Financial Accounting Centers: Concepts and Tools

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Abstract

Development of quality management systems is currently true for many successful organizations. Control on the responsibility centers is one of the subsystems that provide in-house management. Aim is to develop and implement conceptual and technological approaches to the implementation of development models based on the campaign management accounting centers. Allows you to solve a series of multidimensional challenges for optimizing the management companies. V particular, personalize responsibility for making decisions, clearly define goals, make specific plans, keep records of production costs, to assess the activities of employees on the basis of key performance indicators, to effectively use organization. The paper concludes that the implementation of management accounting centers should be implemented in conjunction with such models as the balanced scorecard, total quality management and proactive monitoring procedures and a system of continuous improvement. The most effective are the ones which are able to achieve the goals set before them while using the least amount of resources. A system grounded in responsibility centers helps personify responsibility for making managerial decisions, raise the quality of planning functions, and attach a reward system to the results yielded by a specific responsibility center.

Keywords: *management accounting, the personification of responsibility center income, cost center, profit center, investment center, the center of standardized cost center nonnormable costs, economic value added, the premium, the planned sale, the actual implementation, the incentive system, accounting center, control center, analysis center, logistics center, expenses center.*

1. Introduction

The development of a quality management system is the question of the day for many companies. Responsibility center management is one of the subsystems which supports internal company management. Using this tool it becomes possible to assess the contribution of each subgroup into the final results of the company"s efforts, decentralize cost management, and to track the formation of these costs on all management levels, which ultimately significantly increases the economic efficiency of business activities as a whole. The concept of responsibility centers, which describes to which extent certain individuals within a company are responsible for the results of their work, was first developed by J. Higgins. His name came to be associated with the well-known rule: Each operational unit within an enterprise should only be burdened by the income and expenses that it is responsible for and which it can control" (Harrison ray et al, 2011).

The starting point for such a system is to assign individual responsibility for the decisions made, and to determine the structure of the responsibility centers in a given company or enterprise. The manager of such an operational subdivision is responsible for all of its activities. For each responsibility center, the top management determines specific goals, For each responsibility center goals are determined, plans made, and accounting is performed for both production costs and the income earned. Also, the activities of the management and employees is evaluated.

Each company comprises a hierarchy of responsibility centers. As a rule, the bottom rung is occupied by subunits (manufacturing shops, groups)

which combine together to form departments which in turn join into one direction. The company itself, with its CEO on top, is, in fact, a responsibility center in itself.

A responsibility center uses different resources (material, human, financial), and at the output receives results in the form of products, labor or services, which other responsibility groups or external agencies take or utilize

The productivity of a RC is determined by two parameters:

— ability to reach the set goals (both financial and non financial),
— effective use of resources (the correlation between the results obtained and the resources used).

2. Models and Methods

The most effective RC's are the ones which are able to achieve the goals set before them while using the least amount of resources. The total efficiency of all RC's determines the efficiency of the company as a whole, which in turn reflects on its position in the market and its ability to create value and raise capitalization.

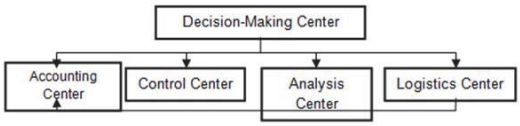

Figure 1. Example of a Scheme for the Main Responsibility Centers

The way a production enterprise breaks down into responsibility centers depends on the specifics of its sector, on the productive and organizational structure of the company, on the technology and organization of its processes, the nature of the manufactured products and other factors (Anthony and *et al, 2006*).

Based on the functionality principle, responsibility centers are subdivided into principal ones, whose expenses can be directly transferred to the manufacturing of the product, and auxiliary. Given this framework, all RC's can be divided into the following groups: material, production, managerial, service-oriented, and sales.

Material-based RC's are responsible for the preparation and storage of materials (supply departments, warehouses). Such centers can be principal (in this case, with highly detailed accounting, their expenses can be directly correlated with a specific type of product) or auxiliary.

Production-based RC's can also be both principal or auxiliary, depending on the type of production they perform.

Managerial RC's include the administration, the planning and financial departments, the legal department and other services that support the comapny management. These RC's most often fall into the auxiliary group.

Servicing and support RC's, such as the janitors group, the building services, the cafeteria, etc. support the other responsibility centers within a corporation, and, as a rule, also fall into the auxiliary group.

The sales-based RC's (marketing and sales departments) are principal groups and are responsible for the sales of the customer-ready product.

The division of responsibility centers based on the functionality principle can be continued further, by breaking down the functional centers according to similar expense structures. This gives the RC's more opportunity to work with similar standards and approaches to calculating expenses, which facilitates the overall process of cost management. For example, if a company can have several warehouses in different parts of the city, the concentration of information about the movement of resources within the framework of one functional RC will lead to an increase in expenses used for generating management information. In this case, in order to facilitate management, it makes sense to divide this specific functional direction into separate responsibility centers. The final accounting is simplified because it will still be based on the same principles and standards (Alexander Evgenyevich Karpov, 2008).

Naturally the reports generated by each RC must include only the line items reflecting the expenses and incoming funds (income, profit), which can be affected by the manager of the given center. This is why a responsibility center can also be called an accounting center.

Earlier we discussed the possibility of dividing RCs into groups based on the functionality principle, but they can also be divided into the following four types based on the sphere of influence of the manager of each structural subdivision:

1. Profit center - an RC whose manager controls the profit of the center and is responsible for it (E. Michaels et al, 2009).
2. Expenses center - an RC whose manager controls the expenses of the center and is responsible for them.
3. Income center - an RC whose manager controls the income, expenses and profit of the center and is responsible for them (Vision 2010).
4. Investment center - an RC whose manager controls the profit of the center and is responsible for it, and also who makes the decisions about increasing the circulating capital and capital investments.

A typical example of an income center in a company is the sales department whose goals include the attraction of

new clients and the increase in the volume of product sold. At the same time this is an expense center, because it is responsible for expenses used to pay employee salaries, representational expenses, office supplies, office technology, etc. Still, since the sales function dominates, this department should be viewed as a center of income, where planning is based on sales figured, projected and realized. If a company sells a wide spectrum of products in its various geographical locations and different types of sales approaches are used, then income planning is differentiated depending on each analytical cross-section (for example, wholesale of product 1 in Region A, retail sales of product 2 in Region B, etc.) (Denise Dubie, 2009).

More often than not the income center does the planning itself, since it has all of the necessary information, including detailed data for sales made in previous quarters (information about the types of products, the channels of distribution, regions, consumers, etc.), forecasts for sales market behavior, sector and macro-economic forecasts, seasonal sales estimates, etc (P. Senge,1999).

This approach has some inherent risk because the income center might try to lower the amount of estimated income so that the actual budget data would exceed the estimated indicators. Currently most Russian companies solve this potential problem by one of two ways (P.F. Drucker, 2001).

The first is that the management provides the sales department with a target number of sales or the total sum, and the sales department breaks down the whole sum into the appropriate income cross-sections, types of resources, etc. The second approach is that the income is planned b the financial branch (for example, the planning and finances department) (E. Michaels et al, 2009).

The advantages of the first approach is the relative simplicity and ease of planning, while the disadvantages include the lack of formal rationale for the plans made. The advantages of the second approach is better grounded rationale, while the disadvantage is the potential for conflict between the sales department and the planning and financial department.

The singling out of the income center from the other responsibility centers as a subunit whose manager receives a special budget and who is responsible for maximizing the income from sales, allows the company to minimize the shortcomings of both approaches. As a rule, the managers of such subunits do not have authority either to spend more than the budget allows when using additional resources, nor the right to vary the cost of sales processes in order to maximize profit.

The system of stimulating the manager of the income center is built on the comparison of projected and factual data about the volume of product sold. Here two approaches have been particularly preferred. In the first approach, the bonus is determined by making a correction on the bonus fund by the percentage of the plan that's already been executed. If the actual sales are smaller than the projected, then the value of the bonus equals zero, if it's more, then the following formula is used:

Bonus value = bonus fund x (actual sales / projected sales) (M. Porter, 2002).

In the second approach the value of the bonus is determined as a percentage of the value of actual sales exceeding the projected sales. If actual sales are lower than projected sales, the bonus is zero, while if actual sales are higher, the following formula is used:

Bonus value = (Actual sales – projected sales) x bonus coefficient.

The bonus coefficient is a percentage value which is predetermined for the given planning period. For example, if the bonus coefficient = 10%, then the value of the bonus will be 10% of the sum defined by the amount that actual sales exceeded projected sales.

Another type of responsibility center is the cost center, which can include both logistics and marketing, IT services, the procurement department, etc.

The cost center is formed based on the needs of the other types of centers, and is supported by funds coming out of the expenses allocated for the profit centers. The manager of the cost center is responsible for the costs of the structural subdivision. There are two types of cost centers:

- engineered cost,
- non-engineered cost.

Cost centers include the production structural subdivisions (the plants manufacturing the main and auxiliary products). There may be a standard correlation between input and output established, ie. For each unit of output and amount of materials and labor is determined. This correlation is provided by the material and labor usage standards for the manufacture of a unit of product.

The dependency of the output on the input allows the managers of the engineered costs center monitor, control, and be responsible for the input and output. The output becomes a function of input, and the monetary value of the output

is calculated based on the value of the expenses used. Therefore, it cannot be viewed as company income, since it is de facto evaluated based on the incurred losses. As a result, an engineered cost center is not considered an income-type center. Its goal is to manufacture a product in a given volume and with pre-established parameters. The input standards are the limits within which the production must be made (*D.V. Proskura et al, 2008*).

Planning in an engineered cost center begins with planning the volume of production. Based on this volume and the technological standards the company calculates the projected volume of resources to be used. The projected costs incurred by a center equal the projected volume of resource multiplied by their cost. A large part of an engineered cost center's expenses is a variable value: cost changes proportionally to output. In order to compare actual and projected data the budget has to be recalculated based on the actual output volume.

The system for stimulating performance at the engineered costs center is based on the comparison between actual and projected data. Calculations of bonus amounts here are made in the same way as in the profit centers. The only difference is that at the engineered cost center, bonuses are based on the comparison between actual and projected cost data recalculated for the actual output, while in the profit centers bonuses are based on actual and projected sales data.

The non-engineered cost centers are structural subdivisions which perform administrative, representational, financial and legal functions, and which are responsible for marketing, research and development. Non-engineered cost centers manage business processes which do not have a direct correlation between the volume of used resources at the input and the results at the output. As a rule, the costs of these centers are constant regardless of output, since the major portion of these expenses are allocated to personnel wages and technical support.

The main problem in non-engineered cost centers is the issue of determining the optimal level of cost. The lack of a clear-cut correlation between expenses and the useful result produced by labor creates the false impression that expenses can be cut if need be, without affecting the operations of the company. However, this is not the case. After all, non-engineered cost centers are created for achieving certain goals that are important for the business. These goals can include the following: provide the right conditions for the effective operations of the principle subdivisions, preparations for any possible event, such as the winning of a bid or the acceptance of a business proposal, or another more complex case where it's important to have the results precisely reflect the requirements set for by the specific client (Information and Risk in Marketin, 2009).

The staff members in such centers must be motivated to perform the quality-based tasks set before them. As a result, resource allocation must be planned not in according to pre-established norms, but according to the specific ways in which the center is planning to accomplish its goals. Often, the exact manner in which the goals in any given situation are stated serves as a powerful tool for cutting costs. This demands a deep insight on behalf of the company general director into the relevant aspects of company operations, but without such an understanding it is impossible to manage the company.

Typically planning and projection in non-engineered cost centers is done based on data from previous periods, with corrections made for inflation, seasonality, changes in workload, etc. (incremental budgeting). Most companies thus project costs for financial services, administrative support, legal services and other subdivisions responsible for supporting the company's business processes. This is a relatively simple and quick planning approach, which does not demand many work-hours. However, is has one major disadvantage: the question of what is the optimal level of costs for this specific subdivision has no answer, which leads to a slow but steady increase in costs.

It makes more sense, when analyzing the need for resources, to based the projected costs on each individual operation which the structural subdivision is performing, without looking back at previous periods (zero-based budgeting), and to offer bonuses for achieving specific goals while keeping within the planned expenses. This is more expensive in terms of labor, but it helps determine the optimal cost level of this RC.

It is important for any manager to know whether his company is innovative from a scient ific point of view.

In order to reveal practical mistakes it is a good idea to assess the innovative projects and the innovative activities undertaken by the company.

Currently the issue of analyzing the effectiveness of technological innovation and inno vative growth of a company is not completely understood, and as a result this limits the company's ability to improve product quality, to update and modernize the products, and to meet client needs.

Based on research data, approximately 80% of all defects which are found during the production and usage stages are a result of the poor quality of product. design, development, and manufacture preparations.

The serious work that improves the business culture, which is needed to raise the overall quality in all aspects, by and large pertains to the design and preparation stages of production (Vissema, H., 2000).

3. Examples of Modeling

In many Russian enterprises the costs of non-engineered cost centers are unjustifiably high. After a restructuring is done the level of expenses can typically be brought down significantly without jeopardizing quality.

The effectiveness of a non-engineered cost center cannot be measured solely by comparing projected and actual costs. These are typically non-financial indicators whose development demands a thorough understanding of the sector as a whole and of the company in specific (the scope of understanding includes organizational structures, business-processes, corporate culture, etc.) When developing a stimulation system for non-engineering cost centers, it is important to pay special attention to non-financial indicators and only then look at the center's ability to adhere to projected expenses.

The profit center is in charge of a chain of interrelated business-processes which generate profit. Profit is the difference between income and expenses. This is why it's important that the profit center be able to regulate both the business-processes responsible for sales, which generate income, and the business-processes which determine expenses incurred by the subdivisions responsible for procurement of products, selection of vendors, manufacturers, etc. Since the income center is first and foremost responsible for the coordination and optimization of operations of the entire chain of its subordinate business-processes, it needs to have a high degree of independence to determine the types of resources that it needs to perform its functions. It also needs to be quite independent in determining its sales policies. This being said, it is vital to maintain the fine balance between the level of independence that the profit center needs to have in order to manage and control profit, and the constant coordination between its actions and the overall company strategy.

In practice, often misunderstandings arise regarding the profit centers. The first misconception is that the profit centers are responsible for the profit of the entire company, ie. for the profit which remains after all of the overheads are subtracted. In actuality, the profit center is only responsible for the profit which is the difference between the income obtained by the subdivision and its direct costs. This profit does not include any distributed, company-wide expenses, because the profit center cannot control these costs either by directly affecting them or by selecting more cost-effective service-provides. These aspects are controlled by the company management. Such a division of responsibility can be used for various analytical purposes, but should not be used when negatively evaluating the efficiency of the subdivision, because the subdivision itself may be operating well but centralized company functions may be adversely affecting its numbers.

The second misconception is that it is a good idea to form profit centers based on productive or auxiliary subdivisions by using transfer prices within the company. With no market regulatory mechanisms, transfer prices can conceal the inefficiency of the activities of such subdivisions. In this situation the subdivision will aim to boost income by using subcontractors instead of trying to lower its expenses, which in turn will lead to an overall increase in company expenses.

A subdivision which has only internal users cannot be a profit center. If a subdivision is aimed predominantly at the external market, then it is objectively a profit center, and the use of transfer prices for internal clients is justified (*Pedler M. et al, 2001*).

Center	Management accounting goals	Criteria for evaluating the activities of the center	Financial responsibility of the center manager	Responsibilities of the center manager	Note
Cost center	Measurement and registration of costs at the input to the center	Direct costs	For incurred costs	Monitor generation of costs and the rationale behind them	Cost centers can be stand-alone or can be integrated into other responsibility centers
Income center	Recording the results of center activity at the output	Earning volume	Gaining income, but not at the expense of cost	Monitoring the gaining of income	Can have isolated centers of marginal income (difference between revenue and variables)
Profit center	Measurement and recording of expenses at the input to the center, costs within this center, end results of its activities	Volume of profit	Responsible for income and costs	Making decisions on all issues	The number of profit centers depends on the extent to which the management is decentralized
Investment center	Measurement and control of costs and income of the center, as well as the assessment of the effective use of investments	Efficiency of using investments (volume of profit per investment)	Responsible for ncome and costs incurred by center, as well as for the effective use of the investments made into the center	Making his own investment decisions	

Figure 2. Comparative Characteristics of the Different Center Types

An investment center has the authority to independently manage both its income and expenses, and to use the capital that it has. This is practically an independent business. As a rule, this type of center is formed in the financial structures of major corporations which have been developed by highly skilled specialists. The use of such centers does not typically bring about blantant errors or mistakes. Owners should note that it is not as easy as it first seems to monitor the performance of investment centers in the long term. The literature on this subject typically mentions the ROI (Return on Investment) index, sometimes adding to it the EVA (Economic Value Added) indicator. In practice this type of business remains part of the holding, and their connection should be reflected in additionally established goals, conditions, and constrains used to keep the strategy of the subdivision within the framework of the overall company strategy. If the monitoring of the investment center's activities is limited to financial indicators alone, major problems can arise in as soon as a few years, since it is always possible to boost the external indicators in the short-term at the expense of long-term prospects of the business (P.F. Drucker, 2001).

4. Conclusions

Development of quality management systems is currently true for many successful organizations. Control on the responsibility centers is one of the subsystems that provide in-house management . Aim is to develop and implement conceptual and technological approaches to the implementation of development models based on the campaign centers tupravlencheskogo uchëta. Allows you to solve a series of multidimensional challenges for optimizing the management companies.V particular, personalize responsibility for making decisions, clearly define goals, make specific plans, keep records of production costs, to assess the activities of employees on the basis of key performance indicators, to effectively ispolzovatresursy organizatsii. The paper concludes that the implementation of management accounting centers should be implemented in conjunction with such models as the balanced scorecard, total quality management and proactive monitoring procedures and a system of continuous improvement.

The correct classification of responsibility centers and a solid understanding of its functional differences helps a company avoid many mistakes in designing their management system. A system grounded in responsibility centers helps personify responsibility for making managerial decisions, raise the quality of planning functions, and attach a reward system to the results yielded by a specific responsibility center.

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