According to Locke et al., rankings are generally used by younger higher education applicants which belong to a high social class and have good academic achievements but often just to confirm a decision already made as part of a complex process of selection. Candidates which are mature, locally based and belonging to less advantaged social classes, tend to require further research before trusting league tables and many are often discouraged from applying to highly ranked institutions (Locke et al. 2008: 13). Students applying for exchange periods abroad are particularly influenced by rankings, considering that their risks and costs are so significant. That shows in the exchange student rates of all the HEIs analyzed, with an increase from 867 individuals in 2010 to approximately 3000 in 2013 for Aalto University, 6900 to 8905 between 2011-2012 for the University of Southern California, and an 82% growth between 2010 and 2013 for ETH Zurich.

As previously mentioned, most global rankings put a smaller or larger emphasis on university publications, awards related to them and frequency of citations. ARWU World Ranking counts Nobel Prize winners, the annual number of high-cited researchers, and of articles in Nature and Science whereas THE uses the amount of citations per faculty as a proxy for research quality. Furthermore, the CWTS Leiden Rankings select only those institutions which have a minimum of 500 publications in the Web of Science database for five consecutive years, (excluding publications in the arts and humanities) (Rauhvargers 2013: 17), and the NTU ranking focuses on those with the highest publications and citations listed in the Essential Science indicators. National rankings tend to employ a wider range of indicators due to a higher access to data as shown in *Figure 4*.

INDICATORS USED FOR RESEARCH	RANKING SYSTEM (COUNTRY)
Overall grants (money amount)	Slovakia
Grants per faculty (money amount)	Austria, Germany, Italy
Grants per faculty (absolute numbers)	Italy
Research projects funded by the European Union (EU)	Italy
Participation in int'l research programmes	Poland
Number of publications	Sweden
Publications per researcher	Germany, Slovakia, Switzerland
Citations per faculty	United Kingdom
Citations per publication	Germany, Slovakia, Switzerland
Number of int'l publications	Poland
Percentage of articles cited within first two years after publication	Sweden
Number of publications with 5+ citations	Slovakia
Percentage of articles belonging to top 5 per cent most cited articles (HiCi)	Sweden
Number of patents (absolute number)	Germany
Patents per faculty	Germany
Ratio of pg research students	United Kingdom
Research quality	Germany, United Kingdom
Reputation for research	Austria, Germany

Figure 4. Research indicators in national rankings (Hazelkorn 2009: 4)

Although some international rankings are taking steps to relieving this situation by taking into account publications in other frequently used languages, most of them are still basing their research on English language journals. While English may be the official global language, one should take into account that, in the present, it is only the third most spoken language in the world (after Mandarin and Spanish), which implies that journals on topics which may be of national relevance - such as sciences, humanities, agriculture- are at disadvantage due to being published in other languages. Citations are also an issue as they tend to breed nepotism, especially in the USA where many researchers tend to cite works belonging to colleagues they know (Hazelkorn 2013: 82). A predominance of sciences can be noticed in the rankings indicators for research performance due to their strong tradition of peer reviewed publications, unlike the arts, social sciences, business and education, humanities, etc., which are especially vulnerable in this environment. Peer review, although positive in itself, leads to a dismissal of publishing unconventional ideas, thus leveraging conservatism. In the case of Oxford University, the most awards and prizes won between 2013-2014 are in the fields such as history (32 awards), politics (27), literature (19) and medicine (18), showing the

tendency to award results which can easily be quantified (Oxford University Press 2013/14).

6.2 Is learning affected?

Both the process and the contents of learning have been highly influenced by external factors, rankings and higher education developments included. According to Hazelkorn, the main drivers of higher education change include (but are not limited to): the creation of new knowledge and skills by higher education institutions as prime developers of human capital, the requirement of nations to develop, attract and retain talent in order to participate in the global sphere of science and research and tackle more complex problems; HEIs' government becoming a major policy issue due to their contribution to national economies; and lastly, the balance of power shifting in the favor of students who tend to value the skills leading to employability rather than employment (Hazelkorn2013: 73).

The declining availability of skilled labor despite an increase in population has forced governments to introduce policies that would attract students with potential, especially in the fields of science and technology. Thus the universal content for learning has indeed changed. This shift has resulted in the expansion of multidisciplinary fields and has been greatly beneficial to research teams forming across borders. Even more, these fields are crucial to progress as today's world is highly dominated by automated processes. However, it is important for these changes not to be made at the expense of civil and corporate responsibility, psychology, social sciences, and arts amongst many others- which are all areas of great significance. For example, Elsevier warns that the excessive allocation of funds towards research in areas such as East Asia as a result of rankings may lead to a halt in the development of higher education as an overall system and it is safe to assume that this is not the only isolated case.

Furthermore, increasing tuition fees, reduced admission rates, merit-based scholarships, and exchange opportunities abroad are in the disadvantage of certain groups of students which may lose their possibility to continue their studies, receive a poorer standard of education from other institutions, miss the opportunity of improving their cultural awareness, or even more, apply for more open programs which might not match their skills and ambitions.

Rankings have brought positive changes to learning as well. Anecdotal data points towards a relation between rankings and learning practices in terms of course offerings, content, and methods of teaching. In many cases, after analyzing institutions, ranking houses tend to provide them with information on how to improve their overall performance as well as what are the resources required for this. The quality insurance decisions taken by institutions with lower than expected ranking positions have often been positive on learning and teaching practices, curriculum reviews and academic programs. Improvements in infrastructure, facilities, student oriented offices, and the focus on staff quality are of course beneficial for learning outcomes as students gain different tools for self-development and a constant guidance and tutoring in terms of their professional and, in some cases, even personal lives. Unfortunately, there is little empirical evidence to showcase how well these resources are put to use and it is often so that this applies for institutions and nations that are already developed, as it is the case for North America and Europe.

The process of globalization and rankings' focus on "world-class" universities has led to a rise in courses and programs being offered in English and an increased migration of foreign students, even in countries with a long history of nationalism such as Germany and Japan (IHEP 2009: 17, 21). Since having fluent skills in more than one foreign language has become a requirement especially in the working life, the students' exposure to English language will prove valuable. Being bilingual should be viewed as a trait of adaptedness and should not eradicate the use of one's native language.

The revolutionary transition of traditional teaching towards the virtual space must be discussed as well. With the percentage of the world having internet access (around 40% in 2014) and the number of students enrolling for post-secondary education both increasing, many HEIs are now transferring some of their activities online. This is allowing them to increase their market shares and serve both domestic and overseas student at what is believed to be lower operating costs. Unfortunately, the same cannot always be said about their tuition fees which are often higher than those applied to traditional lectures, either due to the technological investments required by this practice or, more often, due to the fact that online courses are perceived by many as a first-class, premium service. For-profit private universities are understandably the first institutions to take advantage of this opportunity and lead the developments in the area, as they are

less constricted by campus facilities investments and possible resistance from the academic staff members⁴.

Moreover, a new model of HEI has been developed by the public sector which combines online teaching with lower costs, and has come to be known as an Open Education Resource University (OER). OERs are freely accessible, openly licensed documents and media sources used for teaching, learning, assessing and research purposes. The concept dates back to 1994 (Wiley 2006) and, gathering some support from UNESCO, OERs are now partnered with approximately 2000 institutions in the world, with a predominance in China, Japan and the USA. Students use them to search for relevant content which they can reuse, modify, and share with anyone, get tutored on a subject by international volunteers and, in the end, they pay a fee in order to be assessed and to receive a certificate from one of the participating institutions.

Although one could conclude that OERs are a value-added feature of higher education and that they are returning to the initial purpose of universities - which is to provide wide access to learning for all those interested- it can be argued that technology should complement face-to-face learning and not replace it. Their nature is also controversial due to the added end fees despite being considered "open", the various methods of accreditation and for creating a gap between younger and mature users who might not be so tech-savvy. Private or publicly owned, many HEIs already have to choose between sustaining their existing model based on limited access and high fees, as opposed to widening access and reducing fees. There is a wide belief that in the future, traditional teaching will be performed by business enterprises whereas public universities will be in charge of research.

It can be concluded that the process of learning in itself, the available content and the tools meant to aid it are certainly not the same as they were one in the previous generation. There might be little evidence to support the idea that rankings have had a direct impact on learning but, by impacting higher education and universities, their indirect results are fairly clear. We witness a shift towards culturally diverse, collective studying (over the traditional local and individual one), an increase in physical and intangible tools for analysing and disseminating knowledge, and a focus on gaining both

⁴ They often have the resources to create an entire team of lecturers that would transfer their courses online, unlike public HEIs that depend on individual staff members to accomplish that.

practical and theoretical skills towards a future purpose (either employability or research).

6.3 Stakeholder responses to rankings

Despite the high criticism of university rankings in the sphere of experts, the average world of stakeholders tends to unanimously agree that rankings are needed and that universities will benefit from institutional comparisons. With this in mind, rankings are more condemned for what they are used for, rather than what they claim to do. Countries which are top tier-avid have no time to stop and analyze their fairness or effects on different stakeholders, whereas those with a low presence in rankings tend to usually be more skeptical and selective about which ones they will be influenced most by. Such is the case of Malaysia whose example "Demonstrates how, with progressive understanding of the merits and demerits of rankings, countries and by implication regions can adapt rankings to make them responsive to their contexts." (Marope & Wells 2013: 15); it is unsure if this attitude is a result of the country's general disinterest in rankings or of their exclusions from them.

When used properly, the results of rankings can stimulate national debates, SWOT analyses, strategic planning, and the identification of key indicators which, in some cases, can lead to positive policy changes and furthermore, may also convince the general public of the need of a higher education reform. In regions which are unsatisfied with "traditional" rankings systems such as North America and Europe, HEIs are discussing their effectiveness and, as they feel their efforts are not recognized in meaningful ways, they are searching for alternative systems such as the University Systems Ranking which was released in 2008 by the Lisbon Council -one of Europe's largest think-tanks. So is the case of Japan where a number of institutions are using student surveys and faculty development programs over rankings, in order to improve their quality of teaching.

Piloted in 2010 by the African Union, the African Quality Rating Mechanism (AQRM) uses survey questionnaires for collecting data and comparing it against set criteria, instead of being competition bases like most global rankings. It is believed that this type of self-assessment will drive HEIs to be more truthful about their achievements although this has yet to be proven. Institutions are also required by the AQRM to develop an

improvement plan following their assessment, thus acting as a quality coach. The impact of rankings on African HEI's can already be seen in some areas of the continent. In Nigeria, between 2003 and 2006, approximately 84% of the parents of potential students were guided in selecting courses by regional rankings published in newspapers, 69% of HEI leaders made references to their position in rankings in annual reports or public speeches, and 76% labor employers took national and international rankings into account when short listing applicants for interviews. (Okebukola 2013: 151).

Similarly, the Princeton Review - a USA nationwide ranking which also includes a few institutions from Canada and Ireland - is also based on university reported data which, despite thorough analysis, can sometimes be manipulated. In 2015, the University of Missouri was stripped down of its rankings by the Princeton Review due to a false reporting of data on the number of student clubs⁵ and mentoring programs and enrollment figures. (Hollingsworth 2015).

Regardless of their nature and locations, there is one area in which there tends to be similar responses to rankings. Institutions, especially the ones focusing on high performance and modernization, are seeking to reinforce the areas which directly relate to ranking indicators, mainly by shifting additional resources towards them. Rankings have already become notorious for bringing inter-institutional competition to a zenith in terms of attracting and retaining foreign students; however, they also seem to prompt collaboration in many cases as they are aiding institutions in creating new partnerships, particularly at an international level.

Furthermore, funding for many institutions that are performing under expectations in international rankings has annually decreased and the limited resources are affecting faculty numbers, class sizes, and overall academic programs. Due to a decrease in wages and very few job possibilities, many members of faculty are quitting in hope of finding improved options abroad; the same applies to students belonging to areas in which institutions have lowered their acceptance rates. Limited funding has also lead to increases in tuition fees which affect student accessibility and affordability and thus

⁵ Students would compile a wish list for possible clubs and those would appear on the institution's official website as already existent.

increasing the market of skilled labor. Teachers seem to be influenced not just by the shrinking possibilities but also by the pressure that is placed upon them. The ones involved in research are now pushed by their employers and local governments to publish more material while maintaining the same quality or even increasing it. Meanwhile, in institutions less focused on research, teachers are dealing with revised curriculum and an expectancy of teaching excellence; thus, they are required increased inputs whereas their rewards and security have been lowered.

As to prospective students, rankings are providing them with a multitude of choices. Depending on what they are interested in or what they value, they can either choose a university because of its total performance or due to the reputation of a particular department or academic specialty. Rankings are often the primary source of information for both students and parents, especially if they are conducted by well-respected media outlets, as is the case of Asahi Shimbun in Japan and Perspektyvy in Poland.

In some cases, they are the primary source trusted as they present results in a clean, user-friendly manner, as opposed to the myriad of alternative sources in the online world. Technology does play a big role in student choices and universities are certainly taking this opportunity to advertise themselves as brands and make their services more appealing to prospective stakeholders. It is easier than ever to upload videos of lectures, accommodations and facilities, as well as entrance tips and guidance from current students (Line 2015).

7 Conclusion

The aim of this study was to highlight the influence of global and regional rankings on higher education institutions and the decision making process of all of their closest groups of stakeholders involved. This research is problem-centered, thus, the actual analysis of the effects and implications of rankings are stressed upon, rather than finding a solution. During the analysis process, the author came to notice certain patterns in what rankings are focusing on and in how universities may react to them in similar ways, despite being continents apart. It also became very clear that despite their intricate methodologies, league tables often end up measuring what is simple to measure and not what matters in an institution.

The opinions of stakeholders with a sound knowledge of rankings seem to generally be divided in two opposite sides - the ones who believe rankings to be tools of marketing and self-assessment, and the ones who see them as means equivalent to political and economic power. Ironically, their fears and actions were the ones which made rankings so influential as they were initially created to identify strengths and weaknesses and help HEIs improve on them. Regardless of their views, institutions and local governments are usually the ones which have the lowest power of choice in response to rankings, despite their vast influence and prestige. The tip of the scale has been balanced in the favor of students and investors who, in the age of consumerism, are expecting high returns on their investments, thus forcing institutions not to look away from rankings.

Although rankings are acting as instigators to competition at an inter-institutional and international level, they also seem to work as a public accountability mechanism. In many cases, they have aided the collaboration between universities that are seeking new partners, either for research or student exchange purposes. On the other hand, rankings have also had a global effect on departmental and programme restructuring. In an attempt to improve their standings, many institutions have cancelled short period or niche programs and focuses on the ones which are more visible to the public. As it is impossible to compete for prestige in all fields, universities feel it was necessary to choose departments and programs in which they could excel at a national or even global level, such as sciences and technologies, sometimes at the expense of arts and humanities.

Another important purpose of this research was to determine whether or not rankings are affecting the ultimate goal of higher education institutions, which is to create, advance and disseminate knowledge in order to produce graduates with competences in specific professional fields, as well as in social responsibility. It was determined that although this effect might not always be a direct one, rankings have indeed reshaped higher education in terms of: fields and skills prioritization, culturally diverse and collective learning, and research production. Although there is evidence to suggest that students have less chances of admittance and completion in the fields or the institutions of their choosing, we also witness an increase in student exchange programs, in students with bilingual skills, and borderless distance learning.

Regarding the primary research methods used for conducting this report, a prevalence of evidence based on previous literature can be noticed, to which individual analysis was added as based on the publicly available data. An initial attempt to contact more than 50 global institutions of higher education in regards to the numbers presented in the final chapter has had no success, resulting in the survey created by the author having a zero response rate. It should be mentioned that the topics included in the survey were not intrusive by any means and that they were based them on similar data provided online by many other universities. From the few responses gathered, it can be concluded that institutions either have such figures as admission rates, investments, departments created, etc., either spread across departments, or they lack the resources and the will to create a comprehensive database which would include all this data and publicly share them.

Furthermore, considering that the researcher is based in Finland which has only one institution represented in multiple international rankings (University of Helsinki), the reader will notice that only Aalto University was analyzed in the report, due to the fact that, compared to other Finnish HEIs present in U-Multirank, it showed the most progress over the course of its five years of operating. An interview with Juhana Aunesluoma, the Director of Network for European Studies in Helsinki University took place in spring 2014 who claimed that rankings had virtually little, if any, effects on the institution he represents as they are still a new concept nationwide. Due to this response and to the limited publicly available data the University of Helsinki was not considered for this research.

Thus, the author attempted to find cases that differed in terms of location, size, governance type, and focus, in order to provide a clear view of possible connections between ranking positions and changes in decision making. However, without a clear statement from those institutions proving this, the results presented are mainly theoretical.

It is important to mention that, even though rankings play a big role in today's higher education, they should be utilized just as self-assessment and benchmarking tools by the institutions that seek improvements, and as just one of the sources of information for student decision making. Even though rankings are here to stay and higher education has now evolved into a business model, universities should be allowed to perform their ultimate purpose to the best of their abilities, without unnecessary intrusions. Furthermore, the author advises institutions to compile their key figures in an accurate and complete manner and make it available to the large public (especially in the case of state-owned universities) since their main responsibility is towards their stakeholders and since this would leave no room for interpretations from ranking compilers.

8 References

Aalto University, 2010. *Aalto's Year 2010 in Review*. [online] Available at: <http://www.aalto.fi/en/about/reports_and_statistics/aalto_university_aalto_2010_in_review.pdf> [Accessed 18.03.2015]

Aalto University, 2015. *About us*. [online] Available at: <http://www.aalto.fi/en/about/reports_and_statistics/> [Accessed 18.03.2015]

Acceptance Rate, 2015. *California Institute of Technology (Caltech)*. [online] Available at: <<http://www.acceptancerate.com/schools/california-institute-of-technology/>> [Accessed 03.02.2015]

Alexander H, Noonan G., 2007. Macquarie Uni falls in list. *The Sydney Morning Herald* [online] Available at: <<http://www.smh.com.au/news/national/macquarie-uni-falls-inlist/2007/11/08/1194329413250.html.qs.com/qs-world-university-rankings.html>> [Accessed 03.02.2015]

Cambridge Dictionaries Online, 2015. *English definition of "university"*. [online] Available at: <<http://dictionary.cambridge.org/dictionary/british/university>> [Accessed 04.02.2015].

Collegestats, 2015. *Top 10 Oldest Universities in the World: Ancient Colleges*. [online] Available at: <<http://collegestats.org/2009/12/top-10-oldest-universities-in-the-world-ancient-colleges/>> [Accessed 06.02.2015]

Coursera, 2015. *Courses*. [online] Available at: <<https://www.coursera.org/courses>> [Accessed 05.02.2015]

Denman B.D., 2005. *What is a University in the 21st Century*. [online] Available at: <http://www.keepeek.com/Digital-Asset-Management/oecd/education/what-is-a-university-in-the-21st-century_hemp-v17-art8-en#page1> [Accessed 06.02.2015]

Dumont H., Istance D., Benavides F., 2010. *The Nature of Learning – Using Research to Inspire Practice*. [online] Available at: <http://www.keepeek.com/Digital-Asset-Management/oecd/education/the-nature-of-learning_9789264086487-en#page1> [Accessed 13.06.2014]

Espeland, W.N. and Sauder M., 2007. Rankings and Reactivity: How Public Measures Recreate Social Worlds. *American Journal of Sociology*, [online] Available through: JSTOR website at: <<http://www.sociology.northwestern.edu/people/faculty/documents/rankings-and-reactivity-2007.pdf>> [Accessed 20.04.2014].

ETH Zurich, 2010. *ETH Zurich Annual Report 2010*. [online] Available at: <https://www.ethz.ch/content/dam/ethz/common/docs/publications/annual-reports/2010/eth_jahresbericht_2010_en.pdf> [Accessed 11 April 2015]

Florida Institute of Technology, 2013. *Florida Institute of Technology: Headcount Report –Fall term 2013*. [online] Available at: <http://www.fit.edu/oir/documents/ocr_fall/2013fall_OCR_enrollment_report.pdf> [Accessed 17.04.2015]

Fortino A., 2006. *The Purpose of Higher Education: To Create Prepared Minds*. [online] Available at: <<http://www.evolution.com/opinions/the-purpose-of-higher-education-to-create-prepared-minds/>> [Accessed 02.07.2014]

Hapsah S., 2013. The national and institutional impact on university rankings: the case of Malaysia. *Rankings and Accountability in Higher Education –Uses and Misuses*. [online] Available at: <<http://unesdoc.unesco.org/images/0022/002207/220789e.pdf>> [Accessed 06.04.2014]

Hazelkorn, 2009. *Impact of Global Rankings on higher Education Research and the Production of Knowledge*. [online] Available at: <<http://unesdoc.unesco.org/images/0018/001816/181653e.pdf>> [Accessed 17.05.2015]

Hazelkorn. E., 2013. World-class universities or world-class systems? Rankings and higher education policy choices. *Rankings and Accountability in Higher Education –Uses and Misuses*. [online] Available at: <<http://unesdoc.unesco.org/images/0022/002207/220789e.pdf>> [Accessed 12.09.2014]

Hollingsworth H., 2015. The Princeton Review strips a school of its college ranking for the first time ever. *Business Insider UK*, [online] Available at: <<http://uk.businessinsider.com/the-princeton-review-just-stripped-a-school-of-its-college-ranking-for-the-first-time-ever-2015-2?r=US>> [Accessed 03.02.2015]

Institute for Higher Education Policy, 2009. *Impact of College Rankings on Institutional Decision Making: Four Country Case Studies*. [online] Available at: <<http://www.ihep.org/sites/default/files/uploads/docs/pubs/impactofcollegerankings.pdf>> [Accessed 08.02.2014]

Lanier J.T., 1997. *Redefining the Role of the Teacher: It's a Multifaceted Profession*. [online] Available at: <<http://www.edutopia.org/redefining-role-teacher>> [Accessed 16.06.2014]

Line H., 2015. Tech should not replace traditional learning, say students. *Times Higher Education*, [online] Available at: <<http://www.timeshighereducation.co.uk/news/tech-should-not-replace-traditional-learning-say-students/2018250.article>> [Accessed]

Liu N.C., 2013. The Academic Ranking of World universities and its future direction. *Rankings and Accountability in Higher Education –Uses and Misuses*. [online] Available at: <<http://unesdoc.unesco.org/images/0022/002207/220789e.pdf>> [Accessed 30.03.2015]

Locke W., Verbik L., Richardson J.T.E., King R., 2008. *Counting what is measured or measuring what counts? League tables and their impact on higher education institutions in England*. [online] Available at: <http://oro.open.ac.uk/11799/1/Locke,_W._et_al_%282008%29_Counting_What_is_Measured_Or_Measuring_What_Counts_League_Tables_%26_Their_Impact_On_HEIs_in_England.pdf> [Accessed 17.04.2015]

Marginson, S.(2009). *University Rankings, Governments and Social Order: Managing the Field of higher Education According to the Logic of the Performative Present – As-Future*”, in Simons, M., Olsen, M. and Peters M. (eds) *Re-Reading Education policies: A Handbook Studying the Policy Agenda of the 21st Century* (Rotterdam: Sense Publishers).

Marope, M., Wells, P., 2013. *University Rankings: The many sides of the debate Rankings and Accountability in Higher Education –Uses and Misuses*. [online] Available at: <<http://unesdoc.unesco.org/images/0022/002207/220789e.pdf>> [Accessed 03.02.2015]

Marton, R.K., 1968. *Social Theory and Social Structure*. First Edition. New York: Free Press

National Association of College and University Business Officers and Commonfund Institute, 2015. *U.S. and Canadian Institutions Listed by Fiscal Year (FY) 2014 Endowment Market Value and Change in Endowment Market Value from FY 2013 to FY2014 (Revised February 2014)*. [online] Available at: <http://www.nacubo.org/Documents/EndowmentFiles/2014_Endowment_Market_Values_Revised.pdf> [Accessed 03.02.2015]

Okebukola., P.A., 2013. An African perspective on rankings in higher education. *Rankings and Accountability in Higher Education –Uses and Misuses*. [online] Available at: <<http://unesdoc.unesco.org/images/0022/002207/220789e.pdf>> [Accessed 04.03.2014]

Ordorika I., Lloyd M., 2013. A decade of international university rankings: a critical perspective from Latin America. *Rankings and Accountability in Higher Education –Uses and Misuses*. [online] Available at: <<http://unesdoc.unesco.org/images/0022/002207/220789e.pdf>> [Accessed 04.03.2014]

Oxford Dictionaries, 2015. *Definition of university in English*. [online] Available at: <<http://www.oxforddictionaries.com/definition/english/university>> [Accessed 04.02.2015].

Oxford University Press, 2015. *OUP annual report 2013/14*. [online] Available at: <http://global.oup.com/about/annual_report/?cc=gb> [Accessed]

Quacquarelli Symonds, 2015. *QS world university rankings explained*. [online] Available at: <<http://www.qs.com/qs-world-university-rankings.html>> [Accessed 29.03.2015]

Rauhvargers A., 2013. *Global University Rankings and Their Impact, Report II* (Brussels: The European University Association). [online] Available at: <http://www.eua.be/Libraries/Publications_homepage_list/EUA_Global_University_Rankings_and_Their_Impact_-_Report_II.sflb.ashx> [Accessed 14.09.2014]

Scott P., 2013. Ranking Higher Education Institutions: a critical perspective. *Rankings and Accountability in Higher Education –Uses and Misuses*. [online] Available at: <<http://unesdoc.unesco.org/images/0022/002207/220789e.pdf>> [Accessed 08.02.2014]

Shanghai Ranking, 2015. *About us*. [online] Available at: <<http://www.shanghairanking.com/aboutus.html>> [Accessed 19.04.2015]

Sowter, B., 2013. Issues of transparency and applicability in global university rankings. *Rankings and Accountability in Higher Education –Uses and Misuses*. [online] Available at: <<http://unesdoc.unesco.org/images/0022/002207/220789e.pdf>> [Accessed 29.03.2015]

Stanford University, 2010. *Stanford University Annual Report*. [online] Available at: <http://bondholder-information.stanford.edu/pdf/AnnualReport_2010.pdf> [Accessed 11 April 2015].

Stanford University, 2015. *Stanford University Annual Reports*. [online]. Available at: <http://bondholder-information.stanford.edu/financials/annual_reports.html> [Accessed 11 April 2015]

The Guardian, 2014. More lower-income students going to university despite tuition fees. *The Guardian*, [online] Available at:
<<http://www.theguardian.com/education/2014/dec/19/lower-income-students-university-tuition-fees-ucas-admissions-poorer-families>> [Accessed 10.09.2014]

Times Higher Education, 2015. *World University Rankings 2014-2015 Methodology*. [online] Available at:
< <http://www.timeshighereducation.co.uk/world-university-rankings/2014-15/world-ranking/methodology>> [Accessed 19.04.2015]

Thomson Reuters, 2015. *Source Publication List for Web of Science –Science Citation Index Expanded*. [online] Available at:
<http://ip-science.thomsonreuters.com/mjl/publist_sciex.pdf> [Accessed 19.04.2015]

U-Multirank, 2009. *About*. [online] Available at:
<<http://www.u-multirank.eu/#!/about?trackType=home&sightMode=undefined>> [Accessed 17.04.2015]

University of Oxford Gazette, 2002. *HEFCE's draft strategic plan 2003-8: the University's response*. [online] Available at:
< http://www.ox.ac.uk/gazette/2002-3/supps/2_4661.htm > [Accessed 30.03.2015]

University of Oxford Gazette, 2008. *University of Oxford: Strategic Plan 2008-2009 to 2012-2013 For Consultation*. [online] Available at:
<http://www.ox.ac.uk/gazette/2007-8/supps/1_4832.pdf> [Accessed 30.03.2015]

Vught, F., Ziegele F., 2013. U-Multirank: a user-driven and multi-dimensional ranking tool in global higher education and research. *Rankings and Accountability in Higher Education –Uses and Misuses*. [online] Available at:
< <http://unesdoc.unesco.org/images/0022/002207/220789e.pdf>> [Accessed 21.03.2015]

Webometrics, 2015. *Methodology*. [online]
Available at: < <http://www.webometrics.info/en/Methodology>> [Accessed 29.03.2015]

Wiley David. *Expert meeting on Open Educational Resources*. [online] Available at:
<<http://www.oecd.org/edu/ceri/36224377.pdf>> [Accessed 30.03.2015]

Wonderlist, 2015. *Top 10 Oldest universities Around the World*. [online] Available at:
<<http://www.wonderslist.com/top-10-oldest-universities-around-the-world/>> [Accessed 04.02.2015].

Yonezawa., A. 2013. Rankings and information on Japanese universities. *Rankings and Accountability in Higher Education –Uses and Misuses*. [online] Available at:
< <http://unesdoc.unesco.org/images/0022/002207/220789e.pdf>> [Accessed 01.03.2015]