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Economic Aspects of Company Processes Improvement

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Abstract

The following article presents issues of precise estimating of process cost using the method of cost account based on Activity Based Costing. The general question is why traditional cost calculation methods are not exact enough to determine the process cost of contemporary production processes and what solutions may be proposed to increase the accuracy of calculations. The article not only focuses on the limitations of traditional methods of the process costing and cost objects calculation but also points out the procedure of activity cost assignment including both indirect and direct costs. The described conception is presented especially in the context of processes improvement in organizations. Moreover, the advantages of proposed solutions and limitations of their implementation in manufacturing practice are shown.

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1. Introduction

The issue of cost account attracts broad interest recently. The rapidly changing environment and complexity of manufacturing processes require such systems and solutions for cost account that would provide fast and reliable information. Traditional systems of cost account are not always able to meet the managerial decision-making needs. That is why the enterprises strive for modern concepts of cost account which become the strategic need of business organization nowadays.

The range of cost account changes along with the managers' need for appropriate information applied in the company management.

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One of the key factors of the manufacturing process analysis is determining the production prime costs of the product and its components. This is done using cost account called cost calculation which determines the unit cost of manufactured products as well as products in progress along with establishing the cost structure in the calculating arrangement.

The use of appropriate calculating methods depends on the production type and the need of exact calculations. For instance in case of unit or job-lot production, when there might be the problem with calculating indirect costs, there is a need for very accurate calculations. New methods of calculation of production cost develop due to the increase of advanced production techniques, the complexity of manufacturing processes, increasing cooperative links, growing diversity of the final goods, development of information systems and the increasing needs of precise calculations. Together with development of these methods the share of indirect costs in the prime cost of products, defined by surcharge is falling [1].

Apart from the accurate defining of the production and services cost the need for acquiring precise data on the course of individual stages of manufacturing goods or service arises. The traditional methods of cost account do not allow to determine the costs of processes which makes impossible to determine fully the effectiveness of actions carried out. Therefore it is essential to search for solutions (such as quality costing or logistics) enabling reliable managing the costs of processes within a company.

2. The development and key features of Activity Based Costing

The traditional and most common methods of cost account include division calculation and additional calculation widely characterized in the literature on the subject [1, 2, 3, 4, 5]. Each one has many varieties.

Reviewing the division and additional methods of cost account one may come into conclusion that there is no single best method of determining the unit cost of production. A number of different methods of production cost calculation have been developed. They serve specific purposes depending on the business profile and what is associated with it namely the output rate, degree of production automation, the computer system in the company etc.

The development of new cost account methods entails higher cost and workload essential to perform calculations. However, particularly in the case of unit and job-lot production most division and additional methods are less accurate which forces the company to look for calculation algorithms which would be as precise as possible. It should be underlined that on the one hand, managers have to pay attention to precision and the effects of implemented methods. On the other hand, they should focus on the costs and necessary changes associated with this implementation.

The division and additional methods, in the face of current trends of development of market economy, are not able to fulfil the information demands of the company management. The development of competition has contributed to changes in the technology, automation of manufacturing processes. It has expanded the range of products offered by the company and shortened their life cycle. This all have led to changes in the structure of the company costs. The costs of direct materials and direct labour have decreased in total company costs. In the past, this share amounted to 50% and 35% of all company costs, whereas at present it oscillates between 45% and 10%. The indirect costs have increased significantly from only 15% to 45% of company costs (in extreme cases even to 80-90%) [1, 4].

The traditional activity costing systems are based on one or two arbitrary principles of cost assignment – these are generally the direct wages, man-hours or machine-hours (Fig. 1). Such calculation procedure was efficient in case of low indirect costs. In this case there were only slight deviations between calculated and actual costs. The high level of indirect costs and their incorrect calculation provides irrelevant and misleading information. This leads to making wrong decisions [6]. The most common mistake is underestimating the unit costs of small series produced goods or custom made products and revaluation the manufacturing costs of mass production [1]. That is why goods or services generate losses although calculation shows profitability [7].

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