Understanding why the role of accounting is unchanged in Indonesian public hospitals

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Abstract

Purpose – This paper aims to understand why an expected enhanced role of accounting in Indonesian public hospitals has not occurred, although serial organizational changes and reform of hospital payment systems have taken place.

Design/methodology/approach – This study adopts a multiple case study research approach. It was carried out in two Indonesian public hospitals. Interviews were the main tool used for collecting data. The primary interviewees were the top managers, accountants and senior physicians in the hospitals surveyed.

Findings – Insights from the interviews revealed that the owners' traditional role of funding deficits plus the conventional mindsets of managements and physicians who are only interested in health outcomes have hindered the infiltration of economic and accounting logic into the management of these two public hospitals. Consequently, the expected accounting innovations, i.e. an enhanced role of accounting in the hospitals' daily activities did not emerge.

Research limitations/implications – This case study is not a longitudinal study and the interviewees, particularly senior physicians, were selected based on their availability and willingness to participate in the interviews. Thus, the findings should be treated with caution.

Practical implications – An enhanced role of accounting and other accounting innovations would indicate that the hospitals are responding as expected to the institutional and financial reforms.

Originality/value – Contingency theory and institutional theory have been used together in this study which aims to not only discuss the reasons for accounting changes occurring or not occurring, but also to understand the motivations behind the accounting changes or lack of change. Thus, a more comprehensive understanding of accounting innovations is expected.

Keywords Indonesia, Public hospitals, Physician, Accounting innovations, BLU (*Badan Layanan Umum* or public sector agency), Diagnosis related groups (DRGs) system, Provider payment system

Paper type Case study

1. Introduction

The persistent rise of expenditure for the healthcare sector within the global economic situation has resulted in repeated calls for healthcare reforms. Subsequently, recent

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reform proposals in many countries have emphasized cost containment and efficiency improvements in the healthcare systems concerned (Geisller *et al.*, 2011). In these reforms, the hospital sector has become a primary target of reconfiguration, as it could absorb up to 70 per cent of the overall health-care budget (McKee and Healy, 2002). As a result, over the past 30 years there has been an increased concern with cost efficiency in the hospital sector in developed countries, and more recently in developing countries including Indonesia.

The government of Indonesia has started both organizational reforms in public hospitals and hospital payment system reform to improve efficiency and financial independence in the Indonesian hospital sector, particularly in public hospitals. The former is represented by transformation of public hospitals to become more business-like hospitals, that is giving them a new organizational format as BLU (*Badan Layanan Umum* or Public Sector Agencies). This should empower the public hospitals as the management of BLU public hospitals is given more authority, especially for financial management decisions. For example, a BLU public hospital is allowed not only to manage their own revenues, but also to hire their own staff. In fact, the BLU public hospitals, according to the government regulation No.23 (2005), are required to be managed based on economic principles including productivity improvement.

More recently, the central Government as the national budget keeper is endeavouring to improve efficiency and improve quality in the public hospitals through the introduction of a diagnosis related groups (DRGs) based provider payment system (PPS). In this new payment system, patients are classified based on the main diagnosis and other characteristics of the case, such as the patient's age, gender, case severity, co-morbidity and procedures (Mathauer and Wittenbecher, 2012) and more importantly, hospitals are paid per case rather than per day or per delivered service. Moreover, the reimbursement fees are pre-determined lump sums that are calculated based on average actual costs of each type of DRG case (Dismuke and Sena, 1999). Such a fixed rate payment system, according to Sanford *et al.* (1987), requires the management of hospitals to seek cheaper alternatives in treating patients to gain a surplus or at least to avoid a loss. Accordingly, hospitals finally have incentives to contain costs (Sanford *et al.*, 1987).

Theoretically, the reforms should create a new demand for more detailed cost accounting information in Indonesian public hospitals where accounting traditionally played a marginal role. In the new payment system, for instance, hospitals are required to assess the profitability of each type of DRGs case, and more importantly, to contain the costs of each patient's medical treatment. Consequently, hospitals are required to calculate so-called case-mix cost information, for example case-based unit costs which were not available before. Hence, accounting innovations to enhance the role and practices of accounting should be inevitable in Indonesian public hospitals' activities nowadays.

Management accounting literature has documented the emergence of accounting innovations as hospitals react to the changes related to the healthcare and hospital financing reforms. Some studies have documented the adoption of new accounting methods, for example accrual accounting and activity-based costing in hospitals following hospital reforms (Pettersen and Nyland, 2011). Meanwhile, other studies have uncovered the crucial role of physicians in introducing accounting reforms into hospitals (Lehtonen, 2007). However, far too little attention has been paid to accounting

changes in public hospitals in countries under transition (Hassan, 2005). The results could be different as the reforms, for example DRGs based payment system, have been adopted in different ways, at different times (Geissler, *et al.*, 2011), in different organizational systems and divergent hospital management structures.

Therefore, this research aims to address the research question, that is to what degree and why have there been changes or lack of changes in the role of accounting in the Indonesian public hospitals studied. If they have not changed substantially, then why have they not changed, especially after the serial hospital and healthcare reforms have taken place? To be specific, this research elaborates reasons behind the relatively unchanged role of accounting in the public hospitals and its consequences for the hospitals in relation to their strategies to use the DRGs system. This study is worthwhile because the capacity of the hospital accounting system potentially determines the hospitals' responses to the new payment system, and in turn, must affect the outcome of the hospital financing reforms.

2. Literature review

As the efficiency of the public sector has become a primary concern, accounting has started to play a vital role with the increasing demand for financial rationality and accountability (Lapsley, 1996). The reason, according to Hopwood (1992), is that accounting can make detection of inefficient practices easier and can ensure that better performance of the public sector can be attained in the future. Similarly, Pettersen (2004) argues that public hospitals, in particular, have been forced to not only improve their quality of medical service, but also to contain costs. This demand can be linked to the shift in governments' main concern from quality and equality of hospital care toward economic and financial considerations (e.g. in the USA in the mid-1970s, refer Chua and Preston, 1994). Consequently, utilization of accounting information has been expanded and improved within the public hospital system (Broadbent, 1992).

Furthermore, the marginal role of accounting in past eras of public hospital management was associated with how the hospitals were managed. According to Durán *et al.* (2011) who studied this topic in European countries, public hospitals were led by directors who had little or no experience or educational background in private sector management. The hospitals' directors were also usually political appointees representing the ruling political party(ies) interests (Durán *et al.*, 2011). Besides, traditional public hospitals were budgetary units of their owners (governments) while clinicians and other health professionals made the hospitals' management decisions (Kurunmaki, 1999). It is argued that the combination of above factors has obstructed the development of economic interest in the hospitals.

Moreover, the non-existence of economic logic in the past management of public hospitals can be associated with the hospitals' main objectives. Alam and Lawrence (1994) argue that public hospital' activities traditionally were considered as the implementation of social justice to ensure the fulfilment of citizens' rights. As a result, costs were barely a concern. Besides, power in the public hospitals was delegated to physicians who had authorization to make decisions primarily based on their own professional training and code of conduct rather than on any administrative consideration or economic sense (Alam and Lawrence, 1994). This condition caused budget over-runs because the physicians had little concern with the costs for the

treatment of their patients (Alam and Lawrence, 1994). Consequently, it led to a growing public distrust and accusations that public hospitals were inefficient (Kurunmaki, 1999).

Therefore, in many countries, reform proposals have been implemented to remedy such inefficient systems and have stimulated accounting reform in the public hospitals. In the past, accounting systems in the public sector were used mainly as planning tools and principally aimed to serve the external parties, for example preparing financial reports for the owner (Pettersen, 1995; Webster and Hoque, 2005). Cash accounting was adopted widely in public sectors including in public hospitals because previously the needs for detailed cost information barely existed. Besides, public hospitals were discouraged from producing accounting information because cost control was performed centrally by the owner, that is the government (Webster and Hoque, 2005).

More importantly, the activities and responsibilities of health professionals and hospital managerial staffs were clearly separated. The physicians were excluded from the managerial efforts and cost-controlling activities and encouraged only to focus on the patients' health (Alam and Lawrence, 1994). In fact, Pettersen (2004) said that accounting information had been ignored by clinicians in the past. Above all, the chief or directors of hospitals used to act as hospital administrators rather than as hospital managers within a corporate concept (Sanford *et al.*, 1987). The directors were responsible only for maintaining the stability and financial feasibility of physicians' workplace (Sanford *et al.*, 1987). Besides, the functional managers had such limited information regarding the costs of patient treatment that they could not completely control hospital expenditure (Alam and Lawrence, 1994).

But, several significant changes have recently taken place within the hospital sector. Market mechanisms and managerial principles have been introduced in many countries such as the UK and Germany. As a result, the conventional role of accounting in hospitals and the capacity of public hospital accounting systems no longer fits with the needs of the hospital managements. Thus, under the mission to achieve higher efficiency and to contain costs, accounting innovations that have taken place in public hospitals include the following:

- the improved role of accounting in public hospitals;
- the adoption of new accounting techniques; and
- the encouragement of health professionals' involvement in hospital accounting and controlling.

First, the role of accounting in public hospitals has been expanded from a reporting tool to a controlling device. For example, Lapsley (1994) confirmed how market reforms in the UK National Health Service (NHS) and the creation of self-governing hospital trusts have encouraged the application of budgetary controls in the UK hospitals. Previously, the public hospitals were not primarily established with the need to produce and sell their products, but, the self-governing hospital trusts have to seek profit as they must earn a return on capital used (Lapsley, 1994). Thus, he argues that the role of accounting in the organization depends on the nature of the organization itself.

Second, new management accounting techniques that originated from the private sector have been adopted in public hospitals. For example, accrual accounting has been adopted to replace cash accounting in public hospitals (Eriotis *et al.*, 2011 for the adoption of accrual accounting in Greek public hospitals; Pettersen and Nyland, 2011 for the adoption of accrual

accounting in Norwegian public accounting). More recently, public hospitals in many countries have also adopted private-sector-originated management accounting techniques, for example activity based costing (ABC). For example, Järvinen (2006) studied the motivation behind the adoption of ABC in two Finnish university hospitals. More recently, Pomberg *et al.* (2013) wrote about the intention of Vietnamese government hospitals to improve their accounting systems as a response to the rapidly changing environment through ABC and other private business approaches.

Third, initiatives to involve hospital physicians in the managerial processes have started (Fitzgerald, 1994). This is apparently the most significant stage in establishing a new role for accounting in the medical area. Pettersen (1995) believes that physicians play a key role in hospital management accounting because they control hospital resource allocation (Pettersen, 1995). Accounting innovations thus need to penetrate to their clinical actions; otherwise, the accounting changes might fail to meet their objectives (Pettersen, 1995). The collaboration of accountants and physicians can be seen in, for example, the study by Kurunmaki *et al.* (2003). In fact, Kurunmaki (2004) found a new role for physicians in medical management accounting that has become a so-called hybrid profession of physicians.

Specifically, the development of DRGs based PPS should trigger accounting innovation in public hospitals. Based on the contingency theory approach, Rayburn and Rayburn (1991) have demonstrated how the role of the accountants in the US hospitals has increased after the introduction of DRGs based PPS Medicare reform. The new PPS has raised several new accounting issues, for example reporting losses on Medicare in-house accounts and offsetting profits on Medicare in-house accounts and improved financial risk in the hospital sector as the environment became more hostile and uncertain. Consequently, accountants in the hospitals now have a more vital position in key decision-making processes followed by the increasing demand for cost-benefit studies (Rayburn and Rayburn, 1991).

In another major study, Hill (2000) also confirmed that DRGs systems were the driving force for the adoption of more sophisticated costing systems over the 1980s in the US hospitals. This finding was drawn also from contingency theory which assumes that accounting design, including the adoption of new accounting techniques could be triggered by changes in the (regulatory and business) environment, technology, organizational structure and strategies (Jones, 1985). In the new provider payment system, for example DRGs system, hospitals can only optimize their profit through managing and controlling costs as prices are dictated by external parties in the DRGs payment system (Hill, 2000). Consequently, hospitals require more detailed cost accounting information to facilitate controlling case base costs.

More recent research on accounting innovations has aimed to explore the motivation and reasons behind the adoption of private or modern accounting techniques in public hospitals. Such research commonly applied institutional theory to understand the motivation behind accounting innovations. According to this theory, the implementation of more complex accounting techniques could be aimed to gain external legitimization and obedience to governmental recommendations rather than to improve financial visibility (Pettersen, 1995). Such motivations indicate that accounting information and practices are failing to penetrate medical decisions in hospitals. The possibility of such phenomena, according to Järvinen (2006), is even higher in the public sector where a higher financial independence from government subsidies exists.

Covaleski *et al.* (1993) drew on institutional theory to study the adoption of case mix accounting systems and DRG frameworks in the US hospitals. Both systems, according to them, were adopted in the US hospitals only as a "ceremonial system" to create a good reputation with the US Federal government, which is the main payer of health-care costs under the new DRG-based system of Medicare and Medicaid programs (Covaleski *et al.*, 1993). This is what Meyer and Rowan (1997) mean about "sagacious conformity" in which hospital administrators seem to use the new accounting techniques and technologies, but in reality they are not utilized within the hospitals' managerial activities (Järvinen, 2006).

Meanwhile, Järvinen (2006) explored the motivations and rationale for the adoption of ABC systems in two Finnish public university hospitals. She used (new) institutional theory to elaborate the motivation behind the adoption of ABC in the two hospitals. Based on the two separate case studies, she found that both hospitals had different motivations for adoption of ABC. The first hospital adopted ABC because of its desire to have accurate cost pricing. In this case, "ABC is seen as a potential solution to problems dealing with cost awareness, rising costs and general inefficiencies" (Järvinen, 2006, p. 31). On the contrary, the second hospital only adopted ABC to conform to the orders of external providers and thus to gain external legitimacy.

These previous studies have uncovered how public hospitals have reacted to changes of environment, financing systems and increased financial uncertainty. However, the studies to date have tended to focus on the emergence of new accounting practices, for example accounting innovations and the reasons behind them rather than the absence of accounting innovations in public hospitals although similar hospital reforms have been implemented. Indeed, a fair understanding of both phenomena is imperative to understand accounting changes in public hospitals comprehensively. In addition, a dichotomy of studies apparently exists as recent studies used a certain theory to explain its finding and focus only on the adoption of an accounting technique. The earliest studies emphasized factors that triggered accounting changes (by applying contingency theory), whereas the more recent studies explored mostly the reasons behind the changes (by applying institutional theory). Thus, each type of study unveiled and discussed a part of the accounting change phenomena, whereas other parts were elaborated in other studies from different countries and hospitals. Very few studies attempted to provide a whole picture of accounting changes that occurred within a single study which started from elaborating the triggers and followed by the motivation for changes, as well as how accounting can shape the organization's strategy. As a result, our understanding of accounting change and the infiltration of economic principles into hospitals is likely to be incomplete and fragmented.

It seems that the application of both contingency and institutional theories can provide a more detailed and comprehensive explanation behind the emergence or absence of accounting innovations in public hospitals. The contingency theory is able to define factors that stimulate the adoption of new accounting techniques or enhanced roles of accounting in hospitals. Following that, the institutional theory could confirm the reasons behinds these changes. Hence, the use of both theories in this study seems to be advantageous to explore the sequence of accounting changes that have occurred in these hospitals. Thus, the meaning of the accounting changes in the hospital context can be more easily understood and comprehended.

3. Research method and methodology

A multiple-case study method has been selected as the research method in this study. Preston (1992) believes that accounting changes cannot be understood separately without linking them with environmental changes or the internal structure of the studied organization. In this context, case study research can provide "[…] the ability to undertake an investigation into phenomena in its context" (Humphrey and Scapens, 1996, p. 89). It can be used to improve our understanding about the daily function of accounting and the paradoxes that occur within hospitals (Humphrey and Scapens, 1996).

Indonesian public hospitals have experienced serial changes in response to the impact of the 1997 Asian financial crisis. These changes were also triggered by the "[…] open and public demands for a more accountable bureaucracy and a transparent government" (Harun *et al.*, 2012, p. 276). In the first round of changes, public hospitals were targeted for organizational transformation through automation and modernization. The government also took the initiative to shift the public sector paradigm from a bureaucratic paradigm to a business-like empowered paradigm through the creation of *Badan Layanan Umum* (BLU or public service agencies).

According to Government Regulation No. 23 (2005), a BLU public institution should be managed based on the principles of efficiency and productivity. Hence, the core feature of the BLU status is financial autonomy for the management of the public hospitals. Before being given BLU status, public hospitals were required to transfer all collected fees to the owner on a daily basis. Meanwhile, the management had to follow bureaucratic procedures to obtain funding from the owner to cover their daily operational costs. These heavy bureaucratic procedures led to inefficient practices. Additionally, the BLU status was expected to stimulate an "entrepreneurial governance" paradigm, whereby the hospitals would become empowered organizations (DPPK-BLU, 2009). The new paradigm, "Let and make the Managers Manage" was expected to improve the efficiency and effectiveness of public services in particular health services in Indonesia (DPPK-BLU, 2009).

In the second change, the government introduced a new provider payment system, the DRGs payment system. The introduction of the Indonesian-DRGs (hereafter, INA-DRGs) was a part of the SJSN (National Social Security System) and BPJS (Social Security Administration Board) bills that aimed to accelerate the implementation of universal health coverage in Indonesia. The system has been gradually adopted in public hospitals over the past five years and now, in 2014, is the primary hospital payment system.

According to the Directorate General for Health Care Development, the aims of the INA-DRGs/CBGs are as follows:

- to establish standard hospital payment fees and to enhance transparency (reimbursement fees);
- to enable a more objective calculation of hospital care costs based on actual hospital costs;
- to pay hospitals based on their workload; and
- to improve the quality and efficiency of hospital care (MoH, 2009).

In addition, the previous multi-scheme PPS was very complicated and inefficient both for the providers and for the purchasers. The adoption of the single payment system, under DRGs, was therefore expected to reduce the complexity of the provider payment system in Indonesia.

This exploratory and explanatory case study was carried out in two Indonesian public hospitals between January and April 2013. These two hospitals were chosen because they operate in the same business environment, could provide relatively easy access to the required data and because of the willingness and openness of the key officers, including senior physicians/doctors, to participate in the interviews required for the research. Although these two public hospitals operate in the same region (Jakarta and surrounding areas), they have different challenges and problems as they differ in their size, type and ownership (Table I).

Four sources of evidence were used to get the research data, namely interviews, documentation, archival records and direct observations. In particular, the main source of data for this research was in-depth semi-structured interviews. This method was selected due to its ability to capture more information and also to interpret the behaviour of interviewees (Yin, 2009). In an in-depth interview, the researcher can ask about the facts of the matter and the opinions of the interviewees (Yin, 2009). All interviews were conducted in the offices of the interviewees during working hours, and most of them were tape-recorded. Interview sessions ran from 60 to 90 minutes on average (Table II).

Other evidence was collected through direct observations and from documentation and archival records, for example direct observations in the offices of senior or head physicians and of the accounting department. Evidence also included observations on the DRGs coding system and other procedures in the hospitals which provided ample opportunity for the author to understand the role of physicians in cost controlling, the role of accounting in medical activities and the usefulness of DRGs fees information. In addition, statistical data and other important hospital documents, for example patient treatment costs, annual reports and hospital performance reports and indicators were obtained during the field research or through email correspondence.

3.1 Alpha Hospital

Alpha Hospital is one of the largest public hospitals in Indonesia with 2,226 staff and 770 beds (in 2012). Almost 60 per cent of the hospital beds are Class III beds, which are for poor patients and are paid for by DRGs. This national reference and university public hospital is owned and funded by the Indonesian Ministry of Health (it is a so-called

Criteria	Alpha Hospital[a]	Gamma Hospital[a]
Type of care	Maximal medical care (Type A)	Intermediate medical care (Type B)
Legal format	State-owned enterprise (BLU)	A provincial government-owned enterprise (BLUD)
Owner	Ministry of Health	A provincial government
Number of staff	2,226 (2012)	808 (2012)
Number of beds	770 (2012)	282 (2012)

Notes: Data sources: profile of the hospitals and hospital websites; [a]not the real name of the public hospital

Table I.
Comparison of the two Indonesian public hospitals studied

No.	Questions	Interviewees
1	What are the implications of BLU status (Empowerment) for the hospital, especially for the financial viability of the hospital?	Deputy or Managing Directors, Accountants, Heads of Budgeting and Reporting Departments, Head Finance Department and Senior Physicians
2	What are the implications of using DRGs for hospital finances, especially for financial viability?	Deputy or Managing Directors, Accountants, Heads of Budgeting and Reporting Departments and Heads of Finance Departments
3	When and why was accrual accounting (and/or other new accounting methods) adopted by the hospital? What were the purposes and reasons/triggers?	Management Accountants, Heads of Budgeting and Reporting Departments and Heads of Finance Departments
4	How has the role of accounting in the hospital changed after the BLU transformation and also the implementation of DRGs?	Management Accountants, Heads of Budgeting and Reporting Departments and Heads of Finance Departments
5	What is the role of Senior Physicians/Doctors in accounting and cost controlling? Did their role change after getting BLU status and after the introduction of DRGs?	Management Accountants and Senior Physicians/Doctors
6	What accounting/financial information do the Senior Physicians have access to, and how do they use this information?	Senior Physicians, Accountants and Heads of Finance Departments
7	How has hospital management responded to the changes resulting from (a) the new BLU status and (b) the introduction of DRGs?	Deputy Director for Finance and Accountants
8	How have the serial changes in accounting affected the financial management and medical activities of the hospital?	Deputy Director for Finance, Accountants and Senior Physicians/Doctors
9	Has the introduction of DRGs improved the financial efficiency of the hospital?	Management Accountants, Heads of Budgeting and Reporting Departments and Heads of Financial Departments

Table II. Initial questions and interviewees (note all interviews were conducted in Indonesian)

vertical hospital). Moreover, over 76 per cent of the hospital staff including doctors and directors are salaried civil servants [PNS] (i.e. they are paid by the owner). The owner also pays for infrastructure costs and for some part of the hospitals' operational costs, for example utilities costs, whilst the hospital itself is only responsible for paying the salaries of non-government [non-PNS] staff.

Alpha Hospital has 12 specialist and sub-specialist units. The hospital provides advanced medical treatment not only for Jakarta residents, but also for patients that have been transferred from public hospitals in other parts of Indonesia. In 2012, there were 377,071 outpatient cases and 31,870 inpatient cases at Alpha Hospital. These numbers have increased gradually, especially after the implementation of universal healthcare coverage was started (in 2007) in Indonesia.

The Managing Director of the hospital is a specialist doctor, paid by the Ministry of Finance, that is he is a public servant (PNS). Similarly, the Deputy-director for Medical and Nursing Affairs and the Deputy-director for General, Human Resources and Education are also doctors who are PNS. The Deputy-director for Financial Affairs is the only director who is not a doctor. All the key officers and top managers in this hospital are PNS. Moreover, the hospital has 20 specialist groups, which are categorized based on their specialist area and supervised by the medical committee. These specialist groups are responsible for the quality and delivery of hospital care. These groups do not have direct access to the hospitals' budgets.

The hospital has experienced many organizational changes over the years. In 1992, the hospital was given *Swadana*[1] status, and at the end of 2000 it was transformed into a corporate unit (*Perjan*). More recently, in 2006, the hospital was granted BLU status, and in 2010, it became a type A-university hospital. As a BLU public hospital, Alpha Hospital is financed through the national budget (from the Ministry of Health) and also collects fees for treatment from patients. The budget funds can only be used for specific purposes, that is infrastructure and PNS salaries. Meanwhile, the patient fees collected can be used to cover non-PNS wages. In addition, starting in 2006, Alpha Hospital was one of the hospitals participating in the pilot for the Indonesian Diagnosis Related Groups project (INA-DRGs).

3.2 Gamma Hospital

Gamma Hospital is a referred provincial public hospital, which is owned by the DKI [Provincial City of] Jakarta local government. This public hospital has 282 beds and 808 administrative and clinical staff. 34 per cent of the beds are Class III beds, that is beds for poor people. In 2012, the patient records recorded 80,412 outpatient cases and 21,736 inpatient cases.

Moreover, around 27 per cent of the hospital's staff are PNS (civil servants) who receive salaries directly from the owner. The hospital is headed by a Managing Director, who is appointed by the local government, the owner. The Managing Director is assisted by two Deputy-managing Directors, namely the Deputy-director for Finance and General Affairs and the Deputy-director for Hospital Service Affairs. All the directors and other top managers are physicians/doctors or dentists. Similar to Alpha Hospital, the specialists at Gamma Hospital are grouped based on their expertise. These specialist groups are under the supervision of the medical committee and are responsible for the standard and quality of hospital health services. Additionally, the hospital has 13 divisions which have direct access to the financial resources. These departments, for example the Surgical Division, the Emergency Room Division and the Inpatient Division, can directly request medicine, new facilities and other equipment based on recommendations from their respective specialist group.

Since 1998, the hospital has been categorized as a type B hospital (Intermediate Health Care Provider). In 2007, it was transformed into a fully BLU public hospital. Before that, it had operated in a different legal format, namely as a local *Swadana* Hospital (1992-2003) and as a Limited Company [i.e. a *Perusahaan Terbatas* (PT) or corporation] from 2004 to2006. As a BLU hospital, the management now has greater autonomy, especially in financial management. The management can now collect and use fees paid by patients for operational purposes. Consequently, the hospital pays the

salaries and other remunerations for the non-PNS staff, whilst other expenditure, for example infrastructure costs and other routine costs, are paid for by the owner.

Generally, patients in both Alpha and Gamma Hospitals can be categorized into two groups based on the type of bill payment. The first group is general patients who pay their medical bills directly to the hospital because they are not covered by an insurance scheme. Hence, each hospital is required to calculate separate patient tariffs, especially for VIP, Class I and Class II patients. Meanwhile, the Class III patients who do not have insurance schemes pay the same tariff as Class III patients who have insurance. These Class III tariffs are determined by the hospitals' owner because the patients are poor people and mainly register for social health insurance provided and covered by the government (the owner). The Class III tariffs are mostly less than the hospitals' unit costs and from the point view of management are not profitable.

The second group is patients with insurance. The medical bills of these patients are reimbursed by their insurance providers. The hospitals used to agree with the tariff proposed by the insurance companies. However, the managements are negotiating the tariffs with the payees as the hospitals' cash flow has gradually changed since the decline in the number of general patients following the introduction of the universal health insurance program. Consequently, the need for more accurate and comprehensive cost information is vital.

4. Results from the empirical study

4.1 Case 1: Alpha Hospital

Alpha Hospital is one of the biggest public hospitals in Indonesia. But, the hospitals' accounting system has not been developed optimally. Accounting information is used mostly as a planning and reporting device, for example for evaluating whether the hospital spends more or less money than was budgeted. Meanwhile, a wider role of accounting in terms of cost containment is barely considered in the hospital. In fact, the management accounting unit does not produce cost information for controlling purposes, rather it determines physicians' service fees and unit costs as well as adjusting the hospital's receivable accounts:

> Our management accounting unit has not been developed optimally as it should be. We are not able to provide financial analysis information for each hospital unit. This unit only provides unit cost information. We have recently enhanced the system capacity because in the past, there was no demand for such detailed cost information (Management accountant, Alpha hospital).

The most significant change in the hospital accounting could be the adoption of accrual accounting. The accrual accounting was adopted as a part of the hospital legal form transformation from a budgetary unit to a semi-corporation (*PERJAN*)[2]. The main rationale behind this adoption was the limitations of the previous accounting methods, for example cash accounting in providing comprehensive cost information. Moreover, the hospital budget is still prepared using cash methods.

The head of the management accounting unit of Alpha Hospital reported that the role of accounting in the hospital has gradually increased in the past few years. Before 2012, the quality and validity of unit cost information in Alpha Hospital was questionable as the information was not produced punctually. As an example, the calculation of the unit costs for 2010 was finished in 2011 or at the beginning of 2013. This accounting information, therefore, had little meaning for the users, as it was very late and already

out-of-date. According to the management accountant, the demand for unit cost information was very low. In fact, the senior management and doctors rarely asked for any cost information. However, this situation has gradually changed due to the decrease in general patient numbers which used to provide a financial buffer for the hospital's expenditure.

Furthermore, the hospital's management has realized that they need more valid and detailed unit cost information to be able to negotiate tariffs with the insurance companies (or the patient's guarantors). "Without unit cost information, evaluation and negotiation of fees for reimbursement is almost impossible to do" (Management accountant, Alpha Hospital). As a result, Alpha Hospital has recently adopted a new costing method, namely ABC, to improve the validity of unit costs and in turn, to negotiate tariffs quickly and effectively. Besides, external pressure to develop ABC in Alpha Hospitals comes from the Association of Vertical Hospitals that obliges its members to develop cost-based hospital tariffs.

The DRGs system was introduced into Alpha Hospital in 2005. However, substantial accounting innovations which theoretically were expected did not occur in the hospital's accounting. Cost controlling and costing was still focused on aggregate/departmental costs rather than the unit costs for each DRGs case. Meanwhile, the management accountant had apparently no role as a cost controller, but rather was a producer of unit costs and physicians' fees and similar accounting information. Consequently, the management did not have relevant information to evaluate the profitability and efficiency of each DRGs case:

> Cost controlling is still centralized in management. The doctors are not yet involved in our cost controlling system. They are supposed to know the DRGs code for each of their patients (in order to control costs). The overall system, i.e. managerial and medical is not integrated (Head of Accounting Department, Alpha Hospital).

For the core hospital activities, namely the daily medical activities, accounting is still playing a secondary role. In fact, physicians are still not connected to the accounting and cost-controlling system. On one hand, doctors are not equipped with sufficient accounting information for controlling. On the other hand, they lack interest in it and in fact, they ignore the accounting information. This condition has not changed, although the hospital has experienced serial management changes:

> We "close our eyes" to the accounting (controlling), we do not want to know how much money the hospital receives from our patients or from their guarantors. We rarely discuss it with the management accountant. We only discuss our fees for service. We have no interest in it (cost accounting) (Senior Doctor, Alpha Hospital).

In response to the DRGs payment system, the management has no specific strategies to develop a better, more complex cost accounting system, for example case mix accounting. In fact, the senior management seems to disregard the new PPS and its consequences, although it has caused financial losses due to unrecovered patients' costs. Theoretically, the fixed rate feature of DRGs should encourage hospitals to contain the costs for each type of patient treatment. One way to do that is through acceleration of medical procedures to cut patients' costs, and more importantly, to be able to increase hospital productivity. But, such an expected response has not occurred in the hospital. For example, the hospital's average length of stay (ALOS) is remaining unchanged.

4.2 Case 2: Gamma Hospital

Similar findings have also been documented in the case study at Gamma Hospital. The hospital does not have a separate cost controlling or management accounting department section. Besides, controlling activities have mainly focused on cash flow management rather than cost controlling. Such a condition may be associated with the BLU status of the hospital, whereby a BLU hospital is only required to cover the salaries of non-PNS staff.

Furthermore, a modified accrual accounting system was adopted in the early 2000s when Gamma Hospital was transformed into a *Swadana* Hospital[3]. Meanwhile, full accrual accounting and ABC were adopted after the hospital was transformed into a corporate public hospital in 2004. Thus, it might be concluded that substantial accounting innovations should have taken place when the hospital gained a more autonomous organizational format:

> Before gaining BLU status or PT status, the hospital management's duties were only to manage the hospital's (core) medical activities; there was no requirement to develop the hospital at all. Financial reporting was not mandatory because all accounting tasks were performed by the local (provincial) government as the owner. The reporting tasks were centralized because the assets were recognized as the owner's assets rather than the hospital's assets. Our duties were to report our activities and how much revenue the hospital had generated (Head of Accounting Department, Gamma Hospital).

The segregation of functions between medical activities and managerial accounting activities is clearly observable in Gamma Hospital. The physicians believe that they do not have any responsibility for cost controlling and account calculations. Besides, they argue they do not have time to be involved in cost controlling due to being overloaded with patient numbers. This seems to be a common reason for the reluctance of physicians to participate in cost-controlling activities in hospitals:

> The relationship between hospital and doctors is like a railway line. We work together, but we work on different tracks and have never been united. Regarding accounting information, we only receive our pay checks. Other accounting information is not made available to us. The management does not share this information with us. We only receive information regarding our tariffs for consultations, medical checkups and Roentgen screening costs (Head of Medicine Committee, Gamma Hospital).

Even after the introduction of DRGs, new accounting practices and an enhanced role for accounting are still absent. Accounting is still not integrated with doctors' practices and mainly serves as a medium for financial reporting to the owner. Such unchanged accounting practices can be attributed to how the hospital has responded to the introduction of the DRGs system. Similar to Alpha Hospital, changes in hospital strategy due to the introduction of the DRGs system have not been documented. The common and classical hospital behaviour, that is reduction in ALOS, has not occurred in this hospital. In fact, the management may feel no need to do so as financial responsibility has not been fully shifted to the management, and more importantly, the hospital's owner covers the hospital's deficit.

5. Discussion

Previous management accounting studies have documented a linkage between organizational and hospital payment system changes, such as the introduction of the

DRGs based provider payment system, with the introduction of accounting innovations in hospitals (Hill, 2000). In this context, contingency theorists argue that hospitals should react to changes in hospitals' contingency factors, such as the adoption of a new payment system through introduction of innovations in accounting (Rayburn and Rayburn, 1991). Hence, accounting change can be seen as an organizational response to changes that have occurred to remain efficient and effective (Jones, 1985). But, accounting innovations, according to institutional theory, can be associated with efforts to gain legitimacy from external parties rather than to improve efficiency and contain costs. In this study, both theories are used to explore not only the triggers, but also the motivations for accounting changes to obtain a more complete understanding behind accounting innovations in the hospital context.

According to Pettersen, hospitals have long been seen as social institutions, in which economic logic and interest are barely taken into account. Hospitals have both social dimensions and political dimensions that to some extent are not fully compatible with economic (rational) logic (Pettersen, 2004). This feature determines the role of accounting in hospitals because accounting logic can only exist in an organization where economic interest exists (American Accounting Association, 1965 as cited in Kurunmaki, 1999).

Both Alpha Hospital and Gamma Hospital are still traditionally managed. Firstly, the owners are still providing financial protection to these two public hospitals, for example covering the hospitals' deficits and routinely subsidizing a large portion of the hospitals' expenditures. As a trade off, the owners can intervene in the hospitals' financial policies, for example the Class III tariff. The Class III official tariffs are under-cost or less than the hospitals' unit costs because of the owner's interest in providing affordable healthcare for their (poor) patients:

> There is no punishment if the hospital has a deficit at the end of the year. This hospital is a public service provider. We do not focus only on financial aspects, but the most important (aspect) is the hospital's benefit for the people (Financial Director, Alpha Hospital).

> If the hospital has a deficit, the owner will cover that. We do not need to be worried. We just need to tell the owner that we have a deficit, and the owner will immediately cover it (Vice Director for Financial Affairs, Gamma Hospital).

These financial guarantees and owner interventions apparently discourage the management to be more concerned with the hospitals' financial performance. More importantly, this situation reflects how the owners (who are the governments) still see their public hospitals as social institutions rather than separate economic entities that need to be responsible for their individual financial resources. Such a traditional paradigm, according to Alam and Lawrence (1994), defines public hospitals' activities as the implementation of social justice to ensure the fulfilment of citizens' rights. The owners' paradigm has also shaped the managements' priorities and the hospitals' vision. Besides, the majority of the hospital top officers are PNS who are salaried, recruited and appointed by the owners, including the Managing Directors. As a result, the managements emphasize the quality and quantity of hospital medical care more than their economy and efficiency, thus, reflecting the owners' interest. The infiltration of economic logic into the public hospitals that supposed to be stimulated by the previous organizational and payment reforms has stagnated or even been ignored:

> I have been working here for ten years and we have never had a surplus in our financial report to the government. The deficits are not a problem. In fact, the government will question us if we have a surplus because this hospital's goal is not profit but to improve the quality of service. Thus, we do not need to adopt a full costing method in our tariff calculations because part of them is covered by the government. Besides, if our tariffs are higher, the government will not be able to afford to reimburse them all (Head of Accounting Department, Gamma Hospital).

Secondly, the predominance of physicians in the hospitals' top management has deflected the penetration of economic logic into the hospitals. The Managing Directors and nearly all Deputy-directors of both hospitals are doctors who have more interest in saving patients lives at any cost rather than in the financial viability of their hospitals. In fact, the Deputy-director of Gamma Hospital and the Head of the Budgeting and Reporting Department of Alpha Hospital are both doctors. More significantly, the hospitals' top officers have little or no experience and educational background in the economics and business administration. Their decisions seem to be inspired and motivated mostly by their medical and professions norms rather than by financial consideration. Subsequently, the administrative and managerial staffs have an inferior role in the hospital management and are hesitant to involve the doctors in accounting and cost controlling activities:

> In Indonesian public hospitals, the managements' main focus is the medical services, not the financial administration. The financial administration justifies the medical services. The Managing Directors' concern is with the quality of medical services rather than with economic efficiency. Even the Ministry of Health is interested more in quality improvement than in financial performance improvement (Head of Planning and Budgeting Department, Alpha Hospital).

Taken together, the current situation in these two Indonesian public hospitals is similar to the situation in European public hospitals during the late 1980s, just before the era of modernization in public hospitals started to take place (Durán *et al.*, 2011). The public hospitals there were then led by directors who had little or no experience and educational background in private sector management and were politically connected to and appointed by the government as representatives of the ruling political parties (Durán *et al.*, 2011). Meanwhile, the clinicians and their professional norms dominated the hospitals' management decisions (Kurunmaki, 1999). Power was held by the physicians who had the right to make decisions primarily based on their own professional training and code of conduct and to ignore any administrative considerations and any economic logic (Alam and Lawrence, 1994). Consequently, budget over-runs were common because the physicians had little concern for patients' treatment costs (Alam and Lawrence, 1994). However, these old management practices have now been removed and replaced by modern hospital management practices through transformation of public hospitals from budgetary units to corporatized units or even privately managed units following the introduction of New Public Management concepts (Lapsley, 1994).

In the Indonesian context, similar efforts to modernize public hospitals and make managements financially responsible have so far been unable to transform the hospitals to become more businesslike. The BLU status, consistent with Harding and Preker's (2000, p. 9) opinion, "[…] did not get at the roots of the problem of poor incentives inherent in the organization of health service deliveries in the public sector". Such efforts to empower the managements of public hospitals did not release the public

hospitals from the owners' direct control or shift full financial responsibility to the hospitals' management. In fact, the owners apparently do not have the intention (so far) to make public hospitals separate economic entities which are fully responsible for the hospitals' financial viability. As the managements are not fully responsible for the financial viability of their hospitals, economic logic within the hospitals' daily operations barely exist.

In line with contingency theory, we argue that the contingent factors for the Alpha and Gamma Hospitals have not changed significantly after the empowerment and economic rationalization of the public hospitals' operations. Consequently, there is almost no stimulus or necessity for accounting innovations in the hospitals management. The owners still act as the financial guarantors of the hospitals, whilst the managements are evaluated mostly based on the quality and quantity of service provided by their hospitals rather than by any financial indicators. In addition, competition between providers in the Indonesia healthcare sector barely exists. More importantly, the key actors, namely owners, physicians and managements, share a similar mindset that the public hospitals are social institutions which are not supposed to seek profit or even full cost recovery from their mainly indigent patients.

Meanwhile, reconfiguration of the provider payment system is aimed to shift hospital incentives or strategies to getting better value for money or to being more efficacious, maybe even making a surplus which could be reinvested in improving facilities. Hospitals are expected to respond to these incentives; otherwise, the hospitals might bear losses, as their actual patients' costs are higher than the reimbursements they receive. But this is not the case, if the hospitals do not have an economic interest, that is contracts that require them to seek to attain a sound financial performance. In other words, the Alpha and Gamma Hospitals have a relatively weak economic interest to make a surplus or to avoid a deficit. Indeed, they are not required to do that. Thus, the passive responses of these two public hospitals can be understood.

Moreover, this study found that organizational reform is more likely to stimulate accounting changes, that is an enhanced role of accounting than changes in the payment system for public hospitals. The former introduces economic interest in public hospitals, whereas the latter shifts hospitals' behaviour. This study documented that the latest adoption of new accounting techniques, namely accrual accounting and ABC, are triggered by the transformation of the public hospitals from budgetary units to public corporations (e.g. *Perjan*) and a decrease in the hospitals' cash inflow due to a decline in the number of general patients. Both conditions have encouraged the hospitals' managements to adopt private accounting methods to control costs and negotiate better reimbursement rates with the insurance companies.

Furthermore, Alpha Hospital is owned by a provincial government, whereas Gamma Hospital is owned by the Ministry of Health. It seems that their owners have a lack of concern for their hospitals' financial performance. Rather, they focus more on the quality and accessibility of hospital care. The owners seek not monetary profits from their hospitals rather political profits from cheap and affordable hospital care. This is what they have promised to their voters and supporters in the election period. Besides, the owners pay the hospitals' staff (civil servants) and other expenditures by transferring funds allocated from the central government. Thus, the owners seem to have a less direct responsibility for the hospitals' financing and in turn, they are concerned more with the

availability, quality and accessibility of hospital care which are sensitive issues nowadays in Indonesian mass media.

Apparently, the central government's proposals to make public hospitals cost recovery enterprises and to contain costs for hospital care appear to have been not fully supported by the owners of the public hospitals. This situation seems to indicate that the central government as the national budget holder did partially consider the interests of the local governments as the hospitals' owners. There are factors that might conflict with the central government's mission to contain the costs of public hospitals through serial hospital reforms. The absence of economic interest in the operations of public hospitals, competition between hospitals and powerful incentives embedded in the DRGs system have discouraged the hospitals' management to respond expectedly. Thus, the bills are easier to be written than implemented.

Lastly, this study unveiled that accounting innovations or changes will emerge (after the hospital reforms) if the managements are fully responsible for financial viability of their hospitals. In particular, if their salary and the salaries of other staff are paid from income earned by the hospital and thus tied to the financial viability of their hospitals. In this situation, a powerful economic interest would be there and the managements would have a major motivation to adopt and improve the role of accounting to survive financially.

6. Conclusions

Theoretically, modernization of public hospitals and adoption of a case base payment system can stimulate the adoption of new accounting methods and intensify the role of accountants in hospitals. But, this is not the case in the two public hospitals in this study. The serial changes that have occurred have not been followed by appropriate changes in accounting practice at these two hospitals. Thus, this case study research confirms that hospital payment reform is unlikely to lead to accounting innovations if the necessary powerful economic interests do not exist in the public hospitals concerned (American Accounting Association, 1965 as cited in Kurunmaki, 1999).

The two selected public hospitals in this study are different in terms of size, ownership and type. These differences make them an interesting pair, given that their responses to the serial changes and the current role of accounting are identical. In addition, the owners of the hospitals have the power to control the hospitals as most of their staff are PNS (civil servants) who are recruited and paid by the owners. Meanwhile, the Managing Directors seem to act as administrators of hospitals rather than as managers. They are not equipped with sufficient autonomy and authority to manage their hospitals efficaciously, and more importantly, have limited responsibility for the financial viability of their hospitals. These circumstances have not changed despite some empowerment of the hospital managements has taken place.

Based on these findings, this study proposes that accounting changes in public hospitals are triggered by the combination of several factors, namely the existence of an economic interest within the hospitals' management, management autonomy and responsibility, power of physicians and incentive embedded in hospital financing system. Thus, the introduction of DRGs should be preceded by substantial changes in public hospital organizations, that is incorporation of the public hospitals. It seems that the empowerment of the public hospitals through the BLU status in the Indonesian public hospitals failed to create the required economic motivations in both hospitals.

Unlike the hospital trusts in the United Kingdom, the BLU status only permitted these two hospitals to manage their own collected revenue, whilst other crucial decisions for the hospitals are still made by the owners. On top of that, the public hospitals are still financially protected by their owners, and in turn, the managements are not fully responsible for the financial viability of their respective hospitals. As a result, cost containment discourses are barely seen in the hospital daily activities.

Finally, there are limitations to the results of this study due to the small number of cases and the short period of observation and data collection. Consequently, the results should be used cautiously and cannot be generalized as common to all Indonesian public hospitals. Therefore, future research could use quantitative methods to capture common accounting practices and innovations used in Indonesian public hospitals. More importantly, we believe that further studies should be done on Indonesian public hospital responses and strategies to the DRGs based payments scheme, plus the doctors' perspective on accounting information and required changes or reforms in public hospitals that potentially can stimulate the emergence of a stronger economic incentive for efficiency improvement in Indonesian public hospitals.

Notes

1. A *Swadana* public hospital is allowed to manage fees collected from commercial beds (VIP patients). The fees collected can be used to improve the hospital's capacity and for staff remuneration. Meanwhile, fees collected from Class III, II and I patients have to be transferred to the owner on a daily basis.
2. A more autonomous and independent legal form but the hospital staff are still civil servants.
3. Before this transformation, the hospital was a budgetary unit of the owner in which financial reporting was even less important.

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