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Abstract

This short paper discusses two specific management accounting practices introduced by Japanese national universities after their corporatisation in 2004. One was imposed on 42 university teaching hospitals in order to improve their accountability; the other was initiated by the Ministry of Education, Culture, Sports, Science & Technology (MEXT) as a means of paternalistic support for them after their independence from MEXT. While these practices bring their own benefits, universities have yet to utilise them effectively because they have not had any motivation to continue using them to enhance their internal management. Lastly, the reasons why these management accounting practices fail as policy instruments are pointed out from a theoretical standpoint.

1. Cost Allocation Practices of National University Teaching Hospitals

1.1. Background Information

All Japanese national universities (NUCs) must follow the National University Corporations Accounting Standards, their Explanatory Notes and Recommended Practices (the NUCs Standards) when preparing their annual financial reports. On March 1, 2007, the Ministry of Education, Culture, Sports, Science & Technology (MEXT) and the Japanese Institute of Public Certified Accountants (JICPA) issued a statement announcing major revisions to the NUCs Standards concerning the requirements in connection with the segment information on teaching hospitals (MEXT & JICPA, 2007a). The main feature of these revisions was to require that, out of 86

NUCs in total, the 42 which had teaching hospitals allocate all the costs associated with activities in their teaching hospitals to their segment despite the fact that the resources to cover such costs were not budgeted to the segment internally. It was readily expected that the posture of these teaching hospitals' operating statements would be considerably modified and show more precise financial performance. In another statement issued on December 12, 2007, the improvement in accountability of institutional segment information was explicitly added to the NUCs Standards as the main aim of the revisions (MEXT & JICPA, 2007b).

However, the need for these revisions was not initially recognised by either the NUCs or MEXT but by the Board of Audit of Japan (hereinafter the Board), the public supreme audit institution (SAI) in Japan. The Board had questioned the consistency of cost allocation methodologies applied to the segment information on teaching hospitals by the NUCs and recommended that MEXT resolve this problem in 2006 (Board of Audit of Japan, 2006). Thus, the revisions were not initiated voluntarily in order to improve the NUCs' accountability, but were done in order to respond to the Board's recommendation. From the NUCs' viewpoint, they had no chance to avoid those revisions forced upon them by this double-layered supreme authority.

In the new requirements, the most difficult task for the NUCs to implement was to divide the personnel cost of teaching and other staff among their hospital-related and other activities. The NUCs, however, did not have any clear idea how to do this and requested specific methodologies to enable them to do it. In response to their request, MEXT provided supplementary documentation introducing how to allocate personnel costs to their teaching hospital segment (MEXT, 2007). It suggested that the NUCs acquire data covering no less than 70% of the total use of the time by staff members through a combination of the following three data collection approaches: (1) time records, which were supposed to be existing documents, and other electronic data recorded by staff concerning all or part of their time usage; (2) time reports, which were supposed to be based on newly collected self-declared documents on staff's time usage; and (3) time studies, which were also newly collected self-declared data on the

composition of activities comprising typical work duties for each staff member. MEXT additionally strongly recommended that the subjective evidence gathered through methods (2) and (3) be, even partly, confirmed by the objective data collected through method (1). These approaches were applied in efforts to improve accountability under the revised reporting standards, but also were genuine management accounting practices similar to TRAC (Transparent Approach to Costing) used in the UK.

1.2. Personnel Cost Allocation Used by Japanese NUCs

After these revisions came into effect, the Centre for National University Finance and Management (CUFM), an affiliated organisation of MEXT, conducted two separate questionnaire surveys in 2008 on (1) how the NUCs coped with these revisions and (2) to what extent these revisions affected the posture of their income statement on the teaching hospital segment.

The survey results for 41 NUCs in total showed that with regard to the approaches chosen (multiple answers allowed), 23 used time reports and 8 used time studies, while 21 used some kind of time record data such as log files from electronic medical record systems (5) and staff positioning data from their cell phones (6). As mentioned earlier, MEXT recommended that the NUCs use both subjective and objective evidence, but only 11 NUCs followed the recommendation; more than half (n=22) used either of two subjective approaches solely and 8 used neither of them, relying solely on limited objective data that already existed. In regard to the collection of subjective data specifically and according to the responses for another questionnaire, most NUCs (13/28) spent only one to two weeks gathering either the time report or time study data. This indicates that the approaches taken in order to cope with newly enforced management accounting practices were not consistent among the NUCs, and there is also ample evidence of their negative attitude towards them.

Furthermore, the two self-declared approaches required a certain standard of working hours per day to be assumed for each staff member. According to the responses to the

questionnaire on this issue, the majority of respondents (19/29) assumed their staff's standard working time was 8 hours. This assumption, however, seems to be oversimplified and might lead to misallocation given that even the general public is well aware of the poor labour conditions of medical staff in the NUCs' teaching hospitals. We should therefore bear in mind that the two subjective approaches based on an assumption of an 8-hour standard day may well underestimate what percentage of staff time is spent in hospitals. For reference, the average percentage of staff time spent in hospitals as determined by the questionnaire survey ranged from 32.0% to 84.7%, while more than two-thirds (23/34) reported their average falling within the range of 50% to 70% (μ=0.583, σ=0.119).

1.3. Influences of New Management Accounting Practices

As mentioned above, the CNUF conducted another questionnaire survey on how much the new personnel cost allocation affected the financial performance of the NUCs' teaching hospitals. The results showed no common features across the 42 NUCs with their own hospitals, although it had been widely expected that this newly allocated cost would simply increase the hospitals' total expenses. As a percentage of increase/ decrease in the personnel cost, which was calculated by [newly allocated personnel cost / total personnel cost excluding the numerator], the influence ranged from -2.3% to 18.9% (μ=0.048, σ=0.040, n=42) in fiscal year 2007. That meant the inconsistency of personnel cost allocation among the 42 NUCs had existed before the new management accounting practices were introduced.

When looking at the various influences of the new practices, it should be noted that 4 NUCs recorded some decrease in their hospitals' personnel cost. According to individual interviews with these universities, these 4 universities had already allocated all of the personnel cost of hospital-related faculty members to their hospital segment even though the majority of them spent some portion of their time in education, research or other activities in departments of medicine and related disciplines (e.g. pharmacy, natural sciences and engineering). The use of more precise time usage data

consequently corrected their previous rough allocation and resulted in the decrease in the hospitals' personnel cost.

Aside from these few above-mentioned exceptions, the hospital income statements of almost all NUCs showed increased expenses to some degree. The financial performance of the hospitals seemed to be worse since the additional personnel cost might exceed annual profit, negatively impacting the bottom line. However, this did not in fact happen because a government lump-sum grant (Operating Grant) for the same amount was allocated to their hospital segment and offset the increase in personnel cost. This revenue reallocation was based on the government funding rules to the NUCs. When all Japanese national universities were incorporated at once on April 1, 2004, the government promised to provide them with an Operating Grant in order to fully cover the personnel cost based on the staff numbers they took over from the pre-incorporation status. Of the 42 NUCs, 39 actually showed that any increase/decrease in personnel cost was fully offset by an increase/decrease in the Operating Grant in their hospital income statements (there was no effect at all on their bottom lines).

All in all, the new management accounting practices foisted on Japanese NUCs provided more accurate data on human resource consumption in teaching hospitals, but the comparability of their cost data was still questioned because their approaches were not consistent. Although the aim of the new practices was improvement in accountability to the NUCs' stakeholders, nothing has changed in the teaching hospitals' profits/losses in the information disclosed.

1.4. Teaching Hospitals' Arguments

Lastly, we have to mention the complaint of the NUCs' teaching hospitals about the information disclosed on their financial performance. Understanding their ambivalence towards their performance information is critical in analysing the effectiveness of management accounting practices as policy instruments.

Not a few teaching hospitals have reached the end of their life since the new practices were introduced in the early 2000s, necessitating their redevelopment. Before their incorporation, the government provided the necessary funds for building construction or renovation and equipment updated; however, since FY2004 they have had to use the CNUF's loan programmes. This loan programme does not involve simple borrowing, but the government has provided a special supplementary source (Hospital Operating Grant) to them when they have settled their annual instalment for repayment. Teaching hospitals have, however, stressed that this new financing arrangement has distorted the information on their financial performance.

The problems they have mentioned are (1) the time lag between repayment and depreciation and (2) revenue recognition of the Hospital Operating Grant. The repayment period is much shorter than the asset's life; therefore, the annual instalment for repayment becomes larger than the asset's depreciation. On the other hand, the size of the Hospital Operating Grant is calculated based on the annual instalment and is recognised as revenue in hospitals' income statement even though this supplementary fund is substantially ear-marked for and immediately spent on the loan repayment. Finally, an artificial profit is generated by subtracting depreciation from the Hospital Operating Grant.

MEXT knew of this problem and calculated "modified profit/loss" by eliminating this artificial profit from the bottom line of the hospitals' income statements every year. According to MEXT (2008a), the total "modified profit" of 42 hospitals was ¥6.3 billion in FY2007, equivalent to €52.3 million (€1= ¥97) or £51.9 million (£= ¥122): 16 hospitals showed deficits, although total profit for hospital segment information was ¥38.8 billion (€399.7 million or £317.8 million) and only 6 hospitals were operating in the red.

Furthermore, the NUCs' affiliated hospitals have not been satisfied with the "modified profit" calculated by MEXT because it still hits certain profits despite their having stressed their financial difficulties. This was one of the strong arguments put forward in

the report of the Directors' Conference of National Universities' Affiliated Hospitals (2008) on this issue, which stressed that total cash shortfall for the 42 hospitals reached ¥7.6 billion (€78.3 million or £62.3 million) in FY2007 and 28 hospitals needed a supplementary cash transfer from other segments. However, how these figures were calculated was not disclosed in detail and it is not possible for outsiders to trance these numbers.

At this point, we want to emphasise that the NUCs and their hospitals seem to have been dependent on public money and made every effort to maximise financial assistance from the government although they became independent from the government on April 1, 2004. On the other hand, their performance has been evaluated every year by external committees, so they have been eager to show themselves to the evaluators as financially healthy entities. Their contradictory and ambivalent attitude seems to have undermined the effects of the new management accounting practices.

2. Activity-Based Costing Projects

2.1. Background Information

Before their incorporation, the NUCs had been branches of MEXT; therefore, their financial management tasks were fully under MEXT's control. In other words, each university's accounting office had not for a long time needed to think about its own financial strategy and management as an independent entity. Against this historical background, their incorporation made individual universities uneasy about more independent management tasks they had never experienced, and they strongly requested that MEXT provide them with paternalistic management support. Finally, MEXT responded in FY2005 by implementing a series of activity-based costing projects (the ABC projects) even though the explicit objective of these projects was to seek to develop best practices in cost management with a view to their dissemination across the university sector.

The ABC projects lasted for 4 years until FY2008 and targeted two central services specifically each year. Each year MEXT covered all the consultation fees associated with the introduction of the ABC projects for around 10 universities that wanted to join the projects. A private consulting firm, BearingPoint Japan, which was absorbed into PwC Advisory Japan as a consequence of the bankruptcy of their US head office in 2009, conducted all the projects in collaboration with Ernst & Young Japan, while MEXT itself participated in the projects just as an observer. The following chart shows each year's targeted services and number of participants.

Chart 1. Targeted Services and Participants in the ABC projects

	Targeted Services	No. of Participants
FY2005	Procurement	9
	Travel	7
FY2006	Payroll Management	5
	Assets Management	6
FY2007	Cash Management	6
	Audit	3
FY2008	Library	8
	Financial Management	

2.2. ABC Project Findings and Limitations

The ABC projects were not just for introducing management accounting practices in selected NUCs, but also for prompting improvement in the economics and efficiency of the targeted central services. They also utilised other management reform tools such as the risk control matrix (RCM) and business process reengineering in conjunction with activity-based costing. From such characteristics, they should more rightly be called ABM projects.

The introductory phase of the ABC projects consisted of the following five steps: (1) grasping the actual situation of targeted services including the making of operational

flow charts, (2) defining activities in operational flows, (3) collecting actual data associated with each activity unit, (4) analysing the results and identifying problems and (5) pursuing management reforms such as changes in procedures, organisational structure and so forth in order to solve the problems found in the previous step. The majority of time was spent on steps (1) to (3) which dismantle each service procedure into its flow of activities, and the results are then analysed with other management reform tools in steps (4) and (5).

According to MEXT (2008b, 2009), the main findings included the following examples. In the procurement service, it was clarified that the time to make documents related to payment procedure occupied a large portion of time, and they considered eliminating redundancy in such non-added value activities. In the "travel service", some of the NUCs did not link their travel management systems and financial management systems, which resulted in duplicated documenting and authorising procedures in both systems. Therefore, they started considering possible integration of the two systems. A series of ABC projects found such common problems in the NUCs and suggested their solutions. From among all the outcomes examined over the 4-year period since implementation in 2004, MEXT mentioned in their reports Nagoya University's reforms in its travel service as the most successful case (MEXT 2008b, 2009). This university concentrated all the tasks related to travel into a single section and eliminated redundant procedures from past operations.

Overall, the ABC projects were definitely fruitful opportunities to diagnose problems in daily operations through the use of mature management reform tools used in the private for-profit sector; however, they were just opportunities and a lack of further endeavour by the NUCs resulted in no further progress. This meant that the NUCs had no motivation to move forward in rigorous management reforms and cost containment efforts, or to disseminate leading cases across their sector because they wanted to continue arguing the shortfalls in government funding. They remained babies wanting to continuing to suckle from the government despite the government having nominally kicked them out from under its protection through incorporation.

3. Theoretical Analysis and Policy Implications of the two Japanese Attempts

a. Cost Allocation Practices of National University Teaching Hospitals

- The NUCs' teaching hospitals have conflicting intentions: they want to show their hospitals to be (1) financially healthy entities yet (2) financially needy entities. On the one hand they did not like to be accused of poor financial management by their Management Council and external evaluators (1), but on the other they want to argue that their hospitals have structurally fallen into deficit and thus require further back up with government financing (2).
- The reallocation of personnel costs to their hospitals was uniformly forced upon the NUCs through "cohesive isomorphism" under a "regulatory policy" (DiMaggio and Powell 1983, Lowi 1964, 1972). Its main objective was improvement in accountability.
- The results of the new accounting practices were not used as the NUCs intended for (2) but because their financial documents were under external evaluation in (1). Therefore, they made only minimum efforts to comply with this "regulatory policy" and to make minimal or no changes in the posture of their hospitals' financial performance.
- On the other hand, they spent a lot of time and effort showing their hospitals were needy by using other unofficial methods that had not been audited and which were not traceable. This is not a "mimetic isomorphism" under strong pressure from a technical environment (in other words, a "competitive market"), but their attitude is simply explainable as bureaucratic behaviour based on some public choice theorem like Niskanen's budget maximization model (Niskanen 1971).

b. Activity-Based Costing Projects

- These challenging projects had the potential to be good opportunities to make NUC staff aware of the importance of periodic reviews of their operational procedures; however, their technical environments did not require them to continue and progress further in their attempts (Scott 1987).
- Cost containment based on management accounting practices might lead to a cut-off

of budget because the NUCs are unintentionally showing their capacity to do the same things as before but with fewer resources.

- As long as the NUCs are dependent on public sources and the market mechanism does not work, any mimetic isomorphism of management accounting practices will not become effective and the dissemination of the best practices will consequently fail (DiMaggio and Powell 1983).

All in all, management accounting practices in Japanese national universities become effective only under some form of competitive market pressure. Under the current system characterized by governmental budgeting and bureaucratic behaviours, these practices provide unintended evidence that conflicts with their endless requirements for external resources.

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