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The role of budgets, accounting information and (non-) decisions in hospital settings

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The role of budgets, accounting information and (non-) decisions in hospital settings[1]

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This paper investigates the link between budgets, accounting information and the decision-making processes at both strategic and operational levels in a large Norwegian hospital, as this hospital now is facing the New Public Management reforms which are introduced in Norway. The study has examined the use of budget and accounting information in the management control process. The empirical data are based on interviews with key actors in the decision-making process at all management levels in the hospital.

The study found that budgets were not perceived by clinicians as important decision tools at the clinical levels in the hospital. The professionals felt a strong moral obligation to patients. This loose coupling between budget information and clinical action identified an inconsistency in the norms and values between the clinical and the managerial world of the hospital.

In this two-worlds of responsibilities the function of the clinical managers at the department levels was found to be of vital importance as mediators between top level managers and the

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individual clinicians in the department and specialties. Informal "coffee-room talks" indicated that dialogues were important means of control, which could compensate for the lack of more formal and cybernetic control systems. Such frequent and informal communication may also serve a buffering function because it offers meeting points for negotiation and adjustments to initial budgets during the year. These coordination mechanisms take the mode of network based organising which can be favorable in managing organisational interdependencies.

1. Introduction

The world-wide public sector reform processes imply a series of changes at all levels of service production within a wide range of services. Until recently, Norway has been a hesitant reformer. However, during the last couple of years the Norwegian government has introduced large changes in the management of hospitals. In many respects, these changes follow the concepts and frameworks of the New Public Management (Hood, 1995). Private sector management techniques are being introduced, accompanied by the introduction of performance audit schemes and a more explicit demand from the hospital owner (the state) to implement evaluation programmes to assess efficiency and effectiveness. The use of accounting information is a central element in these reforms, and consequently, 'accountability' and 'responsibility' are key words in this respect.

Against this background, this paper investigates the link between budgets, accounting information and the decision-making processes at both strategic and operational levels in a large Norwegian hospital that is now facing public management reform. The research question is to investigate these parts of the budget control processes as they are perceived and practised at these decision levels.

One motivation for this research focus is the assumption that The New Public Management (NPM) reforms are built on a rational model of decision making, where accounting, auditing, and accountability systems are introduced to gain more relevant information. This information is supposed to enhance efficiency and effectiveness in the public sector. Considerable research has been published in recent years that seek to evaluate the effect of these reforms on public sector management. The research has, however, to a large degree questioned the normative view which presupposes a more or less automatic and direct coupling between accounting information and high quality decisions in hospitals (Jacobs, 1998; Jones & Dewing, 1997; Lapsley, 2001; Llewellyn, 1997; Modell, 2001; Olson et al., 2001; Pettersen 1995).

One reason for these findings can be the observation that financial and performance information to guide clinical staff have been very fragmented (Pettersen, 2001), and that there is a long way to go before costing information is legitimated in clinical decisions (Kilpatrick et al., 1998). Another obstacle for the effective use of budgetary forms of control in hospitals

is the absence of identification with the managerial goals and values necessary to fully engage the benefits of these controls (Abernethy and Stoelwinder, 1991). One explanation is that physicians are 'dominant professionals' and their 'primary loyalty belongs to their profession rather than to their employing organisations' (Abernethy, 1996: 143). In this paper we go further into these questions about management control in hospitals by focusing on the budget control processes at different decision levels.

In the following section we outline a framework for the empirical study with a focus on three main perspectives. Theoretical propositions are developed for each of the perspectives. Thereafter the case study is presented, and then the empirical findings are discussed. In the last section of the paper, we summarise and discuss the main findings. We also make some suggestions for further research.

2. Theoretical frameworks

Introduction

Budgeting and accounting in public sector management were previously seen as a means of planning and reporting. However, through the management reforms briefly described above, these processes are now regarded more as a controlling devices (Olson et al., 1998). Especially, the emphasis on accounting systems has contributed to the construction of more rational organisations; in particular, rational hospitals, in which individuals can be defined as being in control and having responsibility (Miller, 1992; Roberts and Scapens, 1985). The trend now is for public services to be controlled to a large extent by means of accounting systems and/or evaluation procedures that compare objectives to results (Power, 1997).

When introducing accounting systems as a more vital part of the hospitals' management control system, we here focus on three perspectives. First, the creation of accounting entities has to be done within complex hospital systems of functional interdependencies. Furthermore, more clearly defined responsibility areas should be developed in an organisation where high quality care is produced in project teams with joint responsibility for problem solving. And the last perspective to be discussed is that hospitals, due to their complex structure and tasks, are characterised by degrees of loose couplings between plans and action. All these perspectives mentioned here describe elements that may more or less hamper the use

of budgets and accounting information in decision processes in the hospitals. Each of these perspectives will be discussed below.

Accounting entities – coordination or fragmentation

As systems like accounting information are becoming more important in the management control processes and consequently, the accountability norms are changed, organisational action will also change and be reconstructed. In restructuring accounting systems, boundaries have to be constructed both (a) internally (grouping of units into organisational entities) and (b) between the organisation and its environment (by defining costs, results, income, and so on). One main problem in hospital settings when creating accounting entities is the hierarchical and functional organisation of the institution, which in turn is based on an organisation of departments (according to medical specialities and non-medical functions) with further hierarchies within departments. These elements make hospitals into very complex structures when defining administrative entities. Furthermore, patients are administered within a hospital according to *clinical* decisions, and as they travel through the hospital they may cross numerous *administrative* boundaries. Thus, the framework of accountability in areas where ambiguous boundaries are found will make it difficult to operate an accounting system set up to control and measure the results of the entity's activities.

Accounting systems and *accountability* relies on relevant information, with information about cost, performance, standards, and targets being given in a timely manner to key decision makers. These key decision makers are those who exercise the power to decide the treatment of patients and to prioritise activity within resource limits. In the hospitals the doctors and nurses are the central actors in the performance process. *Accountability* refers to the giving and claiming of reasons for conduct, and in a broad sense accountability can be seen 'as a chronic feature of daily conduct' (Giddens, 1984:57) and the 'binding' of organisation time and space. This is to say that the accounting system divides the organisational activity into 'accounting' periods and contributes to the generating of reports. Furthermore, accounting involves the creation of the most important boundaries of an organisation – the boundaries (internal and external) that are brought about by the system of accountability: 'Within these boundaries the physical organisation of space in terms of hierarchical functional and divisional patterns are not just reflected in, but are also reproduced through the operation of systems of accountability' (Roberts and Scapens, 1985:448).

Reforms aimed at making leaders more responsible by creating autonomous organisational entities presuppose clearly defined responsibility areas. These entities are visualised through the accounting system, which regulates the leaders' responsibility. Moreover, the leaders' performance will also be evaluated by the same accounting information. By making new accounting entities, hierarchical lines of responsibility may deviate from the functional lines of responsibility, which follow the clinical decisions on the treatment of patients. As the importance of accounting information increases, evaluation of leaders/clinical managers favours a reconstruction of hospitals from a system of networks to a system of (more or less) autonomous entities.

As accounting information becomes more important in the management control process, there is a need to create accounting entities to secure unitary lines of responsibility. Hospitals have traditionally been organised as loosely coupled and interrelated networks. As the unitary lines of responsibility are to be developed, hospitals may gradually be governed by more interaction between autonomous entities . This restructuring of hospitals may lead to fragmentation into several more or less autonomous organisations which must be coordinated through formal transactions rather than by hierarchy. By constructing unitary lines of responsibility, the hospital reforms (following the NPM logic) create new organisational identities and hierarchies. With this background, we put forward the following proposition:

P1: Reforms which aim at making clinical managers (in decentralised organisational entities) more responsible for economic performance, are based on accounting information as one main source of evaluation. As accounting information becomes more important, the hospital will face increased fragmentation, as the hospital develops more autonomous organisational entities.

Individual performance or communal values

Hospitals are knowledge-intensive organisations, characterised by ambiguity and interdependence. In the literature, class- and trust-based governance forms have been mentioned as alternatives to using formal control mechanisms when it is difficult to measure the outcome of actions (Ouchi, 1980). In such contexts the reliance is put on the individuals' ability and moral inclination to act in the interest of the whole organisation. Thus, the alternative to highly formalised rules of accountability is action, guided by internalisation of professional norms and values, such as the norms inherent in medical education. These norms are built into the notion of responsibility to clients, as is the case in hospital settings.

However, economic rationality is based on an instrumental view of the relations between actors' purposes and their actions. This normative view is mirrored in the key concepts of *responsibility* and *accountability*, which are often used interchangeably. In Scandinavian languages these words are synonymous and expressed in one word 'ansvar'. However, the term accountability can imply instrumentality and external control, whereas responsibility connotes morality and inner control (Lindkvist and Llewellyn, 2003). An accounting system based on (blind) instrumentality may lead to fragmentation where organisational actors are concerned about instrumental accountability and neglect moral responsibility – a responsibility based on individual obligation.

The terms accountability and responsibility can be equated both with individual and communal/cooperative bases (Lindkvist and Llewellyn, 2003). This implies that an individual perspective focuses attention on the accounting measures and standards set by the leaders, irrespective of their interdependence on other individuals. On the other hand, an accounting system focusing on collaboration signals that goal attention depends on collective action in a group. Consequently, the separation–collaboration dimension indicates different organisational contexts, see Table 1, following.

Table 1

The Contexts of Responsibility and Accountability

	Power base = rules/transfers	*Power base = loyalty, norms/sharing*
Separation	Individual adherence to rules (I)	Individual performance (II)
Collaboration	Adhocracy (III)	Community/communal values (IV)

Source: Adapted from Lindkvist and Llewelyn (2003).

The traditional bureaucratic context is typically guided by a separation of roles of the actors into fragmented parts of the organisation, such as departments (Situation I in Table 1). Moreover, the actors work alone, more or less separated from their co-workers (few interdependencies). They are responsible for their individual performance according to rules, and the organisation's power base is the individuals' adherence to rules. Another situation (Situation II) is seen when people still work separately, but their work relies on loyalty to

some professional set of norms and sharing of values. Such professional knowledge is expressed by the individuals' performance as evaluated according to duties and capabilities (performance norms) towards which they feel an inner responsibility, beyond mere accountability towards rules (as the power base).

In work situations where collaboration is a means towards high quality work, adhocracy (Mintzberg, 1979) or temporary project teams can regulate the performance process (Situation III). In many respects, much work in hospitals can be compared to that of project teams, performing joint tasks in patient treatments. Here, mutual adjustments characterise the coordination of the individuals' contributions, based on rules specifying goals and results, and where interaction takes place within limited time periods. However, care and patient treatment and administrative tasks are intertwined activities in health care services. The coordination of tasks and clinical knowledge has to rely to a large extent on clan modes of control (Ouchi, 1980), which depend on professional norms, values, and beliefs. This is expressed (by Situation IV in Table 1) as a context of work depending on collaboration (between actors) and based on evaluation through clinical/professional values. Ouchi's (1980) framework of clan control illustrates the governance structure in hospitals as professional bureaucracies. According to the Ouchi (1979) and Williamson (1975) frameworks, we can argue that hospitals work under environmental uncertainty, which to a large extent influences the choice of control systems (Jacobs, 1994).

Collaboration between team members in patient situations may not follow the lines of administrative accountability. The treatment of patients in modern hospitals is based on knowledge sharing, where the clinicians are equally and jointly responsible for solving problems related to treating patients. However, the fragmentation of hospitals into hierarchies, sub-specialities, and functions makes knowledge sharing difficult. Too strong a focus on a hierarchical, individualising form of accountability may induce negative consequences for the individual and the organisation – and in the end have a negative influence on the quality of care.

The hospital hierarchy of managerial decisions is, however, much more complex. The first level of decision is the meeting between the clinical staff and their patients. A relevant issue at this level is the attitude among clinical staff towards the use of accounting information in face-to-face meetings with their clients. What is relevant accounting information at this level?

The next hierarchical step in the managerial decision chain is at the department level where a clinical leader meets with his colleagues. A further decision level appears in the relationship between the department leader and the clinical division leader. At all these levels, decisions are made which have clinical, economic, and managerial consequences, but the relevance of accounting information will be different at each level.

Moving our attention upwards in the hierarchy from the first level – the meeting between doctor/nurse and patient – to the administrative department level, we may expect that the logic changes from the team-oriented, collective focus at the clinical level to a more individual focus at the managerial level, see table 1 (Situation I). The treatment of patients presupposes collaboration between actors; however, each actor may have an individual perspective on the work. This individual perspective may be dysfunctional at the patient-decision level, because this focus is separated from that of the collective doctor–patient or nurse–patient relations. In general, the clinical leader at the department level is very often evaluated according to his/her ability to keep to the department's budget limits. On the other hand, individual clinical staff will be evaluated according to clinical performance, a dynamic that implies that they are more or less dependent on the collective work performed by colleagues. Here we notice an evaluation and control dilemma among the different levels of the hospital hierarchy.

This evaluation dilemma between the focus of administrative control and the professional freedom of the clinicians challenges professional autonomy. Access to information can therefore be seen as a power base, and information asymmetries are known as an important context of decision making. Information about doctors' activities is wanted by the hospital managers, but it might not be given to the hospital management system, because the clinical staff may want to secure the autonomy of their work. That is to say, clinicians are interested in accounting information as relevant for their own activity, but not necessarily as a means of central managerial activity.

Here the terms accountability and responsibility are relevant. Doctors are responsible to their patients: yet clinical responsibility may not be synonymous with managerial responsibility. The difficult question is whether the role of budgets and accounting information is to be an element to improve clinical action or as a means of central management control.

On the basis of Table 1, we may expect to find two different responsibility areas in hospitals: the administrative and the clinical. These separate lines of authority put different claims on the management systems. Consequently, we introduce two further propositions:

P2: The administrative responsibility area is identified according to organisational entities governed by hierarchical systems of authority based on individuals' adherence to rules. This is illustrated by Situation I (and to some degree Situation II) in Table 1. In this administrative area the authority system is based on accounting information as an important means of evaluating individual performance.

P3: The clinical area of responsibility cannot be divided into autonomous/unambiguous organisational entities in hospitals. The clinical responsibility follows the patient across accounting entities. This is illustrated by Situation IV (and to some degree Situation III) in Table 1. The authority system is based on the professionals' adherence to norms and a moral inclination to act according to values. The authority system is based on collaboration and communal values.

Loosely coupled systems and complex hierarchies

March and Olsen (1976) wrote about decoupling plans from action because of the different logics which are apparent in organisations like hospitals. The administrative culture is built on the logic of consequentiality, whereas the clinical culture, governed by doctors and nurses, is built on the logic of appropriateness. This split between talk (administration) and action (clinical work) can be considered rational when organisations act in contexts which are dominated by inconsistent demands. Following this line of argument, hospitals can behave quite rationally by decoupling their budgets (plans) from their actions (clinical decisions). Plans and actions can also be decoupled from the rhetoric that can be observed, for instance, in the mass media and expressed in political statements. In order to satisfy the diverse needs of all the actors in a complex context, hospitals must learn how to deal with inconsistencies (Meyer and Rowan, 1977). As can be seen from this discussion, these rationality norms can be different from the rationality built into normative theories in management control.

Standard prescriptive theories consider organisations as rational systems with tight couplings between the different elements of the management control process (see, for example, Anthony and Young, 1988). This part of the management control literature assumes tight couplings, a well known transformation process, and a predictable organisational behaviour that is hardly ever observed in real settings. A more descriptive perspective has shown that different

elements in the management control process can be totally decoupled, without responsiveness, or that the couplings can be loose (Orton and Weick, 1990). The concept of 'loose coupling' can be defined as

> a situation in which elements are responsive, but retain evidence of separateness and identity (Weick, 1976, in Orton and Weick 1990: 203).

The concept of loose coupling helps us to explain the simultaneous existence of rationality and indeterminacy. Systems can be coupled, with elements that are linked, yet at the same time the couplings may be loose, the elements preserving some degree of indeterminacy. According to Weick, loose coupling is evident when elements affect each other

> …suddenly (rather than continuously), occasionally (rather than constantly), negligibly (rather than significantly), indirectly (rather than directly) and eventually (rather than immediately) (Weick, 1982, in Orton and Weick 1990:203).

This is a well known situation in public sector organisations. Loose coupling may have some desirable effects in these settings, because it creates persistence and serves as a buffer towards turbulence in the political environment. Moreover, it creates local discretion and adaptability to different external and internal expectations. However, the unpredictability inherent in these loose couplings creates a management control problem. The prediction and activation of cause–effect relations is made more difficult because relations are intermittent, lagged, abrupt, and mediated.

Different studies have concluded that hospitals are loosely coupled organisations. Pettersen (1995) found loose couplings between decisions and action in Norwegian hospitals. Covaleski and Dirsmith (1983) found loose coupling between hierarchical levels in hospitals. They suggested that effective nurse administrators alternately don 'budget masks' for communications with hospital administrators and 'clan masks' for communications with nurses. According to Covaleski and Dirsmith, loose coupling between hierarchical levels occurs when people are willing and able to speak different languages at different levels.

We anticipate that the degree of coupling between decisions in the budget and decisions in action will vary among hierarchical levels in the hospital. Top management may lack the

necessary competence to control in a strictly hierarchical sense. They have to leave all decisions concerning medicine to the doctors and nurses, including the judgement and setting of objectives. Top management is left with the budget responsibility. Consequently Proposition P4, following, hypothesises that hierarchical control models are found at this level. These are control models that presume tight couplings between decisions and action.

At lower levels in the hierarchy, we come close to the doctor–patient or nurse–patient relation. Here we expect medical responsibility to guide action, a responsibility that according to Proposition P3 needs control models appropriate for collaboration and discretion. Consequently, at lower hierarchical levels in the hospitals we expect to find looser couplings between formal budget plans and action. Based on these assumptions, we put forward the two new propositions:

P4: At the top management level, we expect to find tight couplings between the budget and action.

P5: The further down in the hierarchy and closer to the clinical decisions, the looser the couplings are between budget and action.

3. The empirical study

Introduction

We need to study the use of budgets and accounting information in the clinical setting in order to understand the implementation of management reforms in complex organisations like hospitals. The present study contributes to this knowledge by addressing the five stated propositions and the question of how budget and accounting information is used at strategic and operational levels in one of the largest university hospitals in Norway. The empirical study described here is based on accounting and budget information combined with in-depth interviews among key informants.

The research method

Budgeting and accounting as systems can be defined as a complex web of interdependent practices (Giddens, 1984). To understand the actual operation of systems, it is therefore necessary to go beyond the descriptive accounts and to study how the key decision makers understand the systems and the consequences of actual practice. In practice, different actors will perceive a particular system in various ways, and the use of systems will both reflect and

generate different interests (Hopwood, 1972); it will face unanticipated conditions and consequences (Roberts and Scapens, 1985). The term system of accountability is used to refer to a system as it is embodied in practice.

On this background, we have chosen to make a case-study research in order to understand a complex system in practice (Yin, 1994). The research method was based on qualitative data, meaning that our empirical information depended on the responses from members of the organisation. These members were key decision makers, and their attitudes and knowledge provided input to our deeper understanding of managerial processes in the hospital. Much of the management control process is informal and based on the interpretation and actions of the individual decision makers in the organisation. Consequently, the interpretation and viewpoints of the organisational members are vital data when studying managerial processes.

By conducting interviews with key actors in the management control process, we were able to identify the processes in practice. The choice of respondents was made among clinical directorates and departments which represented the largest parts of the hospital defined by number of patients treated, amount of budget resources, and number of professionals working in the departments. The respondents in our study were the general manager of the hospital, the manager of financial affairs, two managers of clinical directorates, three clinical managers in different departments, one manager of a specialist division, and three staff specialists from the finance department (decentralised to different medical departments). The participating directorates were "the abdominal directorate" and one attached clinical department, and "the heart and lunge directorate" with two of its clinical departments. The manager of the heart surgery specialist division of "the heart and lunge directorate" was also included in the interviews. Consequently, all the levels in the management hierarchies were included.

The data collection was based on semi-structured interviews with questions focusing on the steps in the formal management control processes. One of the researchers had a good knowledge of the hospital before conducting this study, as a result of doing previous studies in the same organisation. Due to this knowledge and insight into the hospital, the researchers had easy access to the respondents at all levels. The interview guide was pre-tested in the project group before the data was collected. The questions were written down and handed out to the respondent at the beginning of each interview. In order to obtain valid information, each construct was explained and discussed with the respondents during the interviews. All

the interviews were conducted by two researchers, and one made the interviewing and the other took notes from the discussion. The interviews were transcribed, and a summary of the transcriptions was sent to each of the respondents for comments or corrections. Each interview lasted for about 90 minutes on average. The data collection was made during the second quarter of 2002.

Furthermore, supplementary information was gathered by interviews with 13 physicians from one medical department; about half of them held managerial responsibilities. These interviews were treated as contextual information, and they are not explicitly referred to in this paper. Secondary data such as several budgetary documents, formal accounting information and internal written information and notes were also included in our study in order to gather relevant context knowledge about the hospital.

The key informants have provided most of the information used in this study. While this may have introduced elements of bias to the study, the notion of key informants are well recognized in the qualitative research literature (Rubin and Rubin, 1995). This research method is well suited to increase knowledge relevant to our research question. However, our findings can only to a limited extent be generalised to other hospitals due to the lack of external validity in such case studies.

The hospital

The empirical study was carried out in a university hospital that had introduced the concept of delegated budgets several years previously to make the medical professionals more financially responsible. This hospital is one of the largest in the country, and it houses a broad range of specialities. It is organised into six divisions or clinical directorates, two of which comprise various ancillary services. More direct responsibility for budgetary control has been organised with the six clinical directors at the directorate level. These clinical directorates are management units organised around either a medical speciality (like medicine) or a support service such as laboratories. By this organisation of responsibility, the hospital's aim is that each unit has its own budget for management and control purposes.

This clinical directorate structure was inspired by the Johns Hopkins Hospital, Baltimore, USA, where it was established to actively involve clinicians in resource management in the recognition that hospital costs were heavily determined by the clinical decisions (Jones and

Dewing, 1997). At our hospital the clinical directorates are governance structures where (most often) medical managers have authority (to varying degrees) over the decisions made by their colleagues at lower levels of the hierarchy. The underlying logic is to transform doctors into managers by giving them freedom to govern their directorates as more or less semi-autonomous and self-managed entities. However, this freedom is restricted by the financial responsibility and accountability system attached to the directorates (Ezzamel and Willmott, 1993). Each clinical director assumes (total) responsibility for the department, reporting directly to the chief executive. This structure gives the clinical directors different management roles – first, as directors of units and second, as directors responsible to the chief executive.

The budgets were mainly calculated by using historical cost data, which were adjusted by inflation and changed during the budget year due to political constraints imposed by the hospital owner and decisions made by the government. The budget process can easily be understood as incremental and relying on the rule of thumb. On the clinical levels, the budgets have mainly addressed the expenditure on wages, while other kinds of direct and indirect costs are more or less prognoses and not included in the budgets as definite budget limits. Larger investments are treated as separate cases in the budgets or decisions during the year are delegated from the hospital board to the general director of the hospital.

Consequently, budget control aims at constraining wages, which in fact account for about 75-80% of total expenditures. Similar findings were discussed in another study of a large Norwegian hospital (Modell and Lee, 2001). It should also be noted that recruitment of doctors and nurses at the directorate levels were to be limited within a maximum number of positions that was set by the hospital board. The budget at the directorate level is divided into periods of 12 months based on historical information and rules of thumbs. Every month the directors get the written reports, which show the deviations between the budget and the accounting numbers (the actuals). However, these reports are made at very aggregated levels without detailed accounting or activity information.

A closer study of the hospital's budget documents during spring 2002 showed that there was no cost calculation based on patient groups such as the DRG-cost indexes, cost per procedure, or cost grouped according to specialities. Consequently, the budgets remained as an accounting abstraction that hardly could be used for detailed cost calculation of changes in

activity (Pettersen, 2001). This finding is in line with that of other studies in this field (Jones and Dewing, 1997; Lapsley, 1997; Modell and Lee, 2001).

As the prospective payment system was introduced in 1997, the hospital had no information about the costs of internal procedures or about patient groups. The practices of delegated budget responsibilities were hampered by inadequate cost information at the clinical level, and decisions were made without calculations of budget effects. This gap between the intentions inherent in the prospective payment system reforms and the practical implementation at the clinical level turned out to have damaging effects on the hospital's ability to adjust to budget restrictions during several years at the end of the 1990s. A situation of continuous and large budget deficits forced the hospital to reorganise into a structure consisting of six large directorates.

4. Empirical findings

The hospital's management control problems

When we started the study, we made some assumptions about possible disconnections in the overall hospital management control cycle. These assumptions were based on the recurring and large budget deficits in the hospital in recent years. For the fiscal year 2001 the hospital had a calculated wage-budget deficit amounting to 160 million Norwegian kroner (about 22 million euros). This amounts to 8% of the total wage-expenditures. On the whole, the total budget deficit was calculated to be 11% of the total budget expenditures.

When focusing on the management control system as a part of the hospitals' autonomy structures, the research question is based on the assumption that some dysfunctional aspects are present in the overall management control process in hospitals. According to Anthony and Young (1988) a normative concept of the management control process identifies four principal steps in a formal control system. These steps are identified as programming, budget formulation, operating and management, reporting and evaluation. The steps are described as recurring in a regular cycle. A very simple assumption follows that if there are any dysfunctions in this process or if the steps are disconnected, severe control problems can arise. We defined the management control problems as large and recurring budget deficits in all the clinical directorates in the hospital. We found that all the departments participating in our study had delegated budget limits, and all expected to be overspent at the beginning of the

year. The budgets were made by 'rules of thumb' which hardly were coupled with the clinical activity. These observations illuminate that the steps between the budget formulation, management and reporting/evaluation were loosely coupled.

Furthermore, it seemed as though the budgets were based on assumptions of wishful thinking, implying that the clinics were supposed to increase activity and at the same time spend less money the following year. This observation was supplemented by the fact that the total hospital budget was lower than the level of expenditures in the previous year. Despite the existence of DRG-information in the patient administrative systems, this information was not used in the internal control process in the clinical departments. The DRG-statistics were mostly used for reporting to the hospital owner (the state) for the purpose of hospital funding on a per-case basis. Consequently, different information was used in the making of activity evaluation and the budget. The clinical managers at the department level said:

> *I do not at all believe in the budgets. In fact, we could as well have abandoned the budgets these last years…* (Clinical manager at medical department A).
>
> *Budgets are completely meaningless. It is impossible to keep the limits. Everyone knows that the budgets are illusions* (Clinical manager at medical department B).

Most medical departments had large budget deficits for many years without indicating any consequences to their managers. In fact, many respondents in our study interpreted the large deficits as a documentation of too narrow budget limits and resource needs which, in the long run, could motivate the hospital owner (the state) to raise more money.

During the last five to ten years, budget deficits had been covered by grants from the hospital owner. This system of flexible budgeting has been called a ritual game (Pettersen, 1995), and this particular game had become a part of the organisational culture:

> *This is a game, a policy legitimated from the treasurer and the government in order to force through cost containment. All of us know that there will be more money available in the revised budgets. The bad thing about this is that we do not care about the deficits. This is a part of the internal culture* (General manager of the hospital).

The managers of two of the three medical departments in our study pointed to a very small degree of freedom in level of activity because almost 92% of all patients were acute cases. Therefore expenditure was fairly fixed. The managers believed that they could only to a very

small degree adjust activity to budget limits because of the patients' legal right to treatment in acute situations. The clinical managers therefore said that they felt very little obligation to the budgets, partly because the budgets were interpreted as being 'without reality', and partly because the managers had little control of the activity level: 'The patients just keep on coming.'

The observations outlined support findings in other studies about loose couplings of internal control practices from information used for external purposes (for instance in the relation between hospital departments and hospital top management). These loose couplings are partly due to arbitrary cost information and a (seemingly) inability to produce more accurate cost information. A recent study of a Norwegian hospital concludes that voluntary adoption of cost allocation methods takes place in settings which are dominated by government regulation (Modell and Lee, 2001). This hospital in the latter study had senior management who showed serious efforts to reduce the arbitrariness of patient costing. Such initiatives were not visible in our hospital. Consequently, the arbitrary cost allocations and budget processes which are witnessed through the quotations above, may be described as a means of diverting responsibility and blame; a method for managers to explain deviations and budget deficits (Modell, 2002).

This lack of ability to enforce budget constraints is partly attributable to cultural and historical contexts in Norway, where budget deficits in the hospital sector during the last decade have been accepted as a kind of flexible budgeting[2]. To make a further study of the link between accounting information and decision making processes, we have offered some sets of propositions. According to these propositions, our findings can be expressed by the key words summarised in the concepts of accounting entities, the individual or communal senses of accountability and responsibility, and the notion of loosely coupled systems in complex hierarchies like hospitals.

[2] In all the Scandinavian countries, counties and municipalities have the right to levy taxes (on income, property) to finance the public services. However, the balance between the state block grants and locally raised tax financing is important for the operation of hospital budgets. In Norway, hospitals are now state-owned. In countries where a relatively high share of financing comes from central government, this weakens the efficiency incentive of the decentralised units, because of the weak overlap between fiscal and operational responsibility (Møller Pedersen, 2002). In Denmark for, instance, about 85% of financing of hospitals is raised locally, compared with the situation in Norway, where it used to be less than 30%. When discussing budgetary responsibility, it is important to remember these external contingencies.

The creation of accounting entities

The reason why the budget was not considered as an important management tool, according to the general manager, had to do with cultural factors:

> *There has always been a culture where the budget has not been considered as a tool for control. Everyone learns in the school where one has attended* (General manager of the hospital).

According to legislation and regulations, top management in hospitals has both a clinical responsibility and a responsibility to coordinate and use resources efficiently (keep to the budgets!). In reality, medical responsibility is delegated to departments, because top managers do not have enough competence and detailed knowledge to assume the day-to-day responsibilities. This situation has increased the power of clinical staff in the day-to-day operation of the hospital's activity. Consequently, it has made it legitimate for the clinicians to make decisions and act before the budgetary consequences are known and accepted:

> *The doctors do not ask for acceptance before they introduce new technology and treatment methods. Of course, acceptance should be given from the managers… However, we know that the development will stop if creative action is hampered. Many successful innovations have been introduced without formal acceptance beforehand. The dilemma is that clinical creativity may be in conflict with available resources defined in the budget* (The general manager of the hospital).

The increased emphasis on budgetary responsibility in public sector has questioned the cornerstone of systems for responsibility accounting: the controllability principle. This principle postulates that managers should be held responsible only for events and accounting items that are reasonably under their control (Modell and Lee, 2001). Our study showed that the clinical department managers did not feel in control of expenses:

> *The only thing I am controlling, is whether the doctors are permitted to have time off to do research. I would reckon I am controlling about one per cent of my budget* (Clinical manager at medical department B).

Due to this lack of controllability, the organisation could behave as if budget limits were very soft. According to general principles in cost accounting, each manager may be in charge of a responsibility centre (Horngren et al., 2000). A responsibility centre is a part, segment, or sub-unit of an organisation whose manager is accountable for a specified set of activities. This principle of responsibility relies on the manager's controllability over costs, revenues, and

activities. When this controllability for any reason does not exist, managers cannot be held responsible for department or directorate performance. This was the situation as described in the hospital under study. Against this background, we went further into the concept of responsibility.

The hospital managers were working under these formal conditions:

> *"The managers of the clinical directorates have the total responsibility of clinical and economic performance in the directorate within the limits set up in the budgets. The clinical manager at the department level has the total responsibility of the department's activity. This implies an unlimited responsibility of clinical and economic performance within defined budget limits"* (Internal description of working conditions for managers).

An interpretation of these conditions indicated that the managers were responsible for the performance in their units. In other words, they were not only accountable to their superiors. However, as can be seen from the preceding discussion, the implementation of economic responsibility in hospitals is not without problems. Responsibility based on the controllability principle presupposes well defined strategies and well known relations between input and output. These conditions were not present in this hospital, which was characterised by interdependencies in the production process; transformational processes that were difficult to understand, and medical departments that were restricted by the uncertainties inherent in medical diagnoses and treatment.

Our findings show that accounting information is not considered important in decision making at the operational level. At this level, clinical responsibility is the dominating premises for activity, and the focus is put on collaboration between professional groups and specialities. So far, the creation of autonomous entities has not had any observable effect such as fragmentation at the operational level in the hospital Consequently, our data do not support the assumptions put forward in Proposition P1.

Further up in the hierarchy, our observation is that accounting information as evaluation criteria has gained more attention. The main objective in the evaluation (decision) process was found to be the explanation of reasons for overspending, the focus especially being put on factors beyond the control of the managers themselves. Thus, economic responsibility is considered as accountability relations between the hospital managers and the managers at the clinical and department levels.

To summarise we can state that no effects of economic evaluation as to fragmentation between the organisational entities were found (Proposition P1). This can be explained as a consequence of the economic responsibility being perceived by the managers as accountability liabilities towards the budget prescriptions. An underlying explanation can be found in the fact that the budgets decisions on equipment investments and total salary expenditures were centralised to the hospital board, and these budget consequences were not explicitly included in the delegated budget formulations at the department level. This may have led to the observation that accounting information was considered only as supplementary information and not as important decision input at the department levels.

Individual or communal senses of accountability and responsibility

Hospital organisation has several hierarchical levels, with the general manager and the managers of the clinical directorates comprising top management. At the next level down, we find the managers of the clinical departments, and there are also (within some departments) the managers of medical specialities. We then reach the providers of health care services – the doctors and nurses in the clinics. Managerial responsibility in the hospital was split and delegated to clinical divisions and further down to the department and speciality functions. At the two lower levels, we do not find any budgetary responsibility, also indicating that budget consequences are not a part of the information on which decisions are made at the clinical level. At this level, it is clinical responsibility that guides day-to-day action:

> *Economic information is something that 'floats' on the top of this organisation without having any importance to our daily activity. The managers of medical specialities do not have any budgetary responsibility. Here the patients and their needs control our daily activity, not the budget. We are responsible to the patients, not to the budget.* (Manager of a medical speciality).

When knowledge of the transformation process is imperfect and the ability to measure results is low, it is difficult to administer organisational control by specifying rules and establishing bureaucratic control mechanisms. According to Ouchi (1980), in such situations organisations like hospitals can be described as 'loosely coupled', and there is no alternative but to rely on shared norms and values. This may be described as ritual or ceremony and may be termed *clan control*. Hospitals must rely on control mechanisms guiding behaviour through clinical norms and values. Doctors feel a strong responsibility towards their patients:

> *The budget limits are not at all guiding the clinical activity. We must keep to the normative rules of clinical and medical responsibility…. The doctors only to a very small degree think of economic consequences. Our activity is based on medical decisions* (Manager of medical department B).

We found that this attitude was very common and accepted as a norm at all levels:

> *The success criteria have been based on the number of patients treated. This is inherent in the ethical thinking of clinical staff. The staff cannot understand that the hospital can have treatment capacity but not enough money* (The general manager of the hospital).

However, the managers of the clinical directorates and the medical managers of departments thought that they had to explain why the budget deficits happened. The impression was that when budget deficits could be explained as due to external factors, the managers did not need to have any bad feelings about overspending. This tendency to externalise causes of budget deviations can be explained by a kind of 'excuse culture' (Llewellyn, 1998). A clinical manager illustrated this 'excuse culture':

> *I have a total responsibility. In reality this means that if I do not keep expenses within the budget limits, I have to explain…. I feel a continuous pressure from top managers in their assumption that I use too much money and that I and my department do not deliver the necessary services. Because of this pressure I feel a need to explain budget deficits* (Clinical manager of department C).

Based on this discussion, we may state that in this hospital the budgetary responsibility in reality was accountability, implying that managers had to report on budget deficits, but they were not responsible for the situation. Formally, the responsibility was defined to each individual manager by written instructions, while more informal contracts are defined by tradition. In reality, managerial responsibility was observed to be interpreted as an individual responsibility (of the individual manager) to give an account of the reasons for budget deficits and clinical activity.

Clinical responsibility was managed by another logic than the managerial responsibility. Within the clinical areas we found each doctor carrying the responsibility. But for the attainment of high quality health care, clinical performance has to be coordinated between the different specialities and functions. Consequently, responsibility is based on collaboration

according to professional norms. Adherence to formal rules alone will not promote high quality clinical performance.

However, there was an obvious dilemma in the relation between the managers of clinical directorates and the general manager, as these top managers felt that they were reporting consequences of actions rather than behaving as decision makers.

> *It is my responsibility to make this directorate keep to the budget limits. But the managers of the departments should also work under the same conditions. However, budget deficits are not too bad, because we are used to that situation. Last year the deficit was caused by factors I could not control. This information is important to the general manager* (Manager of clinical directorate A).

When summing up the discussion made in this section, we find that budgetary responsibility was organised according to hierarchical rules under which each manager was given an *individual responsibility*. According to Table 1, this kind of responsibility belongs to cell 1, which implies a relationship based on individual adherence to rules. Clinical responsibility can be placed in cell 4, which indicates a responsibility regulation based on morals and norms (Lindkvist and Llewellyn, 2002). All clinical staff has by law an individual responsibility to act according to professional norms and values. The transformational processes in hospitals are integrated and based on coordinated work within groups of professionals. Consequently, in hospitals it is difficult to administer a fragmented responsibility system with respect to individual doctors and nurses. In reality, clinical responsibility can be described as a kind of *collective responsibility*. Consequently, we find support to our propositions P2 and P3 put forward earlier in this article.

One more important observation in our study was the function of clinical managers at the department levels. They acted like 'two-way windows' between top level managers and the individual clinicians at the production levels, where we found the face-to-face interaction between the professionals and the patients (Llewellyn, 2001). Further up in the formal hierarchy, managers do not have detailed knowledge of clinical activity and performance. In this respect, the managers down at the department levels are of vital importance to give visibility in the management control system of the hospital.

Loosely coupled systems and complex hierarchies

In the hospital under study, our impression was that the top managers and the staff at department and clinical levels existed in different worlds of reality. Top managers believed that economic thinking and reasoning were more vital in the departments than the department managers themselves thought. The managers of the clinical directorates believed that the managers in the departments were continuously evaluating the economic performance, while the reality seemed to be the contrary. The managers in the departments did not feel that they were responsible to any budgets. Moreover, the top managers believed that the departments and clinics had a larger degree of freedom than the managers at these levels themselves believed. Consequently, there were very different world-views in the different hierarchical parts of the hospital.

This split between the administrative and the clinical worlds was visible in several ways. For instance, the clinical managers of specialities within a department had only a clinical responsibility. However, some of these 'sub-departments' were quite large. One of the departments comprised more than 400 people. The managers of the clinical departments were not in favour of decentralising budgetary responsibility down to the sub-departments or speciality functions. Although these may be large units, the clinical managers at this level were in general not involved in management control processes.

> *I may receive a report at the end of a period or a year which describes how bad the budget situation turned out, but I do not get any evaluation during the period. We have stopped talking about budgets during the monthly meetings with the department management* (Clinical manager of a medical speciality function).

The managers of the clinical departments had a difficult task as they stood in the middle of the two logics that characterised the administrative and the clinical cultures in the hospital. Managing these different logics could easily induce frustration and other problems. It seemed as though the clinical department managers have solved this dilemma by redefining their budgetary responsibility towards accountability. In our study, all these managers felt much stronger loyalty to professional medical norms and values than towards budgetary responsibility. The clinical managers at this level felt a strong normative responsibility towards the clinical activity, and this had a priority far above the budgetary responsibility:

> *I do not worry so much about what may happen if our department overspends money.... It is not so important for me to have this job. I have much more loyalty*

> *towards those colleagues who produce down in the system, whereas the manager of this directorate is loyal upwards in the system, towards the economic advisors, among others* (Manager of clinical department B).

In order to keep the high quality of services and to reduce frustration among the departments' medical staff, the clinical department managers whom we interviewed had hidden away much of the information about the budget situation and deficits in the department. In this way, the separation between the administrative and the clinical world was kept alive. The same tendency to hide information to reduce possible effects of 'bad mood' among department staff was also observed when special decisions were made which aimed at affecting the activity negatively in the department.

> *The top managers in this hospital were told by the hospital owner (the county) to reduce the overall activity. This decision aimed at reducing budget deficits. However, this message created disharmony in the organisation. My intention was that this disharmony should not have any negative effect on the patient treatment in our sub-departments. At my level in this hierarchy we talk about budgets when we meet informally. We do not discuss these matters at the level below. In my opinion we have not over focused the economic aspects* (Manager of clinical department B).

The statements made by the manager of a clinical department indicated the existence of some kind of interactive control based on talk and rhetoric. A major problem with this kind of organisational control is the invisibility of informal interaction and meetings as compared with the much more concrete and visible budget procedures. Consequently, budgets have a higher legitimate status on higher levels in the formal control hierarchies than the informal interaction. Nevertheless, the existence of interactive and informal control mechanisms seems to be of vital importance at the clinical department and speciality levels in the hospital.

In many respects, the persons in the organisation who mediate between these two different worlds of clinical decisions and economic rationality are the managers of the clinical departments. They literally stand in the middle between the top managers and the clinical staff. Their function is to bind together the two kinds of responsibilities — the clinical and the budgetary:

> *The only way to control activity in a hospital which comprises so much creativity and which has to face so many needs and demands [is to] have tight dialogues. We also need quality measurements. This year the departments have got delegated budget frames. Then they must find out how to act in order to keep the budget limits. Then they must adjust to these limits. The managers of the clinical departments are the key*

> *actors in this process, not the managers of the directorates or the general manager* (General manager of the hospital).

This statement from the general manager indicates that in this hospital dialogues were important means of control and could compensate for the lack of more cybernetic control systems.

Top management in the hospital was concerned with the economic performance of the hospital, where the budget was seen as a very important means of evaluation. At this level, the notion of budget responsibility was kept vital; we observed hierarchical control models that presumed tight couplings between decisions and action. At the lower levels in the hierarchy, we found that medical responsibility guided action; this was a responsibility that according to Proposition P5 needed control models appropriate for collaboration and discretion.

> *Someone must tell us what acute patients who should be refused treatment, and they should do that openly. When nobody takes that task, the budget is without any consequences. Then we do not have to spend time on it. Doctors should not do this kind of priorities* (Clinical manager at medical department A).

In such a situation, there should be no surprise that we observed dysfunctions in the operation of the budget prescriptions during the budgetary year. However, top managers, the general manager, and the managers of the clinical directorates defined the management control process as rational and regular. As the general manager said:

> *The managers at the department levels are responsible to the budgets according to their instructions.*

This quote illustrates the logic put forward in Proposition P4 earlier in this article, whereas at decision levels below the top managers, opinion about the communication and operation of the management control process was much more differentiated. The directorate managers said that there was a formalised and regular control process through monthly meetings with the departments (Proposition P4), the clinical managers in the departments themselves said that these meetings were occupied only to a small degree with budget and economic matters. This observation confirms the Proposition P5, which is also mirrored in the next quotes from clinical managers in two departments:

Yes, we have some 'coffee-meetings'. But there are no definite budgets presented and there are only reports on a three-month basis.

No one evaluates me according to the budget limits… There is no one here who believes in the budget….

These 'coffee-room talks' were not without importance to the organisation, because they could also be identified as communal value generation, an important method of coordination in these contexts (see Table 1, situation IV).

We also observed signs of the clinical department manager having a kind of 'budget mask' when communicating with hospital administrators and a professional 'clan mask' when communicating with colleagues. This was a vital function in the operation of the overall hospital control process. These managers spoke different languages at different levels, and thereby acted as filters and means of loose couplings in order to ensure the different logics of the hospital survived.

As concluding remarks to this section of the paper, we can sum up by stating that the tight coupling between budgets and action at the top management level to a large degree was based on rhetorics in the decision processes. The difference between talk and action at top management level might in fact contribute to legitimatising looser couplings further down in the hierarchy. This might in turn allow for the situation of loose coupling to continue during budget years.

5. Concluding discussion

This study has examined three perspectives on the use of budget and accounting information in the management control process in a large university hospital in Norway. We put forward five propositions to conduct an empirical study based on interview data from key informants at all managerial levels in the hospital. Our empirical findings confirmed four of the five propositions. Our data did not reveal signs of organisational fragmentation due to the development of accounting entities. An explanation to this observation is the fact that decisions on both the equipment investment budget and the total salary expenditures were

centralised to the hospital board. Therefore, the delegated budgets had few degrees of freedom at the lower department levels.

However, these delegated budgets were overspent by approximately 8 %, which equals 22 million euros at the directorate levels. This fact can be explained by observing a split between the conditions made up in the delegated budget formulas and the ex-post consequences of investments and salary expenditures. This is to say that the consequences of decisions at the central hospital board level were not included in the delegated budgets at the department levels, and this may have led to less importance put on accounting information. In many respects the budgets were observed to be considered as contextual frames and contingencies more that input for strategic decisions. This finding is in line with another study of a large Norwegian hospital that pointed at the limited controllability of expenses at the directorate level due to centralized purchasing procedures (Modell and Lee, 2001).

Consequently, our propositions on the difference between administrative and clinical responsibility (Propositions P2 and P3) were only partly supported by the interview data. Clinical responsibility was described as a kind of collective responsibility towards professional moral and norms, whereas managerial/administrative responsibility higher up in the hierarchy was based on individual responsibility and adherence to rules. These propositions were illustrated by the general manager of the hospital. She stated that economic performance was considered as important to the leaders in the hospital. Accordingly, the clinical managers' adherence to budget limits at the department levels were considered important. However, we also observed that budgets in reality were not a part of the management control system, and that budget evaluation was not allowed to hamper doctors' creativity. Our impression, therefore, is that budget deficits were not necessarily interpreted as being unacceptable, not even in the view of the general manager. The rhetoric was that budgets were important, but the budget deficits have had no negative effect on the evaluation of the clinical department managers' performance. Furthermore, budget deficits were seen as a means of getting more resources from the owner (the county). In reality, deficits were considered positive and acted as flexible budgets. Thus, the administrative responsibility (Proposition P2) was more rethorically based than observed in actions.

Although the top level manager's administrative responsibility to a large extent was observed to be rhetoric, the function of the clinical managers at the department levels was found to be

of vital importance as mediators between top level managers and the individual clinicians in the department and specialities. In many respects the clinical managers bring together clinical knowledge and management responsibility in on person, as they are "mediating persons" who work through ideas that belong both to management and ideas belonging to clinical practice. The functions of the clinical managers are the links between the strategic, central decisions on investments and wages and the operational decisions on clinical activity that are made in close interaction with the patients at the "production" levels.

The two-worlds of responsibilities – the administrative and the clinical - were also mirrored by the observations that the top managers believed in the tight couplings between budgets and clinical action, whereas the clinical managers defined the management control processes as much more informal and "hidden" in informal dialogues like "coffee-room talks" (see propositions P4 and P5). This kind of "coffee-room talks" indicates that dialogues were important means of control, which could compensate for the lack of more formal and cybernetic control systems.

This informal and dialogue based control mechanisms are important interactive control systems which demand frequent and regular attention from operating managers at the department and clinical levels in the hospitals (Simons, 1995). These managerial interactions that we have found at the lower management levels in the hospital, are important because at these levels – close to the patients – strategic uncertainties should be dealt with by face-to-face interaction, frequent and informal dialogues in order to deal adequately with unexpected problems. Such frequent and informal communication may also serve a buffering function because it offers meeting points for negotiation and adjustments to initial budgets during the year. These coordination mechanisms take the mode of network based organising which can be favourable in managing organisational interdependencies (Thompson, 1967) which characterise the hospitals' technologies in the clinical activities.

6. Future research

Our study has revealed loose coupling between budget decisions and activity consequences. We have found that these loose couplings are visualised as budget deficits that act like flexible budgets. The concept of organisations as loosely coupled systems has enhanced an

understanding of the use and non-use of accounting information in decision making, because we have studied budgets and accounting information as interpretive systems.

These flexible budget strategies have been accepted in the Norwegian hospitals as means of getting more resources to expand activity. But these managerial strategies give little strategic focus, and they reduce the hospital's ability to adjust to changing external pressures. To develop more hands-on activity control, hospitals should be managed under rationality norms based on both individual and communal senses of accountability and responsibility. High quality health care services are based on collaboration and kinds of communal responsibility and accountability for values. Under such circumstances, individuals experience a sense of solidarity, togetherness, trust, sympathy, interaction and commitment – all being elements known to characterise knowledge-intensive and high-technology-intensive firms. Further discussion about the accountability–responsibility relationships in hospitals will benefit from deeper inquiry into the dimensions of individual and collective aspects of health care service provision.