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COSTS AS AN ECONOMIC CATEGORY EXPOSED TO RISK

KOSZTY JAKO KATEGORIA EKONOMICZNA NARAŻONA NA RYZYKO

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Summary: Costs are one of the fundamental economic categories characterising the achievements of business entities. The costs incurred by companies stem from the coexistence of various factors, whose occurrence is affected by the volatility of the external and internal environment. Therefore, costs are inherently connected with the risk that the incurred costs will differ from those assumed and postulated. Costs can thus be seen as an economic value subject to risk. This article concerns the risks of business entities, associated with incurring costs. The article presents the nature and sources of cost risk and the impact of various types of economic risk on the costs. It also presents the essence of risk management associated with costs incurred by the company. Particular attention was paid to assessing the level of cost risk on the basis of the deviations of incurred values from the postulated ones.

Keywords: risk, cost, risk measurement, cost risk, cost management.

Streszczenie: Koszty są jedną z fundamentalnych kategorii ekonomicznych charakteryzujących dokonania jednostek gospodarczych. Koszty ponoszone przez przedsiębiorstwa kształtują się przy współwystępowaniu różnorodnych czynników, na których występowanie ma wpływ zmienność otoczenia zewnętrznego i wewnętrznego. Dlatego kosztom nieodłącznie towarzyszy ryzyko, że koszty poniesione będą się różnić od tych założonych, postulowanych. Koszty można zatem rozpatrywać jako wielkość ekonomiczną narażoną na ryzyko. Artykuł niniejszy dotyczy ryzyka działalności jednostek gospodarczych związanego z ponoszeniem kosztów. W artykule ukazano istotę i źródła ryzyka kosztów oraz wpływ na ich poziom różnych rodzajów ryzyka ekonomicznego. Wskazano także istotę zarządzania ryzykiem towarzyszącym kosztom ponoszonym przez przedsiębiorstwa. Szczególną uwagę zwrócono na szacowanie poziomu ryzyka kosztów na podstawie odchyleń wartości poniesionych od tych postulowanych.

Słowa kluczowe: ryzyko, koszty, pomiar ryzyka, ryzyko kosztów, zarządzanie kosztami.

1. Introduction

Running any kind of economic activity (manufacturing, service, trade) is inextricably linked with incurring costs. Costs are a complex economic category, consisting of a number of specific elements with unique properties. Furthermore, individual cost components are usually affected by a number of different factors of varied nature. The strength and direction of the influence of these factors on the level of costs is not always the same. This leads to the occurrence of variation in the formation of the costs of the company's activities examined in a specific timeline.

The volatility of the costs depends largely on the external and internal environment which is turbulent and, to some extent, unpredictable. In other words, the variability of the environment in which the enterprise operates is a source of risk associated with incurring costs. A sign of the occurrence of the risk are deviations of the actually incurred costs from the stipulated and expected costs. The size of these deviations indicates the scale of the risks to which the costs of all business entities are exposed.

Effective cost management in the enterprise requires recognition of the risk associated with the incurring of these costs. Entities which carry out economic activity have to deal with the risk pertaining to the costs, because it cannot be completely eliminated. It is important to undertake proper actions in the conditions of risk associated with costs, so that the established business objectives can be achieved. The point is to maintain an appropriate influence on the risk factors to ensure incurring costs that do not exceed the acceptable level of tolerance in relation to the projected estimations. The risk should be taken into account in these economic decisions in the company, which influence the level of costs.

This article pertains to the issues of cost overrun risk associated with conducting business activity. It is one of very few works in the literature from the field of management accounting concerning cost risks, which have appeared in recent years. Typically, the main interest is the risk of various financial categories, e.g. value, income, rate of return and financial instruments (e.g. [Smithson et al. 2000; Olkiewicz 2004]). Other frequent field of study are the issues of cost overrun risk in construction projects [Dikmen et al. 2007; Baloi, Prince 2003; Tummala, Burchett 1999]. However, the issue of the cost risk in relation to the business activity as a whole is not less important, because the level of costs influence the other economic categories which reflect the achievements of business entities.

The main objective of this article is to present the costs as a fundamental economic category characterising economic activity of the company, which is exposed to risk. The main argument of the paper is that the identification and measurement of risks associated with costs should be important elements of the system of cost management for business entities. In order to achieve this objective and to find support for the main argument, there was conducted a critical analysis of the literature in the field of cost management and risk management.

2. Specific features of cost risk in enterprises

Various economic values which characterise the company's activities and which are subject to measurement and analysis of accounting and corporate finance, are subject to risk. In accounting, those values are primarily financial results and net cash flows. In the finances, however, there is also considered the value of the company and the rate of return and other measures relating to the value of asset items (e.g. financial instruments). The indicated values are synthetic measures for the achievements of the business entities, they possess a high level of aggregation and represent the "average" achievements of the entity, without delving into the factors influencing their value.

The most important measure of the results of the company's activities which is used in accounting is undoubtedly the financial result. This result is influenced by two main factors, i.e. revenues and costs. It is widely believed that the financial result is subject to risk. It is due to the fact that both achieving revenues and incurring costs are activities accompanied by risk. In this paper, the attention is focused on the risks relating to the costs of business activity.

Costs can be vied as an economic category that refers to the value of human labour and the wealth of a company's spent in a given period of time in the production of goods, services and performing the functions [Nowak 2016, p. 23].

The cost risk is largely dependent on the nature of the company, and therefore it is easier to control compared to the risk of not achieving the satisfactory level of revenues, which is more dependent on the market conditions. In other words, cost risk is more controlled by the business entity than the revenue risk. It can be also stated that high revenue risk is "compensated" by low cost risk or, in other words, the cost risk "finances" the revenue risk in a way. It affects the previously mentioned "averaging" of the risk by using the financial result as a measure of the results of the company's business activity. At the same time, it indicates the necessity for a separate consideration of cost risks.

Risk has different meanings to different people. Engineers, designers and contractors view risk from the technological perspective. Lenders and developers tend to view it from the economic and financial side. Health professionals, environmentalists, chemical engineers take a safety and environmental perspective. Risk is therefore generally seen as an abstract concept whose measurement is very difficult [Baloi, Prince 2003, p. 262].

In considerations regarding cost risk, there can be applied two concepts of risk: negative and neutral. The negative concept of risk means the likelihood of an adverse event or a chance of failure or loss [Manikowski, Tarapata 2001, p. 48]. In reference to business activity, risk may be defined as the likelihood of a detrimental event occurring to the business activity. Since the objectives of companies are usually stated as targets established for function, cost, time and quality of products, the most important risks in companies are the failure to meet these targets. The impact of the

cost risk is usually calculated by comparing the actual state (realised values) to the established state (expected values) of the studied economic phenomenon. This assumed (expected) state is considered as a reference and model for the evaluation of the level of impact to which the phenomenon is exposed. This assessment is based on absolute or relative deviations of actual values from the expected values.

The neutral concept required the assumption that the achieved results will vary from the expected and projected results. In other words, risk is the probability of success (profit) and failure (loss).

Referring the abovementioned principles to the cost risk in a company, it is important to first identify an model costs, which will provide a valid reference for the actual incurred costs. At the same time, it will be the basis for assessing the scale of the risk associated with the cost of business activity. It is important that this is the value determined within the systematic cost accounting led by the enterprise. This solution is reasonable because of the integration of the risk management system into the cost accounting system. Naturally, this does not exclude the possibility of determining the standard amount of costs beyond the systematic account of costs.

The category of model costs which meets the presented demands are postulated costs. Postulated costs a variety of a priori costs, which represent the amount necessary to undertake a specific range of activities [Jarugowa et al. 1983, p. 210]. In determining these costs, it is rational to use the resources of the enterprise in certain operating conditions. Postulated costs are treated as individual values necessary for carrying out the reference unit for cost. They are characterized by schedule, directives and stimulativeness.

In determining the postulated costs, there are used cost patterns of various types; most of them are planned or standard costs. Planned costs are costs expected to be incurred in the future in order to realize the economic intention in the conditions of the efficient use of the activity's factors. Standard costs, on the other hand, are determined on the basis of standards of consumption regarding the activity factors that determine the technologically necessary expenditures. Planned costs and standard costs are considered to be the most appropriate point of reference in assessing the costs for the company [Doyle 2006, p. 26].

Deviation of actual costs from the postulated costs are manifestations of risk. On the basis of these deviations, it is possible to estimate the scale of the risks to which costs are exposed. It is recognized that the cost risk increases with the increase of the deviation of actual costs from postulated costs. In order to assess the level of risk, there are used various measurements based on those deviations which are mostly the measures of absolute or relative variability.

3. Cost structure versus risk

Costs are an extremely complex economic category, because they are subject to structuring in every enterprise. Costs are sorted into certain groups which include more or less detailed items. Usually, specific cost components are affected by different factors of unequal strength. Similarly, risk factors possess specific properties to a large extent dependent on the nature of the position in the cost item in question. Therefore, cost risk is diversified by groups and cost items.

Costs of different business activities, incurred by entities, are unequally subject to risk. First, let us compare the costs of basic and other business operations. Basic operating activities, which may include production, services and trade, are conducted continuously and are characterized by regularity. Therefore, the cost of this activity is naturally accompanied by lower economic risk. It is different for the remaining operating activities, which include economic events occurring sporadically and incidentally rather than systematically, as well as random events. This means that the costs associated with this type of activity are exposed to much greater risk. When it comes to financial activities, the scale of the risk regarding the financial cost is similar to that associated with the costs of basic operations. There can also be considered the risk of costs incurred in the construction projects. Due to the fact that tangible investments are typically realized in the long term, the cost risk of the construction projects is usually higher than the cost risk of basic operations.

Moreover, individual cost components are to a varying degree exposed to the risk. Therefore, analysing the risks in the present economic category it is important to consider the internal cost structure of the company. The truth is that certain cost items are subject to different risks. The scale of the risk associated with various cost components is usually not equal, either [Nowak 2014]. These observations pertain to the cost components distinguished by different classification criteria, i.e. by type, place of origin, and media costs. Therefore, the risks to which the costs of business activity are exposed are multidimensional.

In Table 1, there are presented the most important types of risk associated with costs incurred in the business entities.

No.	Type of risk	Risk characterization
1	Regular risk	Risks taken at each business activity
2	Internal risk	Risk associated with various areas of business activity
3	Subjective risk	Risk due to inability to accurately predict costs
4	Specific risk	Risk due to factors inherent in a company
5	Operational risk	Risk associated with the commitment of resources to the business activity
6	Technological risk	Risk due to fallibility of technology
7	Financial risk	Risk related to changes in prices, rates, and tariffs of the involved resources
8	Diversified risk	Non-systematic risk
9	Process risk	Risk associated with the efficiency of economic processes
10	Human-related risk	Risk associated with employed staff

Table 1. Types of risk concerning the costs

Source: own elaboration.

4. Cost risk management

Enterprises have to deal with the risk of incurring the associated costs, since it cannot be completely eliminated. There is therefore a need for adequate cost risk management regarding the costs in the company. The essence of this kind of management is such an impact on the process of incurring costs, as to ensure the completion of tasks associated with the maintenance of the costs at a given level. First and foremost, it is all about not exceeding the level of postulated costs, and lowering them. The primary objective of risk management is to secure the costs of the company's activities in terms of achieving its objectives regarding the financial results.

The cost risk management should be an important component of the risk management process of the company. According to the terminology of the Committee of COSO (The Committee of Sponsoring Organizations of the Treadway Commission) risk management for an enterprise is a process implemented by the Board and managers while determining the corporate strategy and undertaking projects for its realisation, designed for the identification of probable events that may occur in the future and affect the level of business risk, so that it is contained within the demonstrated propensity to take risks [COSO 2004].

Risk management in an enterprise should be directed towards achieving the core business objectives: both short-term and long-term. The purpose of the short-term objectives is undoubtedly to maximize the financial results. The long-term goal of risk management is most commonly considered the rise of business value [Lam 2003, p. 43] or increased value for the owners of the company [Jajuga 2007].

Cost risk management directly supports the achievement of the primary objective of risk management, which is to increase the value of the company. This is because the main task of cost risk management is to rationalise the incurred costs. The effect of improving the efficiency of use and commitment of resources are lower costs, which contributes to the increase of financial results. Financial results, on the other hand, are a core element of the company's value expressed by the amount of the net assets that are equivalent in value to the company's own capital. It is, therefore, impossible to mention risk management in a company without its important element which is cost risk management. Risk management in the company is, in fact, a comprehensive and consistent system for managing different types of risk [Lam 2003, p. 45].

Cost risk management in the company should not be a one-time action, performed occasionally in case of a threat to the achievement of the expected goals. It should include the management actions undertaken systematically to facilitate the functioning of the enterprise in conditions of risk associated with incurring costs. In other words, cost risk management should be a process involving organised activities carried out in a methodical way. The result of each and all activities should be taking control of the incurred costs, as well as the achievement of the assumed economic benefits. The essence of cost risk management in the enterprise is to control the risk within that economic category. This control is based on the interaction of the risk associated with costs in order to fit it to the desired level. Control of cost risk is about not allowing it to exceed an acceptable level. Therefore, in the process of managing this risk, it is important to take measures aimed at eliminating or mitigate the impact of factors which interfere with economic processes that cause excessive costs.

The process of cost risk management in the company consists of activities related to the future. This causes cost risk control to also include anticipatory feedback, involving early detection of interference in the activities affecting the implementation of tasks. In addition, within the scope of this control, there are undertaken corrective actions in order to eliminate the interference occurring in the course of economic processes. It can therefore be assumed that the primary purpose of control in cost risk management is to prevent the occurrence of factors which interfere with economic processes, the implementation of which there is involved a variety of the enterprise's resources.

5. Conclusions

While incurring costs, every business entity faces some sort of risk. Therefore, the estimation of future costs associated with the company's activities should take into account the scale of the risks to which this value is exposed. Information on the level of cost risk is important when assessing the economic impact of business undertakings. In addition, they are used in making economic decisions, in which the selection criterion is to minimise costs. The scale of the risk associated with incurred costs is therefore a factor in controlling the activity of business entities, taking into account the level of costs.

It is impossible to pursue business activities without considering the risks to which the costs associated with them are exposed. Proper cost risk management allows for early detection of the conditions of their formation at a certain level. In addition, it provides the use of the opportunities offered by business activities while taking into account the cost risk. The risk faced by costs should therefore be regarded as a regular part of the process of cost management.

References

- Baloi D., Prince A.D.F., 2003, *Modelling global risk factors affecting construction cost performance*, International Journal of Project Management, vol. 21, p. 261–269.
- COSO, 2004, *Enterprise Risk Management Integrated Framework*, Committee of Sponsoring Organizations of the Treadway Commission, London.
- Dikmen I., Birgonul M.T., Han S., 2007, Using fuzzy risk assessment to rate cost overrun risk in international construction projects, International Journal of Project Management, vol. 25, p. 494– -505.

- Doyle D.P., 2006, Kontrola kosztów. Element zarządzania strategicznego, Oficyna Ekonomiczna, Kraków.
- Jajuga K., 2007, Elementy nauki o finansach, PWE, Warszawa.
- Jarugowa A., Malc W., Sawicki K., 1983, Rachunek kosztów, PWE, Warszawa.
- Lam J., 2003, Enterprise Risk Management, John Wiley and Sons, Hoboken, NJ.
- Manikowski A., Tarapta Z., 2001, Ocena projektów gospodarczych. Modele i metody, Difin, Warszawa.
- Nowak E., 2014, *Ryzyko kosztów działalności przedsiębiorstwa*, [in:] Chluska J. (ed.), *Zarządzanie kosztami przedsiębiorstwa w warunkach ryzyka. Aspekty* teoretyczne, Politechnika Częstochowska, Wydział Zarządzania, Częstochowa.
- Nowak E., 2016, *Rachunek kosztów w jednostkach prowadzących działalność gospodarczą*, Expert, Wrocław.
- Olkiewicz A.M., 2004, Zarządzanie ryzykiem finansowym w działalności handlowej, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin.
- Smithson C.W., Smith C.W. Jr., Wilford D.S., 2000, Zarządzanie ryzykiem finansowym: instrumenty pochodne, inżynieria finansowa i maksymalizacja wartości, Oficyna Ekonomiczna, Warszawa.
- Tummala V.M.R., Burchett J.F., 1999, Applying a Risk Management Process (RMP) to manage cost risk for an EHV transmission line project, International Journal of Project Management, vol. 17, no. 4, p. 223–235.