Ranking - A Useful Tool for University Governance

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Abstract: Innovative management of higher education in Vietnam is supposed to be connected with the mission and strategic governance. Practically, it is realized through the management of core indicators concerning the education, research quality and the internationalized level. In this case, the participation in the international university ranking leagues not only helps contribute to the world higher education integration but also the university benchmark. However, this should be performed in terms of the university mission. This paper focuses on the determinants of quality, quality measurement and relationships between mission and quality, quality and ranking, ranking and mission. In particular, in the epode of information society, innovative management is efficiently supported by bibliometrics analysis. Vietnam National University, Hanoi can be considered as a case study for this approach.

Keywords: Quality, mission, ranking, bibliometrics.

1. Introduction

Higher education in Vietnam has been developing rapidly in recent decades in terms of the number of universities (public and private), student population size, reducing the gap with regional and international higher education, contributing to the research outputs in the region and the world over as well as the country's socio – economic development. However, the quality and a long term strategic development of Vietnam higher education are still heated issues that should be urgently solved. There are a lot of recommendations, ideas and solutions relating to the development of Vietnam's higher education put forward by many experts and scholars from different areas throughout the country. Perhaps, the idea that innovation of higher education should begin with the innovation of management seems to be paid much attention to and supported recently. In this trend, innovative higher education management is supposed to connect with the governance of the university's mission and strategy and the use of university ranking as a managerial tool for quality management in coherence with university's mission and strategy.

Every university states its mission which addresses who that university is and what the university does. From the mission statement, the quality of university is reflected in the way that university describes who they are (regular or high standard institutions...) and how well they do things (doing outstanding research, providing high quality human resources...).

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Therefore, when a university prepares its own mission, this also means that it defines what quality would be addressed in the overall activities. Vietnamese universities have their own missions, which are reviewed after a certain period to meet the requirements of the country's development and internationalization. However, Vietnamese universities have been facing two popular issues: (i) defining quality in coherence with the mission and (ii) controlling university's activities in line with the mission.

Global university ranking is now knocking the doors of all universities in all over the world and they are likely to substantially influence the long-term development of higher education across the world (Marginson, 2007). Universities in Vietnam have been paying more attention to international university rankings. Leading universities have set their strategic goal to be one of the top 200 universities in Asia and the top 500 universities in the world by the prestigious world ranking tables. Vietnam National University Hanoi (VNU – Hanoi) is one of those. Playing the role of a leading university in higher education in Vietnam, VNU – Hanoi is the first higher education institution to bring university ranking experience and knowledge to higher education in the country and one of few institutions to be ranked by international ranking organisations. Few years ago, while other Vietnamese universities were approaching ranking as observers, VNU – Hanoi already used ranking results and ranking methodology as quality assurance tools for benchmarking to improve the whole quality of the institution to reach international standards.

Improving university quality in accordance with the university's mission – the common trend of global university rankings has been considered as a goal and a tool for the innovative management for further development in the internationalized context. Over the last years, VNU – Hanoi has actively and positively moved in that direction. This paper will present some achievements and point out certain experiences that may be useful for other Vietnamese universities in their future development.

2. University quality

2.1. Concept of quality

From early 1990s, higher education quality has been paid much attention to and become an important issue, received much debate (Harvey, 2006). Quality in higher education is a complex and controversial concept, which can be seen from different approaches (academic, teaching, learning, research...) and has been described in different ways depending on the purposes. Harvey (1995) identified five broad approaches to define quality in higher education: exceptional, perfection, fitness for purpose, value for money, and transformation. Fitness for purpose is the approach that is most favoured by a number of institutions, agreed by most of academics, promoted by a number of stakeholders and fitness – for - purpose view of quality that currently prevails may not be surprising but is important nonetheless (Watty, 2006).

Since the ideas of total quality management (Tenner and Detoro, 1992) and system approach, Cheng (1995a) defined education quality as follows: "Education quality is the character of the set of elements in the input, process, and output of the education system that provides services that completely satisfy both internal and external strategic constituencies by meeting their explicit and implicit expectations". By that way, the concept of education quality will involve the characteristics of input, process, output and multiple constituencies of an education institution. This concept can support for the fitness – for - purpose view of quality by considering that a system of input, process and output is set to facilitate the "purpose" of a university; eventually, when purpose is complete, all the stakeholders are satisfied.

Quality is also seen as procedure of transformation to enhance and empower

students (Harvey & Knight, 1996). The interrelationship between quality and transformation has been explored by empirical research from the perception and experience of academics and students (Cheng, M. 2014). Both approaches on quality relate to quality of student/graduate – "output" and academics – faculty. When the purpose of a university is clearly stated, then the quality of student/graduate and academics is the transformation to meet the purpose.

According to the British Quality Assurance Agency – QAA (on its website) quality is "academic quality", thus: "A comprehensive term referring to how, and how well, institutions manage teaching and learning opportunities to help students progress and succeed". In this concept, quality is a process of teaching and learning management with results being not only "students" but the contribution of university management to achieve the quality of students.

Brooks (2005)'s research on the university quality measurement was based on the definition of university quality which focuses on three aspects, such as reputation, faculty research, and student experiences (student outcomes).

Gibbs (2010) adapted Biggs's '3P' model (Biggs, 1993) to design dimensions of quality, which is 'presage', 'process' and 'product'. Dimensions of presage are funding, staff: student ratios, the quality of teaching staff and the quality of students. These factors are the inputs of a university. Process dimensions include class size, class contact hours, independent study hours and total hours, the quality of teaching, the effects of the research environment, the level of intellectual challenge and student engagement, formative assessment and feedback, reputation, peer quality ratings and quality enhancement processes. And, product dimensions consist of student performance and degree classifications, student retention and persistence.

WR Hume (2015) looks at university quality with seven primary determinants: mission, community of scholars, governance, leadership, management, planning and evaluation and university activities (to fulfil the mission). These seven determinants are also indicators of many university rankings. Thus, this approach can easily support the university innovation of management by building strong links between university mission, quality and use of university ranking as a tool to implement quality, improve quality. The following sections will focus on quality with seven determinants of WR Hume to measure and explore the relationship between missions - quality; quality - ranking; and mission – ranking.

2.2. Quality determinant

2.2.1. Mission

The mission of a university is what a university wants to become and plans to be (WR Hume, 2015). By that, university mission statement is an important strategy and communication element because mission would present university purposes, scope of activities and include principles, values which create public image and motivate stakeholders. The components of a university mission statement are : industry, services, desired public image, concern for satisfying customers/target students, concern for employees, geographic scope, values/philosophy, motivational message of excellence or unique identity, benefit to society, distinctive competence, future orientation, and academic objectives, activities of organizations, it (the statement ?) includes principles and values which create (Genç, K. Y., 2012).

The mission plays the role as a managerial tool which has the power of directing the behaviour in companies. The development and the existence of a mission statement and its communication across and beyond companies' borders might lead to an increase in companies' performance (Dermol, V. 2012). Indeed, a simple and good definition of quality in a

university is how well the mission is achieved because the mission closely guides all university decisions and actions to achieve the purpose and complete the image that it wants to be (WR Hume, 2015). When assessing a university at a programme level, it is required that "the programme reflects the vision and mission of the university" (Criterion 3.2 of AUN-QA standard, AUN-QA, 2011). Thus, a mission should be persistent, applicable and can also be reviewed in a certain period of time to be sure it is suitable for the university and community it serves.

Therefore, the mission is considered as the first criterion of university quality. At the very beginning, a university often determines and states its mission, then transfers it into all of its activities to accomplish their goals.

To measure a mission, it is qualitative rather than quantitative. However, a well-structured review can well judge the quality of both process and outcome. Good accreditation processes also seriously look at the mission; so do well-structured quality assurance processes.

2.2.2. Community of scholars

Each university is a community of scholars, including faculty, staff, students, graduates and alumni. Faculty, staff, students directly involve in academic activities such as researching, teaching, community serving and many other responsibilities that accompany these basic functions to produce all of academic outputs and achievements. These groups critically decide performance and successes of a university. The graduates and alumni are products of a university, they are the ones who best identify and support the institution for the remaining of their lives. Moreover, because of working in a broader community, alumni also define and determine the reputation of the institution in their domestic community and beyond the border of their country.

Therefore, the quality of scholars' community is contributed by the quality and capacity of people who join the community, therefore the quality of a university is

contributed by the quality of faculty, staff, students, graduates and alumni.

The quality of students is measured by student's admission and students' achievements during their study. The proportion of international students is also taken into account when assessing quality of students by some ranking organisations. In QS ranking methodology, to assess a university for ranking, the proportion of international students is one indicator which takes 2.5% of the total score.

The quality of faculty and staff is measured by their profile such as the proportion of staff with Master's degrees and faculty with PhD degrees; the proportion of international faculty; student/faculty ratio. The quality of faculty is also measured by measuring their research performance, such as the proportion of publications per faculty; the number of Nobel Prize and Fields Medal winners. In assessing quality of university, especially academic quality, quality of faculty and staff is the most important indicator and take the main weight. Indeed, in the ranking methodologies of many ranking organisations, indicators related to faculty take more weight than other indicators. In the world ranking university methodology 2015 of AWRU[1,] the quality of faculty is measured by a half of set of indicators (two among four indicators) with 80% of the total score.

The quality of graduates and alumni is often measured by the proportion of their employment and successes and even prizes they get after graduates. That's why in world ranking university methodology 2015 of AWRU, the quality of alumni is assessed by an indicator which takes 10% of the total score: "Quality of Education is measured by winning Nobel Prizes and Fields Medals of alumni".

2.2.3. Governance

Governance has become a major leverage tool for improving quality in all aspects of

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[1] http://www.shanghairanking.com/ARWU-Methodology-2015.html

higher education (Henard & Mitterle, 2009) that the leadership uses at the university with the participation of all stakeholders to guide and monitor the implementation of the university's objectives and mission. There are five elements in university governance (Boer, Enders and Schimank, 2007) such as State's regulation, stakeholder guidance, academic self-governance and competition. University governance also is faculty governance, stakeholder governance, corporate governance, trustee governance (Leon Trakman, 2008 in Hénard & Mitterle, 2010). Whatever models that an institutional applies, the participation of stakeholders is important in governance. Faculty participation is important in decisions where faculty members have better information and better incentives than administrators or trustees (Brown Jr., William O. (1999). Therefore, how strongly the community of scholars participates in governance should be a key determinant of quality.

However, a university is also influenced by the input from external bodies and environment such as external community, business, and government. There is a fine balance between linkage with external stakeholders, including government; hearing and being responsive to their point of view; and avoiding interference by them in what the academic community does. Thus, a strong role for the community of scholars in governance helps to maintain that balance. The culture of an institution and the culture in which it operates will each influence how governance structures operate and evolve.

The governance structure is designed for a university to fulfil the mission, and then it chooses and monitors leadership who operate governance system by processes and tools.

The quality of governance is best measured by reviews. Again, good institutional accreditation and quality assurance processes also evaluate that.

2.2.4. Leadership

Leadership can be defined as the process that managers use to influence subordinates to work toward organisational goals (Hirtz and others, 2007). In another approach, leadership at all levels is conceptualized as organisational quality (Rodney & Steven, 1995). Therefore, it can be said that, at a university, good leadership can enhance quality but bad leadership can damage it (WR Hume, 2015). Indeed, it is the leadership that plays an important role for quality management implementation (Edward Demming, 1986). Leadership uses management tools to guide all activities to achieve the university's mission, therefore leadership decides on the successes of a university. Leadership also contributes to the development of the university culture. Thus, the quality of a university such as achievements and successes is the quality of leadership.

However, since being elected gives a leader a lot of leverage, a lot of ability to change things in the university. To have effective university leadership requires clear delegation of authority, and clear accountability (WR Hume, 2015).

The quality of leadership is also best measured by structured reviews of the university vision, mission, achievements, successes, behaviours, and assessments by staffs.

2.2.5. Management

University management can be based on policy, delegation, accountability, budgeting, and audit, rather than management by decrees.

Management quality can be measured by an ongoing basis through institutional research processes, ISO, quality assurance system, accreditation with self-assessment and external review tools.

2.2.6. Planning and evaluation

The duo of planning and evaluation are the last general characteristics necessary for enhancing university quality. The essential underpinnings for quality, for success are strong, ongoing, inclusive planning processes with all the engagement and contribution of the governance, leadership, and management chain, and including the community of scholars. Evaluation is necessary to give feedback

information for the planning and implementation to go on the right track to meet the goals and achieve the mission.

Planning and evaluation processes, which in a sense are parts of good management. Good and inclusive planning is also an essential part of leadership.

2.2.7. Quality measurement

To measure and enhance university quality, there are five mechanisms that university can use. They are institutional research (IR), reviews, accreditation, ranking, and self-assessment (a part of quality assurance). The following focuses on using ranking to measure quality by discussing the relevant relationship between mission, quality and ranking, ranking.

3. Relationship between mission-quality-ranking

3.1. Mission and quality

As was mentioned above, the mission of a university is what a university wants to become and plans to be, thus an essential component of defining a mission also is defining how successes will be measured and a simple and good definition of quality is how well the mission is achieved.

Mission is a criterion for university quality assessment. In Vietnamese quality standards for higher education (Decision No 6, March 04, 2014 on promulgating regulations on standards of education quality assessment), the 1st standard is about the "university mission". In the mission, a university has to demonstrate that it has a clear mission statement and this mission must be well organised by all stakeholders of the university.

In the quality standard of AUN–QA2, the quality of education programme in a university is assessed by how the mission is transferred into education programmes at Standard 3; Criterion 3.2 assesses how "the programme reflects the vision and mission of the university".

Being one of the two leading universities in Vietnam's higher education VNU–Hanoi has its mission as: "producing high quality human resources and cultivating talents; promoting advanced science, technology, renovation and knowledge transfer; and playing the role of a pioneer in Vietnam's higher education reform. This Mission is transferred into education programmes and research development at VNU-Hanoi. Over the last decades, a system of quality assurance and advanced governance has been developed in VNU-Hanoi in order t to achieve its mission.

VNU-Hanoi's mission is realized through the quality which in its turn is determined by the successes of graduates with high employment rate; research outputs with high publications in ISI and Scopus journals, good citation and H index; increasing number of successful innovations and knowledge transfers. According to Scimago Lab, in recent years, VNU–Hanoi is the leading university in Vietnam in terms of research outputs (research publications).

Therefore, mission implementation and monitoring is an approach to develop and assure the quality for all universities.

3.2. Quality and ranking

Ranking organisations have their own ranking methodology to assess and rank universities in the world by their quality in certain areas or their overall activities. Ranking methodology is a set of indicators to assess quality and performance of universities which may cover all of the university quality determinants or just a part of them.

However, each ranking methodology may focus on certain areas and some determinants of success for universities which align well with some ranking systems, but some do not. AWRU[3] which assesses and ranks the world universities by using six objective indicators

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[2] Asian University Network – Quality Assurance.

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3 Academic Ranking of World Universities, Shanghai Jiao Tong University.

focuses more on academic performance, including the number of alumni and staff winning Nobel Prizes and Fields Medals, number of highly cited researchers selected by Thomson Reuters, number of articles published in journals of Nature and Science, number of articles indexed in Science Citation Index - Expanded and Social Sciences Citation Index, and per capita performance of a university; Scimago Lab which assesses the world research institutions focuses more on scientific productivity, including Output, International Collaboration, Normalized Impact, High Quality Publications, Specialization Index, Excellence Rate, Scientific Leadership, Excellence with Leadership, Scientific talent pool; while Quacquarrelli Symond (QS) tends to assess universities more comprehensively with indicators like academic reputation, employer reputation, student-to-faculty ratio, citations per faculty, international faculty ratio & international student ratio.

Quality furthermore needs standards (Van Kemenade *et al*, 2008), thus ranking indicators can be used as standards and benchmarks for universities to enhance quality and performance to participate in the ranking or just to have better quality.

VNU – Hanoi uses both ranking indicators as quality standards and ranking results as benchmarks to improve quality. Annually, QS Asia ranking indicators are used as quality standards for determining actual quality of all areas (teaching, researching, services...), in order to select areas for investment priority and gradually improve quality of all areas. Besides, VNU – Hanoi studies selected universities among top 500 world or 200 regional universities, study their performance and index in research and teaching to do the benchmarking with VNU – Hanoi's performance every year. From benchmarking, the gap between the performance of VNU – Hanoi and that of those universities would be expolored, the low areas at VNU – Hanoi are reveals from benchmarking. Then, benchmarking results are used as ones of the

important bases for annual academic planning with quality improvement focus.

In 2013, from studying several higher classifications (Carnegie Classification, Amano's classification and research university by Association of American Universities), ranking methodologies (QS stars indicators, SIR) and features of Vietnamese universities, VNU – Hanoi has built "Research university criteria" enclosed the guidance on assessing institution's performance annually. This is used as a managerial tool for VNU – Hanoi to promote member universities, institute and research centers became research institutions by benchmarking with this set of criteria. The university criteria includes four main standards with twenty nine criteria. They are, Research performance and knowledge transference (500 score, 14 criteria); Teaching quality (400 score, 9 criteria); Internationalization (50 score, 3 criteria); and Infrastructure and facilities for research and teaching (50 score, 3 criteria). In the most important Standard, Research performance and knowledge transference, the main activities of a research higher education institution are covered by fourteen criteria (see the Table).

Each year, six VNU – Hanoi member universities and three research institutes self-evaluate and specify their "low" areas that need to be invested and improved and find out the levels of research institution that they have achieved by benchmarking using VNU Research university criteria. Recently, the evaluation on research university criteria of 2015 reveals three different groups by their scores: Group 1 with VNU Hanoi University of Science, VNU University of Social science and Humanities and VNU University of Engineering and Technology have reached 600 – 800 scores; Group 2 with VNU University of Economics and Business, VNU Institute Francophone International and VNU Information Technology Institute have reached 500 – 600 scores; and Group 3 with VNU Hanoi University of Languages and

International Study, VNU University of Education and VNU Institute of VNU Institute of Vietnamese Studies and Development Sciences have achieved 300 – 400 scores (over total of 1000 scores). These results serve not only as information for management in monitoring the development of each member institutions to be research institution but also a potential basis to apply the higher education stratification to VNU – Hanoi member institutions in the future.

Table. Standard 1, Research performance and knowledge transference (from Guidance on Research University Criteria, No 1206/HD-DBCLGD, Apr 23rd 2013)

No	Standard/ Criteria	Index			Weights (Score)
		Top 500 world research university	VNU Hanoi 2013	VNU Hanoi 2015 (top 200 Asian university)	
1	Average number of publications national and international journals per academics annually	≤ 2	0,5	1,0	20
2	Number of publications ISI and or/Scopus per academics in latest 5 years	≤ 5 publication (01 for social science)	0,3	0,5	80
3	Number of citation/publication in latest 5 years	At least 5	1,2	2,0	80
4	Reference books/year	10	1-3/member institution	3/member university (2 for social science; institute, research center)	20
5	Outstanding research output at national and international level annually	10	< 1/member institution	1/ member university (0,5/institute, research center)	50
6	Number of national or international research prizes of academics and students in latest 5 years	10	< 3/member institution	≤ 5/ member university (1/ institute, research center)	30
7	Number of academics have been invited to present at national research conference annually	≤ 2 /year/department, discipline	< 1 paper/ institute, research center	≤ 2 paper/ institute, research center	10
8	Number of academics have been invited to present at international research conference annually	≤ 1/ year/department, discipline	< 0,3/ institute, research center	≤ 2 paper/ institute, research center (0,5 for social science)	20
9	Research and knowledge transference and total budget ratio/year	≤ 50% (25% for social sciene)	20%	45%	60

10	Research service knowledge transference and total research budget ratio/year	≤ 30% (15% for social science)	5%	22,5%	10
11	Patents are is recognized each year (Policy consultation regarding social science)	≤ 5 international patents, 20 national patents	< 0,5	≤1 national patent/member university (0,5 for institute and research center)	30
12	University – industry or local collaboration/year	≤ 5 research programme, project	< 1	≤ 2/ member university (1/ institute and research center)	20
13	Knowledge transference/year	05 research programmes, projects have been transferred/year	< 1	1/ member university (0,5 for institute and research center)	20
14	Academic reputation	≤ 75 positive responses by survey from rankings	< 20/group of disciplines	50/group of disciplines	50

* Member institutions including member university, institute, research center.

Being research-focused institution, VNU – Hanoi has made a lot of efforts to improve the quality and products of its research, one of those is select proper ranking table as a tool. VNU – Hanoi uses Scimago Institutional Ranking (SIR) indicators as one way to enhance its research quality among many others since SIR focuses on research, innovation and web visibility indicators to characterize world institutions. SIR uses Scopus database (Elsevier) to analyze and ranks the world research institutions, therefore, VNU – Hanoi encourages researchers to publish in not only ISI but also Scopus journals. Then, every year, VNU – Hanoi uses SIR indicators and results for analyzing research output to assess the effectiveness.

Besides, VNU – Hanoi also use bibliometrics as an effective tool in renewing the research management. VNU – Hanoi has applied quantitative analysis and statistics to analyze publications such as journal articles and their citation counts to evaluate research performance evaluation, and explore the impact research field, the impact of a researcher of a particular paper. By combining bibliometrics with the benchmarks given by ranking result study, research performance of an individual

researcher, a member university, a research institute/centre of VNU as well as VNU – Hanoi as a whole is assessed. Research programmes and research projects at VNU – Hanoi are also evaluated by bibliometrics, such as number of publications published on ISI or Scopus journals, the impact from those publications (citations, paten cited from these publication...).... Then, these assessment/evaluation results are used for annual research planning with investment priorities, allocating funds to all levels in VNU (researcher, member university...)... Researchers and research groups at VNU – Hanoi are also encouraged to use bibliometric tool to evaluate international researchers in the same research areas to look for research partners and collaborations. By applying those tools and innovation in research management, VNU – Hanoi is the leading university in Vietnam for research output assessed by SIR in recent years.

The relationships between quality and ranking are not simple, ranking helps with tools that not only measure quality but also to improve quality. In returns, when quality is improved, the rank would also be improved.

3.3. Ranking and Mission

To best use ranking for achieving its goals and mission, a university should select the ranking system that aligns well with the mission. Since a university's mission is related to stakeholders, it should make stakeholders fully aware of the choice and the reasons to choose that.

A university should have good management on data of areas that contribute to measuring quality as determinants discussed above. Database is not only for the ranking organisation(s) to allocate a university in the world map but also for bibliometrics and other management tools. Finally, after applying all that mentioned above, to continue pursuing ranking can be a very valuable contributor for a university to improving quality.

VNU – Hanoi is a research-oriented university which focuses on "promoting advanced science, technology, renovation and knowledge transference". For the time being, Scimago Institutions Rankings is our choice because its main aim is to "characterize research outcomes of organizations so as to provide useful scientometric ranks to institutions, policymakers and research manager" to be "able to analyze, evaluate and improve their research results". A set of nine indicators in research and two indicators in innovation from SIR are used as our research quality standards and also tools for evaluation and measurement of research performance for quality development.

4. Conclusion

Quality is important to universities in the era of knowledge-based economy. When ranking is now a common trend in higher education in globalization context, the innovative management at universities should be approached from looking at quality, mission and ranking in its relationship: mission–quality, quality–ranking and ranking–mission with support from analysed tools such as

bibliometrics. In that meaning, pursuing ranking can be a very valuable contributor for universities to improving their quality. VNU–Hanoi has moved in that direction and has recorded encouraging results especially in research performance.

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