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Learning materials

Ing. Zdeněk Brabec, Ph.D.



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10 Value Criteria used in Internal Responsibility Accounting

Content

10 Value Criteria used in Internal Responsibility Accounting	1
Content	1
10.1 Responsibility accounting as a part of internal management	1
10.1.1 Responsibility management	2
10.1.2 The principles of responsibility management	2
10.1.3 Structural pre-conditions for responsible management	3
10.2. Value criteria in managing responsibility centres	6
10.2.1 Costs of responsibility centres	6
10.2.2 Revenues of responsibility centres	7
10.2.3 Transfer price	8
10.2.4 A centre's profit	10
Summary	13
Exercises	14
Literature	15

10.1 Responsibility accounting as a part of internal management

The development of internal (cost and managerial) accounting in the first half of the 20th century was significantly influenced by the development of *responsible management*. The creation and development of this type of internal management was caused by the continuously growing complexity of manufacturing processes and other business activities, the application of modern technology and growing requirements for the coordination of activities running in a company. Internal accounting also focuses on providing a detailed preliminary preparation of business activities that should remove potential risks and uncertainties. Not only the range of **accounting information focused on a company's performance** had changed, but internal accounting also began to focus more on information about the relationship between actual and planned (calculated, budgeted) values. In addition, greater attention is paid to *Responsibility Accounting*. The main aim of this subsystem is to link financial tools and information presented in accounting to record factual values.¹ This allows for the expression of results that can be influenced by the managers of individual departments and helps to

¹ In literature since the 1990s, the need to link the value tools of responsibility management with nonfinancial tools of responsibility management is emphasized. The link of these areas of company's management with a focus on the strategic management became a basis of the Balanced Scorecard method.

contribute to a company's profit. Responsibility accounting, therefore, creates information support of responsibility management and enables companies to:

- distinguish value information according to responsibility for creating costs, revenues, assets and liabilities, cash inflows and outflows;
- present the relationships between individual departments of a company; these relationships are expressed by the measureable amount of internal performance that is measured by a predetermined transfer price or budget; in this way, the contribution of individual departments to the company's profit can be measured;
- directly express the difference (deviations) between actual values and planned values during accounting control; this information should include information about the department or employee responsible for it.

10.1.1 Responsibility management

A wider use of these tendencies in practice has led to a separation of methods called **responsibility management**. The *basic objective of internal responsibility management* is to achieve a long-term situation where the activity of every individual department and the actions of every individual employee (from a production worker to the top manager) contribute to the achievement of the business goals as a whole.

Responsibility management does not lose importance even under current business conditions in which the concentration of capital and the integration of companies on a global scale is increasing. Companies are constantly growing, they are competing in more industries, their activities are more complex and there is also a broader difference between a company's ownership and the actual performance of management functions. Therefore, the issues concerning the responsibility of management or the motivation of staff at all levels of management remain highly important for the successful long-term development of a company.

10.1.2 The principles of responsibility management

The basic principles of responsibility management, which are based on the above mentioned goals, can be expressed as follows:

- **the principle of controllability** – to use the potential of every department (employee) effectively, it is necessary to determine concrete areas of the business process that can be influenced by the activities of a department (employee); these areas are dependent on the range of delegated authority and responsibility that was delegated to the department (employee); *every department (employee) can influence only those activities related to its (his or her) authority or responsibility*;
- **the principle of goal transformation and setting measurable criteria** – based on the determined range of delegated authority and responsibility, it is necessary to transform company goals into partial tasks that can be determined for the individual departments (employees) of a company; appropriate criteria have to be identified for these tasks; it is also necessary to set desirable targets that the departments (employees) should achieve. (It is possible to manage only that what is measurable);

- **the principle of a department's contribution (employee) towards the performance of a company as it relates to reward** – in connection with the goals set and according to the result of an activity, it is necessary to express the contribution of individual departments (employees) to the performance of a company; based on the achievement of goals, it is necessary to connect this evaluation with the appropriate form of reward (the employee is primarily not focused on the benefit to the company, but rather on the level of his or her own satisfaction).

10.1.3 Structural pre-conditions for responsible management

A basic pre-condition for a company to establish an effective system of internal responsibility management is the creation of an organizational structure and determining the management competences that should be used to manage this structure. This process has the following three steps:

1. creation of the company's organizational structure,
2. determining the level of centralization and decentralization applied within the management of the company's internal structure,
3. creation of the company's economic structure.

1) The organizational structure of a company defines *the factual content of activities* of the individual internal parts of the company (internal departments), *the relationships between these departments* and the *factual management tools* according to which these individual departments should be managed. The individual departments and internal activities should be organised so that the achievement of company goals is secured. A description of the company's organizational structure, including a determination of the delegated authority and responsibility of individual departments, is embodied in the company's organizational directives.

The creation of a company's organizational structure is based on the character and complexity of the company's processes, the range and types of its activities, on the possibility of securing input resources, etc. For responsible management **the expression of vertical and horizontal relationships** between individual internal departments is significant. *Horizontal relationships* are the result of the division of labour between individual departments and they also express cooperative relationships between these departments. Horizontal relationships can be classified according to:

- *the subject* – the output or its part is produced within one department that cooperates with other departments only in a limited way;
- *the technology used* – individual processes run in departments specialized on a concrete type of activity (purchasing, production, and sale) and the final product is gradually manufactured in various departments (cooperative relationships between departments are more frequent).

The character and number of *the vertical levels of company's management* expresses a company's approach towards the issue of the centralization and decentralization of delegated authority and assigning responsibility to individual levels of a company's management. A greater difference consists in the way of distributing the delegated

authority and responsibility between a company and its environment (by purchasing resources and by selling products or services to external customers).

2) Centralization and decentralization within responsibility management – the creation of a company's organizational structure is closely connected to determining the optimal level of centralization (decentralization) of the company's management.

Centralization exists when a company delegates authority and responsibility to its top management. The departments at lower levels usually have usually only an executive function, which means that they perform assignments in a disciplined way, and they have very limited opportunities to make of decisions.

Decentralization is a process that delegates authority and responsibility from the top management level to the lower levels. Within company's management, there are various tools that set only framework conditions and basic principles and that also require managers of decentralized departments to use an initiative approach. The lower level departments, therefore, have both decision-making and executive functions.

The above-mentioned variants are the two extreme alternatives of company's management. In practice, choosing the optimal level of decentralization of a company's management is always a serious problem that is resolved by a company's top management. This decision is usually individual in every company. It is true that each level of decentralization of a company's management considerably influences the selection of what tools are used in responsibility management. Within the **centralized approach**, the use of command methods of management is typical. These methods force the departments to fulfil the commands precisely, in time, with a high degree of quality and efficiency. Self-initiative of employees is not expected. The control of task fulfilment occurs in short-term intervals and it is focused on detecting deviations between the current and planned development. During the setting and control of tasks, factual criteria are often used (the productivity of labour, the average duration of the operation and the defective product ratio). Value criteria are used to manage the efficiency (rational and purposeful expenditure) of those economic resources that are connected to the predetermined structure and amount of output of specific departments.

Within the **decentralized approach**, the contribution of individual departments to the efficient spending of inputs and to securing stable financial health for the company is monitored. Using the own initiative of department staff is expected and required. This method should streamline the activities of these employees. The tasks are set in an indicative way and their control as allows for a comparison between current results and those over a long period. Rather than making a comparison with the planned development, a mutual evaluation of the results of individual departments or a comparison with competitors is made. The values criteria are used as a synthetic tool of the management by decentralized departments.

3) A company's economic structure is built on the company's organizational structure. It complements the factual tools of company's management with the *value tools of internal responsibility management that are more motivating*. The elements of the economic structure – *responsibility centres* – are more or less interested in achieving value results.

Types of responsibility centres

According to the range of authority and responsibility and according to the use of value tools *the following six types of internal departments* can be distinguished – cost, expenditure, revenue, profit, profitability and investment centre. (Horngren, Harrison and Oliver, 2012, p. 1074-1075)

The cost centre is a responsibility centre whose employees can influence only the amount of costs that have been spent in this responsibility centre, but they are not responsible for the amount of external revenues as well as the efficiency of using the company's assets. A pre-condition for using the value tools is a determination of the costs that can be influenced by the cost centre. The centre can also have the authority to decide the amount of output created. These centres are mostly small, with a low range of authority and responsibility. The cost centre can also be the whole production plant or a subsidiary of a multinational group. The evaluation of cost centres is based on a *comparison of actual and planned costs* and on an analysis of any deviations that have occurred. The value tools are usually connected with natural criteria that reflect the character and tasks of a cost centre (retaining the required quality of work and the time set).

The expenditure centre is such a responsibility centre whose activities do not bring benefits these days but they increase the future potential of a company. These centres are training, R&D centre or the centre for strategic marketing. The pre-condition for using value tools is (as well as by the cost centre) the power to influence the costs of this centre. The revenues of these centres are mostly hardly quantifiable and, therefore, the evaluation of their results is made as a *factual assessment of benefits* that a company has achieved. The importance of value tools is, therefore, very small.

The revenue centre is such a responsibility centre whose employees can influence external revenue, but they do not influence costs connected with the creation of output. In contrast to the cost centre, employees of the revenue centre have the power to communicate with customers and, therefore, they have the opportunity to influence the amount and structure of the output sold as well as the price conditions. The basic price (price list) of the output sold is usually decided by the top management. The employees of the revenue centre can only negotiate the price within a set price range and differentiate prices according to agreed-upon specific sale conditions. The revenue centres are mostly the regional affiliates of groups that are focused on the sales of a group's output or the sales departments of individual companies.

If the revenue centre is focused on increasing revenues, it can prefer selling products that are connected with high sales revenue, but that also have a low contribution margin. Therefore, these products do not contribute enough to cover the fixed costs incurred and to create sufficient profit. So, it is better to motivate the revenue centres to maximize the *calculated sales margin*, which is the difference between the real sales revenue and planned transfer prices of products (variable costs). Securing the activity of revenue centres also lead to the incurrence of costs (personnel costs of the centre, the consumption of petrol related to customer visits, etc.) and, therefore, the revenue centres are usually managed as cost centres as well.

The profit centre is a centre whose employees can influence the amount of both costs and revenues connected with its activities. To do so, the centre should have the power to govern all business processes concerning the decisions about the amount and structure of the output produced and sold, the purchase of external and internal resources, their own manufacturing process and the selling of output to external customers. The centre has a relationship with external suppliers and customers and so it can influence the factors that determine costs, revenues and profit. But the centre does not make decisions about the amount, structure or usage of company assets. A profit centre often includes a few cost and revenue centres that are subordinated to it. An example of a profit centre is, a division that independently produces and sells part of a company's product range and that is also responsible for the following departments: *purchasing, production, packaging* and *transportation* and the revenue centre's *sales*.

The profitability centre is a centre that is responsible for net working capital items - i.e. current assets (trade receivables, inventories) and short-term liabilities (trade payables).

The investment centre has the authority and responsibility to make investment decisions. Investment centres are at the top level of a company's economic structure and they exist only in large companies with a wide range of activities. In other cases, the investment centre is only the company's top management.

10.2. Value criteria in managing responsibility centres

To enable the management of responsibility centres to use value criteria, the following questions have to be answered:

- What economic resources are spent in a centre and what *costs* incurred by this spending of resources can be influenced by this centre?
- How should *the output of a centre be measured* with the respect to its authority and responsibility of a centre?
- How should *the profit of a centre be measured*?

10.2.1 Costs of responsibility centres

The basic principles of determining and managing the costs spent by responsibility centres are common for all types of responsibility centres embodied in a company's economic structure. Through monitoring costs with responsibility accounting, it is no longer sufficient to answer the question "**where**" – *in which centre were the costs spent?* The more essential and **primary question** when determining the responsibility for the incurrance of costs is the following:

Who is responsible for spending the resources and to which centre should these costs be attributed? Attributing costs to the centres responsible is based on **the principle of the controllability of costs**.

The place where costs are incurred and responsibility for the amount of costs spent are mostly the same. In **managing the costs spent in responsibility centres, the following principles** should be followed:

- the profit of a centre should not reflect the costs that were caused by the decisions of another centre; the economic benefit of this decision should influence the profit of the centre that made that decision ;
- if a centre has no power to influence the prices of external inputs purchased, the external costs of this centre should be measured in planned prices (the decisions concerning securing resources are usually made by a company's top management;
- the costs incurred as a result of the purposeless spending of resources that was caused by the activity of another centre should be excluded from the profit of this centre and included in the profit of the centre that caused them.

10.2.2 Revenues of responsibility centres

The determination and the manner of utilization of the revenues of a centre are not the same in all responsibility centres. It depends on the concrete type of a responsibility centre and on the level of delegated authority and responsibility.

If the internal output transferred by centres is measured *in planned costs*, this value creates **internal revenues** by a supplying centre (it manufactures and delivers the internal output) and the customer centre (it consumes the internal output) records these prices as **internal costs**.

Internal revenues are the internal criterion of recognizing the rationality of costs spent as well as the criterion that express **the benefit of a centre**. From the company point of view, the criterion of recognizing its costs is the sale price (the revenue of selling the output to external customers).

Recognizing the benefit of an output at the centre level is done by:

- *measuring the output* with the help of internal cost management tools (planned costing, budgeting and transfer prices),
- the customer centre *accepting the output*.

The measurement unit of internal revenue is output (the result of the activities of a specific centre). By transferring output, the following situations can occur:

- **the output of a centre** is determined mostly for **external customers** – the decisions about the amount and structure are made by the management of this centre; the output is easy to determine and measure; the revenues of a centre are determined by **external revenues, which are based on market prices** for which the output is sold to customers; this situation is typical for *profit* and *investment centres*;
- **the output of a centre** is determined mostly for **other centres within a company**– the amount and structure is determined by the customer centre; the output transferred can be determined and measured clearly; the revenues of a centre are determined by **internal revenues, which are based on transfer prices** of internal output; the output purchased is the internal costs of the supplying centre; this situation is typical for *cost centres performing main and service activities*;

- the centre performs **diversified activities** and its output and the relationship with other internal centres cannot be determined and measured; the goal of such a centre is to achieve the planned costs that were set in the fixed costs budget; this situation is typical for *cost centres performing administrative activities* or for *some service centres*.

10.2.3 Transfer price

As mentioned above, setting the transfer price of internal output, which is transferred within the internal cooperation between individual centres, is an essential pre-condition for successful internal responsible management. To understand this issue, the difference between the terms *internal revenue* and *transfer price* and the terms *external revenue and market price* should be mentioned. In both cases, **revenue** can be characterized as **a form of benefit recognition**, which is connected with the effective performance of a certain activity. With *external revenue* the effectiveness is evaluated by an external customer so that *he accepts the market price* that he is willing to pay. By the *internal revenue* expressed by the *transfer price* the effectiveness of costs spent during the manufacturing of the internal output is evaluated internally. Compared to the market price the transfer price has not a market character because it is important for internal company's management – there is no market environment.

Transfer price is a tool used by the internal responsibility management and it should fulfil the **following functions**:

- motivate employees of the supplying and customer centre to behave efficiently while respecting the goals of both centres as well as the company's goals,
- express the value of the output of a centre,
- reflect the level of authority and responsibility of both centres – differentiate the results of the supplying centre from the results of the customer centre,
- secure information for measuring the performance of a centre.

To enable an effective functioning of the transfer price (TP) as a tool of responsibility management **the following pre-conditions** should be fulfilled:

- TP should be set *in advance* and it should be relatively *stable* in order to influence the decisions of a centre over a certain time period (possibly, the conditions for future changes in TP should be set);
- TP has to be *compatible with other tools* of internal management (budgets of responsibility centres, costing); the way TP is set and its content should be clear both to the supplying and customer centres; the TP should be also approved by both centres in advance to prevent potential future problems.

10.2.3.1 Types of transfer prices

Depending on the level of authority and responsibility of a centre, on the character of the internal output and on the frequency of its transfer, the following types of transfer prices can be distinguished:

- TP based on costs:
 - at the level of variable costs,
 - at the level of a centre's full costs,
 - at the level of a centre's full costs, including the profit margin,
- TP based on market price,
- TP based on the agreement between centres.

Selecting the transfer price significantly influences the decisions of both the customer and supplying centres with regard to the volume and structure of output that is transferred between internal centres.

TP at the variable costs level

This type of the transfer price is used especially by cost centres that provide activities for other centres in certain amounts, under a specific structure and within specific deadlines. These transactions cannot influence the level of utilization of the supplying centre's production capacity. The goal of this type of transfer price is to minimize the total amount of resources spent and thus achieve the best possible efficiency.

TP at the centre's full costs level

This type of transfer price should be used by centres that aim to achieve both cost savings in absolute terms and a better level of utilization of production capacity. Because the transfer price also includes fixed costs per unit, which were calculated according to the planned level of utilization of the production capacity, a better utilization of production capacity allows the centre to record its fixed costs at the original amount. The supplying centre realizes higher internal revenues in this case. In some cases, it is possible to utilize a centre's free production capacity by selling its output on the external market.

TP at the centre's full cost level, including the profit margin

The transfer price, which includes the profit margin, implies that achieving profit should be the aim not only for the entire company, but for every individual department. Therefore, with the help of transfer prices, it is desirable to attribute a proportion of the profit to individual internal centres. The use of this type of TP can cause the following problems:

- a centre has "its own profit" that is recognised in advance and, therefore, does not sufficiently support the increase of a company's performance by its activities;
- a centre can report "a profit" even if a company as whole reports a loss;
- undesirable degradation of the relationship between the supplying and the customer centres can occur.

It is necessary to bear in mind that a real profit can be achieved only by selling output to external customers for a price that is higher than total costs. The incorporation of the profit into transfer prices leads to an increase of costs of the customer centres, i.e. to an

increase in the cost of goods sold and thus to a decrease of the profit obtained from sales to external customers.

Using the transfer price at the centre's full cost level, including the profit margin is possible by those centres that have the power to influence the amount and structure of output and the authority to negotiate the payment and delivery terms with external customers → profit, profitability and investment centres that sell most of their output to external customers. The question is whether it would not be better to use market prices.

TP based on market price

This type of the transfer price should be used if:

- the relationships between the internal centres are not significant compared to the relationships with external partners,
- there is an existing market for a given output,
- the supplying centre does not spend any additional costs caused by the sale of their output on the external market (if there are any costs, they should be deducted from the TP).

The weakness of this type of TP is that the market price *does not support cooperation between the internal centres*. Its usage is not appropriate when the main objective of the supplying centre is to fulfil the requirements of a customer centre. The centre using this type of TP is fully influenced by the market effects that cannot be influenced by this centre.

TP based on an agreement between centres

This price is used mainly for measuring individual sub-supplies. According to the method of discussing the transfer price **the following three basic situations** can be distinguished:

- TP is set or at least approved by the company's top management;
- TP is derived from the market price and the company's top management intervenes only if this price harms the interests of a company;
- TP is set based on an agreement between the supplying and the customer centre; the company's top management intervenes only if there is no agreement.

10.2.4 A centre's profit

Although the type of responsibility centre influences a centre's profit, the profit of every responsibility centre should fulfil **the following functions**:

- **critical** – the profit of a centre is a benchmark for evaluating the performance of a centre that was achieved by the centre's activity or by its employees' decisions;
- **stimulation** – this function can be understood at two levels:

- *at the basic level* – the profit creates conditions under which the centre’s employees can contribute to achieving the company’s objectives through their activities;
- *at the following level* – the profit creates conditions and impulses for a centre’s employees that their activities finally lead to an increase in the efficiency of the centre and the company as a whole.

The link between the achieved profit and *the appropriate form of reward* (financial and non-financial) is also important – e.g. the possibility for a better usage of the company employees’ abilities, modern equipment in the workplace etc.).

10.2.4.1 Determining internal profit and its control by various types of responsibility centres

The principle of a centre’s responsibility and controllability of costs and revenues is reflected in the different content of internal profits. Through a *decentralized approach* to responsibility management, a centre’s profit is regarded as a *measure of effects* that expresses *a centre’s contribution to the company’s total profit*. When using *the centralized approach*, a centre’s internal profit expresses *its level of efficiency*.

For individual types of centres, profit is determined in the following way:

Cost centres

Cost centres are mostly focused on the efficient, timely and qualitative achievement of tasks. Profit, therefore, expresses **a savings or exceeding of a centre’s controllable cost** compared to its amount planned set in the budget.

The control of company’s performance can occur differently, especially depending on *the measurability of a centre’s output*. For centres that do not have a measurable output their actual costs are compared with **the fixed budget** and the centre is oriented **to comply with the limit of costs**.

In a centre whose output is quantifiable and measurable, the actual costs are compared with **the planned costs recalculated according to the actual output of each centre**. Either only *variable costs* are calculated (the centre is focused on achieving tasks with the minimal spending of costs; the centre uses the transfer price at the variable costs level), or *a centre’s full cost* are used (the centre is oriented towards both costs savings in absolute terms and improving the utilization of production capacity; the centre uses the transfer price at the full costs level).

Revenue centres

These centres are focused on maximizing sales and their profit expresses *either achieving or exceeding planned revenues* from sales to external customers and respectively the planned margin from the output sold. The price policy is usually set by a company’s top management and the revenue centre influences only the amount and structure of the output sold. However, it does not determine the sales price of its output.

Profit centres

Profit centres are mainly focused on the efficiency of the resources spent on creating the output that is to be sold to external customers. The profit of such centres expresses *the achievement (or exceeding) of the planned (required) amount of the controllable profit*. By calculating the profit of this centre, those costs that can be influenced by activities or decisions taken by centre's managers should be separated from those costs that cannot be influenced by a centre. The basic structure of an income statement from a profit centre is shown in figure 1.

Revenues from the sale to external customers
Internal revenues from internal transactions
= TOTAL REVENUES OF A CENTER
<i>Variable costs of the output</i>
Contribution margin
<i>Controllable fixed costs of a centre</i>
Controllable profit of a centre (managerial)
<i>Uncontrollable fixed costs of a centre</i>
Profit of a centre
Costs allocated to administration
Profit after allocation of costs spent on administration

Figure 10.1 The income statement of a profit centre

Source: Modified by Fibirová, J., Šoljaková, L. a J. Wagner *Manažerské účetnictví – nástroje a metody*, p. 374.

Controllable profit is the basis for evaluating the performance of a profit centre. It expresses *managerial performance* and, therefore, it is a significant tool within responsibility management.

A centre's profit is used to compare the profitability of a centre with other centres of the company. This measure is used for making decisions regarding the further support or restriction of activities of individual centres. The analysis of *the profit after allocation of costs spent on administration* enables managers to evaluate the contribution of a specific centre towards covering all company's costs in the long run.

Profitability and investment centres

These centres are focused on the *efficiency of capital employment* that is controllable by a centre. To evaluate their contribution towards the company's performance, the return on capital ratio is used.

Summary



The aim of responsibility management is to reach the condition where the activities of company's centres and its employees contribute to achieving the company's strategic goals. To reach this goal, it is necessary to identify areas that can be influenced by the activity of centres as well as set tasks with the help of measurable criteria. Based on the control of the fulfilment of tasks the contribution of individual centres towards the company's profit can be expressed.

Responsibility management must be based on value information that is provided by responsibility accounting.

A pre-condition of introducing successful internal responsibility management is the creation of a company's organizational structure and subsequently determining its economic structure. This means creating a system of responsibility centres that have different levels of delegated authority and responsibility. The range of authority and responsibility of these centres is dependent on the approach of the company takes towards the issue of centralization and decentralization of its management.

The underlying assumption for using the valuable tools of internal responsibility management is determining costs according to who is responsible for their incurrence. In contrast with managing costs according to output where the place of their origin and their relationship to the output is important, responsibility management is focused on the centres or employees that are responsible for incurring costs. (who decided to incur these costs)

An important pre-condition for introducing a successful system of internal responsibility management is the creation of an interconnection between the profit management of the entire company and the management of internal costs and revenues. Whereas the profitability of a company is determined by the market price, its use is very limited with regards to internal performance management. External revenues are obtained by the sale of output to external customers and expresses, therefore, the recognition of costs by customers. Internal revenues, on the other hand, are the result of the internal recognition of costs incurred. Internal revenues are calculated with the help of internal cost management tools– costing, budgets and transfer prices.

A centre's internal profit centre can be calculated as a comparison between centre's internal revenues and its controllable costs. Centres that do not transfer their output to external customers contribute to a company's profit mostly by improving its efficiency. Their internal profit expresses the saving or exceeding of planned costs.

A crucial requirement for the selection and usage of appropriate value tools is their consistency with a company's long-term goals.

The decision concerning the centralization and decentralization of a company's activities influences the way the value criteria of responsible management are used – the informative value of transfer prices and the centre's profit.

The connections between pre-conditions, the orientation of economic management and the value tools used in internal responsibility management are shown in table 1.

Table 10.1 The connections between individual elements of the internal responsibility management

Type of centre	Orientation of the economic management	Value criterion	Tasks setting	Transfer price	Factual pre-conditions
Cost (lower type)	Efficiency	Absolute saving (exceeding) of costs	Fixed or adjusted budget	At the level of variable costs	Determination of controllable costs
Cost (higher type)	Efficiency	Saving (exceeding) of costs (or a relative saving)	Adjusted budget of costs	At the level of full costs of a centre	Power to determine the output of a centre.
Revenue	Revenue maximization (calculated margin)	Revenues, sales margin	Required amount of revenues (sales margin)		Determination of controllable revenues
Expenditure	Factual management tools	Limit of expenditures	Limit of expenditures		Power to determine expenditures
Profit	Efficiency	(EBIT	Planned profit	At market price, resp. at the level of full costs of a centre including the profit margin	Power to handle with customers
Profitable	Efficiency, Managing the working capital	Return on working capital	Required return on working capital	At market price, resp. at the level of full costs of a centre including the profit margin	Power to determine the amount of inventories, handle with suppliers and customers
Investment	Effectiveness of the capital employed	Return on capital employed	Required return on capital employed	At market price	Power to determine the amount of investments

Source: Modified by: Fibírová, J., Šoljaková, L. a J. Wagner *Manažerské účetnictví – nástroje a metody*, p. 377.

Exercises

The centre *Transport* has one automobile. Based on the anticipated requirements of other centres and the maximum capacity of this automobile the planned output for the first quarter is 60,000 km (broken down as *Purchase* 30,000 km, *Distribution* 25,000 km; another 5,000 km should be sold to *external customers* at a price of 15 CZK per km). The planned consumption of diesel is 35 litres per 100 km; the purchase price of diesel is estimated at 23 CZK per 1 litre. The budget of overhead costs is 237,000 CZK, of which 117,000 CZK are variable costs and 120,000 CZK are fixed costs.



The actual output for the centre *Transport* was 63,000 km (broken down as *Purchase* 32,000 km, *Distribution* 24,000 km and 7,000 was sold to *external customers*). The real consumption of diesel was 22,000 litres. The real total costs spent were 775,000 CZK, of which fuel accounted for 528,000 CZK.

Tasks:

- 1) Calculate the transfer price for 1 km which is set at the level of:
 - a) variable costs
 - b) full costs

2) Calculate the profit of the centre *Transport* by using the transfer price at the level of variable costs.

Solution:

1a) Consumption of diesel per 1 km => $(35 \times 23) : 100 = \underline{8.05 \text{ CZK}}$

Variable overhead => $117,000 : 60,000 = \underline{1.95 \text{ CZK}}$

Total variable costs per 1 km = 10 CZK (TP at the level of variable costs)

1b) Fixed overhead per 1 km => $120,000 : 60,000 = \underline{2 \text{ CZK}}$

Full costs per 1 km = 12 CZK (TP at the level of full costs)

2)

Table 10.2 The calculation of the profit of the centre Transport.

Cost item	Costs of a centre	Internal revenues	Saving/exceeding of costs
Direct costs (fuel)	506,000 (22,000 × 23)	507,150 (8.05 × 63,000)	+ 1,150
Overhead costs	247,000 (775,000 – 528,000)	242,850 (1.95 × 63,000 + 120,000)	– 4,150
Total	753,000	750,000	– 3,000

Source: Modified by Fibírová, J., Šoljaková, L. a J. Wagner *Manažerské účetnictví – nástroje a metody*, p. 366.

The profit of the centre Transport (– 3,000 CZK) expresses that absolute amount of real costs spent exceeded the planned budget. The centre was able to save costs for fuel by 1,150 CZK but, on the other hand, it exceeds the planned overhead costs by 4,150 CZK (absolute exceeding).

Literature

FIBÍROVÁ, J.a L. ŠOLJAKOVÁ. *Hodnotové nástroje řízení a měření výkonnosti podniku*. Praha: Aspi, 2005. 264 s. ISBN 80-7357-084-X.

FIBÍROVÁ, J., ŠOLJAKOVÁ, L. a J. WAGNER. *Manažerské účetnictví – nástroje a metody*. Praha: Wolters Kluwer ČR, 2011. 392 s. ISBN 978-80-7357-712-4.

HORNGREN, C. T., W. T. HARRISON and M. OLIVER. *Accounting*. 3rd ed. Upper Saddle River, N.J.: Pearson Prentice Hall, c2012. ISBN 978-013-2497-923.

KRÁL, B., et al. *Manažerské účetnictví*. 3. doplněné a aktualizované vyd. Praha: Management Press, 2010. 660 s. ISBN 978-80-7261-217-8.

