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# CONTROLLING—APPLICATION: BASICS FOR DESIGN AND STRUCTURE OF BUDGETS

*In contrast to financial and cost accounting, budgeting focuses on other features.  
What are the main pre-conditions and tools for budget compilation?*

## 1 Initial Situation

The goal of budget compilation is not the same as in traditional accounting. Instead of working off the past or depicting the presence in detail, the crucial factor is the view into the future. From changing the viewpoint, other and additional instruments of accounting are required. While using lists of account statements, profit and loss accounts and balance sheets in financial accounting, expense distribution sheets and calculations are used in cost accounting and in controlling it is profit plans, finance plans and budgeted balance sheets.

## 2 Structure of a Controlling System

In order to have all necessary facts and figures for constant controlling quickly available and easy to understand, the structure of the controlling system of an enterprise must be simple. A complex and detailed system is no good if no one can handle or interpret it. Instead of complicated and complex approaches to problem solving, especially in SMEs, a simple and pragmatic way with few but meaningful ratios has proved successful in the application. This article deals with the basics of goal-oriented and simple pre-conditions for the design of a budget system. It covers the basics of budget compilation, including cost accounting and financial accounting and the separation of cost and expense types into fixed and variable components.

Further possible use of controlling and planning systems depend on these first steps in the framework of budget compilation. The application in business can best be seen when changing plans or interpreting ratios.

## 3 Components of a Budget

The budget of an enterprise consists of the following components: profit plan, finance plan, budgeted balance sheet, ratios. Further parts of a budget are eg planning of production, stock and sales.

Profit plan, finance plan and budgeted balance sheet, supplemented by ratios, can develop their full effect only in the correlation. When compiling a budget step by step the profit plan is the first part. The finance plan is built on the profit plan and presents liquidity or solvency of an enterprise supplementing the planned result of the profit plan.

## 4 Structure of a Profit Plan

In the profit plan, planned revenues (sales) and costs are compared. Costs can be variable and fixed. This results in the following scheme: (See table 1)

	Revenues (Sales)
–	Variable costs
<hr/>	
=	Contribution margin
–	Fixed costs
<hr/>	
=	Operating result

The terms Variable Costs and Fixed Costs point at a result calculation based on cost accounting values, the term Operating Result has been derived from cost accounting, too.

## 5 How to Deal with the Differences in Financial Accounting and Cost Accounting

Especially with SMEs the question arises whether a cost accounting separated from financial accounting should be carried out or not, or if only for certain expense items a revision

is carried out. If there are differences in the size of cost and expense types, they mostly refer to depreciations and interest, and, according to the type of enterprise, to the calculated entrepreneurs' salary.

Should the above mentioned cost and expense items be based on different values, the result in the profit plan is transferred from an operating result based on cost accounting to a corporate result that is based on book keeping values. The profit plan is expanded like that: (See table 2)

	Revenues (Sales)
–	Variable costs
<hr/>	
=	Contribution margin
–	Fixed costs
<hr/>	
=	Operating result
±	Cost conversion
<hr/>	
=	Corporate result
–	Taxes on income
<hr/>	
=	Corporate result after tax

Like that, a presentation of the calculation of the result based on cost accounting values and book keeping values, is possible in one scheme. If no differentiation between cost accounting and book keeping values is made, no cost conversion is necessary. The following presentation is based on the assumption that cost accounting and book keeping values are equal.

## 6 Separation into Fixed and Variable Costs

For the right interpretation of the budget it is crucial whether the various cost items are dealt with as fixed or as variable cost. Their informative power and so the quality of a system for budget compilation can be best seen when deviations from the original planning occur or when calculating ratios.

### 6.1. CRITERIA FOR THE DIVISION INTO FIXED AND VARIABLE COSTS

For the allocation of the cost types to fixed and variable costs the time horizon is of great importance. In the long run, all costs can be modified. In the short run, and this is where the usual budgeting period of one year belongs to, a separation into fixed and variable costs is possible and useful.

In the application of budget compilation, a division according to the following criteria has proved useful. All cost types that automatically and directly change with rising or sinking sales, are variable costs; all cost types that ask for a decision to be changed by somebody in the company, are fixed costs. This simple, decision-oriented approach facilitates the use of the terms Fixed and Variable enormously in the application. Most cost types are easy to allocate when they are considered from this point of view. They are either fixed or variable. Typical variable costs under these considerations are costs for material or use of goods. In some enterprises parts of energy costs as well as depreciations through use, are planned as variable cost.

In the application, difficulties mostly occur when splitting cost types into fixed and variable costs if expense distribution sheets and calculations are used as a basis for budget compilation. What is right and correct for the calculation must be seen under other aspects when viewing it in the framework of budget compilation. In the calculation people tend to vary cost types, such as direct labour costs. As they are taken as direct costs into product calculation and calculated per product item, they are often transferred into budget compilation as variable costs.

In the application, however, it can be seen that deviations from budgeted units do not necessarily result in an automatic and direct reduction of the personnel costs. They remain an absolute value, as normally no immediate adaptation of employment following fluctuation of sales and production, is possible.

### 6.2. EXAMPLE

To demonstrate the differences in treating cost types as either fixed or variable costs, the effects of changes in planning compared to an originally compiled budget shall be made clear, based on an exemplified figure.

Direct labour costs shall serve as an example for the planning as fixed

or variable costs. The budget will be compiled in two versions for the planned business year. In the version on the left, the personnel costs are compiled as fixed costs and in the one on the right, as variable costs. (See table 3)

The operating result shows the same value in both planning versions. If planned values are changed the two versions lead to two different results. In case of a sales decrease of 20 percent compared to the original plan, both versions lead to the following new budgets: ( See table 4)

In the version on the left, direct labour costs remain constant in the full amount, whereas in the right one the decrease of sales also causes a reduction of the payroll costs.

Both results must be interpreted differently and both are correct under certain pre-conditions. The budget on the right with the automatic decrease of the payroll costs shows constant optimal adaptation to the employment situation. It demonstrates the ideal case of a cost reduction in time. The budget on the left shows the realistic case, that a decrease of sales doesn't automatically and directly lead to a reduction of the payroll costs.

An intermediate version is demonstrated in the following comparison which shows a decrease of the variable personnel costs in the right budget. Instead of these variable per-

sonnel costs, fixed personnel costs are shown in the budget. (See table 5)

### 6.3. RECOMMENDATION FOR PLANNING IN THE APPLICATION

These considerations from the application result in a recommendation for the differentiation between fixed and variable costs: Only those costs that adapt automatically and directly with changing sales are to be shown as variable costs in the budget. All others are fixed costs. In case of changes in planning it must be investigated whether these cost items are affected by the changes and if so, by what extent. They must be actively changed in case of a change in planning. This leads to the obligation to analyse the necessary changes concretely and not to rely on automatically re-calculated budgets.

In an exceptional case, the payroll costs can be incorporated into the budget in a different place from the framework of fixed costs in a budget. This exception refers to a kind of salary that is oriented to commission payment according to sales or contribution margin. The same as rebates or cash discounts, these commissions can be deducted from sales revenues or contribution margins as sales deductions. The scheme for the compilation of a profit plan changes

	Personnel costs fixed	Personnel costs variable
Revenues (Sales)	10,000,000	10,000,000
- Material	4,000,000	4,000,000
- Direct labour costs		2,000,000
= Contribution margin	6,000,000	4,000,000
- Direct labour costs	2,000,000	
- Other fixed costs	3,000,000	3,000,000
= Operating result	1,000,000	1,000,000

Table 3

	Personnel costs fixed	Personnel costs variable
Revenues (Sales)	8,000,000	8,000,000
- Material	3,200,000	3,200,000
- Direct labour costs		1,600,000
= Contribution margin	4,800,000	3,200,000
- Direct labour costs	2,000,000	
- Other fixed costs	3,000,000	3,000,000
= Operating result	- 200,000	+ 200,000

Table 4

	Personnel costs fixed	Personnel costs variable
Revenues (Sales)	8,000,000	8,000,000
- Material	3,200,000	3,200,000
- Direct labour costs		1,600,000
= Contribution margin	4,800,000	3,200,000
- Direct labour costs	2,000,000	400,000
- Other fixed costs	3,000,000	3,000,000
= Operating result	- 200,000	- 200,000

Table 5

as follows: (See table 6 and 7)

Revenues (Sales)	
– Commission on sales	
– Variable costs	
= Contribution margin	
– Fixed costs	
= Operating result	

With commission payment on sales:  
With commissions on contribution

Revenues (Sales)	
– Variable costs	
= CM before commissions on CM	
– Commission on CM	
= CM after commissions on CM	
– Fixed costs	
= Operating result	

margin:

## 7 Summary

The compilation of a profit plan is the first step in the framework of budget compilation. The further components of a comprehensive budget are finance plan and budgeted balance sheet. In the profit plan, differences in costs and expenses are taken into consideration, if available.

The planned profit or loss is determined based on cost accounting and financial accounting. The division of cost types into fixed and variable costs is decisive for the correct calculation of the effects of changes in planning and also for the right calculation of the company's ratios. The determination of the ratios and their interpretation forms the next step in the framework of budget compilation.