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Outsourcing in the Management of Public Hospitals in the Lublin Voivodeship

Outsourcing w zarządzaniu szpitalami publicznymi w województwie lubelskim

Keywords: outsourcing; public hospitals; the methods of managing a hospital

Słowa kluczowe: outsourcing; szpitale publiczne; metody zarządzania szpitalem

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Introduction and the aim of the work

In the subject literature, a public hospital is defined as a quasi-company, which provides health services and produces public goods, yet contrary to a company, it is not responsible for the financial achievements, including debt [Krawczyk-Sołtys 2013, p. 167]. It results from the fact that in comparison with market companies targeted at gaining profit, the main aim of a hospital is to improve quality and availability of the offered services and not generating profits [Kowalska 2005, p. 35]. However, the activity of the closed healthcare facility like in the case of any other market organization, should not suffer losses. Therefore, the costs paid by a hospital for a high quality health service must be also economically justified. The task is difficult because the health units of the current health service market function in insufficient financial conditions. In consequence, the majority of units have payment difficulties, which results in permanent lack of means for covering costs of the primary activity, not to mention the investment in improvement and development. Functioning in such conditions evokes

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the necessity for seeking more effective solutions by hospitals' managers, which could enable achieving better economic results, while sustaining high quality of the provided services. Owing to the fact that the traditional management methods turned out to be insufficient, managers started to apply solutions that had worked out in business environment and provided organizations with measurable economic as well as qualitative benefits. The solution is outsourcing defined as "the process of shifting tasks and services previously performed in-house to outside vendors" [Jenster et al. 2005, p. 1] or "the act of obtaining services from an external source" [Brown and Wilson 2005, p. 20]. The essence of using this concept in public healthcare units is underlined by the fact that according to the Common Assessment Framework model formulated by EU member countries to standardize the assessment of the public organizations' activities in the scope of "Partnership and Resources", the use of outsourcing, among others, was accepted as a criterion for planning evaluation and managing the partner relations and resources [Bugdol and Papaj 2008, pp. 10–24].

The aim of this article is to present the results of the research concerning the identification of relations between the use of outsourcing and the achievement of the economic goals by healthcare units.

1. Material and methods

The evaluation of the article's research aim was conducted according to the self-made methodology of studies. In the first place, on the basis of the subject literature, the variables concerning the range of outsourcing application by public hospitals, i.e. types, the areas of use, reasons for application and stages of the implementation process were identified. The scope of the outsourcing use was examined with the questionnaire produced for this particular aim. Then, the factors determining the realization of the economic goals were established and the rational budget management was evaluated with the use of synthetic indicators such as: profit/loss net, the level of debt and the current financial ratio. The suggested factors were measured on the basis of the evaluation of the economic and financial proposition for hospitals in Poland [mz.gov.pl 2012] and their measures were generated on the grounds of the units' basic financial documents, i.e. the profit and loss account and the balance sheet.

Owing to the fact that the studied features did not have a normal distribution (it was examined with the use of the following tests: Shapiro–Wilk, Anderson–Darling, Lilliefors and Shapiro–Francia), to examine the relations of features: the general debt ratio, current financial liquidity and profit/loss net with the answers given in the questionnaires, the non-parametric Kruskal–Wallis test was used or when there were only two kinds of answers in the questionnaire the U Mann–Whitney test was applied. For the distributions according to the answers significantly different, the statistical measurements of position were calculated (maximum and minimum values, the arithmetic mean, standard deviation, median, IQR factor and the skewness value)

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in the group of people giving positive as well as negative answers. On the other hand, the test χ^2, enhanced by the Monte Carlo methods, was applied to examine the correlations between the questionnaire answers and the general economic indicator. All statistical hypotheses, in all tests, were verified on the level of significance α=0.05.

The sampling was conducted in the targeted manner. While choosing the scope of the research, the territorial division of Poland was taken into account. Due to the existence of 16 voivodeships in Poland, the choice of one voivodeship constitutes 1/16 of the whole population. The subject scope was the senior management, i.e. director, associate director, director's representative, unit's manager for quality management or other person from the senior management assigned by a director. Because of the lack of willingness to fill in the questionnaire by 4 units, finally, 35 units underwent the analysis, which constitutes 90% of the whole group. The research was conducted in 2011–2014, yet it should be underlined that the economic indicators proposed in the work were measured for the same accounting period.

The examined hospitals, were grouped according to their financial condition. Only 20% of hospitals did not have any debts and almost 80% of the examined units were in debt and the main reasons for it were: financial arrears from the previous years, unpaid overspendings, underestimation of the medical procedures [Świderska 2014, pp. 24–44], overstaffing and the lack of management continuity. What is optimistic, is the fact that in the majority of the units (50%), debts are decreasing in comparison with the previous years.

2. Results and discussion

All of the units used contract outsourcing in the examined period of time, which is a preferred form of this method also in Polish enterprises [Kłos 2009, p. 137]. The main reason for outsourcing was the willingness to limit expenses – similar results were achieved by Marcinkowska for the Lesser Poland Voivodeship [Marcinkowska 2010, pp. 99–104] and by Bukłaha [2009, p. 161]. Almost all examined hospitals outsourced more than one element of their activity. Among the studied units, 40% outsource five and more areas of activity: five areas – 11%, six – 17%, seven – 6%, nine – 3% and eleven – 3%. 20% of hospitals outsource two areas of activity, and three – only 9%. The scope of using outsourcing in public hospitals concerns mainly quasi-operative and ancillary services such as: recycling (66%), laundry (54%), cleaning (46%) and transport (37%). The results are similar to the studies by Marcinkowska for the hospitals of the Lesser Poland Voivodeship [Marcinkowska 2010, pp. 99–104]. On the other hand, the operational services outsourced to the external companies were: laboratory diagnostics and medical imaging, dental services and histopathology.

The statistically significant correlations between the debt ratio and the use of outsourcing by a hospital were observed between the effects of its use: positive, i.e. the possibility of focusing by a management board on the primary activity (p=0.0286)

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which constitutes a benefit in the strategic area [Dominquez 2006, p. 72] and negative, i.e. the fear of increasing prices by the outsourcing company (p=0.0149) – the financial threat [Lewandowska 2010, p. 53]. The answer concerning the possibility of concentrating on the primary activity was marked by those hospitals which had a debt ratio (113.35 with the standard deviation 64.729) higher than those which did not mark the answer (83.766 with the standard deviation 112.449), yet, it is worth noting that in this group, there were units with the highest as well as the lowest debt ratio in the research sample. What is interesting, is the fact that the fear of an unexpected increase of prices by an outsourcing company was reported by the units with a better average debt ratio.

Similar correlations concerning the effects of outsourcing use were also observed as far as another economic indicator is concerned – current financial ratio. The possibility of focusing on the primary activity by a management board constitutes the outsourcing benefit and this answer was marked by hospitals with a lower level of current ratio (with an average value 0.67) more often than in the case of hospitals whose average value of this ratio was on the optimal level (1.22). It may suggest that hospitals in a worse economic situation notice the necessity of focusing their actions on improving functioning of the primary areas of their activity, which may positively influence the economic effects (instead of taking care of the ancillary processes).

The sale of facilities, rooms and equipment used previously by a hospital for the services performed by the outsourcing company, improved the financial result of a unit. The hospitals that made such a sale, achieved an average activity result of PLN 366,834.72, while the hospitals which did not take such actions achieved an average loss of PLN 2,185,277.87. Between the ratio that is under discussion and the effects of outsourcing use, the correlations were observed and they concerned: the increase of the quality level of the services offered by a hospital (p=0.044) and strengthening the competitive position on the market (p=0.033). In the first and the second case, the hospitals, which marked those answers, achieved a lower loss in a given period of time than the facilities in which such results were not observed. It means that the improvement of the quality of the provided services with the use of outsourcing indirectly influences also the achieved financial results.

In this work, the evaluation of the relation between the use of outsourcing by a hospital and an "overall" economic indicator was studied. The overall indicator was defined as "good" (1) in the case when all components met the criteria and "bad" (0) when the criteria were not fulfilled by a unit. The criteria were determined on the basis of the economic and financial evaluation proposition for hospitals in Poland (6). The draft regulation includes also the point-based scale interpretation of the indicators as following:

1. Debt ratio (DR): below 30% – 10 points (optimal value), from 30% to 60% – 8 points, more than 60% to 80% – 3 points, above 80% – 0 points.
2. Current ratio (CR): below 0.6 – 0 points, more than 0.6 to 1.2 – 8 points, more than 1.2 to 1.7 – 12 points (the optimal ratio value), above 1.7 – 10 points.

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According to the presented rhetoric, a hospital had a good overall economic indicator (=1) when it met the following criteria: DR≤80%, CR>0.6 and did not generate any loss in the analysed period of time. The results of the given indicators are presented in Table 1 – the economic evaluation parameters that are satisfactory were marked in a colour. Only 23% of hospitals in which the research was conducted, have all three parameters at the appropriate level and thereby have a good economic situation. 34% of hospitals meet only two out of three criteria, 17% of which had at least one parameter at a low, but acceptable level. Up to 34% of the examined hospitals do not have any of the parameters at the satisfactory level, which means a bad financial condition of a unit and, at the same time, the lack of the realization of financial aims.

As a result of the study of the relations between the questionnaire answers and the overall economic indicator with the use of the χ^2 test strengthened with the Monte Carlo methods, the significant correlations between the economic indicator, the purpose of the equipment used so far by a hospital and the facilities connected with the outsourced activity (p=0.027) were observed. The hospitals with the good economic indicator (=1) after outsourcing, more often sold their assets generating in this way an additional financial source for their activity. Statistically significant correlations were also reported in the type of cooperation between a hospital and an outsourcing company. The facilities that during the outsourcing process used the evaluation of suppliers and managed the relations with an outsourcing company, achieved a satisfactory economic indicator (p=0.028). It means that the cooperation with the partner company, instead of total exclusion of a given area of the managerial activities, influences a hospital economic results. Therefore, it can be said that the use of the full outsourcing cycle, which consists of: the strategic evaluation – the needs analysis – suppliers assessment – contract negotiations – project initiation and shifting services – relation management – continuation/modification/finalization [Power, Desouza and Bonifazi 2008, p. 50], instead of its chosen elements, enables the increase of the effectiveness of the activities realized in this way.

Table 1. The financial data of the closed public healthcare facilities

Number	DR (%)	CR	profit/loss net (PLN)
1	192.99	0.395007577	-4,154,392.40
2	81.92	1.633836395	966,314.13
3	512.51	0.206066382	-6,438.88
4	104.08	0.299569887	-1,995.78
5	40.06	0.625318443	-16,681,747.70
6	18.71	2.811471829	-22,116.69
7	144.82	0.439513361	-1,709.58
8	105.59	0.301590178	-4,352,138.88
9	26.07	0.403349051	-4,771,725.32
10	126.11	0.623601949	-1,952,362.34
11	100.65	0.681222842	91,109.05
12	**36.28**	**0.837620489**	**321,577**

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Number	DR (%)	CR	profit/loss net (PLN)
13	195.60	0.313060432	-3,601,290.86
14	78.40	0.962911849	-3,053,146.12
15	24.23	1.548747228	-6,740,000
16	111.18	0.584855949	-5,087,872.61
17	50.58	0.798237209	-1,733,971.62
18	230.43	0.03516441	-10,982,360.4
19	5.12	1.212231181	-314,584.91
20	**17.86**	**2.184729698**	**225,818.45**
21	205.74	0.329512225	-1,379,513.96
22	**58.74**	**0.776794654**	**550,550.23**
23	176.80	0.482494212	-2,482,350.24
24	27.30	2.610697987	-163,458.95
25	153.50	0.424300068	-1,418,646.85
26	**15.87**	**2.590361748**	**12,834.62**
27	138.75	0.3566582	123,720.97
28	63.56	0.318139425	2,617.03
29	84.98	0.34541629	-659,980.90
30	**52.97**	**1.209451423**	**282,354.37**
31	**46.65**	**1.866595467**	**818,389.91**
32	50.03	0.905952879	-809,689.98
33	11.00	0.973752693	-431.62
34	**15.40**	**4.072631324**	**451,315.08**
35	**41.52**	**0.86115025**	**337,938.05**

Source: Authors' own elaboration on the basis of the research results.

3. Results

Outsourcing has been applied in the managerial practice of public hospitals for a long time and almost every facility take advantage of this solution to a greater or lesser extent. The gained experience made a hospital management staff understand the outsourcing process and cope with it better. Outsourcing, besides the quality aims, influences also the economic achievements of a facility. It results from the correlation which suggests that the achieved quality effects of using outsourcing, i.e. the increase of the quality level of the services offered by a hospital and strengthening the competitive position on the market, have an indirect impact on the unit's financial results.

When deciding to outsource, hospitals should treat it as a process in which all of its stages are important. The crucial element of the process, unfortunately often neglected by hospitals, is managing relations with a partner company. Obviously, one of the main ideas of the outsourcing process is a considerable decrease of the hospital's management board's activities, which include a number of processes anyway. The hospitals with the worse financial condition point it as a main advantage of this method and underline the possibility of focusing on the primary activity. Nonetheless, instead of outsourcing and excluding some activities from the senior management

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staff's tasks, the managers should take care of their organization's brand by the co-operation with the partner company, which may increase not only the quality of the delegated function, but also the improvement of the financial indicators. It is even more crucial in organizations with a prevalent meaning of a service quality, which undoubtedly concerns healthcare facilities. In order to do this, a hospital should establish appropriate communication channels, supplier – client, due to which the monitoring of the provided services can be possible.

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Outsourcing in the Management of Public Hospitals in the Lublin Voivodeship

The aim of this article is to present the research results concerning the identification of the relations between the outsourcing use and the achievement of the economic goals by the healthcare facilities. The research was conducted in the years 2011–2014 among the senior management of public hospitals in the Lublin Voivodeship, with the use of the self-made questionnaire and the analysis of the hospitals' financial documents. Then, with the use of the statistical analysis, the correlations between the proposed financial variables and the questionnaire answers were identified.

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Public hospitals use contract outsourcing mainly in the scope of the ancillary and quasi-operational services. The major correlations of the outsourcing use with: the current ratio, debt ratio and the financial result concern the effects of its use, i.e. the possibility of focusing on the primary activity by the management staff or on the fear of the likeliness of outsourcing company increasing the prices. The crucial relations were also observed between the "overall" financial ratio and the equipment and facilities connected with the activities contracted out to an external company, and between the methodology and the complexity of implementing this concept. To sum up, outsourcing some services, besides achieving quality goals, has also an impact on a facility's economic results because quality effects of outsourcing indirectly influence the financial results of a unit. Moreover, cooperation with a partner company, instead of outsourcing a given service and excluding it from the managerial activities, not only can increase the quality of the function that has been handed over, but also it can improve the main financial ratios.

Outsourcing w zarządzaniu szpitalami publicznymi w województwie lubelskim

Celem artykułu jest prezentacja wyników badań dotyczących identyfikacji związków między stosowaniem outsourcingu a osiąganiem celów ekonomicznych przez placówki służby zdrowia. Badania przeprowadzono w latach 2011–2014 wśród kadry najwyższego szczebla szpitali publicznych województwa lubelskiego z wykorzystaniem samodzielnie opracowanego kwestionariusza ankiety oraz analizy dokumentów finansowych szpitali. Następnie za pomocą analizy statystycznej wyodrębniono związki między zaproponowanymi zmiennymi finansowymi a odpowiedziami w ankiecie.

Szpitale publiczne stosują outsourcing kontraktowy szczególnie w zakresie usług pomocniczych i quasi-operacyjnych. Główne zależności stosowania outsourcingu ze: wskaźnikiem bieżącej płynności, wskaźnikiem zadłużenia oraz wyniku finansowego dotyczą efektów jego stosowania, tj. możliwości skupienia się zarządu na podstawowej działalności, czy obawą przed możliwością podniesienia cen przez firmę outsourcingową. Istotne zależności zaobserwowano również między wskaźnikiem ekonomicznym "ogólnym" a wykorzystywaniem sprzętu i obiektów związanych z działalnością zleconą firmie zewnętrznej oraz metodyką i kompleksowością wdrażania tej koncepcji. Wydzielenie części usług "na zewnątrz" organizacji poza osiąganiem celów jakościowych wpływa także na wyniki ekonomiczne placówki, ponieważ osiągane efekty jakościowe stosowania outsourcingu wpływają pośrednio na uzyskiwane przez jednostkę wyniki finansowe. Ponadto współpraca z firmą partnerską, zamiast wydzielenia usługi na zewnątrz i wykluczenia jej z działań zarządczych, może zwiększyć nie tylko jakość przekazanej funkcji, ale i poprawę głównych wskaźników finansowych.