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MANAGEMENT ACCOUNTING EVOLUTION AS A RESULT OF MANAGEMENT BY PROJECTS

Summary: Activities based on projects has become a necessity for some time in various sectors or industries. This is a consequence of the turbulent business environment which causes a perversity in business functioning and a shortening of the life cycle of products. In such conditions, only flexible management methods become useful. When choosing management accounting instruments, one should always take into consideration both the external and internal conditions of the company. If the company manages projects the internal conditions take on a new meaning. There is thus the need for a revision of management accounting. The main purpose of this article is to present the specifics of management by projects including the use of instruments of management accounting. One can also hypothesize that there is a need for the revision of management accounting in companies undergoing projects. In order to achieve the established objective and verify the hypothesis, the article explains the determinants of management by projects, then describes the scope of the management accounting for projects, and finally presents the differences between traditional and project management accounting.

Keywords: project, management accounting, management by projects.

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1. Introduction

Modern management accounting should cope with the new demands created by the reality of business. A system of its instruments must be designed and then implemented to fully meet the information needs of the enterprise. This is the main objective of management accounting.

Meanwhile, the constantly changing enterprise environment makes it necessary to seek new management concepts. One of the model solutions for organizing a company that could meet the demands of today's reality is the concept of doing business in the form of projects. In some business units almost the entire management system is subordinated to projects. In such cases we are dealing with the concept of management by projects, which involves the functioning of the organization based on projects.

Choosing management accounting instruments should always take into consideration both the external and internal conditions of the company. If the company manages projects, the internal conditions take on a new meaning. There is thus the need for a revision of management accounting.

The main purpose of this article is to present the specifics of management by projects including the use of the instruments of management accounting. One can also hypothesize that there is a need for the revision of management accounting in companies undergoing projects.

In order to achieve the established objective and verify the hypothesis, the article explains the determinants of management by projects, then describes the scope of the management accounting for projects, and finally presents the differences between traditional and project management accounting.

2. The determinants for the concept of management by projects

Among the determinants of the concept of management by projects we can distinguish three main elements:

- the organizational structure,
- the type of business,
- the industry.

Activity in the form of projects enforces a number of changes in the organization. One of the most important is the change in the organizational structure. It is generally accepted that the project is possible within the following structures: functional, matrix-functional and team.

The functional structure is not in the least conducive to the implementation of projects. In this case, there is no typical separate task team. Its substitute is formed by managers who are engaged in work on the development of their subordinates.

Such a method is without doubt inefficient and can only be used for small projects, or if the company is forced to realize some project unexpectedly. Of course in such a situation we are not dealing with management by projects but only with managing the project.

Quite the opposite here is the situation in the case of team structure which fully reflects the specificity of management by projects. A company in this arrangement is divided into task forces that carry out specific projects aiming to achieve the strategic objectives of the company. Such a solution is possible, however, only in the case of certain industries of the nature of the service industry, e.g. computer software or construction.

The most interesting solution from the point of view of the management of the projects, is the matrix-functional structure, which may soon be typical of manufacturing industries. In such a case teams are established of employees seconded for a period of time from different organizational units. At the head of each of the teams is a manager, who from the beginning to the end is responsible for the project.

Such an organizational solution also makes it possible to implement the concept of management by projects in industries in which the execution of the projects has so far been marginal or occasional.

Another determinant of the concept of management by projects is the type of business. First, it was applied naturally in service enterprises. Each order after all can be considered as a separate project. The company is then divided into autonomous subsystems organized temporarily, whose task is the implementation of a specific order. After fulfilling its function, the subsystem is terminated or it is reconfigured (personnel and structural reconfiguration) in order to take up another job.

Production companies were almost always organized by function (foundry, machining, sales, finance ...). The order of this was enforced by the necessity of the specialization of the individual departments of a production company. Today, however, such a solution seems to be no longer sufficient. Nowadays, for the production of a new product it is more and more frequently necessary to launch, or at least significantly retool a new production line. Products are manufactured under a specific order because the difficulty is no longer to produce, but to sell the product. Each order is characterized by certain specific, unique features that often necessitate the use of prototype machines. It seems to be a logical consequence to shift the focus in the hierarchy of the organizational structure from a functional to a project layout. This trend will be exacerbated due to the permanent shortening of the product life cycle.

Trade, in turn, seems to be the kind of business that does not necessarily force the future use of the concept of management by projects. This will mainly depend on other characteristics of the enterprise. The trading companies' projects can be organized taking into account commodity groups, manufacturers, purchasing and sales territory, industry, etc.

Apart from the type of business, an important determinant of the concept of management by projects is also the industry. The construction and informatics industries were the first which benefited from this concept. The specificity of the activities of these sectors of the economy most fit such a model to organize the company. The implementation of almost any construction project can naturally be treated as a project. The construction of even two identical buildings in different locations or time is associated with completely different design solutions, logistical problems, legal issues, etc. Therefore the implementation of seemingly identical construction projects means in fact different costs and lead times for each of them. By using the concept of management by projects, construction companies can effectively and efficiently carry out their activities.

Similar situation is present in industry. In this case, the diversity of individual orders follows from the rapidly changing technology. The development of computer science proceeds so fast that after several years software is regarded as obsolete.

Informatics companies employ, not including accounting personnel, basically just programmers or computer scientists. For the purpose of order they are organized into task forces. The concept of management by projects, therefore, almost perfectly fits

the companies competing in the market of computer software. One can even say that, since the beginning of the existence of this industry, the activity was based on projects in their business. Any other way seemed to be simply irrational.

Another kind of industry that is conducive to projects is the automotive industry. Companies producing automotive components are particularly interesting from the point of view of the application of the concept of management by projects. There is constantly friction between the functional and project layout.

Projects are conducive to many other industries. It is impossible to list them all. Bearing in mind some constantly persisting trends in the environment, it can be assumed that the concept of management by projects will be gradually more noticeable in almost every sector of the economy.

3. The scope of project management accounting

In order to properly organize a system of management accounting in a company, one should first decide what information should be generated by this system. In other words, a range of management accounting should be established which (together with the changes made in the enterprise) is constantly evolving. This requires, therefore, that the evolution of management accounting is fully consistent with the direction of company growth.

Until recently, the repetitive nature of economic entities prevailed. The proof, and at the same time a reflection of this situation, is the system of management support instruments applied in practice and described in the theory. The instruments described in the literature relating to unique, one-off activity have so far focused only on investment activities. Changes in the environment, however, have led companies to a different way of organizing business. Thus, when the action gradually shifts towards project-based activities, the solutions provided by management accounting should also be modified and adapted to the current needs.

The scope of project management accounting should take into account primarily the degree of activity in the form of projects. We can distinguish three different types of entities that more or less use projects [Łada, Kozarkiewicz, 2007]. For many companies, these are also the stages of development in years to come.

Type I companies are entities that carry out individual projects in the framework of additional activities. Their operation is based on repeatable operations. The scope of project management accounting in this case is limited to the instruments of an operational nature. Therefore, among others the following are applied: establishing a project schedule, project budget, control of its implementation, efficiency assessment, etc. All these instruments are concentrated around the projects and not the whole company. This is due to the fact that the main role in the enterprise is played by a repetitive activity. It is important here that the applied management accounting instruments are subordinated to the information and decision system of the entire

company. The role and scope of management accounting in such organizations have been described in numerous publications books.

This subject was so often raised that it has been structured by the International Federation of Accountants (IFAC) [www.ifac.org]. In 1991 a study of Management Control of Projects [IFAC, 1991] was established. This document indicates the guidelines for a specialist in the field of management accounting which include [Łada, Kozarkiewicz, 2007]:

- development, implementation and functioning of the systems used to collect and report information,
- ensuring that the information is consistent with the principles set out in these systems,
- helping managers to use this information in planning and project control.

In addition to the issues listed in the standard, there are also described issues that relate to, among others, determining the price of the project, the preparation of the schedule and budget for the project, control over it, reporting and other issues associated with the implementation of a single project.

Type II companies are organizations managed by the projects. The main feature of this type of company is to conduct the core business in the form of projects. Only a few activities are organized in a reproducible manner. Project management accounting in this type of enterprise has a much greater range than it did in the previous case. The range of instruments is extended, among others, of all these methods and tools that can be applied to a portfolio of projects. Project management accounting is thus expanded mainly onto the methods supporting the implementation of the strategy through projects, the methods of assessing the effectiveness of a portfolio of projects, project-focused budgeting, carrying out the cost accounting of unused resources, planning the course of many projects at the same time, exercising control over them, reporting, etc. There is no doubt that in the case of companies managed by project instruments of a strategic nature this becomes of the much greater significance. Along with operating instruments, they form a comprehensive system of management accounting. Due to the fact that, at present, companies increasingly and more likely use the concept of management by projects, it can be assumed that the development of management accounting will be heading in a similar direction. In other words, the new demand for comprehensive solutions in the field of economic information will have to be met. This will be possible only through organizing such accounting system which will support the management of the company from the time of the strategy's establishment to its implementation at the lowest level in the hierarchy. It is important at the same time to make the optimal selection of projects for the company. This means a set that will achieve the aims of the strategy with the involvement of the smallest possible amount of resources. Instruments that make it possible to organize project management accounting in this way at strategic level are: a balanced scorecard, the life-cycle costing of projects and target costing. At the operational level of management

accounting, the instrument that provides a comprehensive approach to support the management by projects can be budgeting.

Type III companies are entities that operate both basic and auxiliary form of projects. Such organizations are frequently formed as a new organizational and legal form in order to carry out a specific project. After completion of the work associated with the project, the company ceases to exist. In the literature of management such entities are referred to as temporary organizations or organizations that are part of the network [Perechuda 2000].

Project managerial accounting in temporary entities, as in the previous case, requires a comprehensive approach. This is reflected in the cohesion of strategic and operational instruments. In addition, a set of methods, techniques and tools supporting the management does not have to take into account the recurring operations because such do not occur. In the case of a network organization in which there is always acting a coordinating entity (broker), the scope of project management accounting must be examined from the perspective of all the participants in the network. The layout reminds then that of the organizations managed by the projects, but with the difference that the individual projects are implemented by separate organizational and legal forms. Therefore, in determining the scope of the project management accounting for individual entities, care must be taken, first and foremost, that it is subordinate to the broker accounting system and fully in line with the rest of the network.

4. The specificity of project management accounting

Project management accounting differs significantly from the traditionally perceived managerial accounting. This follows directly from the specificity of the concept of management by projects.

The most noticeable difference is undoubtedly the different moment of use of particular instruments. In companies organized in a functional way with a predominance of repetitive activities, management accounting instruments are used usually periodically in fixed intervals. In this case, this is fully justified because it allows one to generate ordered reliable information to support the management of the company. Somewhat different is the situation of project-based activities. The timing of management accounting instruments is then closely related to the:

- portfolio of the project selection process,
- the life cycle of individual projects.

The selected instruments are therefore applied once or repeatedly, but only absolutely depending on the life cycle of projects. It is this feature of the projects, which is unique, that all the supporting methods, techniques and tools must be used carefully and at specific times of the projects. For example, control of the work should be made periodically at regular operations, while in projects mostly the milestones are controlled and after all of that the final inspection is carried out.

Another feature of project management accounting which differentiates it from typical management accounting is the variability in centers of responsibility in the company. Organizations managed by projects are focused on a horizontal layout instead of functional. Therefore one can no longer speak of permanent centers of responsibility, which so far have been the established organizational units in the company. In project companies, individual projects are temporary centers of responsibility. In addition, in the case of large and complex projects a responsibility system may be created separately for each project.

With the described variability is associated another difference between the traditional and project system of management accounting. This is the source of data for budgeting. Typical management accounting applied in enterprises with repetitive activities is largely based on historical data. Based on data from the past we can make comparisons, set the standards and define the input data for taking action. In the case of the projects, which are by definition unique, basing them on historical data is significantly reduced. One can only try to estimate the input data on the basis of analogy in relation to projects of a similar purpose, scope, expenditure and methods of implementation. Mostly, however, one is using the data worked out from scratch.

The size of the business in companies managed by projects is also referred to in a different way. A typical measure of this variable is usually the volume of sales or production volume. For projects, when determining the size of the business, we most often refer to the fulfillment of the schedule and use earned value, which is a combination of the time and resources spent on the project.

5. Conclusion

Choosing a management accounting instruments should always take into consideration both the external and internal conditions of the company. If a company manages projects, internal conditions take on a new meaning. When choosing instruments, the specificity of the business in the form of projects should be especially taken into consideration. Instruments of management accounting should be more focused on horizontal activity (project), rather than the vertical (functional). In addition, there is a need to consider the level of activity in the form of projects. When designing a system of instruments in a company managed by the projects, one should also take into account the characteristics of the projects. Variables, such as, inter alia, the type, size, complexity and scope of the project, will largely determine the project management accounting primarily at operational level. All this makes it necessary to revise management accounting in companies undergoing projects.

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EWOLUCJA RACHUNKOWOŚCI ZARZĄDCZEJ JAKO SKUTEK ZARZĄDZANIA PRZEZ PROJEKTY

Streszczenie: Bazowanie na projektach staje się od pewnego czasu koniecznością w wielu sektorach i branżach. Wynika to wprost z turbulentnego otoczenia przedsiębiorstw, czego następstwem jest między innymi przewrotność w funkcjonowaniu i skracanie cyklu życia produktów. W takich warunkach tylko elastyczne metody zarządzania stają się użyteczne. Dobierając instrumenty rachunkowości zarządczej, należy brać pod rozwagę zarówno zewnętrzne, jak i wewnętrzne uwarunkowania przedsiębiorstwa. W przypadku przedsiębiorstwa zarządzanego przez projekty uwarunkowania wewnętrzne nabierają nowego znaczenia. Zachodzi tym samym konieczność rewizji w rachunkowości zarządczej. Głównym celem niniejszego artykułu jest przedstawienie specyfiki zarządzania przez projekty z uwzględnieniem stosowania instrumentów rachunkowości zarządczej. Można również postawić hipotezę, że zachodzi konieczność rewizji rachunkowości zarządczej w przedsiębiorstwach przechodzących na projekty. W artykule najpierw przedstawiono determinanty zarządzania przez projekty, następnie wskazano zakres rachunkowości zarządczej dla projektów i na koniec zaprezentowano różnice pomiędzy tradycyjną i projektową rachunkowością zarządczą.

Słowa kluczowe: projekt, rachunkowość zarządcza, zarządzanie przez projekty.