University governance and rankings. The ambivalent role of rankings for autonomy, accountability and competition

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Although university rankings are controversial, they are still widely used to an increasing extent. It is even claimed that they are involved in strategy processes of universities. This paper analyses this far-reaching hypothesis by exploring the role of rankings for institutional autonomy, accountability and competition in a selected sample of six German universities. It turns out that the universities are reflectedly committed to rankings but, because of their methodological ambivalences, do not use rankings in strategy and decision-making. The paper closes with conclusions for realistic approaches towards rankings, according to which current league table rankings cannot be systematically integrated into university governance. This is because ranking indicators often do not represent reliable quality measures and the rank list data are usually highly aggregated thereby obscuring causal linkages the knowledge of which would be necessary for strategic interventions.

Universitätsgovernance und Rankings. Die ambivalente Rolle von Rankings für Autonomie, Rechenschaft und Wettbewerb

Obwohl Hochschulrankings umstritten sind, werden sie immer noch zunehmend genutzt. Es wird sogar behauptet, dass sie in Strategieprozesse von Universitäten einbezogen sind. Diese weitreichende Hypothese wird analysiert, indem die Rolle von Rankings für institutionelle Autonomie, Rechenschaftslegung und Wettbewerb für sechs Fallbeispiele deutscher Universitäten untersucht wird. Es zeigt sich, dass die Universitäten reflektiert mit Rankings umgehen, sie aber aufgrund ihrer methodischen Ambivalenzen in Strategie und Entscheidungsfindung nicht verwenden. Der Aufsatz schließt mit Folgerungen für einen realistischen Umgang mit Rankings, wonach derzeitige Liga-Tabellen-Rankings nicht systematisch in die Hochschul-Governance integrierbar sind. Der Grund ist, dass Rankingindikatoren oft keine verlässlichen Qualitätsmaße repräsentieren und Rankingdaten gewöhnlich hoch aggregiert sind, wodurch kausale Verknüpfungen verdeckt werden, deren Kenntnis für strategische Interventionen erforderlich wäre.

1 Introduction

According to Andrejs Rauhvargers, university rankings have "galvanised the world of higher education" *(Rauhvargers 2011, p. 68),* "universities have been unable to avoid national and international comparisons, and this has caused changes in the way universities function" *(ibid.).* In a similar vein, Christopher C. Morphew and Christopher Swanson state that "universities have adopted the use of rankings as a means of assuring internal actors that the institution is on course towards its goals" *(Morphew/Swanson 2011, p. 185),* and universities "use rankings as a signal flare, to highlight their quality for external constituents" *(ibid.),* and as "a communicative tool […] to provide both informational and promotional properties to internal and external constituents alike" *(ibid., p. 186).* According to these authors, the main reason why rankings have become so ostensibly prominent within a decade is that "rankings provide a seemingly objective input into any discussion or assessment of what constitutes quality in higher education" *(ibid.).* In this context, it is even propagated that "governing bodies of institutions of higher education use rankings" "to determine policies to achieve excellence" *(IREG 2015, p. 4).*

At the same time, however, there is profound and justifiable methodological criticism of rankings from a social science perspective, as well as by many academic staff and the operational side of university practitioners dealing with quality issues: for example, problems are identified relating to data quality and aggregation, deficient performance alignment of indicators, missing transparency of data acquisition and processing *(Dill/Soo 2005; Kroth/Daniel 2008; Marginson 2014; Schmoch 2015; Westerheijden 2015).*

The objective of this paper is to analyse the role of rankings in university governance, particularly institutional autonomy, accountability and competition. To that end, the theoretical background is briefly introduced at first. Secondly, the six German sample universities, research questions and methodology are characterised. Thirdly, the empirical results are presented. The paper ends with some conclusions about the very limited role of rankings in integrative university governance.

2 Integrative University Governance and the Interplay Between Autonomy, Accountability and Competition

Current research literature shows that an appropriate governance model of universities as "specific" *(Musselin 2007),* rather "porous" organisations *(Huisman 2016, p. 200)* and "distinctive social institutions" *(Berdahl 1990, p. 170)* comprises the integrated governance core functions of institutional autonomy, accountability and competition *(Berdahl 1990; Huisman/Currie 2004; King 2015; Kumar 1987; Marginson 2006; Pucciarelli/Kaplan 2016; Schedler 1999; Schindler et al. 2015; Sinclair 1995; Stensaker/*

Harvey 2011; Zaman 2015). The literature also exhibits that, in public administration in general and particularly in higher education, autonomy, accountability and competition are "complex and chameleon-like term[s]" *(Mulgan 2000, p. 555)*, "cherished concept[s], sought after but elusive" *(Sinclair 1995, p. 219)*.

Nevertheless, these governance core functions characterise a complex, hybrid model of "bounded rationality" *(Simon 1991)* for universities as specific organisations and can be defined as follows: In biology and sociology, competition is the contest between two or more metabolic systems for resources and goods. Examples are organisms striving for food; animals competing for territory, food, mates, leadership; social groups and institutions striving for recognition, awards, leadership; business companies competing with other firms over the same group of customers. In analogy, typically a few hundred universities compete for positions in rankings about research output and impact, awards, students, learning outcomes, output and impact of Third Mission, academic staff, institutional prestige, etc. Since rankings are a specific type of selected and highly aggregated performance assessment, it is clear from the outset that they constitute only one specific mechanism or measure of competition in higher education.

Accountability in ethics and governance means liability or assumption of responsibility of organisations, groups and individual persons for their decisions, actions and products: "A is accountable to B when A is obliged to inform B about A's (past or future) actions and decisions, to justify them, and to suffer punishment in the case of eventual misconduct" *(Schedler 1999, p. 17)*. Accordingly, higher education institutions are accountable to their immediate "customers" (e. g. students, staff, employers), public and private financial funders and sponsors (e. g. government, public, research funders, etc.) on a moral level, and, to an increasing extent, on a legal level, i. e. against higher education law and funding contracts because universities are obliged by these to inform funders and sponsors about their (past or future) actions and decisions and "products", to justify them. Otherwise, universities might suffer "punishment" (e. g. decrease of funding and reputation; decrease of student numbers) in the case of eventual "misconduct". This corresponds to the following functions of accountability: constraining "arbitrary power, thereby discouraging fraud and manipulation, and strengthening the legitimacy of institutions that are obligated to report to appropriate groups" *(Huisman/Currie 2004, p. 531)*; sustaining or raising "the quality of performance by forcing those involved to examine their operations critically and to subject them to critical review from outside" *(ibid.);* regulating institutions' activities "through the kind of reports and the explicit and implicit criteria to be met by the reporting institutions" *(ibid.)*.

Literally, the concept of autonomy (from the ancient Greek αὐτονομία) means self-legislation. It usually comprises self-determination, sovereignty, self-governance. In

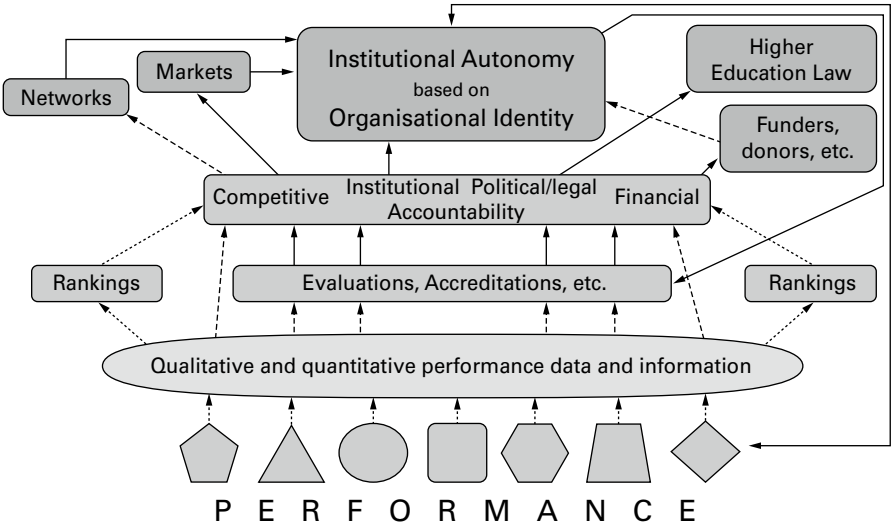
the words of famous philosopher Immanuel Kant "the principle of autonomy is thus: 'Not to choose otherwise than so that the maxims of one's choice are at the same time comprehended with it in the same volition as universal law'" *(Kant 2002, p. 58)*. By analogy, institutional autonomy would refer to organisations who give themselves universal rules and follow these rules. Thus, institutional autonomy corresponds to "organisational identity" *(Whetten 2006)* or self-understanding as far as the institution itself can determine: why the institution exists, what its goals are, how it strives for its goals (mission); what its values are as a basis of decision-making and action-taking; where the institution hopes these purposes will lead, and what an institution wants to become in the future (vision) *(Leiber 2016, pp. 102–104)*. Such self-given rules can and should be contained in: statutes; mission statements (values, mission, vision); structure and (strategy) development plans; quality management models; etc. Thus, institutional autonomy and organisational identity can be implemented by integrated performance governance which is based on a mission statement, including mission, vision and values; comprehensive performance assessment; transparent reporting system. Accordingly, further basic governance requirements are a high degree of agreement on objectives; a powerful and relevant quality management system (including collection, analysis and use of data and information); trusting communication structures; options for stakeholders' participation in performance assessments.

In this sense, organisational identity is indispensable for the definition and systematic development of organisational quality enhancement in autonomous universities which is implemented via responsible and competitive self-governance and is based on values, missions, visions and various quality assessment processes (such as accreditation, evaluation, etc.). In other words, organisational identity is a necessary core element of cooperative, collective, networked societal "enterprises" such as universities which are or want to become responsible (i. e. accountable), competitive and self-reliant players in complex knowledge societies. Particularly, universities cannot avoid competing for academics, students, research projects, funds, etc. in an era of international and global competition for knowledge, research, welfare, economies and mass higher education.

Against this background, the role of rankings for institutional autonomy, accountability and competition can be described as follows: Institutional autonomy is synonymous for establishing integrated performance governance which has to organise and balance the dynamic interplay of functions, needs and requirements from inside and outside of the modern university: higher education law; funders and donors; markets and networks (e. g. comprising competition for students, staff, research funding); etc. Usually, funders, recipients of performance, evaluations, accreditations, benchmarking, ratings, rankings etc. assess certain types and areas of university performance at very different levels and to a very wide range of empirical reliability. These various assess-

ments normally can fulfil both, competition and accountability functions. Obviously, (league table) rankings represent just one, very specific performance valuation mechanism (see Figure) which is based on highly aggregated data and information which are rather easily communicated as compared to much more complex and comprehensive accreditation or evaluation assessments.

Figure: Simplified scheme of the interplay between institutional autonomy and accountability in higher education institutions



In contemporary higher education in knowledge societies, competition is ubiquitous *(Pucciarelli/Kaplan 2016)*, certainly ambivalent and appears in different forms and intensities throughout the globe. Competition is generally conducted through markets (e. g. offer of study places and demand of students) and networks (e. g. benchlearning networks of universities) which produce input (e. g. comparative benchmarks with respect to performance; declining student numbers) relevant to strategic self-governance decisions and actions that are the expression and consequence of institutional autonomy and should exert strategic influence on the various performance levels (see Figure). Thus, there is "the need to enhance prestige and market share" *(Pucciarelli/Kaplan 2016, p. 311);* "to embrace an entrepreneurial mindset" *(ibid.);* "to expand interactions and value co-creation with key stakeholders" *(ibid.)*. This can be achieved through intensified "entrepreneurial activities" *(Sam/van der Sijde 2014, pp. 900 ff.)* comprising the effective and integrative organisation and governance of teaching, research, and Third Mission, including the preservation of the university's societal roles in cultural and academic education, personality development and vocational training.

In universities, accountability of achievements – quality; effectiveness; efficiency – occurs against various organisational levels, higher education politics and higher education law as well as other funders and donors (see Figure). Accordingly, academic accountability, political and legal accountability, financial accountability and competitive accountability can be distinguished which "reflect the different control systems that are laid upon institutions" *(King 2015, p. 488)* such as academic self-control based on institutional autonomy, "control based on the state's ability to promulgate rules, to monitor for compliance and to apply sanctions when necessary" *(ibid.),* efficiency responsibility against donors and funders, and "accountability flowing from the discipline exercised on prices and quality from the aggregation of individual decisions by buyers and sellers in competitive conditions" *(ibid.),* respectively.

3 University Governance and Rankings

3.1 The Sample Universities, Research Questions and Methodology

The sample of this study consists of six universities in the German federal state of Baden-Wuerttemberg, the universities of Freiburg, Heidelberg, Hohenheim, Constance, Mannheim and Ulm. Seven structured interviews with their ranking experts were carried out. With respect to size (as represented by the number of students) the six surveyed universities range from approximately 9,000 to 31,000 students. Overall, the academic and teaching profiles of these institutions are rather different: one of them offers a comprehensive range of subjects excluding medicine, one of them has a distinct bioscience and agricultural focus, one has an economy focus, one is focused on natural sciences and medicine, and two of them offer a comprehensive range of subjects including medicine. Most of the sample universities are usually among the first two hundred in certain rankings, while only one of them usually reaches the group of the first fifty.

It should be emphasised that German higher education institutions are characterised by the following features which set the general framework for their dealing with rankings: they are embedded in a social market economy and have low levels of market focus (e. g. they offer broad access to higher education, i. e. comprehensive selection procedures for students are not applied; no tuition fees are charged in public universities; no strong differentiation of the performance of different institutions of the same type). Thus, if competitiveness is measured by league table rankings, the German higher education system can be characterised as less competitive when compared to the American, British or Australian systems, for example. Furthermore, the sample universities' scheme of legal (and financial) accountability is characterized by the stipulations in the higher education law of Baden-Wuerttemberg: institutions have to accredit their study programmes or the institution; establish a quality management system; carry out regular (external) evaluations; deliver annual reports (including cost

and performance calculation; implementation of university contracts and target agreements; results of evaluations). In other words, many accountability measures and particularly rankings are not determined by law.

In view of the remarks in the Introduction, this paper intends to answer the following questions which appear to be relevant when the role of rankings in university governance is investigated: How do the German sample universities deal with the methodological subtleties of rankings? For which stakeholders are the ranking results important? Do (league table) rankings influence decision-making and strategy of the sample universities? Do rankings challenge institutional autonomy or organisational identity?

The methodology of this study relies on analysis of documents and rankings, structured interviews on the role and importance of rankings. The interviews were conducted with the universities' ranking managers and rectorate members. The interview questionnaire consisted of 18 questions which contained around 170 answer options while most questions (where appropriate) also had open answer options. Based on an approach which was recently applied by *Ellen Hazelkorn et al. (2014),* the following items were utilised in the interviews: Which rankings are rated as the most influential and which rankings are supplied with university data? How is the monitoring of rankings organised? Who uses the results of monitoring rankings, and for what purposes? Which aspects of institutional strategy and performance are influenced by rankings?

3.2 Empirical Exploration and Key Results

3.2.1 Use of Rankings

All interview partners assess a limited number of global and national rankings as "most influential" for their needs and, with only one exception, regularly deliver[1] data to the following four ranking organisations: Times Higher Education (THE) Ranking; Quacquarelli Symonds World Best University (QSWBU) Rankings; Academic Ranking of World Universities (ARWU; Shanghai Ranking); Centre for Higher Education (CHE) Ranking (national rating of learning and teaching) (see Table 1). One smaller university with a comprehensive range of subjects excluding medicine rates ARWU "inappropriate"[2] because of ARWU's focus on Web of Science and absolute indicator numbers; another smaller university, which has an economy focus and lacks natural sciences, assesses ARWU as "unattainable"; therefore, both universities do not actively participate in ARWU (see Table 1).

[1] If a university does not deliver data to a ranking organisation, this does not necessarily imply that the university is not ranked: for example, all six sample universities are ranked in Scimago Institutions Ranking and U-Multirank, although some of them explicitly refused participation.

[2] Throughout, citations from the interviews are anonymised; written citations are formulated as closely as possible to the spoken and annotated words from the interviews.

Table 1: Most influential rankings and university participation

Rankings	Most influential rankings – relative proportion of sample universities	Regular participation – relative proportion of sample universities
Times Higher Education (THE)	6/6	6/6
Quacquarelli Symonds World Best University (QSWBU)	6/6	6/6
Academic Ranking of World Universities (ARWU)	6/6	4/6
Centre for Science and Technology Studies (CWTS) Leiden	2/6	2/6
US News Best Global Universities (USNBGU) Rankings	2/6	2/6
National Taiwan University (NTU) Ranking	1/6	1/6
Scimago Institutions Ranking (SIR)	0/6	0/6
EU-Multirank	3/6	3/6
CHE Ranking	6/6	6/6
DFG Funding Atlas	2/6	6/6
Further national and discipline-specific rankings	2/6	2/6
Other	0/6	0/6

According to the interviews, the main rationale of some sample universities for ignoring CWTS Leiden is threefold: firstly, CWTS's advertising and approaching possible customers is by far not as active as compared to commercial providers (since CWTS is organised by not-for-profit academics); secondly, the focus on very specific bibliometric data considerably limits communication of CWTS data with a broader, non-specialized public; thirdly, the bibliometric focus is usually only promising for institutions that have many research-intensive fields in the sciences, mathematics and medicine, while smaller universities with less research output in these fields and a great deal in social sciences and humanities cannot take advantage of the CWTS Leiden criteria. Therefore, it is plausible that a larger sample university with a comprehensive range of subjects uses CWTS Leiden (though another university of comparable type does not), while it is not so clear that a smaller university with a subject focus outside the natural sciences also participates in CWTS (cf. Table 1).

It is interesting to note that the three favourite global league table rankings – THE, QSWBU, ARWU – are those which are more problematic from a social science perspective (cf. *Marginson 2014, pp. 48–50)*. The interviews reveal, however, that the main reason for the universities' preference is not the social science quality of the rankings, but simply that external stakeholders such as funders, international coop-

eration partners and higher education politicians request the positioning in these rankings. On the contrary, methodologically preferable rankings such as CWTS Leiden, Scimago Institutions Ranking (SIR) and U-Multirank *(ibid.)* are more rarely used (CWTS; U-Multirank) or even unknown (SIR), because these rankings are not requested by stakeholders. In addition, for the sample universities with a comprehensive range of subjects, data provision for U-Multirank is currently too costly (compared to the widespread non-familiarity of the ranking in relevant stakeholder groups) and U-Multirank's handling in the communication market is too complex (no single score but a multi-rank rating!).

Some universities are interested in US News Best Global Universities (USNBGU) Rankings and National Taiwan University (NTU) Ranking because they are quite highly ranked in certain disciplines (e. g. Agricultural Sciences). Finally, the German Research Society (DFG) Funding Atlas (amount of third-party income) is assessed as one of the "most influential" rankings by two of the sample universities, a larger one and a smaller one, both offering a comprehensive set of subjects.

According to the interviews, the sample universities use their favourite global rankings – ARWU; THE; QSWBU – primarily for *competition* purposes in a global knowledge arena: In the context of marketing and advertising the sample universities aim to intensify recruitment of international staff and students; the universities have some general survey feedback that up to 50 percent of students use ranking results in their decision for a university.[3] It is obvious, however, that this function of rankings is not as important in Germany as, for example, in Australia where approximately one third of all students (who are normally fee payers) come from abroad (mostly from East and Southeast Asia). Another competition purpose lies in the enhancement of the organisational image – how others see the organisation from the outside – or external reputation. Rankings can fulfil this function, albeit in a superficial way, and the sample universities want to take advantage of this function. Furthermore, the sample universities frequently use institutional rankings for initial screening of partner universities and pre-analysis of (cooperation) requests and potential incoming guests on the international level. The surveyed university representatives also say that they frequently mention high ranking results in research proposals and project applications; from successful funding applications and the informal feedback of funders, the universities reasonably assume that funders value their reference to rankings if the ranks are comparatively high (but the interview partners do not have systematic feedback or impact analysis about this).

[3]This aspect could not be further analysed in the present study.

Finally, (selective) benchmarking is an objective of the surveyed universities, but they are very critical, if not completely sceptical, whether rankings can be useful for benchmarking. In addition, systematic benchmarking is still in a very early development stage because the sample universities find it difficult to identify benchmarking partners who have a sufficiently similar profile. On the one hand, it is currently not clear whether progress is possible in this respect and the sample universities seem to be reluctant to put more effort into this because of low success expectations. On the other hand, however, some sample universities – the larger ones who offer a comprehensive range of subjects and tend to have the necessary resources – are intending to develop their "own benchmarking system" based on a comprehensive indicator set and a reporting system, including all performance areas. As a first step, they are currently developing a research information system which is hoped to be helpful in the ranking game. The need for methodological reflection and conjoint, cross-institutional strategy for dealing with rankings is also expressed by few smaller universities since they sometimes feel isolated in their efforts to handle rankings efficiently.

According to the surveys, all sample universities organise their dealing with rankings by one or several persons at institutional level who regularly monitor the positioning in rankings while specialist institutional units are not established. Regular discussion platforms dealing with rankings at institutional level are reported by only one smaller university (Table 2). In other words, the universities monitor and analyse ranking results with least effort in a centralised and focused way and they do not invest much into broader discussion platforms about rankings – because they believe that such investment would not be worthwhile (see below).

Table 2: Organisational university structures for monitoring rankings

Organisational university structures for monitoring rankings	Relative proportion of sample universities
Specialist institutional unit which regularly monitors the positioning in rankings	0/6
One or several persons at institutional level who regularly monitor the positioning in rankings	6/6
Rankings issues are discussed on a regular basis on platforms (committees, meetings, …) organised at institutional level	1/6
One or several persons at faculty level who regularly monitor the positioning in rankings	1/6 (error-prone: no interviewees from faculty level)
Rankings issues are discussed on a regular basis on platforms (committees, meetings, …) organised at faculty level	0/6 (error-prone: no interviewees from faculty level)
Other	0/6

This interpretation reaffirms the hypothesis that internal university stakeholders, who process ranking information, are usually few ranking experts on the operational level as well as members of leadership, the rector, the president, and the faculty deans (Table 3).

Table 3: Internal university stakeholders who process ranking information

Internal university stakeholders who process ranking information	Relative proportion of sample universities
A board, senate or equivalent governing body at institutional level	1/6
University council	2/6
Rector, president, vice-chancellor or equivalent	6/6
Rectorate office	1/6
Head of university administration or equivalent highest administrative position	1/6
Committees or working groups at institutional level	1/6
Dean or equivalent leader at faculty level	6/6
Committees or working groups at faculty level	1/6
International Office	1/6
Other	0/6

All sample universities use ranking results for marketing and publicity, either regularly or occasionally, while the majority of institutions uses rankings for advertisement only if the ranking position has changed from previous ranking editions in a positive direction. The favourite measures of advertisement are websites and various promotional material (Table 4).

Table 4: Use of rankings for marketing and publicity purposes

How universities use ranking results for marketing and publicity	Relative proportion of sample universities
Yes, regularly	2/6
Yes, occasionally	4/6
Yes, but only if the position has changed from previous ranking editions	1/6
Yes, but only if the position has changed from previous ranking editions in a positive direction	5/6
No	0/6
Via website	4/6
Via promotional material (e.g. social media; press releases; media campaigns; targeted information for partners)	4/6
Via public events (e.g. conferences; meetings with donors)	1/6
Other	0/6

At the same time, in the interviews rankings are classified as very ambivalent and, according to all interview partners, the "importance of ranking lists is not very high" for the following reasons: various procedures for defining, collecting and ordering the complex data required for the ranking cause difficulties and deviations ("data collection problems"). The vice-rector of a large comprehensive university was even cited with the statement that "rankings are an absurdity we nevertheless have to deal with." In general, for surveyees the "data aggregation level is too high to be informative for institutional sub-levels such as faculties, subject fields, etc."; particularly, this "high aggregation level is very problematic for universities which have a broad spectrum of subject fields." Also, "global rankings are too much tailored to Anglo-American universities", and "study programmes with state examinations and diplomas cannot be adequately mapped in global rankings" because they are not considered by definition.

3.2.2 Influence of Rankings on Institutional Strategy and Performance

According to half or more of the interviewed universities' ranking specialists, the decisions of researchers and teachers about a university are usually not influenced by highly aggregated rankings because these stakeholders know about the methodological weaknesses of rankings; therefore, they are instead guided by research profiles of disciplines and subjects (systematic data, however, is not available about this in the sample universities). In turn, this means that half or almost half of the universities think that prospective staff's decisions are influenced by rankings; in fact, some prominent competitive gains are reported where subject-specific rankings were used by prospective staff as a basis for decision-making.[4] The following external stakeholders are influenced in their university-related decisions by rankings according to the view of more universities: employers; funding bodies and sponsors; parents; the ministry; (prospective) partner institutions; prospective students (Table 5). The external stakeholders who are more probably influenced by rankings are also advertised by more universities (Table 5).

[4]The cases are unspecific with respect to size, rank and reputation of the universities.

Table 5: External stakeholder groups influenced by rankings

Stakeholder groups	Relative proportion of sample universities who see stakeholders influenced by rankings	Relative proportion of sample universities who advertise stakeholders
Prospective research staff	3/6	–
Prospective teaching staff	2/6	–
Prospective students	6/6	6/6
Partner or prospective partner institutions	5/6	6/6
Ministry or authority in charge of higher education	5/6	4/6
Parents	4/6	3/6
Benefactors, sponsors, investors	4/6	6/6
Funding bodies or similar organisations	3/6	3/6
Employers	4/6	4/6
Alumni	1/6	–
Regional/local authorities or similar agencies	3/6	3/6
The media	–	5/6
The local/regional community	–	1/6
The wider public	–	2/6
Other	0/6	0/6

In student surveys reported by the sample universities, up to approximately 50 percent of students say that rankings have been important or rather important for their university choice. This is plausible if the students refer to rankings which focus on general reputation, learning environment, quality of life of the city and teaching quality (e.g. CHE Ranking; Campus Ranking). Global league table rankings do also influence the decisions of prospective cooperation partners in research (mostly from Asia), which is quite legitimate as far as most of these rankings (e.g. THE; QSWBU; ARWU) focus on research. According to the knowledge of respondents, parents of international students see rankings in "safety" and "environment" of the place as important; this is a plausible co-factor for decision-making – if the rankings have relevant indicators and reliable data for the requested features.

From the interviews it can also be concluded, again without apparent differences between the six sample universities, that the presence and broad public appeal of the various global league table rankings appear to apply pressure to the sample institutions to improve institutional capacities for systematically dealing with rankings; particularly they have established staff positions at the institutional level to regularly monitor and

analyse the positioning in rankings (see Table 2). In other words, the sample universities have been increasingly investing (though still to a moderate extent) in ranking analyses and systematic participation in rankings during the last (three to five) years. In general terms, according to the interviewees, the reason for this increase of investment is the competition-induced inevitability for dealing with rankings and the expectation that having high ranking positions raises the institution's visibility, may enhance its prestige, and therefore its attractiveness for quality students and academics.

The main question in this study is how universities' handling of rankings interrelates with the institutions' governance: What is the role of rankings in the interplay between institutional autonomy, accountability and competition? The interviews reveal that the sample universities use rankings mainly for the fulfilment of competitive and political accountability: occasionally, against international (usually Asian) cooperation partners (usually only at request); regularly, against higher education politics (always slightly concerned over potential threats of over- or misinterpretation, although, ranking results do not influence the allocation of public universities' budgets in Germany); occasionally, towards society insofar as ranking results are communicated to a broader public via websites, press releases, etc. (accountability is combined with self-advertising).

For a large and traditional sample university, rankings – THE, QSWBU, ARWU, CHE, EU-Multirank, CWTS Leiden, USNBGU, NTU, DFG Funding Atlas (see Table 1) – play no role in institutional strategy. Four universities say that rankings play a role, but without having formulated a clear target with respect to ranking positions. A smaller, specialized university formulated the goal of reaching the Top 100 in THE (Table 6). However, as further data show, these alleged strategic roles are rather informal, implicit and diffusive.

Table 6: Rankings' role in institutional strategy

Rankings play a role in institutional strategy	Relative proportion of sample universities
Yes, clear target formulated with respect to position in national rankings	0/6
Yes, clear target formulated with respect to position in international rankings	1/6
Yes, no target formulated with respect to position in rankings	4/6
No	1/6

Actually, it turns out that, in the respondents' view, only very few strategic actions are causally influenced by ranking results (see Tables 7 and 8), because of the methodological weaknesses of the rankings, particularly high aggregation levels of data and unreliable measures of performance quality. One smaller sample university plans to document ranking results in future Structure and Development Plans; however, no

strategic actions are planned. Two smaller universities report that in few specific cases, CHE Ranking results triggered a revision of student entry criteria (attenuated entrance test) and improvements of study programmes and student housing. The other three universities did not mention anything in this respect (Table 7). The strongest reported strategic action triggered by ranking results is to "have a critical discourse with ranking organisations" (Table 7). For all sample universities, "systematic quality management and the German Excellence Initiative are much more important than the competition over rankings." Therefore, it is important to remain strong in research; high ranks in global league tables are then an emergent effect.

Table 7: Strategic actions taken because of ranking results

Strategic actions taken because of ranking results	Relative proportion of sample universities
Inform strategic decisions (occasional or case-related)	0/6
Revise policies	0/6
Prioritize research areas	0/6
Change recruitment and promotional criteria	0/6
Revise formal procedures	0/6
Change resource allocation	0/6
Establish departments/entities/programmes	0/6
Revise student entry criteria	1/6
Improve study programmes	1/6
Improve student situation (e.g. housing)	1/6
Close or merge departments/entities/programmes	0/6
Merge with an external organisation	0/6
Recruit new scholars to improve academic staff/student ratio	0/6
Develop capabilities of post-doctoral staff to improve academic staff/ student ratio	0/6
Invite prize-winning scholars to improve Award category	0/6
Increase number of international scholarship	0/6
Set incentives for more publications of academic staff	0/6
Set incentives for more quality publications of academic staff	0/6
Adapt quality measures/indicators to indicators of ranking organisations	1/6
Have critical discourse with ranking organisations	4/6
Include ranking numbers in Structure and Development Plan	1/6
Other	0/6

The universities' ranking experts were also asked whether certain aspects of university performance are influenced by ranking results to the positive ("helped"), to the negative ("hindered") or not at all ("no influence"). It turns out, that no respondent thinks that ranking results hindered university performance (Table 8, middle column). Most respondents think that four types of performance are supported by high ranks: enhance the public image; establish academic partnership; foster international collaboration; improve income (Table 8, left column); two lower ranked universities assume that rankings have no influence on these performance items (Table 8, first three lines of right column). Every, or almost every university representative thinks that all other performance aspects are not influenced by ranking results (Table 8, below third line of right column); particularly, no influence of rankings is observed on methods and contents of teaching and learning; change of criteria in recruitment of researchers, teachers and students; update of research methods (Table 8).[5]

Table 8: Influence of ranking results on university performance

University performance	Relative proportion of sample universities		
	Ranking results helped	Ranking results hindered	No influence of ranking results
Enhance public image	5/6	0/6	1/6
Establish academic partnership	4/6	0/6	2/6
Foster international collaboration	4/6	0/6	2/6
Develop internal quality assurance	1/6	0/6	5/6
Set research priorities	1/6	0/6	5/6
Improve staff morale (e.g. general atmosphere; staff motivation)	2/6	0/6	4/6
Develop teaching and learning methods	0/6	0/6	6/6
Increase industry partnership	2/6	0/6	4/6
Attract benefactors and sponsorship	2/6	0/6	4/6
Design teaching and learning contents	0/6	0/6	6/6
Change criteria or processes in the recruitment of researchers	0/6	0/6	6/6
Change criteria or processes in student recruitment	1/6	0/6	5/6
Improve income	3/6	0/6	3/6
Update research methods	0/6	0/6	6/6
Change criteria and/or processes in the recruitment of teachers	0/6	0/6	6/6
Establish flexible study paths for lifelong learners	0/6	0/6	6/6
Other	0/6	0/6	0/6

[5] It has to be pointed out again that the universities do not have systematic impact analyses so far.

Based on the above results, it must be concluded that the influence of the ranks of the universities on their institutional autonomy is very modest, indirect and diffusive. Their missions, visions and goals as large, complex and hybrid, autonomous organisations, which are accountable to many different stakeholders, are not considerably influenced by rankings, particularly global league tables. This is in accordance with similar results in research-intensive universities in the Nordic region *(Elken et al. 2016)*, but in contradiction to claims of some international research *(Hazelkorn 2016, pp. 276–277),* beliefs of close advocates of rankings *(IREG 2015, pp. 4 ff.)* and probably some universities in countries which are more keen on rankings, for example in the USA, UK and Australia.

In fact, according to the interviews, "methodological shortcomings make it impossible to use rankings as the basis for strategic decisions." For the sample universities, rankings do not implement reliable quality checks and therefore do not provide a basis for substantial action towards systematic quality improvement. Thus, current rankings cannot be reliably used in quality improvement cycles which are characterised by the iterative phases of setting development goals *(plan),* striving for the goals *(do),* testing the goal achievements *(check)* and taking measures to further improve goal achievements if necessary *(act)* (Deming cycles or pdca cycles). Thus, university rankings as we currently know them cannot be integrated in decision-making and strategy formation by higher education institutions with their complex performance qualities; this also implies that, in general and based on actual performance improvements, ranking ranks cannot be aspired to systematically.

For the surveyed universities, "what really counts is quality improvement, not rankings." Furthermore, "any improvement in ranking positions should and could only be a side-effect of quality improvement" (and certainly not vice versa). For university strategy and development, subject-oriented profiles related to tradition, developmental goals in the various performance areas, client/customer demands; funding programmes (for "excellence"); third-party funding; public financial constraints; higher education policy decisions and regulations are the important factors – but not rankings. In accordance with this understanding, rankings are usually neither explicitly mentioned in mission statements *(Leiber 2016)* nor in structure and development plans of the sample universities.

4 Conclusions

Reflecting the above empirical results and arguments, the following conclusions can be summarised: firstly, rankings cannot contribute to systematic enhancement of institutional autonomy because current rankings' results cannot be integrated in strategy and decision-making. The reason is that they are highly aggregated and in many respects not sufficiently reliable measures of performance quality, and therefore cannot provide the basis of checkable improvement activities. Secondly, for the same reason ranking results alone cannot serve empirically reliable accountability needs (though such a function is often assumed or favoured by certain stakeholders). None of the three functions of accountability mentioned in Section 2 above (constraining arbitrary power; sustaining quality of performance; regulating institutions' activities) can be fulfilled by current university rankings without further substantial information. Thirdly, like many other quality assessments, rankings do usually not fulfil certain quality criteria of accountability *(Stensaker/Harvey 2011, p. 15):* rankings alone do not give a consistently fair assessment of performance; they are often not open for feedback and dialogue; because of their methodological weaknesses and possible misinterpretations, it is at least controversial whether they have a trust-building effect. Fourthly, rankings can contribute to reputation enhancement which is their main function. Therefore, fifthly, they can play a part in competitiveness enhancement, although on a rather superficial level. Sixthly, rankings could have several possible hoped-for, medium-term and long-term, competitive effects which have not yet been systematically observed in the sample universities (e. g. increase in number and internationalisation of students and staff; improvement in employment prospects for graduates; increase in research productivity).

Thus, the following believes of the International Ranking Expert Group (IREG) cannot be confirmed for the sample universities (which may be regarded as representative for the German higher education system with some informal justification): "educators have accepted" rankings "as a method of quality assessment" *(IREG 2015, p. 3);* "governing bodies of institutions of higher education use rankings" "to select indicators for improving management, to determine policies to achieve excellence"; "governments use rankings as a quality assurance tool" *(ibid. p. 4)*. In contrast to the expectation of some observers of the scene, the sample universities do not at all establish different strategies for the handling of rankings (actually, they all give the same responses about the strengths, weaknesses and threats of rankings), although they differ quite a lot in their ranking positions and other properties (such as being funded by the German Excellence Initiative; size, subject fields and profiles).

All in all, it seems obvious that (global) rankings can influence the decision-making and strategy of universities only in very moderate and indirect ways: the sample universi-

ties, for example, do not (and cannot) usually directly respond to league table rankings with strategic measures and actions, but only through methodological (and legitimate) adjustments of data processing and provision, i. e. by professionalisation of data supply to the ranking organisations. Though, understandably, universities, particularly their leadership, welcome high ranking positions, academic and quality management staff nevertheless regard them as a by-product and rate other and more specific and reliable performance assessments as far more important which are transparently related to quality enhancement. Accordingly, the sample universities' reactions to rankings do not challenge in any sense their organisational identities. In view of the methodological shortcomings of rankings, this can only be welcomed – and is in good agreement with the concept of *"The New Flagship University" (Douglass 2016)*. In this sense, the sample universities are on their way towards competitive, responsible organisations based on institutional (academic; staff; financial) autonomy which makes them, in a moderate sense, integrative "entrepreneurial" universities *(Sam/van der Sijde 2014, pp. 901–902)*. Here, league table rankings play their ambivalent and limited role with respect to contributing to competition and accountability functions of integrative university governance in sufficiently reliable ways.

In view of the non-usability of current rankings in systematic university strategy and quality enhancement, one may summarise: the more fine-grained and less aggregated rankings would be, the more promising would be the options to integrate ranking results into strategy and decision-making which should be systematised by Deming (pdca) cycles for systematic quality enhancement. The price for this hoped-for increased relevance of rankings for strategic governance, however, would be significantly increased methodological efforts that would have to be invested into more fine-grained and less aggregated rankings – efforts which, in view of the expected benefits, are probably too costly for any participant in the ranking game.

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