

LOGISTYKA - NAUKA

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Activity Based Costing, management method,
activity, total costs*

CENIGA Pavel¹
SUKALOVA Viera²

MANAGEMENT ACCOUNTING IN BUSINESS LOGISTICS

Logistics business will still constitute an area where it is possible to achieve a significant cost savings, an activity which has enormous potential impact on customer satisfaction and marketing weapon that can be effectively used for competitive advantage. Costs are an important economic category, which significantly affects the business and so this category should be analysed, evaluated and optimised. Cost optimization is an activity which provides the "best cost". In relation to significant changes in business conditions, which are reflected in the emphasis on the need to coordinate business activities, special activities and processes in cross-section of individual units in realised performances, is also developed so-called process cost accounting. It is often referred to as accounting-oriented processes and activities - Activity Based Accounting, which aims to provide a basis for managing these processes.

MANAŽÉRSKE ÚČTOVNÍCTVO V PODNIKOVEJ LOGISTIKE

Logistika v podniku bude aj naďalej predstavovať oblasť, kde je možné dosiahnuť značné úspory nákladov; je to činnosť, ktorá má obrovský vplyv na spokojnosť zákazníkov a marketingová zbraň, ktorú možno efektívne využiť na získanie konkurenčnej výhody. Náklady sú dôležitou ekonomickou kategóriou, ktorá výrazne ovplyvňuje fungovanie podniku a preto je nevyhnutné túto kategóriu analyzovať, hodnotiť a optimalizovať. Optimalizácia nákladov je činnosť, ktorá ponúka "najlepšiu cenu". Vo väzbe na podstatné zmeny v podmienkach podnikania, ktoré sa prejavujú potrebou koordinovať čiastkové podnikové aktivity, činnosti a procesy prebiehajúce v priereze jednotlivých útvarov a v nich realizovaných výkonov, sa rozvíja tzv. procesné nákladové účtovníctvo. To je často označované ako účtovníctvo orientované na procesy a činnosti - Activity Based Accounting, ktorého cieľom je poskytovať podklady pre riadenie týchto procesov.

¹ doc. Ing. Pavel Ceniga, PhD., University of Žilina in Žilina, F PEDAS, Department of Economy, Univerzitná 1, 010 26 Žilina, Slovakia, Phone +421415133218, E-mail: pavel.ceniga@fpedas.uniza.sk

² Ing. Viera Šukalová, EUR ING, PhD., University of Žilina in Žilina, F PEDAS, Department of Economy, Univerzitná 1, 010 26 Žilina, Slovakia, Phone +421415133214, E-mail: sukalova@fpedas.uniza.sk

1. INTRODUCTION

One of the basic ideas that affect the development of accounting is to recognize that how your business process should be differentiated according to who the users of accounting information and what role the decision is pending. Unlike financial accounting and tax, where the pressure of users for a uniform interpretation and comparability of information submitted leads to the unification of conceptual apparatus, the accounting information to managers characterized by the fact that their content is in principle not subject to out-plant control. A more detailed structure of management accounting is based on what type of information provides decision-makers. Specifying a particular distribution of information in terms of their relation to the stages of decision-making process.

Contractor Logistics as material and related information and financial flows in the current era is the time as part of the conditional deployment of resources - goods, people, capabilities and information. Logistics business will still constitute an area where it is possible to achieve significant cost savings, an activity which has enormous potential impact on customer satisfaction and marketing weapon that can be effectively used for competitive advantage. At the same time we can say that with the economy development logistics costs are growing and the cost of processing are reducing. Growth trends relative logistics costs may not yield an absolute increase in spending on business logistics. This would have an impact on prices, as well as other negative impacts. Approach which can manage these negative trends is increasing efficiency of logistics processes.

2. MANAGEMENT ACCOUNTING

2.1 Modern trends in management accounting

Costs are an important economic category, which significantly affects the business and so this category should be analysed, evaluated and optimised. Cost optimization is an activity which provides the "best cost". This process is necessary to accept impact of various factors on the level of costs, the negative effects we are trying to eliminate. The optimization process while recording so complementary effects (combination of positive effects) and so compensatory effects. The term "optimal cost" means the best, most favourable, the lowest business costs in acceptance of the relevant conditions such as degree of capacity utilization, the organization's work technical equipment, the possibility of security and the factors of production. Achieving the optimal level of costs is a difficult process, and managers often stand before the question: How to optimize the cost of business? Increasing trend towards the costs is forcing businesses to pay attention to this issue and therefore managers are looking for different techniques and tools to reduce costs for business and ensuring the competitiveness of business. The area of management accounting manager made room for the application of various modern developments, because this form of accounting is not restricted by legislation. The main drawback is the problem of the applicability of modern approaches and methods because their implementation in enterprises requires first substantial financial resources, changing the organization philosophy, change the access of workers, incentives in terms of continuous improvement, but the "ossification" does not create some space for the implementation of these trends. [1]

Below is listed what options are managers in optimizing costs. In the pyramid of modern trends or individual approaches method placed on the appropriate management level i.e. from the strategic management level to operational level. Their importance is an enterprise-wide and they can be applied to each level of management. These are methods which can be approached from different perspectives and different business activities because their benefits are not only the cost optimization but most are tied to technical, technological, personal, ecological, social, material site production process. Given that any method that interferes with the process to minimize business costs, it can be applied in the field of management accounting.

Among the known and in practice can be applied to modern trends include:

1st Balanced Scorecard (BSC) - strategic business performance measurement system that provides managers a set of tools and resources for evaluating business activities and processes, monitor the achievement of strategic corporate objectives set out in the context of the four business perspectives (financial, customer, internal processes, learning and growth). BSC method was developed by renowned Harvard professor Robert P. Kaplan and David P. Norton in 1992.

2nd Activity Based Costing (ABC) - costing activity-based. Method ABC monitors expenses for specific performance in relation to various activities in the enterprise. The purpose of this calculation method is described in detail the activities, sorted them into threads and processes, the assignment of resources to individual activities and allocation of costs to these resources. Method addresses assigning overhead costs to individual performance. ABC provides information on the costs of individual products, services, customers, regions, distribution channels and so on.

3rd Target costing (TC) - the method of target costing management-oriented modern method market that uses cost accounting as a tool for determining the target cost. The essence of this method of marketing research is focused on the precise specification customer requirements on product and target market price is determined by real demand. The main application of this method is the new products, which are suspected large series or mass production. Method TC is a vital management tool because implies the harmonization of all activities at all stages of company involved in the new product development. Target costs are reflected in the target selling price less profit margin. Target selling price is determined to ensure long-term profitability products.

4th Kaizen costing (KC) - continuous improvement - a system designed to detect systematic and eliminating waste in the manufacturing process. Continuous improvement in business is carried innovations in the form of the smallest detail. The idea is to determine where the implementation activity or process that we want to improve. The overall impact of this approach is reflected minimizing the cost of production.

5th Quality costing (QC) - economics of quality - the management and control activities aimed at monitoring and evaluation of quality costs, which represent the quality assurance of products in terms of meeting the requirements and expectations. The main objective of this approach is optimization of the cost of quality, based on the maximum satisfaction of needs customer requirements, reducing scrap, reducing complaints, eliminating friction.

6th Environmental Management Accounting (EMA) - a system of environmental accounting focused on the collection, recording, monitoring, evaluation of environmental costs, the company that are caused by business activity. EMA aim is to optimize the

environmental costs way to reduce negative impacts on the business environment, reducing claims consumption of energy and mineral resources, waste reduction, etc. All these activities minimize environmental costs.

7th Cost Controlling (CC) - Cost controlling - a system aimed at company costs monitoring and evaluation and detect weaknesses in their calculated, budgeting, analysis and evaluation. This instrument allows cost items and seek possible alternatives cost savings at all corporate levels, in all business processes. [2, 6]

2.2 The process cost accounting

In relation to significant changes in business conditions, which are reflected in the emphasis on the need to coordinate business activities, special activities and processes in cross-section of individual units in realised performances, is also developed so-called process cost accounting. It is often referred to as accounting-oriented processes and activities - Activity Based Accounting, which aims to provide a basis for managing these processes.

An important method for monitoring the activities and costs by creating an overview of the flow cost of the undertaking becomes method Activity Based Costing, and management techniques in the calculation and cost management.

Causes of the development of new methods of cost management

The main stimulus of development and methods are fundamental changes taking place in business processes not only in manufacturing but also in service sectors, transport, banking and other business.

Among the major causes of the development of new methods of cost control include:

- Interested customers and business partners focused on buying or handling requirements "under one roof" generally lead to a significant increase in performance made structures, often inversely proportional to the amount of performance. A substantial part of range is often performed in a smaller, but important quantity that allows the company to keep customers interested in the complex delivery.
- Efforts to minimize customer average rate of production inventory is reflected in shorter intervals of supply. This has the effect of reducing the volume of homogeneous performances conducted in a single dose or a series.
- Constantly clearly reduces the lifetime of the products and grows range of performance modifications.
- Increasing customer demands for quality of performance and awareness of business entities, in terms of cost complexity of complaints and their negative impact on the future effects.
- Development of industries producing consumer goods significantly affects the interest of customers not only improved on the single "uniform" products, but the

goods are as different product from the product. This requires an individualized performance within a single product-type.

- Significantly changing the method of implementation performance in the manufacturing and non-productive sphere. In virtually all areas of decreased proportion of "unit" of human labour, and vice versa, the share of automated processes taking place, money involved which is strongly influenced by the company the ability to rationally coordinate these processes.
- In the traditionally conceived production costs have decreased substantially the proportion of unit costs of programs to the cost overhead. A considerable part of the overhead costs are fixed costs then. An important factor for business success then becomes the optimal capacity utilization, which is associated with these costs.
- An even more important change is the increase in overhead costs needed to secure assistance, the service, but also information, planning, control and strategically oriented activities. Their relation to the type of final results is imputed using traditional practices not only difficult to quantify, but also difficult to identify the functional relationship and dependency of such costs from changes in the volume and structure of the final performances. Often the cost variable in relation to specific activities (process), the relationship of these activities (processes) to the second and final performance of the unit is so diverse that the traditional definition of the "fixed - variable" nature does not show the relationship, and thus leads to erroneous decisions. Simplification of these costs can be expressed using the following notation:

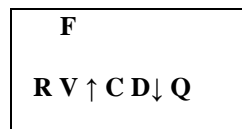


Fig.1. Simplification of costs

This is the overhead costs (R), which is traditionally considered as a fixed (F), changes in business processes, however, lead to the fact that these costs are more variable (V), and depending on the cost of relational variables CD (Cost Driver), who is indifferent or inverse relationship to the active use of capacity or volume of the final outputs (Q). [3]

2.3 Using the ABC method in relation to sub-activities in practice

These advantages of these methods entails the greatest effect in those sectors, which are characterized by a wide range of performance provided by the implementation of which requires quite cost-intensive activities and providing assistance. Much experience with its application we can find in manufacturing industry with heterogeneous production and assembly technology. The method, however, also applies to the non-manufacturing sectors such as in commercial companies, banking, insurance and transport.

The essential differences compared to other methods of bringing the activities in which development activities is the development of indirect costs in relation to the volume of final realized performance. Typical is the relationship between costs, activity and volume of the final performances especially in these types of activities:

- providing logistical operations mainly supply and sales phase of reproduction (material orders, conduct access control, shifts in production, company transportation, packing, shipping, customer service, including information support these activities),

- operations to ensure a balance between resources and their use (operational planning and dispatching control of supply, production and marketing)

- operations capable of making changes (setting up machinery, construction and technology preparing)

- ensuring quality control operations carried out by the performance (quality control, handling of complaints at the entrance and exit, reject repair expenses). [4]

In terms of decision-making tasks, for which the method provides information ABC is widely accepted that in the calculation provides an improved basis for solving problems related to design and defend a price for tasks based on knowledge of the full product cost. This is dominated by long-term challenges of the future capacity and how its implementation (the role of "make or buy"). Similar way - for solving "buy or produce in-house" can also use the information on the full cost and variable intensity activities, operations and processes.

Systematic monitoring cost performance of individual activities and synthesis activities and in particular if they manage to separate the costs are affected by volume of activity (activities) of costs beyond the control of volume, can also be used in the analysis of value creation (Value Chain Analysis, Value Based Management).

Because logistics management is oriented on flows concept with real integration of resources along the chain, it is desirable to have a means by which the cost and performance of this flow can be identified, monitored and evaluated.

Similarly, the general rise in logistics costs increases the need for accurate quantification (financial monitoring) costs. Given that the logistic function is relatively more sensitive to developments in asset prices and labour than most other functional areas of business, the ratio of logistics costs to total costs in many firms increases.

But there are exceptions in some firms to implement policies through TQM, JIT and other programs doing logistics costs in terms of their share of total business costs stabilize or even decrease.

Management, however, can hardly realize the full potential of logistics cost analysis of the implications, if not in possession of relevant cost data separately for different functional areas and their interactions.

3. REQUIREMENTS FOR LOGISTICS MANAGEMENT LEVEL DATA ON BUSINESS LOGISTICS COSTS

3.1 Total cost concept

Since the quality of accounting information on costs depends on the ability of management decisions in many areas: whether to initiate activities in new markets, or take advantage of advanced transportation systems, or choose an external carrier or operate own vehicle fleet, and increase supply or supplies, or make changes in distribution centers, or change the structure of stockholding, or change the package or how to choose a system of automating the process of handling orders.

As already mentioned, one of the main problems that hinder the application of an integrated approach to logistics management, is the adequacy and accuracy of cost information.

Typical standard accounting systems costs to bring together a broad aggregate groups, then do not allow detailed analysis to identify the administrative costs of customer service. Free from that ability to analyse aggregate data on the costs it involves the inability to detect the potential for redemption costs (sacrifice one advantage for the acquisition of another) that may exist within the logistics system. Generally, the effects of redemption costs may be assessed, both in terms of their impact on overall costs, as well as their impact on sales revenues.

For example, it is possible that interchangeable increase in overall costs is liable because of costs from better services, which are now offered, with sales revenues also improved. If the difference between revenues and costs are higher than before, interchangeable costs can be considered as significant improvements in cost-effectiveness article. However, without adequate logistics-oriented cost accounting system is very difficult to find the amount in which is the changeability of the cost benefit.

A key element of the logistics management function is to analyse the total cost. This means that the current level of customer service, management should minimize total logistics costs and not focus only on minimizing the cost of each activity. The main drawback of non-integrated approach to analysing logistics costs is that the efforts of the reduction in specific costs of the logistical functions (logistic costs for certain activities) may be in terms of the system as a whole, a sub-optimal in effect can lead to higher overall costs.

If management wants to minimize the total cost of logistics, in particular, must understand the cost effects of reciprocal links in the logistics function and how each of the various cost factors operate.

To be the cost link analysis erudite, management should be able to find and explain how changes in activity costs can influence the total logistics costs. Quite often, the managers are only dealing with the impact on costs or revenues as "their" functional areas. In terms of the current state of development and implementation of logistics systems in industrialized countries is characterized by the requirement that the accounting system used strictly to provide information for answering the following questions:

- How logistics costs affect profit enterprise made up of individual segments (e.g. by product, territory, customers and sales agents)?
- What are the costs associated with providing higher levels of customer service? What links cost must be considered and what incremental gains, respectively. This loss will bring?
- What is the optimal amount of inventory? How are the stocks influenced by the changes in the pattern storage model or customer service? How much is the keeping stocks at a certain amount?
- Which combination of transport modes and carriers should we use?
- How many stocks should we operate and where these stores should be located?
- What should be the frequency of readjustment of production lines? Which race should produce the products? What is the optimum capacity measured by the alternative composition and volume of production?
- What packaging options should be used?
- To what extent should a system to automate order processing?
- What distribution channels should be used? [5]

To be able to answer these questions, management must know what costs and revenues will change if the logistics system changes.

3.2 Understanding of economic and logistic costs

In terms of requirements for logistics management logistics costs is identifying the various cost streams were as clear as possible, accurate and targeted as the origin, destination and payment.

With regard to logistics costs will go on:

a) The exact extent of the content and method of tracking breakdowns:

- Logistics business performance in emerging
- Logistics services provided by businesses

b) The precise location of (and consumption), logistics cost

From a logistical point of view is valid:

- Location of logistics performance can only be in the logistics chain,
- Where the resulting logistical performance (activity associated with the provision of logistics services), logistics costs resulting from

Economic point of view follows:

- That all costs, including logistics were planned and budgeted, measured, denominated (recorded), and charged at the same time analysed
- That these requirements are matched in terms of economic management method adopted by the company.

To be properly organized internally corporate entities (relevant units, centres) so that they can take responsibility for the creation and costs reasonably incurred.

- c) Selecting and applying appropriate accounting system in-house,
- d) The possibility of expressing their price (delivered price and other services)
- e) Payment these costs. [1]

These principles have a common goal - optimization (spending) creating of their costs to achieve total optimization.

4. CONCLUSIONS

Costing under sub-activities include not only the modern methods of allocating costs, but also a new outlook on business. From this perspective, he sees business as interrelated actions that are necessary for the existence of the company and ensure its function - to serve customers.

ABC Method is an approach to management accounting, which provides distinct advantages businesses. Opens new possibilities for management, increases efficiency, provides a framework for gaining a competitive advantage in the marketplace and increase profitability. Provides administrative management information for long-term strategic decisions on products manufactured and used resources.

ABC method allows to understand the influence of various products proposals on their price and gives the possibility to influence the price in the development time of product. It reveals the causes of cost management, opening up a wider scope for cost management. Method focuses on the understanding of the enterprise through monitoring of activities and their relationship to the development costs. Unlike traditional valuation systems, which allow you to track costs until after they invaded, the method ABC allows to manage and control costs before they occur.

The hierarchy obtained by ABC cost approach provides a particular perspective on the need to clarify sources and their relationship to the cost of individual products, enabling management to effectively manage these resources.

When analysing the current state of monitoring and evaluating the logistics costs in the enterprise in the context of the requirements of logistics management can be stated that the development of accounting systems have not kept pace with the development of logistics systems.

Accurate measurement and management of logistics costs has a significant potential for improving cash flow business and increase return on assets.

Accurate cost information is a prerequisite for successful implementation of integrated logistics management. They are equally necessary for the management of logistics operations.

Need for exact quantification of the accounting and monitoring costs associated with the relative increase in overall logistics costs, while its ratio to the total cost of business increases.

When applying the method in the ABC corporate logistics can be concluded that substantially contributes to the appreciation of adequate information on logistics cost and permits full use of the process of integrated logistics management.

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