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USE OF COST ACCOUNTING IN COST MANAGEMENT

WYKORZYSTANIE RACHUNKÓW KOSZTÓW W ZARZĄDZANIU KOSZTAMI

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Summary: Cost accounting is the basic accounting tool used to optimize costs in companies. The evolution of accounting also concerned changes in cost accounting. In the second half of the twentieth century many new cost accounting methods were created, the main task of which was to support managers in increasing the financial performance of companies. The aim of the article is to analyze the possibility of using different cost accounting by companies to manage their customers' costs. The main thesis is that companies are aware of the possibility of using management accounting tools to manage their customers' costs. In the article literature studies and the results obtained from the responses to the questions in the questionnaire were used. The study was conducted among 71 companies in south-eastern Poland. Based on this research, it was determined that, despite the possibility of using different cost accounting methods, Polish companies prefer to use traditional cost accounting to manage their costs.

Keywords: cost accounting, finance, management accounting, cost management.

Streszczenie: Rachunek kosztów jest podstawowym narzędziem rachunkowości wykorzystywanym do optymalizacji kosztów w przedsiębiorstwach. Ewolucja rachunkowości dotyczyła także zmian zachodzących w rachunku kosztów. W drugiej połowie XX wieku powstało wiele nowych rachunków kosztów, których głównym zadaniem było wspieranie zarządzających w zwiększaniu finansowej efektywności działania przedsiębiorstw. Celem artykułu jest analiza wykorzystywania przez przedsiębiorstwa różnych rachunków kosztów do zarządzania kosztami. Przy pisaniu artykułu wykorzystano badania literaturowe oraz wyniki badań osiągniętych dzięki odpowiedziom na pytania zawartych w kwestionariuszu ankiety. Badania przeprowadzono wśród 71 przedsiębiorstw południowo-wschodniej Polski. Na podstawie tych badań określono, że mimo możliwości zastosowania różnych rachunków kosztów zarządzający polskimi przedsiębiorstwami preferują wykorzystywanie do zarządzania kosztami tradycyjnego rachunku kosztów.

Słowa kluczowe: rachunek kosztów, finanse, rachunkowość zarządcza, zarządzanie kosztami.

1. Introduction

Enterprises operate under the pressure of an increasingly competitive market and growing customer demands. The consequence of operating in globalizing markets is, on the one hand, a process of increasing the difficulty of managing such enterprises and, on the other hand, easier access to the knowledge and experience of enterprises from different regions of the world in solving increasingly complex decision-making problems. Globalization also affects the flow of intellectual capital between developed and developing countries, regions and enterprises. These phenomena imply an increase in the level of advancement of systems enabling the effective support of decisions taken by managers. There is also growing awareness among managers of companies of the possibility of applying more complex methods of managing particular functions or areas of these companies.

The evolution of corporate governance is to a large extent correlated with the evolution of the systems, methods or tools supporting or enabling this evolution. Among these systems, accounting plays an important role in which, also as a result of evolution, two main subsystems have developed: financial accounting and management accounting.

The aim of the article is to analyze the possibility of using different cost accounting by companies to manage their customers' costs. The main thesis is that companies are aware of the possibility of using management accounting tools to manage their customers' costs. The article was written with the use of literature research and the results of research obtained by responding to the questionnaire. The research was conducted among 71 enterprises in south-east Poland.

2. Cost management

Cost accounting is a tool to measure the costs of doing business. The main objective of the project is to provide information related to the costs of separate cost objects, which are of interest to business managers. In order for cost accounting to work properly, financial accounting procedures are used, often integrating it with management accounting tools. One important feature of cost accounting is the continuous and systematic collection of information on costs. Properly prepared information is used to control costs, which allows to optimize their structure and size.

Cost management is aimed at reducing costs, but in practice the possibilities of cost reduction have many limitations and therefore cost reduction in most cases will concern their optimization in relation to the effects achieved by incurring them.

The essence of cost management is to take actions that are to lead to the optimization of incurred costs. This is done by increasing the efficiency and effectiveness of the use of resources owned by the company [Nowak (ed.) 2006, p. 15].

Modern cost management theories have their roots in, besides German or Anglo-American, Japanese economic practice and have been developed with the significant participation of Japanese researchers (see [Howell, Sakurai 1992; Monden (ed.) 2000; Okano, Suzuki 2007]). In their considerations, they pay special attention to planning the level, structure and dynamics of costs in the first stages of product life or the initial links of the value chain, which results from the fact that decisions taken at this stage largely determine the costs in subsequent processes taking place in enterprises. Reducing costs in the initial phases of the sequence of actions gives the most effective results.

In analyzing the Japanese solutions, A. Jarugowa presented the definition of cost management as a process of continuous improvement, which supports the development and application of appropriate management policy and procedures. This process requires the development of a proper information system generating relevant data on significant costs. This system should inform primarily about the acquisition and use of resources so that the company can do it in the most efficient way [Jarugowa, Nowak, Szychta 1998, p. 22].

In order to manage costs, it is necessary to identify the factors influencing their formation. Using the Japanese experience, six stages of this process can be distinguished [Jarugowa, Nowak, Szychta 1998, pp. 22-23]:

- 1) cost planning, this stage determines the costs incurred in subsequent periods,
- 2) formalization of plans in the form of specific, partial budgets, which should result in allocating costs to the places and persons responsible for them,
- 3) determination of external relations influencing the costs incurred; this concerns mainly the suppliers and the terms of their supplies,
- 4) acquisition of resources, this applies not only to those shown in the assets of the company, but also to those used by the company on other terms,
- 5) use of resources,
- 6) emergence of a liability or payment for the acquired resources.

The main objectives of cost management depend on the specificity of the company, the type of business, the strategy adopted and its competitive position. The main objective is to improve the financial results of the company by increasing the efficiency of the use of resources at the company's disposal and improving the course of activities carried out in the company.

When applying cost management in practice, it is necessary to have an adequate set of information on the costs of involvement and the use of particular company resources and activities. This information should be relevant for the needs related to the achievement of specific company objectives, which are determined by the adopted strategy of the company.

Business costs are identified, recorded and processed by the cost accounting system, which is a source of information for cost management. The integration of both systems must take account of the nature of the decision-making and control situation and conditions of the company concerned.

To achieve this it is necessary to select and implement an appropriate cost accounting model that will measure and report on costs. The cost accounting model used should ensure that costs are allocated to the distinguished reference sites taking into account their cause and effect relationship with the costs incurred. This will create the conditions for shaping the costs at a rational level and enable the implementation of measures resulting in their reduction [Nowak (ed.) 2006, p. 17].

3. Cost accounting

Cost accounting has long been recognized as the most important instrument for managing companies [Jarugowa 1986, p. 7]. It is therefore necessary to build a client cost accounting model that combines the most efficient (and therefore also the most common in practical applications) features of management accounting tools.

There are different definitions of cost accounting in the literature. The authors dealing with the subject of cost accounting present the following:

1) “generality of activities aimed at reflecting the processes of sourcing, production and sales taking place in the enterprise, by including, grouping and interpreting in the applied sections of the cost of own production and sales of the enterprise’s own work products, measured quantitatively and qualitatively, for a certain period of time, in order to obtain the most comprehensive information necessary to determine the results and to manage the enterprise or its team” [Fedak 1962, pp. 8-9],

2) “all actions aimed at determining and interpreting in different sections and interpreting the value of living and objectified labor inputs expressed in money, performed in an enterprise during a specified period of time and with a specified purpose” [Mala... 1971, p. 652],

3) T. Peche speaks of “the grouping of own costs [...] in order to obtain a proper picture of their structure, in each classification section” [Mala... 1974, p. 400],

4) “covers the measurement of costs, their current record, settlement according to the places of origin, directions of activity and types of products or services, preparation of unit cost calculations and financial reporting” [Hellwig (ed.) 1985, p. 23],

5) “cost accounting consists in examining and transforming, according to the adopted model and standards, information on costs and revenues of past, current and intended activities in order to support the management of the entity” [Jaruga (ed.) 2000, p. 7],

6) “cost accounting is defined as the measurement and delivery of financial and other information relating to the acquisition and consumption of resources and provides information for both financial and management accounting” [Horngren et al. 1999, p. 5],

7) “cost accounting is the process of determining the costs of conducting a business activity consisting in the manufacture and sale of goods or the provision of services or the marketing of goods” [Nowak 2011, p. 13].

The quoted definitions of cost accounting are not uniform, but they contain many common features [Lew, Maruszewska, Szczypa 2019, p. 195; Szczypa 2008].

To sum up, it should be stated that for the proper functioning of cost accounting [Maruszewska 2014], including the problematic one, it is important to indicate and solve the following issues in its model [Jarugowa, Malc, Sawicki 1979, p. 40]:

- the purpose of cost accounting – to provide managers with information to assess the current situation and manage the enterprise,
- economic processes that make up the whole value chain of an enterprise and the related costs – treated as an expense account,
- a company – treated as a cost accounting entity,
- recording (measurement, documentation and valuation), grouping and interpreting as a mode of action and methods of reflecting (research and quantification) the dynamic process of the course of action in the company and the increase in costs,
- the periodical presentation and interpretation of activities in terms of cost and their sequence,
- the need to operate not only on the monetary meter but also on natural units.

Cost accounting should therefore cover all activities of the company in order to comprehensively support managers in their decision-making [Lew 2012].

When analyzing the evolution of accounting in general and financial and management accounting as separate accounting subsystems since the 20th century, one can come to the conclusion that cost accounting is a common part of both subsystems. The fact that the economic processes of the turn of the 19th and 20th centuries, at that time not very complicated cost accounting models, were used for decision-making purposes, leads to such a conviction. This was due to the research on the development (caused by the deficiencies of these models) of cost accounting, which so dynamically began to develop since the second half of the last century and led to the formation of management accounting as an independent entity in the consciousness of both theoreticians and practitioners involved in the management of enterprises. Figure 1 presents the scope of cost accounting, which functions within the framework of financial and management accounting.



Fig. 1. The place of cost accounting in the accounting system

Source: [Nowak (ed.) 2006, p. 34; Nowak 2011, p. 12].

It follows from these considerations that contemporary accounting can be understood very broadly. It is currently aimed at actively supporting managers in shaping the present and future of the company through a number of analyses [e.g. Kubacka 2018] and problematic (detailed) cost accounting.

4. Application of management accounting methods in enterprises – results of surveys

The literature contains the results of various studies carried out by scientists in countries considered to be economically developed. This is confirmed by research aimed at identifying the most popular management accounting tools used in business practice.

Similar studies were carried out in 300 US companies by K.R. Krumwiede and S.L. Charles [2006]. Their research concerned the most popular tools used in management. Synthetic results of their studies are presented in Table 1.

Table 1. The most popular methods of management accounting according to Krumwiede and Charles

Management accounting methods	Application – ranking
Measuring customer satisfaction	1
Product profitability analysis	2
Analysis of deviations	3
Budgeting	4
JIT methods	5
Customer profitability analysis	6
Benchmarking	7
Calculation of target costs	8
Costs of unused production capacity	9
Balanced scorecard	10
Value chain analysis	11
Activity-based costing	12

Source: own elaboration based on [Krumwiede, Charles 2006, p. 37].

The research of these authors also shows that problematic costing plays a dominant role. The research also shows the key importance of customers for American companies. First place among the management accounting tools is taken by the measurement of customer satisfaction, and the sixth is taken by the analysis of customer profitability. In both tools, customer costs play an important role. Budgeting, although still criticized, also plays an important role [Bochenek 2018].

On the European level, similar studies were conducted in companies operating in Slovenia [Čadež 2006]. A comparison of the results obtained is presented in Table 2.

Table 2. The most popular methods of management accounting according to Čadež

Management accounting methods	Application – ranking
Capital budgeting	1
Quality costing	2
Competitor performance appraisal	3
Benchmarking	4
Strategic pricing	5
Competitive position monitoring	6
Strategic costing	7
Customer profitability analysis	8
Integrated performance measurement	9
Target costing	10
Value chain costing	11
Attribute costing	12
Brand valuation	13
Competitor cost assessment	14
Life cycle costing	15
Lifetime customer profitability analysis	16
Valuation of customers as assets	17

Source: [Čadež 2006].

The popularity of management accounting methods in Romania was presented by N. Albu and C.N. Albu (see Table 3).

Table 3. The most popular methods of management accounting according to N. Albu and C.N. Albu

Management accounting methods	Application – ranking
Financial performance measurement	1
Budgets	2
Global performance analysis	3
Full costing methods	4
Medium-term planning	5
Investment planning	6
Cost analysis as fixed/variable	7
Strategic planning	8
Standard costing	9
Environmental costs	10
Quality costs	11
Financial performance measurement	12
Planning and budgeting	13
Global performance measurement	14
Costs	15

Source: [Albu, Albu 2012].

The results of these studies relate to management accounting methods applicable in various countries around the world. However, they indicate their popularity of using them regardless of the cost object.

According to the research presented by A. Szychta [2002], in Poland most enterprises use traditional cost accounting for decision-making purposes. Enterprises also use the calculation of unit production costs, liability calculation, variable cost calculation, profitability thresholds and budgeting.

An interesting development of this type of research is to find an answer to the question: can the most popular cost accounting be used to manage customers' costs?

Studies taking into account the possibility of using different cost accounting to manage customers' costs have not been conducted so far.

Taking into account the most popular methods of management accounting, research was conducted into the possibility of their application to customer cost management.

At the turn of 2014/2015, the author conducted empirical research which covered companies operating in south-east Poland. The basic criterion for the selection was the need for these companies to keep accounting records on the basis of the Accounting Act. Questionnaire forms were addressed to persons responsible for the functioning of management accounting in the surveyed companies, and if there were no such persons, the form was filled in by managing, financial or chief accounting directors. Questionnaire forms were sent out in 2014 to 208 companies. Voluntary associations of enterprises operating in south-eastern Poland: Podkarpacki Klub Biznesu (Subcarpathian Business Club) and Rzeszowska Izba Gospodarcza (Rzeszów Chamber of Commerce) were helpful in sending out questionnaires. The questionnaires were returned by e-mail, post or personal visits of the author.

As many as 78 companies took part in the survey, but unfortunately significant errors in the completed questionnaires caused the need to eliminate 7 questionnaires from the analysis. The return rate of the questionnaires is 37.5%. However, 34.13% of the questionnaires sent to companies were analyzed.

Table 4. Ranking of usefulness of cost accounts to manage customer costs

Management accounting methods	Application – ranking
Traditional cost accounting	1
Multi-level and multi-block cost accounting	2
Activity-based costing	3
Budgeting of customer costs	4
Customer life cycle costing	5
Calculation of target costs	6
Cost accounting for continuous improvement	7
Balanced scorecard	8

Source: own elaboration.

The questionnaire consisted of 21 questions, the aim of which was to verify the condition and needs of the use of cost accounting, the subject of which is the customer. One of the questions asked in the survey was about the form of cost accounting that could be used to determine customer costs. The answers were hierarchical in nature, because the respondents had to indicate the usefulness of particular cost accounts to determine the costs of customers from the list indicated in the question. The answers to this question are given in Table 4.

The research shows that Polish enterprises are still dominated by traditional cost accounting, which is widely used for reporting purposes. However, it is relatively rare for business managers to extend this cost accounting in order to optimize their business costs. The answers to this question suggest that if cost accounting were to focus on customers, managers would first try to use traditional cost accounting for this purpose. Second place was taken by the multi-level and multi-block cost accounting, which is probably due to the fact that it is relatively often used as a cost-managed, off-book method. Other cost accounts are of less interest to the managers of the companies. This may result from a lack of knowledge of these cost accounts, the need to incur additional expenses for implementation and maintenance, or a lack of substantive justification for introducing more advanced cost accounting at the current stage of development of a given enterprise.

5. Conclusion

The results of research obtained by most scientists on the use of management accounting tools do not include the possibility of using traditional cost accounting as a management tool. This form of cost accounting can be used by all enterprises that have accounts. In the author's research, the vast majority of the surveyed enterprises indicated the possibility and usefulness of using this cost accounting for management purposes. The lack of this cost accounting among the tools indicated in the studies of other authors may result from the fact that it is rarely considered possible to use it for management purposes. However, it has such capabilities.

The main conclusions that can be drawn on the basis of the research conducted by the author are as follows:

- traditional cost accounting has significant managerial advantages, of course only after the appropriate adjustment of the requirements of a given enterprise and cost object, in the case of this research – the client,
- companies using traditional cost accounting are aware of the fact that it can be used for management purposes, including establishing the profitability of customers,
- in all enterprises, the client is increasingly becoming an object of interest for management accounting, as indicated by the management accounting methods dedicated to customers.

Cost accounting allows to determine the actual profitability of a given cost object (corresponding with revenues), which allows to optimize the activities conducted

in relation to this object. Knowing the actual profitability of individual cost objects (activities, customers (more in: [Lew 2006; 2015; 2017]), sales representatives, products or in other situations [Chłodnicka, Zimon 2013]), makes it possible to optimize the efficiency of operation or management of this object. The cost accounting used by a company supports the company's strategy both in operational terms and in long run.

Taking into account the frequency of the indicated answers in the research conducted by the author, the thesis presented in the introduction to the study may be considered as true.

The next stage of this research should be the analysis of the usefulness of individual cost accounting in managing the costs of selected cost objects. In the author's opinion, the main cost object in relation to which the research should be conducted in the nearest future are the customers. This should result from the fact that the companies' strategy has been reoriented from product to customer.

Bibliography

- Albu N., Albu C.N., 2012, *Factors associated with the adoption and use of management accounting techniques in developing countries: the case of Romania*, Journal of International Financial Management & Accounting, vol. 23(3), pp. 245-276.
- Bochenek M., 2018, *Ocena systemu budżetowania w przedsiębiorstwie*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 513.
- Chłodnicka H., Zimon G., 2013, *Analiza kosztów w przedsiębiorstwach tworzących grupy zakupowe*, Finanse, Rynki Finansowe, Ubezpieczenia, z. 765/61, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin.
- Čadež S., 2006, *The application of strategic management accounting techniques in Slovenian manufacturing companies*, Zagreb International Review of Economics & Business, vol. 9(1), pp. 61-75.
- Fedak Z., 1962, *Rachunek kosztów produkcji przemysłowej. Zagadnienia wybrane*, PWE, Warszawa.
- Guilding C., Cravens K.S., Tayles M., 2000, *An international comparison of strategic management accounting practices*, Management Accounting Research, vol. 11, no. 1.
- Hellwig Z. (ed.), 1985, *Elementy rachunku ekonomicznego*, PWE, Warszawa.
- Horngren C.T., Bhimani A., Foster G., Datar S.M., 1999, *Management and Cost Accounting*, Prentice Hall Europe, London.
- Howell R.A., Sakurai M., 1992, *Management Accounting (And Other) Lessons from the Japanese*, Management Accounting, December, vol. 74.
- Jaruga A.A. (ed.), 2000, *Rachunek kosztów i rachunkowość zarządcza*, SKwP, Warszawa.
- Jarugowa A., 1986, *Rachunek kosztów w zarządzaniu przedsiębiorstwem*, Państwowe Wydawnictwo Ekonomiczne, Warszawa.
- Jarugowa A., Małc W., Sawicki K., 1979, *Rachunek kosztów*, PWE, Warszawa.
- Jarugowa A., Nowak W.A., Szychta A., 1998, *Zarządzanie kosztami w praktyce światowej*, ODDK, Gdańsk.
- Krumwiede K.R., Charles S.L., *Finding the Right Mix*, Strategic Finance, April 2006.
- Kubacka M., 2018, *Problematyka wykorzystania ekonomicznej wartości dodanej jako miernika wartości przedsiębiorstwa*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 513.
- Lew A., 2012, *Zarządcze walory tradycyjnego rachunku kosztów*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 252.

- Lew G., 2006, *Potrzeby informacyjne controllingu w obszarze sprzedaży przedsiębiorstwa handlowego*, Prace Naukowe Akademii Ekonomicznej we Wrocławiu, nr 1101, Wrocław.
- Lew G., 2015, *Rachunek kosztów klienta w zarządzaniu przedsiębiorstwem handlowym*, Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów.
- Lew G., Maruszewska E.W., Szczypa P., 2019, *Rachunkowość zarządcza: od teorii do praktyki*, CeDeWu, Warszawa.
- Lew G., Pacana A., Kulpa W., 2017, *The concept of customer cost accounting*, Journal of Business and Retail Management Research, vol. 11(3), pp. 124-129.
- Mała encyklopedia ekonomiczna*, 1974, PWE, Warszawa.
- Mała encyklopedia rachunkowości*, 1971, PWE, Warszawa.
- Maruszewska E.W., 2014, *Alokacja kosztów pośrednich – etyka w rachunkowości zarządczej*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 472, Wrocław.
- Monden Y. (ed.), 2000, *Japanese Cost Management*, Series on Technology Management – vol. 4, Imperial College Press, London.
- Nowak E., 2011, *Rachunek kosztów w jednostkach gospodarczych*, Ekspert, Wrocław.
- Nowak E. (ed.), 2006, *Strategiczne zarządzanie kosztami*, Oficyna Ekonomiczna, Kraków.
- Okano H., Suzuki T., 2007, *A History of Japanese Management Accounting*, [in:] C.S. Chapman, A.G. Hopwood, M.D. Shields (eds.) *Handbook of Management Accounting Research*, vol. 2, Elsevier.
- Szczypa P., 2008, *Rachunkowość zarządcza: klucz do sukcesu*, CeDeWu, Warszawa.
- Szychta A., 2002, *The scope of application of management accounting methods in Polish enterprises*, Management Accounting Research, vol. 13, pp. 401-418.