SELECTED TOOLS OF MANAGEMENT ACCOUNTING IN CORPORATE GOVERNANCE OF PUBLIC HOSPITALS IN POLAND

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Abstract

The principles of good corporate governance of hospitals include actions for improving their efficiency and promoting the appropriate use of the selected tools of management accounting. All hospitals under control of one funding body should have properly designed system of management accounting providing them comparative information for the assessment and improvement of performance in all areas of their activity. Information from this system should also support decision-making of funding body. The aim of this article is to present selected management accounting techniques, which used together, can be an effective tool for improving the economic efficiency of hospitals. The article analyses the results of the primary and secondary research concerned three management accounting tools: cost accounting, budgeting and benchmarking. The research on cost accounting presents the results of several surveys conducted in the public Polish hospitals in 2008, 2010 and 2013. The results were verified by interviews conducted in entities which had already introduced control management techniques. The assessment of cost budgeting solutions in Polish hospitals was based on the results of surveys conducted in 2013. The benefits of benchmarking have been identified on the basis of literature analysis and the results of survey conducted in Poland.

Key words: management accounting, cost accounting, budgeting, benchmarking, hospitals

JEL Code: G34, I18, M41

Introduction

The largest group of Polish hospitals are the public entities, owned by territorial governments and medical schools. In the regions with the highest concentration of hospitals, the poviats are the owners of even 42-46 hospitals, and medical universities are the funding bodies for 5-6 hospitals. Both hospitals and their owners belong to the public finance sector. The Public

Finance Act obliges such entities to apply management control, which aims to operate and realise its goals in an effective and efficient manner, and within an established timetable. The principles of good corporate governance of hospitals include actions for improving their efficiency and promoting the appropriate use of the selected tools of management accounting.

The aim of this article is to present selected management accounting techniques, which used together, can be an effective tool for improving the economic efficiency of hospitals. The first part of the article will present the cost accounting system, combining elements of several costing models which were successfully used in hospital management. This system can also be a source of management information for using other tools. Currently, it is a costing system recommended by the Ministry of Health for use by medical entities and, since July 2015, it has been regulated by national law. Then, the authors will discuss the nature of cost budgeting and define conditions for its application, taking into account the benefits and limitations for the owners of hospitals. In the last part of the article, the role of benchmarking in the measurement and assessment of hospital performance will be presented. Benchmarking can be applied to all areas of any economic entity, including hospitals, not only to improve financial effectiveness but also in various other areas of their activity.

1. Cost accounting as a tool to generate management information

Cost accounting in the modern sense is defined as costs and effects accounting, which includes planning and control, generating management information. In a company, it is used for two purposes – cost calculation for external reporting and to support the management processes. There is an additional function in public health care – support for the valuation of health services. The possibility of realisation of each function depends on the cost accounting system (Waters, Hussey, 2004).

The principles of cost accounting in Poland, as in other countries (Raulunajtys-Grzybek, 2014) are regulated. This arises from the need to develop a uniform methodology for the valuation of health services which are the subject of contracting. Polish cost accounting regulations applicable in the years 1993-2016 included the methods of allocation and calculation of various cost objects (Table 1).

Tab. 1: The regulations concerning cost accounting in hospitals in the years 1992-2016

Period	Characteristics of cost accounting
January 1993 – December 1998	— gross-costing method — basic cost objects: a patient (the average cost of treating), inpatient day, medical procedure
January 1999 – June 2011	— top-down micro-costing method — basic cost objects: a patient (with assigned costs of drugs, inpatient days, medical procedures), inpatient day, medical procedure — cost calculation of medical procedure on the basis of typical use of resources
July 2015 – present	— top-down micro-costing method — basic cost objects: a patient (with assigned costs of drugs and medical procedures – direct costs; and with costs of inpatient days – indirect costs), inpatient day, medical procedure, economic resource — cost calculation on the basis of the fixed and variable costs — exclusion of the costs of untapped potential from the cost of health services

Source: own work

Analysis of cost accounting principles applied during various years (Table 1) indicates that costing systems which followed evolved in the direction of the ability to generate management information.

In order to assess the level of implementation of cost accounting for management, three surveys were carried out: in 2008, 2010, and 2013. In 2008, all university hospitals took part in the study, in 2010 – 150 randomly selected hospitals took part, and in 2013 – 567 hospitals took part, representing 11% of the total hospital population in the country. The aim of the study was to evaluate the use of cost accounting as a primary source of information, supplying the information system for management accounting.

Research conducted in 2008 showed that the most common cost calculation object in the hospital (79% of the hospital population) was an inpatient day on a ward (Baran, 2010). On the other hand, research conducted in 2010 and 2013 showed that the cost accounting used in hospitals provides information mainly for the needs of external reporting and planning of operating expenses (Table 2).

Tab. 2: The use of information generated in cost accounting in hospitals

Specification	2010*	2013**
Preparation of financial statements	63,3%	4,57 / 0,74
Decision-making by lower-level managers	16,7%	3,76 / 1,15
Planning of operating costs	75,3%	4,50 / 0,74
Evaluation of resource efficiency, including:	23,0%	-
- *evaluation of resource efficiency*	-	3,64 / 1,10
- *identification of unused resources*	-	3,01 / 1,33

Source: own study based on research results, 2010 * assessment of the use of information (expressed in percentage); 2013 ** assessment of the importance of information (in a scale of 1-5, including the arithmetic average / standard deviation)

The literature on cost accounting identifies four key factors / qualities that a good costing system should contain. These are detailed cost information, cost classification by their behaviour, reporting frequency, and types and analysis of deviations (Pizzini, 2006).

As indicated in the characteristics section of Table 1, the current cost accounting system requires the recognition of costs by their variability. It does not specify the frequency of reporting of the cost information. It does not indicate the type and method of the analysis of deviations. The designed system, however, enables the planning and cost control because the regulations include the indications for determining practical ability, allowing measurement of the effectiveness of used resources and allocation of unused resources. It is also possible to assess the ongoing medical services in terms of accepted cost accounting standards.

The type of analysis, as well as the frequency of reporting of cost information, should arise from the needs of hospital managers (Chenhall and Morris, 1986). The same also applies to the governing bodies of hospitals, thus, all assessments and analysis should be supported by the same cost accounting principles.

2. Budgeting as a tool to generate management information

One of the very important management accounting tools that could support the corporate governance of hospitals is budgeting. This can be defined as a process that facilitates planning by requiring managers to translate their goals into measurable quantities and identify the specific resources needed to achieve these goals. These are the procedures and decisions relating to the resources allocated by the governance bodies and managers to the different wards and other units of a hospital. Budgeting processes mean a number of activities performed in order to prepare a budget that can be defined as a quantitative economic plan in respect of a period of time (Harper, 1995).

The results of an empirical survey conducted among public Polish hospitals in 2013 showed that information obtained from cost accounting is very often used in the process of planning and budgeting. A large majority of managers (73%) assess that they use cost information in the budgeting process at least at a good level.

One of the basic conditions for the implementation of a budgeting system is strategic planning which is a formal process for establishing goals and objectives over the long run. It involves developing a mission statement that explains the hospital's development plans for the future. The budgeting process should be linked to the strategic objectives and corresponding goals that are developed based on a very thorough assessment of the organisation and the external environment. It should start at the top of the hospital within the

strategic planning process. Finally, strategic plans are implemented by developing an operating plan that includes a complete set of financial plans or budgets (Kludacz, 2008).

It is worth noting that more than 70% of hospitals prepare their budgets with reference to the long-term strategy. The remaining hospitals treat a budget as a goal in itself, they do not understand that the budget should be considered as a tool, not as a product – the final document, which will never be changed.

Managers and the governance bodies consider the budget as a very useful tool due to its functions within the hospital and in relation to the expected outcomes generated from its use. Studying the literature shows that the budget could be used as a supporting tool in many ways and in different management areas, such as planning, control and evaluation, motivation, commitment, delegation, coordination, and communication (Lorain et al., 2015).

The most important functions of budgeting in the surveyed hospital are evaluation, control and motivation. The control function helps managers and governance bodies to evaluate progress and performance. They can compare actual results against budgeted figures to assess if various hospital wards or other departments are making adequate progress toward achieving their goals. All hospitals declared that they created cost centres in their organisational structure, a prerequisite for implementation of a budgeting system.

Budgets also act as a motivational tool to encourage managers to perform within targeted limits. Therefore, the motivation function is an important point in the hospital budgeting system and even more so in the conditions of changing health care environments. Budgeting, through the motivation function, directs the managers' behaviour. The motivation system in almost all surveyed hospitals is mainly connected with the regular assessment of achieved results. More than half of hospitals also use a system of financial gratification as their motivation tool.

According to hospital managers, the basic benefits of a budgeting system in hospitals are mainly the psychological effects that include increased economic awareness among medical staff, increased levels of knowledge about the situation of the hospital, and more employee involvement and engagement. No less significant are the economic effects, being reduction of operating costs and better utilisation of hospital resources.

Hospital budgets in Poland typically rely on the incremental approach – around 85% of managers declared that they use this method of budgeting. In this method, the previous year's budget for a hospital ward or other cost centre is carried forward for the next annual budget and adjusted for known factors such as inflation, wage changes, additional resources, new medical services developments, new legislation, etc. The adjustments to the current

budget are incremental or marginal and they are often a result of negotiation and compromise. Therefore, this method of budgeting requires a relatively stable form of representative government (Assembly, Northern Ireland, 2010). The main advantages of incremental budgeting are speed and simple calculations. The budgets are easily understood, administratively straightforward, cheap, stable, and allow managers to concentrate on the key areas of development. On the other hand, 15% of the surveyed hospitals introduced Zero Based Budgeting (ZBB) into their budgeting practices. This method involves preparing the budget from scratch with a zero-base.

A large majority of hospitals (73%) use "continuous" budgeting techniques, whereby budget targets can be revised and updated to reflect changes in plans during the year. This method encourages managers to use their discretion in operational matters when they are confronted by unexpected events. The managers are allowed to make revisions to the plans and reallocate resources in order to meet wider strategic hospital objectives (Frow et al., 2010).

The survey showed that the most important limitations of the budgeting process are the lack of adequate information systems and the absence of an appropriate cost accounting system. On the other hand, a suitable cost accounting system should be a base for budgeting that determines the type of planned costs (e.g. variable and fixed costs, inpatient days, medical procedures, DRG etc.).

3. Benchmarking as a tool to generate management information

The development of modern management concepts has an impact on the development of new instruments in the field of management accounting. In the recent times, benchmarking is becoming one of the most popular tools of improving the effectivenes of entities' economic activity. Today, the effictiveness is understood not only in terms of financial performance, but also entity's performance in various areas of its activity.

According to World Health Organisation (WHO, 2003), high hospital performance should be assessed in relation to the availability of hospitals' services to all patients irrespective of physical, cultural, social, demographic and economic barriers, and be based on professional competences in application of present knowledge, available technologies and resources; efficiency in the use of resources; minimal risk to the patient; satisfaction of the patient; and health outcomes. In addition, it should address the responsiveness to community needs and demands, the integration of services in the overall delivery system, and

commitment to health promotion. Performance indicators (quantitative indicators, qualitative indicators, input indicators, output indicators, financial indicators, etc.) are used for internal reasons related to the various management functions of the hospital – as management information to monitor, evaluate or improve the functions in the long term or short term strategy.

Benchmarking assumes the comparison of results and solutions of one entity with the functioning of other entities. Its aim is to search for the best practices in order to achieve the best results. It is not a simple duplication or imitation of existing activities, but the pattern that allows to create own solutions on their basis. Therefore, the essence of benchmarking is learning how to improve activities, processes and management. The idea of learning from others is accompanied by learning with others. Benchmarking has already established its position as an instrument to improve performance and competitiveness in business life. Its implementation is also suggested in science, health care and local government units (Anderson and Camp, 1995).

Benchmarking is recognized by hospital managers and the governance bodies as a very useful tool of management accounting as it enables to compare hospital activity in differents areas. Hospital can use an internal benchmarking – comparison within the same ward or between various wards in the same hospital as well as an external benchmarking (a broader perspective) – comparison to other hospitals (Łuczak and Macuda, 2014). The most common comparison objects are the following: financial results, costs and revenues; medical services, medical procedures or DRGs; efficiency in the use of resources; the number of doctors and nurses per one hospitalized patient; bed occupancy; and satisfaction of the patient.

Through the exchange of information, hospitals (or wards) have the opportunity to liken their level and structure of costs (cost benchmarking), and thus – to analyse and consider ways to optimize them in situations where these costs would be lower / higher in different wards or hospitals. The use of benchmarking in cost management can bring measurable benefits in terms of reducing redundant costs (e.g. arising from the waste of resources) while maintaining the high quality standards of medical services and have a positive impact on hospital performance.

The comparison of revenues is crucial for hospitals, especially within a DRG-based payment system (introduced in Poland in July 2008) where the DRG tariffs are equal for all types of medical services providers, regardless the region where they run their activity. The responsibility for net income from sale of medical services is practically shifted towards doctors, since they diagnose patients, direct them to the treatment, and, consequentlyonly they

are able to assign them to a particular group within DRG classification (Macuda 2015). Benchmarking indicates weather hospitals are likely to be over- or underpaid for specific DRGs and helps hospital managers to understand the differences and their causes related to the value of received net income from sale of the same medical services (medically justified reasons – different variables used to assign the patients to DRGs: primary diagnosis, secondary diagnosis, intervention and procedures, age and gender; eventually fraudulent practices – up-coding, called *coding creep*; or down-coding which can be consciously or unconsciously made).

Competitive benchmarking consists in comparing the efficiency of hospitals' activity across providers characterized by the same funding bodies, similar size of hospital, the same range of medical services (specialist / general), similar territorial range of their activities, and the same treatment mode and period (day / night care, short-term / long-term). Benchmarking also enables hospitals to manage and control operating processes (process benchmarking).

The information about the use of benchmarking by hospitals in Poland is very limited, because of the existing lack of researches concerning this topic in practice. In 2013, a questionnaire survey (contained 33 open and closed questions) was carried out in order to analyse the range of use of benchmarking in Pomeranian hospitals (Wiercińska 2015). Despite a significant resistance of some hospital, the survey author managed to collect responses from all 25 hospitals. The results are the following: benchmarking as a management tool was used by 10 providers (40%) and all hospitals applied it within finance management (the principal benefits from the implementation of benchmarking). Moreover, 8 providers used it as well for personnel management, 7 – for the management of medical services quality, and 1 hospital for the management of logistics processes. The most important reason for the application of benchmarking, indicated by respondents, were to improve financial results, ameliorate medical services quality, reduce the cost of treatment, reduce the debt and better use of resources. Hospitals were less interested in increase the competitiveness and the ability to compare the results with other providers.

Conclusion

Administrative obligations concerning the methods of cost recording and calculation, and the assurance of public funding for hospitals, do not motivate managers to analyse various types of costs (other than direct and indirect), e.g. fixed and variable costs or controlled and uncontrolled costs. Similar behaviour is observed in Polish hospitals. Therefore, within the

framework of a 2009-2013 EU project, an attempt was made to change this situation. The results of the project are new regulations in terms of cost accounting. The role of governance bodies in improving these regulations should be limited to determine the type and frequency of reporting in order to assess the effectiveness of activities and management of hospitals.

The study also showed that budgeting is a key element of the management and corporate governance control system in Polish hospitals. It is one of the processes more deeply rooted in the organisational structures and is the only system that covers all the organisational areas of the hospital. The survey reveal that, even though Polish respondent hospitals are facing various problems with information system, budgeting remains essential and more than 70% of them are still using it. Budgeting is viewed as a fundamental component of the management control system. The main planning functions, evaluation, controlling and motivation enhance managers' possibilities to anticipate and effectively manage strategic uncertainties and allow to control that the hospital is on good way to realize its objectives.

Benchmarking and performance indicators have become key themes in health care sector in European countries in the recent times, as they are recognised as an essential tool for continuous improvemenet of hospitals' effectiveness. WHO (2003) proposed the following key dimensions of hospital performance measurement: clinical effectivenes (technical quality, evidence-based practice and organization, health gain, individual and populationoutcome); patient centerednes (client orientation, patient satisfaction, patient experience); production efficiency (resources, financial efficiency, technology); safety; staff (health, welfare, satisfaction, development); and responsive governance (community orientation, access, continuity, health promotion, equity, adaptation abilities to the evolution of the population's demands – strategy fit). So far, among Polish hospitals, benchmarking relates to measure and assess the performance in terms of financial management and the quality of services (conducted in three areas: overall assessment of the service organization, compliance with the expectations of patients – patient satisfaction) and evaluation of medical services realisation – quality of services itself).

In order to fully support a decision-making process, hospital managers and the governance bodies have to encourage developing appropriate accounting tools and to apply them in a suitable manner. Cost accounting data are fundamental for budgeting and systematic benchmarking that can improve the efficiency of hospital activity.

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