Impact of University Evaluation on Education and Research

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Introduction

In Japan, the "Standards for the Establishment of Universities" set by the Ministry of Education have long been an important tool for assuring the quality of higher education. However, under the recent trend of "beforehand regulation to afterward checking" in higher education policy in Japan, "evaluation" has become a crucially important tool for quality assurance of higher education institutions. In 2004, evaluation by a certified evaluation organization became mandatory for all universities. In the same year, all national universities became national university corporations, and evaluation by the National University Corporation Evaluation Committee (NUCEC) became mandatory for all national university corporations. The implementation of university evaluation is now having a great impact on education, research, management and other activities of Japanese higher education institutions. Since the NUCEC's provisional evaluation of medium-term period goals will be implemented for the first time next year, all national university corporations are now striving for improvement of their education, research, management and financial systems.

In this paper, I will first look at the history of quality assurance of higher education and the background to the emergence of a range of university evaluation systems in Japan. Second, I will briefly explain the system of evaluation by a certified evaluation organization. Third, I will describe the design of the evaluations of national university corporations, including evaluation of education and research implemented by National

Institution for Academic Degrees and University Evaluation (NIAD-UE), and overall evaluation by the NUCEC. Finally, I will consider the current and future impact of university evaluation focusing especially on the recent changes in national university corporations.

History of Quality Assurance of Japanese Higher Education Institutions

(1) Strict Establishment Approval as a Tool of Quality Assurance

In Japan, the national government, especially the Ministry of Education, has long accepted responsibility for the quality of higher education through strictly authorising the establishment of schools and programmes of national, public and private universities. Since 1956, along with the regulations related to higher education specified in the School Education Law, the "Standards for the Establishment of Universities" set by the Ministry of Education has been the basic standard for universities in Japan. Based on the Standards for the Establishment of Universities, the Council for University Establishment at the Ministry of Education assesses the quality of plans for the establishment of schools and programmes. The establishment approval is conducted by the Minister of Education, respecting the council's report. Until 1991, the standards have contained detailed requirements concerning the curriculum, organisation of academic staff, facilities and other items. Accordingly, the establishment approval system has contributed to the exclusion of institutions that do not meet the standards expected for higher education institutions. However, the establishment approval system can only assess the plans before establishment, and thus it cannot assure the quality of institutions after the approval has been obtained (OECD, 2006). Although Ministry of Education inspectors occasionally visit and supervise the activities of higher education institutions, quality assurance in higher education is the responsibility of each institution's autonomous efforts (Yonezawa, 2002).

(2) Deregulation of the Standards for the Establishment of Universities and Introduction of Certified Evaluation and NUCEC's Evaluation

In the late 1980s, influenced by the globalisation of society, economy and culture, higher education institutions were required to change their schools and programmes in accordance with these social changes. In this new era, the detailed regulations in establishment approval have become obstacles to higher education institutions' drastic and swift reforms. In 1991, the Standards for the Establishment of Universities were

generalised and this made it easier for universities and junior colleges to change their curriculum and organisation of faculties. At the same time, in order to maintain the quality of universities, all private and public universities were charged with the responsibility of making the effort to conduct a self-examination and self-evaluation. Later, in 1991, for more effective quality assurance, undertaking self-examination and self-evaluation became an obligation of all higher education institutions.

With the background of regulation reform transition "from beforehand regulation to afterward checking", in 2004 the Ministry of Education, Culture, Sports, Science and Technology (MEXT) amended the School Education Law and made the Standards for the Establishment of Universities more flexible. As a result, many quantitative restraints were eliminated from the standard, and it became easier for universities to change their curriculum and to reorganise faculties (OECD, 2006).

At the same time, in order to improve the quality of universities, the MEXT introduced a "certified evaluation" system. All private, public and national universities are required to be evaluated by an evaluating organisation certified by the Japanese government, every 7 years. With the introduction of certified evaluation, Japanese universities are requested to undergo periodic evaluation by a third-party evaluating organisation and the evaluation results are made public. Therefore, each university is encouraged to improve its education and research quality, even after the establishment approval.

In addition, in FY2004, all national universities became "national university corporations" which are independent administrative institutions. MEXT establishes medium-term (6 years) goals for each national university corporation respecting the ideas it puts forward, and each corporation sets medium-term plans, which are authorised by MEXT. In order to promote each corporation's efforts for improvements in education, research and other activities and to express its effort to society, NUCEC established at MEXT, will evaluate each corporation's achievement of its medium-term goals at the end of the medium-term goal period (6 years).

Through the introduction of certified evaluation and NUCEC's evaluation, quality assurance of Japanese universities became a "two-pronged approach", consisting of the establishment of approvals by the administrative authorities providing the *ex-ante* evaluation, and third-party evaluations by the evaluation organisations providing *ex-post* evaluation (OECD, 2006).

Consequently, university evaluation in Japan now consists of three major evaluation systems: (1) self-examination and self-evaluation: (2) evaluation by a certified evaluation organization; and (3) evaluation by NUCEC.

Evaluation by a Certified Evaluation Organization (certified evaluation)

I would like to briefly explain the basic system of evaluation by a certified organisation, which is known as "certified evaluation". The certified evaluation comprises two kinds of evaluation. All universities are required to be evaluated by a certified organization on the overall situation of education, research, organisation, management and facilities of universities, once every seven years. In addition, all professional graduate schools are required to be evaluated on their curriculum, organisation of professors, and other education and research activities, once every five years. Each evaluation organisation conducts evaluations in accordance with "evaluation standards" defined by each institution. Through the process of evaluation, an organization (1) publishes evaluation standards, (2) assesses the self-evaluation conducted by a university, (3) implements site-visit, (4) makes evaluation reports and (5) discloses the result to the university and the public.

The MEXT approves an applicant for certified organisation, and certification is granted after consultation with the Central Council for Education. Until 2007, several organisations have been certified by the government, such as Japan University Accreditations, the Japan Institution for Higher Education Evaluation, the National Institution for Academic Degrees and University Education, the Japan Association for College Accreditation and Japan Law Foundation. Taking care of the diversity of higher education institutions, the certified evaluation system allows each institution to chose an evaluation organisation from those certified. Therefore the system is sufficiently respectful of universities' independence, autonomy and individuality (OECD, 2006). Up until April 2007, 140 universities out of 734 had been evaluated by certified evaluation organisations.

Evaluation of National University Corporation

(1) Subject of NUCEC's Evaluation

Next, I would like to outline the design and process of evaluations of national university corporations. Since FY2004, all national universities have become national university corporation. In order to improve the quality of national university corporations, and to fulfil their accountability to society, the National University Corporation Evaluation Committee (NUCEC) which was established at MEXT evaluates the achievement of the medium-term goals and plans at the end of medium-term goals period. NUCEC comprises persons with great insight into the

administration, education and research of universities, including experts from wide-ranging fields such as society, economy and culture. One chairperson is Ryoji Noyori, a Nobel Prize winner and a president of RIKEN, a major Japanese research organisation. In order to ensure fairness, committee members are not permitted to participate in individual evaluations of universities with which they have previous affiliations.

NUCEC requests the National Institution for Academic Degrees and University Evaluation (NIAD-UE) to carry out an evaluation of education and research from a specialist perspective, and respects those results. Importantly, NUCEC's evaluation are carried out on the degrees of each corporation's achievement of medium-term goals. Therefore, evaluation of national university corporations is not relative evaluation and does not aim to rank corporations.

In addition to medium-term evaluation, NUCEC annually evaluates the achievement of medium-term goals for the fiscal year, especially focusing on operational performance. However, with respect to the nature of education and research which takes long term to produce outcomes, NIAD-UE does not carry out an evaluation of education and research in the annual evaluation.

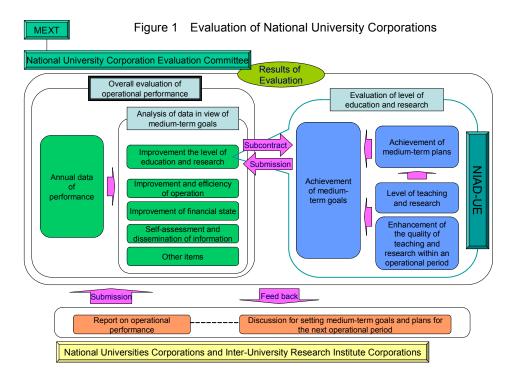
(2) Process of National University Corporation Evaluation

For more understanding, as Figure 1 shows, the process of university evaluation is as follows:

- ① MEXT sets medium-term goals for each corporation by respecting the ideas it put forward, and each corporation sets medium-term plans and an annual plan, based on medium-term goals.
- ② Each corporation carries out its annual plans and medium-term plans during the medium-term goal period.
- 3 Each corporation evaluates the achievement of its goals and plans and submits an evaluation report to NUCEC, at the end of medium-term goal period.
- ④ NUCEC assesses the achievement of those goals and plans; NUCEC analyses four items in view of medium-term goals: (1) improvement and efficiency of operation, (2) improvement of financial state, (3) self-examination activity and dissemination of information, and (4) other important items.
- ⑤ NUCEC subcontracts the evaluation of achievement of medium-term goals for education and research to NIAD-UE.
- ⑥ NIAD-UE conducts the evaluation on each corporation's achievement of medium-term goals for education and research and submits the result to

NUCEC.

- The Committee conducts overall an evaluation, respecting the result submitted by NUCEC
- NUCEC indicates the result to each corporation, and gives it an opportunity to state its opinion



 NUCEC revises the result if necessary and publicises it to the corporation and the public

After receiving the evaluation result, each university utilises the result to improve its education, research and other activities. In addition, evaluation results will be reflected in the content of subsequent medium-term goals and plans and in the allocation of resources for subsequent medium-term goal periods.

Basically, evaluation of national university corporations will be conducted at the end of medium-term goal period (FY2009). However, in order to reflect the result in the allocation of resources for subsequent medium-term goal periods (FY2010-2015), provisional evaluation of the achievement of medium-term goals and plans from FY2004 to 2007 will be conducted in FY2008.

(3) Evaluation of Education and Research by NIAD-UE

In the process of NIAD-UE's evaluation of education and research, first, each corporation evaluates the quality of its education and research of each department and graduate course, based on analysis and basic viewpoints. Five items of education are analysed: organisation for education, curriculum, method for education, achievement of education and graduates' situation. Each analysed item comprises several basic viewpoints, such as the management system necessary for the implementation of education, reacting to the demand of students and society, learning methods appropriate for the educational goals, academic ability and human resource capabilities developed, and graduates' employment (Table 1). In the process of self-assessment, each corporation will judge its education level according to whether each department's or graduate school's achievement meet the expectations of its stake holders. The "stake holders" are persons or organisations that directly or indirectly profit from the department's or school's education activities. For example, stake holders would include students, graduates, their families, employers of graduates and local communities to which the department or school are related (NIAD-UE, 2007).

Table 1 (1) Evaluation of Education and Research Activities by NIAD-UE

Analyzing items and bas	ic viownointe
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[Education]

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Analyzing items	Basic viewpoints			
Organization for education	Basic organization for education Management system necessary for the implementation of education			
Curriculum	Organization of educational programs Correspondence to the demand of students and society			
Method for education	Forms of instruction and teaching Learning methods appropriate for the educational goals			
Achievement of education	Academic ability and human resource capabilities developed Achievement of education evaluated by students			
Graduates' situation	Graduates' employment Graduates' capabilities evaluated by employers or academic society			

[Research]

Analyzing items	
Research activities	Condition of research activities
Achievement of research	Outcome of research activities

Analysing items of research consists of two items: research activities and achievement of research. Basic viewpoints include the condition and outcome of

research activities (Table 1). As with education, each corporation will judge its research level according to whether each department's or graduate school's achievement in research came up to expectations of its stake-holders. So far as research activities are concerned, members of academic societies, industrial circles and international society would be important stake-holders (NIAD-UE, 2007).

Especially for the evaluation of research activities, each department and graduate school is required to submit a list of excellent research outcomes accomplished by its academic staff. Each corporation needs to carefully select outstanding research outcomes based on the well grounded and objective data such as results of third-party evaluations.

Second, NIAD-UE assesses each department's and graduate course's self-evaluation report in accordance with the items analysed and basic viewpoints. NIAD-UE will establish 10 working groups in accordance with 10 major research fields, in order to evaluate education and research activities of each department and school. In addition, especially for the assessment of the level of research outcomes, NIAD-UE will establish special working groups for 66 detailed research fields, which will include experts on each field (NIAD-UE, 2007).

Concerning the achievement of medium-term goals, each corporation evaluates the achievement of medium-term goals relating to education and research, based on the analysis of each department's or graduate course's education and research, and submits the report to NIAD-UE. NIAD-UE assesses the achievement of medium-term goals, considering the assessment of each department's or graduate-course's education and research. For the purpose of investigating the issues that NIAD-UE cannot ascertain through reviewing each corporation's report, NIAD-UE will visit each corporation, conduct hearings with chancellors and trustees and have interviews with students and graduates.

Based on the analysis of each corporation's self-evaluation report and the result of the site investigation, NIAD-UE will make an evaluation result report, indicating the result to each corporation and giving each corporation an opportunity to state its opinion. If a corporation has an objection to some parts of the result based on well grounded data, NIAD-UE can decide to accept it or not. After confirming the result, NIAD-UE will submit it to NUCEC.

(4) Overall Evaluation by NUCEC

Concerning the evaluation of operations, finances and other managerial matters, each corporation will assess the achievement (FY2004-2007) of each medium-term plan, in

accordance with the following four grades and will make an achievement report (Table 2):

Table 2 (2) Evaluation Conducted by NUCEC

[Improvement and efficiency of operation, improvement of financial state, self-assessment and dissemination of information, and other important items]

Corporation assesses the achievement (FY 2004-2007) of each medium-term plan based on the following four grades and submits a report describing its achievement to NUCEC.

- iv: Corporation excellently implemented the medium-term plan
- lii: Corporation sufficiently implemented the medium-term plan
- li: Corporation didn't sufficiently implement the medium-term plans
- i: Corporation didn't implement the medium-term plans



- NUCEC assesses the achievement of each medium-term goal (four items), based on the following five grades and make a overall evaluation report.
- 5: Achievement of the medium-term goals is excellent
- 4: Achievement of the medium-term goals is sufficient

I. Performance of operation, finance and others

- 3: Achievement of the medium-term goals is sufficient for the most part
- 2: Achievement of the medium-term goals is not sufficient
- 1: Corporation's effort is required to achieve the medium-term goals

Table 3 Form of each corporation's achievement report

(1) improvement and	eniciency of operation	
Medium-term Goal		

Level of	Performance	Plan of implementation
Achievement	(FY2004-2007)	(FY 2008-2009)
	,	(
lv	•	•
	•	•
ii	•	•
	•	•
iii	•	•
	•	•
	Achievement	Achievement (FY2004-2007) Iv

^{*} NUCEC respects the results of evaluation concerning education and research carried out by NIAD-UE

- iv: Corporation implemented its medium-term plan excellently
- iii: Corporation implemented its medium-term plan sufficiently
- ii: Corporation didn't implement its medium-term plan sufficiently
- i: Corporation didn't implement its medium-term plan at all

Table 3 shows the form of achievement report for each corporation's self- evaluation. In the achievement report, each corporation will describe their performance from FY2004 to FY2007 and the implementation plan from FY2008 to FY2009 for each medium-term plan. Based on its performance from FY2004 to FY2007, each corporation will decide on the grade of achievement and fill in it on the form.

Analysing each corporation's self-evaluation report, NUCEC will assess the achievement of each medium-term goal, based on the following five grades (Table 2):

- 5: Achievement of medium-term goal is excellent
 (A case that NUCEC recognises the corporation's achievements as excellent)
- 4: Achievement of medium-term goal is sufficient
 (A case in which all medium-term goals' achievements are iv or iii)
- 3: Achievement of medium-term goals is sufficient for the most part (A case in which the rate of iv or iii is over 90%)
- 2: Achievement of medium-term goals is not sufficient (A case in which the rate of iv or iii is less than 90%)
- 1: Much more effort by the corporation is required to achieve medium-term goals

(A case in which NUCEC recognises corporation's achievements as behind) In addition to the grade of the achievement of medium-term goals, NUCEC will describe a corporation's prominent and distinctive efforts for the improvement of education, research, management of operations and finances in a report. As table 4 shows, in the evaluation result report, NUCEC will first describe the overall evaluation which summarises the corporation's performance during FY2004 to FY2007. Then, in each evaluation section, NUCEC will describe notable items, problems, the rating of the achievement of the medium-term goals and will explain the reasons for the rating.

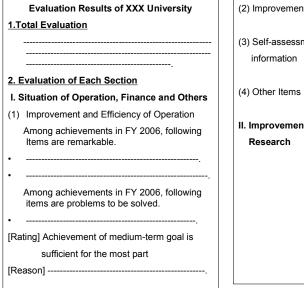


Table 4 Form of NUCEC's evaluation result report (draft)

- (2) Improvement of Financial State
- (3) Self-assessment and dissemination of information
- II. Improvement of the Level of Education and Research

Impact of University Evaluation

(1) Changes Influenced by NUCEC's Evaluation

So far, I have outlined university evaluation system in Japan. Finally, I would like to consider the impact of evaluation on education, research and management in Japanese universities, especially focusing on the changes in national university corporations influenced by NUCEC's evaluation.

Since FY2004 when the "certified evaluation" system became operational and April 2007, 140 universities out of 734 have been evaluated by certified evaluation organisations. However, since only 20 per cent of all universities have taken "certified evaluation", the influence of the evaluation has still been limited to a small number of universities.

On the other hand, all national university corporations have experienced NUCEC's "annual evaluation" three times, for their achievements in FY 2004, 2005 and 2006. During the next year, all national university corporations are required to undertake the provisional evaluation of the achievement of medium-term goals and plans from FY2004 to 2007, and therefore they are now making all efforts to prepare for the evaluation.

Importantly, through the process of evaluation, each national university

corporation has built up the PDCA cycle, that is the cycle of Plan, Do, Check and Action. At the first stage of the cycle, each corporation set medium-term plan and annual plans. Then, each corporation attempted to fulfil its medium-term plans and annual plans through the medium-term period. At the end of the fiscal year, NUCEC evaluates each corporation's achievement of medium-term plans and annual plans and publishes the evaluation results. Receiving the evaluation result from NUCEC, each corporation takes actions to improve its management and to deal with issues indicated by NUCEC, and establishes annual plans for the subsequent year. Since NUCEC's evaluation report includes issues to be dealt with in addition to the grade of achievement of medium-term goals, each corporation utilises the evaluation results for further improvement of its education, research and management.

Through implementing the PDCA cycle, each university corporation accelerates the reform activities in many fields. The major reforms and changes in management, operations and finance that have appeared in national university corporations are as follows:

- Setting clear management strategies under the chancellor's leadership
- Setting up strategic offices for strategic planning, evaluation or financial analysis.
- Increasing the allocation of posts or budgets at the chancellor's discretion.
- Introduction of academic staff evaluation and having the result reflect on salary Reducing management costs, such as charges for electricity, water, fuel, equipment and personnel expenses of part-time employees
- Setting up support offices for venture businesses
- Promoting efforts to increase research grant adoption, patents, royalties and donations from industries and government
- Strengthening cooperation with industries on research and development
- Building up a closer cooperation with local government and the community

These new management and operational systems which were introduced after corporatisation have taken a firm hold on each corporation. Furthermore, under the chancellor's leadership, each corporation makes the effort to further improve by responding to the environmental changes around it and promotes strategic management for the achievement of its medium-term goals.

Although NUCEC's annual evaluation does not grade the achievement of education and research, each corporation makes efforts to improve education and research preparing for coming provisional evaluation. As a consequence, many changes have appeared in education and research activities, such as:

• Securing the quality of students by strict grade evaluations

- Introducing class evaluation by students
- Strengthening staff development activity
- Introducing flexible curricula that can better meet the needs of students and society
- Introducing detailed student assistance for campus life and employment
- Focusing on research that can meet universities' individuality and social needs
- Investing research funds on advanced and unique research that can lead the world
- Setting up inter-faculty research organisations under the chancellor

As these changes suggest, each corporation strengthens its educational function by making the best use of changes caused by corporatisation. On top of that, each corporation makes the effort to activate research activities with distinguishing characteristics and to foster superior researchers through intensive budget allocations at chancellor's discretion.

(2) Issues Concerning University Evaluation

Although university evaluation gives universities positive motivations for their improvements, there are several issues in the implementation of university evaluation. One of the important issues is the cost of evaluation activities. Since the introduction of certified evaluation and NUCEC's evaluation, universities are forced to take a long time to prepare for these evaluations. In particular, national university corporations need to prepare for three kinds of evaluations: certified evaluation, NUCEC's medium-term goal evaluation and its annual evaluation. Because of multiple and sometimes redundant assessment structure, many academic staff members and administrative staff are engaged in self-evaluation activities and spend too much time on them. The stress of accountability and overwork may exhaust academics and influence their education and research activities. As a result, Kaneko (2007) stresses that education and research activities of national university corporations will surely be delayed during the preparation of medium-term goal evaluation.

In order to solve the issue, MEXT is now making efforts to reduce each corporation's burden of evaluation through

- introducing a unified form of achievement report which each corporation will make for provisional evaluation of the medium-term goal period and annual evaluation for FY2008
- making it possible for each corporation to use data gathered for certified evaluation for NUCEC's evaluation, and
- making lists of minimum requirement data which each university needs to prepare for

NUCEC's evaluation.

In addition to these efforts, many universities have established database systems which include a range of useful data for evaluation in order to reduce the burden of evaluation. Through the experience of preparing for NUCEC's annual evaluation and certified evaluation, for the sake of reducing the cost of self-evaluation, each university makes serious efforts to invent more efficient self-evaluation systems for various evaluations.

Second, as NUCEC's evaluation primarily aims to assess the corporation's achievement of its medium-term and annual goals, the setting of medium-term or annual plans tends to affect the result of evaluation. For example, a corporation which sets "easy" plans tends to achieve them and to be more highly evaluated than a corporation which sets "difficult" plans. As a result, corporations hesitate in setting medium-term or annual goals with concrete numbers that would make it clear if corporation achieves the goals or not, and therefore tends to set abstract goals. If many more corporations chose to set "easy" plans that they will surely achieve rather than to set a "high-level" plan that will take considerable effort to achieve, corporations' efforts for improvement in education, research and management will be delayed in the future.

Third, Japanese national university corporations consists of a range of types, based on size, location and role. For example, corporations can be large scale comprehensive universities, small scale local universities, medical colleges, teacher training colleges or engineering colleges. Nevertheless, NUCEC evaluate all kinds of corporations in the same evaluation system. In future, in the process of innovation in the evaluation system, NUCEC may need to consider categorising corporations into groups in accordance with those characteristics and social roles.

(3) Conclusion

Since FY2004, each university corporation has gone to considerable effort to achieve its medium term goals and plans much more actively than national universities had ever done in the past. NUCEC's annual evaluation has given each national university corporation a positive motivation for its improvement, especially in operation, finance and other managerial items, so far.

In the process of provisional medium-term goal evaluation in 2008, NIAD-UE will in the first place evaluate the level of education and research activities of each corporation from a specialist perspective (Figure 2). How "provisional evaluation", which will be scheduled in 2008, will exert an influence on education and research activities is not clear. However, since the result of the evaluation will influence the

allocation of subsequent medium-term goal periods, each corporation pays attention to the implementation of the evaluation with keen interest. Since the evaluation will disclose the corporation's achievement of education and research goals, which are the principal tasks of universities, it may have a greater influence on the reform of education and research activities in national university corporations than the former annual evaluations have ever done.

[5th year (FY2008)]

NUCEC: Conduction of provisional medium-term goal evaluation

Feed back the result

Corporations: Discussion for setting medium-term goals and plans for the 2nd medium-term goal period

MEXT: Decision of medium-term goals and resource allocation for the 2nd medium-term goal period

[2nd medium-term 1st year (FY2010)]

NUCEC: Final settlement of medium-term goal evaluation result

MEXT: Revision of medium-term goals and resource allocation for the 2nd medium-term goal period (if necessary)

Figure 2 Schedule of National University Corporation Evaluation

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