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**BUDGETING AS A METHOD OF FINANCIAL  
MANAGEMENT OF POLISH HOSPITALS COMPARED  
TO EUROPEAN COUNTRIES**

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Key words: planning, budgeting, hospital.

Abstract

This article presents the range of budget planning usage in European hospitals. The budgeting system in one of the Polish hospitals in the province of Warmia and Mazury is described.

**BUDŻETOWANIE W PROCESIE ZARZĄDZANIA SZPITALAMI W POLSCE  
NA TLE KRAJÓW EUROPEJSKICH**

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Słowa kluczowe: planowanie, budżetowanie, szpital.

Abstrakt

W artykule przedstawiono zakres wykorzystania planowania budżetów w szpitalach europejskich, w tym polskich. Scharakteryzowano również system budżetowania funkcjonujący w jednym ze szpitali województwa warmińsko-mazurskiego.

**Introduction**

Linking the level of revenues generated by Polish hospitals with the number and quality of health services which they provide within the new financing system has resulted in the need for implementation of new manage-

ment methods. There is an on-going search for such a management system to ensure both effective planning and control of the financial resources in health care units. This need has proved the more urgent because, with the change in the financing system, patients have gained the possibility of deciding at which hospital they want to be treated, which has introduced competition between individual units. Budgeting seems to be an appropriate method for managing hospitals, a method which considers the principles of planning and the use of financial resources for the purpose of effective performance of tasks.

This paper presents planning as one of the components of the budgeting process in a hospital. A literature review and the results of research on the subject showed the level of utilisation of budgeting in the activities of Polish and European hospitals.

### **Budgeting as a category of financial planning**

Budgeting as an interdisciplinary category makes use of both management theory and the science of finance. This is a method which provides discipline and control of the flows of funds within an enterprise, while encompassing all the functions of management: planning, organising, motivating and control. Planning in an enterprise can be defined after M. Nowak (KOMOROWSKI 1997) as the “systematic setting of the directions of actions and the use of resources for achievement of the intended goals”.

The goals of budgeting can be divided into:

- a) short-term (operational) ones,
- b) medium-term (tactical) ones,
- c) long-term (strategic) ones.

Financial liquidity improvement, operational profit level control, decreasing the level of risk and uncertainty in economic activity, enterprise organisational efficiency improvement as well as improvement of operative production management can be classified as operational goals. Improvement of technological work intensity and material consumption standards, effective allocation of resources and maintaining the stable financial standing of the organisation are considered the main tactical goals. The strategic goals of budgeting include the increasing confidence of clients and institutions cooperating with the enterprise. The mission and plans of the organisation are tightly correlated with the entire budgeting process.

The position of budgeting in the planning system of the organisation is presented in Figure 1.

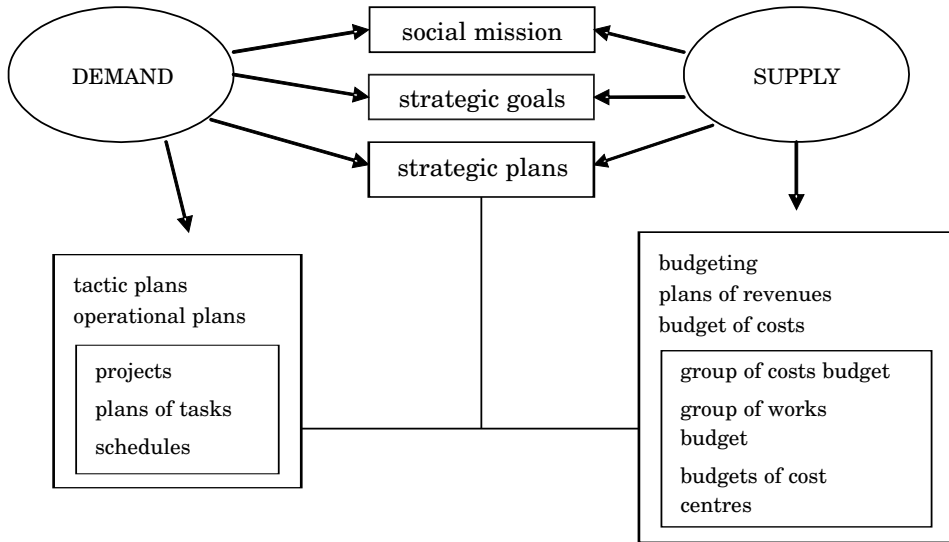


Fig. 1. Position of budgeting in the system of plans of the enterprise

Source: own work.

## Budgeting of costs and revenues of hospitals in the light of empirical studies

The budgeting process in health care entities became the subject of research and studies during the early 1990s. The pioneering studies in this area by D. Reis Miranda were conducted during the years 1994–1996 in 12 European countries (JEGERS 1996). They aimed at investigating the methods of budgeting as well as recording and accounting for the costs that were practiced at health care institutions.

The surveys were conducted in Belgium, Denmark, England, France, Germany, Italy, Luxemburg, The Netherlands, Poland, Portugal and Spain (in the case of Spain, Catalonia was separated because of specific organisational solutions in the operation of health care institutions). The data was collected from a questionnaire from selected respondents in several hospitals in individual countries. In the questionnaire, budgeting was defined as a sovereign decision taken by the hospital authorities, allowing incurring expenditures to be distributed to individual units during the assumed period. The interviewers investigated the level of detail of the budgets prepared at the individual hospitals. In the majority of cases, the budgets prepared by the hospitals were prepared at the level of current expenditures for payroll, budget of other current expenditures and budget of investment expenditures. The responses to

Table 1

Existence of budgets for investment expenditures in the hospitals surveyed

| Country        | Response |     |          |    |             |    | Total    |
|----------------|----------|-----|----------|----|-------------|----|----------|
|                | yes      |     | no       |    | no response |    |          |
|                | <i>n</i> | %   | <i>n</i> | %  | <i>n</i>    | %  | <i>n</i> |
| Belgium        | 3        | 50  | 1        | 17 | 2           | 33 | 6        |
| Denmark        | 1        | 17  | 5        | 83 | 0           | 0  | 6        |
| England        | 1        | 13  | 7        | 88 | 0           | 0  | 8        |
| Finland        | 5        | 100 | 0        | 0  | 0           | 0  | 5        |
| France         | 2        | 50  | 2        | 50 | 0           | 0  | 4        |
| Germany        | 1        | 33  | 2        | 67 | 0           | 0  | 3        |
| Italy          | 1        | 14  | 5        | 71 | 1           | 14 | 7        |
| Luxemburg      | 1        | 100 | 0        | 0  | 0           | 0  | 1        |
| The Netherland | 4        | 67  | 2        | 33 | 0           | 0  | 6        |
| Poland         | 1        | 13  | 4        | 50 | 3           | 38 | 8        |
| Portugal       | 1        | 20  | 2        | 40 | 2           | 40 | 5        |
| Spain          | 8        | 28  | 18       | 62 | 3           | 10 | 29       |
| Total          | 29       | 33  | 48       | 55 | 11          | 13 | 88       |

*n* – number of hospitals

Source: own work based on JERGES (2006).

the question of whether hospitals prepare budgets for investment expenditures are presented in Table 1.

For the entire surveyed population of hospitals from the European countries, this indicator was at the level of 33%. The highest percentages of hospitals preparing the investment budgets were recorded in Finland and Luxemburg (100%) and in The Netherlands (67%). In Belgium and France, only every second hospital surveyed prepared plans of investment expenditures in the form of budgets. In Poland, among the 8 hospitals surveyed, only one prepared a budget of that type, which represents only 13% of the hospitals surveyed in Poland. This situation indicates the low interest in employing budgeting in the process of managing hospitals in Poland.

The so-called “increase-based” method, according to which the budget for the following year is drafted on the basis of the previous year’s budget periodically adjusted for inflation, is the most frequent method of budget preparation. This budgeting method was encountered in Denmark, England and France. Appropriate flexibility is an immensely important characteristic of the budget. In case of changing external and internal conditions, performance

of the set budget may be irrational and sometimes impossible. Budgeting can play the role of the effective management tool when it considers in its assumptions the dynamic operational conditions of the individual centres responsible. Within the framework of the survey discussed, the respondents were asked about the possibility of making changes to the budget after its approval (Tab. 2).

Table 2  
Possibility of modification of the implemented budgets at the surveyed hospitals

| Country         | Response |     |          |    |             |    | Total    |
|-----------------|----------|-----|----------|----|-------------|----|----------|
|                 | yes      |     | no       |    | no response |    |          |
|                 | <i>n</i> | %   | <i>n</i> | %  | <i>n</i>    | %  | <i>n</i> |
| Belgium         | 1        | 17  | 2        | 33 | 3           | 50 | 6        |
| Denmark         | 3        | 50  | 0        | 0  | 3           | 50 | 6        |
| England         | 7        | 88  | 0        | 0  | 1           | 13 | 8        |
| Finland         | 5        | 100 | 0        | 0  | 0           | 0  | 5        |
| France          | 3        | 75  | 0        | 0  | 1           | 25 | 4        |
| Germany         | 2        | 67  | 1        | 33 | 0           | 0  | 3        |
| Italy           | 2        | 29  | 4        | 57 | 1           | 14 | 7        |
| Luxemburg       | 1        | 100 | 0        | 0  | 0           | 0  | 1        |
| The Netherlands | 3        | 50  | 0        | 0  | 3           | 50 | 6        |
| Poland          | 0        | 0   | 4        | 50 | 4           | 50 | 8        |
| Portugal        | 2        | 40  | 2        | 40 | 1           | 20 | 5        |
| Spain           | 9        | 31  | 4        | 14 | 16          | 55 | 29       |
| Total           | 38       | 43  | 17       | 19 | 33          | 38 | 88       |

Source: own work based on JERGES (2006).

The responses indicate that, in Poland, rigid budgets were prepared that could not be modified at the performance stage. That characteristic of the budgets differentiated Poland from all the other countries. In Finland and Luxemburg, the possibility of modifying the budgets existed in all the hospitals, while in France and Germany the percentage of hospitals that had such a possibility was 75% and 67%, respectively.

It is worth highlighting that studies on the use of management accounting, including budgeting, in Polish enterprises are quite extensive (GIERUSZ et al. 1996, KANAST 1993, RADEK, SCHWARZ 2000, SOBAŃSKA, WNUK 2000), but similar analyses concerning the functioning of health care institutions are very few (WAVE 2001, KUJAWSKA 2004, KLUDACZ 2005).

In 2006, a survey concerning budgeting in hospitals in the province of Warmia and Mazury was conducted. The survey aimed at determination of the scope of the budgeting system use by hospitals in the management process. The survey involved conducting interviews with the managements of 5 hospitals concerning the implementation of a comprehensive budgeting system. The choice of entities for the sample was deliberate. They were all entities from the area of the province of Warmia and Mazury whose managements had agreed to take part in the survey. Among the 5 hospitals surveyed, only one had completely implemented a comprehensive budgeting system. The planning process as an element of the budgeting system at that hospital is described further in this paper<sup>1</sup>.

At the surveyed hospital, the budget was prepared for a period of one year with division into annual quarters in correlation with strategic planning. Both strategic and tactical goals had a clear influence on drafting the budget.

The hospital surveyed defined its strategic goals for the years 2003–2006 as follows:

- a) retaining the supply of health services adjusted to the health needs of the population and hospital infrastructure capacity,
- b) retaining the accredited hospital status as evidence of the high quality of services provided,
- c) increasing the scope of health services within the market demand limits,
- d) improving hospital management efficiency.

The above assumptions were targeted at attainment of long-term goals consistent with hospital development directions and its mission, which is: “Providing specialist health services [...] competitive for the body managing the funds as concerns the quality and costs of medical procedures”. In the detailed description of the strategic goals, the tactical and operational objectives of the hospital were defined. The following, among others, were included among those objectives:

- a) quarterly monitoring of the statistical and epidemiological indicators of the hospital activity,
- b) analysis of hospital personnel work time and the volume of tasks entrusted to it and performed by it,
- c) staff training according to the human resources policy,
- d) modernisation and refurbishment of hospital facilities.

Correlation of the hospital plan with the entire budgeting process was considered necessary as it is an element of the principle of planning homogeneity.

The system of financing, as well as the system of recording and accounting for costs, are a major influence on the method of planning medical services in

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<sup>1</sup> The hospital Management did not give its consent for revealing its name.

Polish hospitals. Surveys conducted in 2000 on a sample of 24 public health care units in Poland showed that the contracts with the regional health funds functioning at that time represented the main source of funding for those institutions (KAUTSCH et al. 2000). This is confirmed, among others, by the structure of inflow of funds to the hospital surveyed in the province of Warmia and Mazury, which in 2005 was as follows:

- a) Revenues from sales of services (96%),
- b) Subsidies received (2.3%),
- c) Other operational revenues (1.2%),
- d) Other revenues (donations, compensations, financial revenues) (0.5%).

At the hospital surveyed, the contracts<sup>2</sup> with the National Health Fund (NFZ) represented 92% of all revenues. The level of revenues from sale of health services generally depends on the volume and price of the health services contracted. At the hospital they are represented in the form of both subjective and objective budgets. In drafting plans of medical services sales, historical data is used the most frequently coupled with consideration for factors such as the capacity for contracting services with the NFZ, changes in the demand for individual medical services and timely payments by NFZ for the medical services provided. Another, more complicated method for projecting sales of medical services also exists. It involves comparison of the given hospital with other health care entities in the given region by applying, e.g. a linear function of regression.

In practice, the planned sale of medical services is formed in the budgets of:

- a) service plans contracted with the NFZ considering the individual organisational units of the hospital (rehabilitation, urodynamic examinations, clinical services, dental department),
- b) performance plans of the individual services at hospital laboratories,
- c) performance plans of the hospitalisation services at individual hospital departments,
- d) performance plans of the individual procedures at specialist clinics.

In addition to planning the revenues from sales, planning of costs is also necessary. The hospital analysed draft budgets of costs by type, budget of the fixed costs and budget of the investment expenditures.

Budget reporting represents an important element of the budgeting procedure. The report from performance of the budget in the hospital surveyed contains the following elements:

- costs divided into fixed and variable,
- revenues in the contracted part (1/12 of the yearly contract),
- transfer of a part of the contracted revenue for costs of general management,

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<sup>2</sup> According to the plan for 2006.



- revenues in the part exceeding the contracts with the NFZ,
- financial result (cash financial result adjusted by revenues exceeding contracts with the NFZ).

Additionally, the report presents the information concerning the number of beds at the department, number of person/days performed, accrued points for procedures and employment (Tab. 3).

Table 3

Report from performance of the budget of the hospital surveyed

| Report performance of the budget   |          |                                 |                     |   |                            |                   |
|------------------------------------|----------|---------------------------------|---------------------|---|----------------------------|-------------------|
| Unit name                          |          |                                 |                     |   |                            | for the period of |
| Person responsible for performance |          |                                 |                     |   |                            |                   |
| Costs                              | Variable | Year budget                     | Performance accrual | Budget for the period                   | Performance for the period | Deviation [%]     |
| A. Direct costs                    |          |                                 |                     |   |                            |                   |
| Medical equipment                  | ✓        |                                 |                     |   |                            |                   |
| Material consumption               | ✓        |                                 |                     |   |                            |                   |
| Medical drugs                      | ✓        |                                 |                     |   |                            |                   |
| Auxiliary materials                | ✓        |                                 |                     |   |                            |                   |
| Depreciation                       |          |                                 |                     |   |                            |                   |
| Payroll                            |          |                                 |                     |   |                            |                   |
| ...                                |          |                                 |                     |   |                            |                   |
| B. Indirect costs                  |          |                                 |                     |   |                            |                   |
| Sterilisation                      |          |                                 |                     |   |                            |                   |
| Laboratory                         |          |                                 |                     |   |                            |                   |
| Clinics (USG – RTG)                |          |                                 |                     |   |                            |                   |
| Pharmacy                           |          |                                 |                     |   |                            |                   |
| Technical Department               |          |                                 |                     |   |                            |                   |
| Admissions I                       |          |                                 |                     |   |                            |                   |
| Administration                     |          |                                 |                     |   |                            |                   |
| ...                                |          |                                 |                     |   |                            |                   |
| C. Revenues                        |          |                                 |                     |   |                            |                   |
| Contracted sales                   |          |                                 |                     |   |                            |                   |
| Other sales                        |          |                                 |                     |   |                            |                   |
| Internal revenues                  |          |                                 |                     |   |                            |                   |
| Financial result                   |          |                                 |                     |   |                            |                   |
| Points contracted for the year     |          | Limits of points for the period |                     | Performance of points during the period |                            |                   |

Source: material of the hospital surveyed.

The prepared budgets represent an important element in the reports from their performance in that next to the planned values, information concerning performance is also contained. The same solid foundations are established for, e.g. budget performance level assessment, taking corrective actions, analyses of the costs of patient treatment and procedures performed during individual reporting periods, determining methods for decreasing costs and renegotiation of the contracts made with the NFZ.

## Conclusion

Planning as a function of management is particularly important in large enterprises possessing complicated and complex production processes and operating under conditions of high competition. Hospitals are undoubtedly such organisations. Considering the various forms of activities within one organisation (the basic activity of the hospital, hospital clinics, pharmacies, analytical laboratories, rehabilitation centres, clinics,) coordination of their functions by defining the goals of the entire enterprise as well as the preparation of plans of operations for the future periods is necessary.

In Polish hospitals, the extent of use of this tool is very low and looks very poor as compared with the European hospitals. Additionally, the quality of the budgeting systems already in operation also seems unsatisfactory. It seems that the poor standing of Polish hospitals is also influenced by the unfavourable condition of medical service contracting as well as poor financial management of those institutions.

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## References

- GIERUSZ J., KUJAWSKI A., KUJAWSKI L. 1996. *Stan obecny oraz kierunki ewolucji rachunku kosztów i rachunkowości zarządczej w przedsiębiorstwach Polski północnej*. Zeszyty Teoretyczne Rady Naukowej, 35.
- JEGERS M. 1996. *Budgeting and cost accounting in European intensive care units: a note*, Financial Accountability & Management, November, 12(4).
- KANAST A. 1993. *Modernizacja rachunku kosztów*. Rachunkowość, 9.
- KAUTSCH M., KLICH J., STYLO W. 2001. *Funkcjonowanie zakładów opieki zdrowotnej w reformowanym systemie*. Raport z badań, Centrum Systemów Informacyjnych Ochrony Zdrowia, Warszawa.
- KLUDACZ M. 2005. *Koncepcja budżetowania w przekroju działań jako instrument sterowania kosztami szpitala*. Rozprawa doktorska. Wydział Nauk Ekonomicznych i Zarządzania, Uniwersytet Szczeciński, Szczecin.
- KUJAWSKA J. 2004. *Mechanizm budżetowania szpitali na tle przemian w finansowaniu opieki zdrowotnej w Polsce*. Rozprawa doktorska. Wydział Zarządzania i Ekonomii, Politechnika Gdańska, Gdańsk.

- NOWAK M. *Dynamiczne modele zarządzania finansami w przedsiębiorstwie*. PRET, Warszawa 1995, s. 138, za Komorowski J. *Budżetowanie jako metoda zarządzania przedsiębiorstwem*. PWN, Warszawa 1997.
- RADEK M., SCHWARZ R. 2000. *Zmiany rachunkowości zarządczej w polskich przedsiębiorstwach w okresie transformacji systemu gospodarczego*. Zeszyty Teoretyczne Rachunkowości, 57.
- SOBAŃSKA I., WNUK T. 2000. *Zmiany w praktyce rachunkowości na przełomie XX i XXI wieku*. Zeszyty Teoretyczne Rachunkowości, 56.
- WAWER U.A. 2001. *Koncepcja rachunku kosztów samodzielnego publicznego zakładu opieki zdrowotnej lecznictwa stacjonarnego*. Rozprawa doktorska. Wydział Nauk Ekonomicznych i Zarządzania, Uniwersytet Szczeciński, Szczecin.